

## **Foreign Direct Investments and Industrial Policy: A Comparison of Results for the Cases of Slovenia and Hungary**

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### **Abstract**

*Conventional economic theory predicts that foreign direct investment will be a key source for the restructuring of the productive systems of the host economies. This paper analyse the contribution of this type of investment to structural change in five Central European countries (Slovakia, Slovenia, Hungary, Poland and the Czech Republic) during their process of systemic transition (1993-2001). The key question to answer is if the foreign capital has positively contributed to the change in the export specializations of those countries. From a comparison between Hungary and Slovenia, which have adopted different industrial policies related to foreign direct investment, the study shows that multinational firms contributed significantly to the structural change in all of these economies but also, and except in Slovenia, they became a source of segmentation of the local production system. It notes that the type of industrial policy explains largely the different effects of FDI on the local production systems.*

**Keywords:** Foreign Direct Investments, Multinational Enterprises, Transition Economies, Productive Specialization, Structural Change, Industrial Policy

**JEL Classification:** F21, F23, L60, O14

### ***1. Introduction***

In the framework of the process of systemic transition towards the market, the Central European countries (CECs) in the late eighties expected their reintegration into the global economy to boost their economic growth rates. However, the disappointing export performance in the first stages of that transition showed the limits of an external insertion strategy structured on a specialisation pattern based on traditional products (agricultural and food products, basic chemical products, leather, textile and its basic manufacturing, wood, building materials, glassware, metallurgy, etc.). Consequently, the need emerged for a process of structural change on a big scale, which would have to involve an orientation of specialisation towards products of greater technological content.

However, it was impossible to finance this necessary transformation in production with the scarce internal savings available at that time. In this context, foreign direct investment (FDI) was considered as one of the best options to finance the restructuring because, besides capital, it was expected to provide transfers of technology and capitalist methods of business management, both necessary for structural change and restructuring of production.

From the identification of the structural change that has taken place in the 5-CECs throughout the most intense years of systemic transition (1993-2001) and the role that both domestic and foreign companies have played, this paper aims to analyse if the type of industrial policy related to FDI and implemented in each country explain the differences of results showed in them, particularly in the two extrem cases, Hungary and Slovenia.

The context of this work is therefore that of the debate about the effects of FDI on host economies, especially in the so-called developing economies. In this sense, the choice of the five Central European countries is appropriate, because until the early 1990s, they were economies with low levels of foreign investment (as they operated within a very different system of economic logic).

The argument is constructed along three lines: the analysis of FDI contribution to structural change in the 5-CECs; the evaluation of the role of foreign investments in the evolution of export specialisations of these countries; the identification of significant differences between countries, especially Slovenia and the rest of them; the comparison of the industrial policies implemented in Hungary, as representative of the four countries group, and Slovenia as the exception.

## ***2. The Contribution of FDI to Structural Change in Central European Countries***

Damijan & Rojec analysed the structural change that took place in the CECs during the period from 1993 to 2001 (Damijan & Rojec, 2004). For that purpose, they took as a reference the classification of the manufacturing industries proposed by the OECD, which divides them into four industrial groups according to their technological intensity (table 1).

The authors quoted state that in the five Central European countries considered, manufacturing activity switched from low-technology industries towards industries with greater technological intensity (table 2).

Table 2 provides also two aggregate measures of production transformation for each of the countries. The first one (sum of absolute changes in the weights of each technological group) shows us the extent of the restructuring in each country. In this sense, Hungary shows the most ‘turbulent’ restructuring process, followed by Slovakia, while in Slovenia, the Czech Republic and Poland, technological restructuring seems to have been more serene. However, the absolute change only indicates the extent of the restructuring, but not its direction, for which a restructuring relative measure was calculated, giving the greatest weight to groups of high technology. This indicator shows that, once again, the most intense change in restructuring towards groups of higher technology takes place in Hungary, which outperforms its closest counterpart by a factor of 5. Slovenia and the Czech Republic also had significant success in their restructuring efforts towards industries with higher technology. The data relating to Slovakia and Poland are much more modest.

