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The Inflow of Foreign Direct Investment into East European Countries and Their Economic Development. Verification of T. Ozawa's Model

1. Introduction

Research on processes of internationalization of production and research dealing with problems of less developed countries focus on the dependence between foreign direct investment (FDI) and economic development of the host country. With respect to Central and Eastern Europe, only a few attempts have been made to analyze these problems. The basic difficulties are too short a time span of statistical data which can be covered by analysis and simultaneously a limited possibility of generalizing the experiences of the countries not belonging to this region.

The task of defining the influence of FDI on economic development of the countries of Central and Eastern Europe can be accomplished in two ways. Firstly, an attempt can be made to verify the general model of the dependences between the stages (phases) of economic development and FDI (Ozawa, 1992), using it to determine the present and possibly future influence of FDI on economic development of Central and Eastern Europe. Secondly, attempts can be made to define the influence of FDI on the Central and East European economies on the basis of a more traditional analysis of the fundamental macro-economic indicators (such as endowment with factors of

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production, GDP, employment, factor productivity, proportions of income distribution among social groups, trade balance, balance of capital flows).

The former method was chosen in this paper because of the afore-mentioned methodological difficulties although in any broader study, it seems more correct to combine both the methods to achieve reliable results.

2. The Ozawa model

When attempting to use T. Ozawa's model of the dependences between the stages of economic development and FDI as well as trade in order to evaluate the influence of FDI on economic development of Central and Eastern Europe it is necessary to be aware of the limitations of this research tool. First of all it should be borne in mind that the model was built on the basis of the experience of the countries of South East Asia - chiefly Japan and newly industrialized countries. The economic development of these countries, so spectacular in the post-World War II period is the result of many factors, often specific to this region. The emergence of some of them, e.g. those based on culture and religion is impossible in other regions of the world economy. It may also turn out to be not inconsequential that the model formulates dependences for national economies in which the market mechanism continues to operate without any break and at most is corrected by government policy.

On the other hand, the basic good point of the model is related to what has a universal character, i.e. the attempt to generalize the dependence between international business (transnational corporations and direct investment related to them) and the process of economic development of the particular countries.

The basic goal of the paper is to answer the question of whether the dependences stated in Ozawa's model can occur in Central and Eastern Europe. Using the notions of *stages of competitive development*, a general supposition can be made that the countries of Central and Eastern Europe entered the second stage of development, i.e. investment driven development. This supposition is justified by the characteristics of the particular stages of development. The countries of Central and Eastern Europe are no doubt further in their economic development than those developing countries which base their economies exclusively on extraction of natural resources and labour-intensive industries. Such a supposition is also justified by the statistical data on the branch structure of industry in 1991 (cf. Table 1).

According to the assumptions of the model, each stage of economic development is accompanied by a specific pattern of export competitiveness. The pattern of export competitiveness based on capital-intensive goods produced on a large scale corresponds to the development stage at which the countries of Central and

Eastern Europe are at present. In 1991, the analyzed Central and East European countries' real export competitiveness in trade with the European Union and EFTA measured in terms of revealed comparative advantage (RCA) was as follows (Wysokińska, 1994):

- Poland had comparative advantage in exports of food products, plant and animal materials (SITC sections 0+1 and 2+4) and in mineral materials and fuels (section 3); also a small advantage occurred in trade with the European Union in basic manufactures and other manufactured products (SITC sections 6+8);
- Hungary had advantage in exports of food products, plant and animal materials (sections 0+1 and 2+4) and furthermore, in exports of chemicals (section 5) and basic manufactures (section 6+8);
- the former Czecho-Slovakia had comparative advantages in exports of plant and animal materials (sections 2+4), chemicals (section 5) and basic manufactured products (sections 6+8);
- none of the examined three countries had comparative advantage in exports of high