In addition, according to the figure, it becomes clear that in all the countries the technological restructuring was significantly derived from the presence of companies with foreign participation (CWFP), which gradually increased the technological intensity of their activities. In Hungary, for instance, the CWFP increased their weight in the medium-high and high technology companies by almost 28 percentage points. Despite that, in this context the differences between countries are considerable. In the Czech Republic, the structural decrease in low-technology industries came together with a structural increase in the medium-high and high technology industries. In Poland and Slovakia, most of the fall in low-technology industries was made up for by the increase in the medium-low technology industries. Finally, Slovenia is the only country among those analysed where the structural change of the CWFP was negative in relative terms. In this case, the significant decrease in the number of industries of medium to high technology was not compensated for by an increase in the number of industries of medium-low and low technology. In the latter country, FDI seems to have moved from medium-high technology industries to medium-low and low technology industries. The joint technological restructuring of the Slovenian manufacturing that is observed for all companies therefore seems to come mainly from the restructuring of domestic firms.

From the analysis above can reach two conclusions: first, that in almost all the countries there was a process of structural change in the same direction: a loss of relative weight of those productions providing lower added value, and a relative gain in importance of sectors of activity with greater added value. And secondly, that whereas in the greater part of the CEC this process was mainly the result of FDI, disregarding the domestic companies to a large extent, in Slovenia it was the domestic companies which were restructured through the FDI. In other words, in Slovenia FDI was instrumental in restructuring the domestic companies, whereas in the rest of the CEC, it contributed to the change in production, but not to the restructuring of local companies, a fact which propelled a process of segmentation and breaking up of their productive structures. In the CEC, and considering the aforementioned Slovenian exception, two large industrial groups are identified. The first one consists mainly of MNC subsidiaries, widely modernized and integrated into global networks of production and distribution. A second group consists of domestic firms, acting outside or within the same networks, to which they essentially provide goods and services of lower added value within the value chain of production.

### **3. The Role of FDI in the Development of the Export Specialisations of the CEC**

An analysis of the development of exports in the CEC and the role of the FDI provides us with two data: first, as in the general case of the aforementioned change in production, there was also, during the same period, a transformation of the commercial specialisations in the five Central European countries under study, which resulted in an increase in the relative weight of exports of products of high and middle-high technology (table 3).

The country experiencing the greatest increase in exports of medium-high and high technology products (Hungary) had a growth rate of nearly 75%, while in the country with the lowest increase (Slovenia), the growth rate was just over 12%.

Secondly, most of the multinationals present in the Central European economies are strategically orientated towards export. The weight of the foreign subsidiaries in the manufactured exports shows their great importance and the clear differences among them (table 4), because whereas in Hungary 88% of the manufactured exports are from subsidiaries of the multinational companies present in that country, that percentage in Slovenia amount to only 36%, which means that 65% of Slovenian manufactured exports are produced by local companies.

Most of the manufactured exports of these countries, and hence of their new commercial specializations, correspond to the electronics and automotive sectors<sup>1</sup>, belonging, respectively, to the high and medium-high technology sectors, both highly linked to foreign capital because from the 1990s onwards, many of the largest multinational companies in these sectors bet heavily on Central Europe<sup>2</sup> (Radosevic, 2004; Richet, 2004).

Therefore, from the shift of exports towards high and medium-high technology products and the important weight of subsidiaries of multinationals in exports overall, it follows that FDI contributed decisively (with the exception of Slovenia) to the improvement in the quality of exported goods, thus creating new comparative advantages in this type of products (Rugraff, 2006).

The analysis of the evolution of the manufacturing trade balances of high and medium-high technology industry groups in each of the countries considered (table 5) identifies the new comparative advantages.

All the countries converted a comparative external disadvantage in high and medium-high technology products in 1994 into an advantage in 2003. By countries, Hungary developed its best comparative advantages in high technology products. In 2003, the surplus in high technology products represented 2.2% of the overall external trade in manufactured products. That is to say that, unlike in the other four countries, the comparative advantages are greater in high-technology industries than that in medium-high-technology industries.

For their part, the Czech Republic and Slovakia evolved towards the acquisition of external comparative advantages in the high and medium-high-technology industries. In 2003, Poland still had a strong disadvantage in those industries, because the joint trade deficit of both sectors represented over 7% of the total trade in manufactured goods. Finally, Slovenia strengthened its comparative advantage in both industries, even if, as it was explained before, this was not propelled by foreign capital to the same extent as in the other four countries<sup>3</sup>.

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<sup>1</sup> In 2003, electronic and automotive products accounted for 54% of Hungarian exports, 37% in the Czech Republic, 34% in Slovakia, 27% in Poland and 25% in Slovenia (UNCTAD, 2006; Szanyi, 2006).

<sup>2</sup> The top 50 foreign subsidiaries accounted for 45% of total Hungarian exports in 2000. In the automotive industry, the main exporters were: Audi / Volkswagen (11.2% of total exports), Opel / General Motors (2.2%) and Suzuki (1.1%). In electronics, IBM, Philips and General Electric represented, respectively, 7.8, 7.1 and 2.2% of the country's exports.

<sup>3</sup> Another significant element to identify and assess the significance of the change in production and the role played by multinational companies is the nature of the outflow of investments from countries that have been recipients of FDI. In this sense, and although the information available is still scanty, it appears that whereas in the rest of the 5-CEC most outflows of FDI are carried out by subsidiaries of multinationals, in Slovenia they are performed by domestic companies in the process of multinationalisation. In this sense, for example, it is highlighted the case of Gorenje, a Slovenian producer of electrodomestic appliances which has set up production facilities in the Czech Republic and Serbia, reaching in 2008 a 4% share of the European market for these appliances. (Rugraff, 2010).

#### **4. Policies in Relation to FDI and Their Effects on the CECs**

The economic policies related to FDI and implemented by the governments of the host territories have a direct influence on the effects which the MNCs can have on their economies, especially on the restructuring of domestic companies. From the study carried out by Sachwald & Perrin (2005), it was identified throughout the last few decades two main courses of action by the public authorities in relation to the FDI: the liberal and the 'strategic'.

The states which favour a liberal policy towards FDI start from the premise that the higher the FDI, the greater the effects on economic growth and on the restructuring of the local system of production, and that such effects will occur 'spontaneously', without the need for specific intervention on the part of the local authorities. For that reason, countries that follow this policy are very permissive and favourable towards foreign investments (for example, in fiscal, employment, financial and environmental terms). A very illustrative case of this type of liberal policy in recent years has been that of Ireland. (Rodríguez, 2003).

In contrast to the liberal policies targeting FDI are the 'strategic policies', much more interventionist, of countries whose aim is to guarantee the positive effects expected from the actions of multinationals, which, from their point of view, are not automatic but require specific and explicit acts to that end. The classical international examples of that 'strategic' orientation of FDI policies are provided by Taiwan and Korea, and more recently by China. That is why they are often known as the 'Asian model'.

What kind of policy regarding FDI did the Central European countries adopt during their systemic transition? Four of them (Slovakia, Hungary, Poland and the Czech Republic) essentially followed the liberal model, while Slovenia approached the 'strategic' one.

The four CECs supporting the liberal model, implemented policies to attract multinationals (reduction of tax rates on corporate profits, tax exemptions or incentives such as rebates, financial incentives, establishing industrial free-trade zones, industrial parks, significant limitation to their performance requirements, etc.).

The influence of liberal policies becomes particularly evident in the Hungarian development model. The attraction of MNCs towards dynamic industries such as electronics and the automotive industry was the priority in Hungary immediately after the collapse of the planned economy, and from the mid-nineties in the other countries. The Hungarian authorities established a very liberal FDI policy. Priority was given to industries of high and medium-high technology (biotechnology, electronics and automotive), since these sectors are the most dynamic in international trade and contribute to reducing the technological gap with the EU core countries.

For its part, Slovenia, in the middle of the first decade of this century, maintained a 25% tax rate on corporate profits, and most public services were kept in the hands of the State. Certainly, from the year 2000, foreign investors acquired some large Slovenian firms, but the country's economy remains largely dominated by domestic capital.

These different policies and strategies explain why the FDI indicators are significantly lower in Slovenia than in the other four countries (table 6).

However, they also explain the greater segmentation of the local production systems in the four countries that have adopted liberal-style policies (Puig, 2008). First, the strong integration of the foreign subsidiaries in the global production networks has reduced the need to provide from domestic companies. While the choice of an export-orientated strategy on the part of the MNCs, together with a very favourable FDI environment, may encourage the transfer of technology and knowledge to domestic suppliers, who are part of the value chain of the MNCs, it is equally true that most of the first-grade suppliers contracted by the subsidiaries of multinationals present in the CECs are also foreign-owned firms that have moved to the CEC when following their multinational and reference customers.

Secondly, countries in Central Europe have been selling their biggest and best state-owned firms to foreign investors. Hungary was the first country to sell many of the largest state-owned companies to foreign investors, but the Czech Republic, Poland and Slovakia progressively followed the Hungarian scheme<sup>4</sup>.

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<sup>4</sup> In the Czech Republic, out of 5,000 large privatized firms, only 144 were sold to foreign investors, but direct sales to foreign investors accounted for over half of all the revenue arising from the large-scale privatization. In Poland, between 1990 and 1998, FDI accounted for 45% of all returns from privatization (BERD, 2002).

Consequently, by the middle of the first decade of this century, the largest firms in the Czech Republic, Hungary, Poland and Slovakia were controlled by foreign capital.

And thirdly, the extent of the technological gap between the MNCs in high-tech industries and the domestic firms reduces the ability to absorb new technology and therefore discourages the former from working with the latter. Moreover, by preferring an inviting environment for FDI, the authorities also waive the possibility of intervening in the organizational decisions of MNCs, and this largely determines their establishment as isolated enclaves within the local production environment.

## 5. Conclusions

The four CECs that follow liberal policies have succeeded in attracting MNCs producing goods of high and medium-high technology, and they oriented themselves towards a new pattern of specialisation. They progressively abandoned the traditional sectors (food, clothing, basic manufacturing, etc.), based mainly on natural resources and low levels of knowledge, capital and R & D , and they stimulated products of high and medium-high technology and their export. The cost of this process and this policy was a significant segmentation in the local production networks.

In Slovenia, there was a similar process of transformation of production, specialisation in the sense of progressive abandonment of traditional manufacturing and stimulation of production in high and medium-high technology sectors. Domestic companies, reinforcing a less segmented production network, led this dynamic. In this type of policy, foreign investment is seen as a means within an overall strategy for change, and not as an end in itself. The investments are usually lower, but become more rooted in the local environment and are therefore less delocalised and volatile.

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## Table and Figures

**Table 1: Classification of the Manufacturing Industries Based on Their Technological Intensities**

<b>High-technology industries</b> Aeronautical and aerospace Pharmaceutical Office equipment and computers Radio, television and communications equipment Medical, precision and optical instruments	<b>Medium-high technology industries</b> Electronic machinery and apparatus Motor vehicles, including lorries and vans Chemicals excluding pharmaceuticals Railway equipment and transport equipment Machinery and equipment
<b>Medium-low technology industries</b> Coal, refined petroleum products and nuclear energy Plastic products Other non-metallic mineral products Building and repairing of ships and boats Basic metals	<b>Low-technology industries</b> Manufacturing and recycling Wood, cork, paper, paper products, printing Textiles, textile products, dressmaking and footwear Food products, beverages and tobacco

Source: OECD

**Table 2: Changes in Manufacturing Added Value by Technologically-Defined Industry Groups for the Period 1993 - 2001 (In Basic Points)**

	All companies					Companies with foreign participation				
	CZ <sup>1</sup>	HU	PL	SI	SK	CZ	HU	PL	SI	SK
<b>High</b>	1.1	11.8	1.7	0.7	-0.3	2.6	16.3	0.0	1.7	0.2
<b>Medium-high</b>	2.7	8.2	1.5	1.4	-1.2	3.1	11.6	3.1	-12.7	0.6
<b>Medium-low</b>	-0.9	-5.1	-3.1	3.4	8.0	1.5	-11.5	11.2	6.8	14.5
<b>Low</b>	-2.9	-14.9	-0.1	-5.4	-6.5	-7.3	-16.4	-14.4	4.2	-15.2
<b>Absolute change<sup>2</sup></b>	7.6	40.0	6.3	10.9	15.9	14.5	55.8	28.8	25.3	30.5
<b>Relative change<sup>3</sup></b>	2.6	15.6	1.6	2.7	1.6	5.2	20.2	5.9	-4.5	5.4

(1) CZ: Czech Republic HU: Hungary PL: Poland SI: Slovenia SK: Slovakia

(2) Sum of the changes in absolute values

(3) Relative change:  $\Delta S^{*tech} = \sum_i (S_{itl} - S_{it0}) * w_i$  where  $w_A = 1$ ,  $w_{MA} = 0.67$ ,  $w_{ML} = 0.33$  and  $w_L = 0$ .

Source: Damijan &amp; Rojec (2004)

**Table 3: Percentage of Exports in High and Medium-High Technology Industries**

	Slovakia		Slovenia		Hungary		Poland		Czech Rep.	
	1994	2003	1994	2003	1994	2003	1994	2003	1994	2003
High	3.7	5.9	9.3	11.8	12.2	32.1	4.1	6.6	4.8	14.7
Medium-high	26.2	40.2	34.8	37.7	29.6	40.5	22.3	35.7	36.0	44.7
Total	29.9	46.1	44.1	49.5	41.8	72.6	26.4	42.3	40.8	59.4

Source: OECD (Hungary, Poland and Czech Republic) and COMTRADE (Slovakia and Slovenia)

**Table 4: Percentage of Foreign Subsidiaries in Manufactured Exports (2001)**

	Slovenia	Hungary	Poland	Czech Rep.
Percentage in exports	36	88	66	69

Source: WIIW Database on Foreign Direct Enterprises

**Table 5: Contribution to the Manufacturing Trade Balance of High and Medium-High Technology Industries (In %)**

	<b>Slovakia</b>	<b>Slovenia</b>	<b>Hungary</b>	<b>Poland</b>	<b>Czech Rep.</b>
<b>Years</b>	<b>(1997)</b>	<b>(1997)</b>	<b>(1994)</b>	<b>(1994)</b>	<b>(1994)</b>
High technology	-5.3	0.4	-2.0	-5.3	-7.0
Medium-high technology	-4.2	1.0	-4.4	-8.2	-2.7
Total	-9.5	1.4	-6.4	-13.5	-9.7
<b>Years</b>	<b>(2004)</b>	<b>(2004)</b>	<b>(2003)</b>	<b>(2003)</b>	<b>(2003)</b>
High technology	-2.5	1.0	2.2	-4.4	-3.0
Medium-high technology	1.3	4.1	-0.2	-2.9	2.3
Total	-1.2	5.1	2.0	-7.3	-0.7

Source: OECD (Hungary, Poland and Czech Republic) and COMTRADE (Slovakia and Slovenia)

**Table 6: Percentage of Foreign-Owned Firms in Manufacturing (2001) (In %)**

	<b>Added value</b>	<b>Occupation</b>	<b>Sales</b>	<b>Exports</b>
Slovakia	56.1	36.4	59.3	74.9
Slovenia	23.5	19.4	29.4	40.9
Hungary	64.9	45.2	72.5	87.9
Poland	52.0	32.9	52.0	66.2
Czech Republic	48.5	34.1	53.3	69.0
Average	49.0	33.6	53.3	67.8

Source: WIIW Database, 2007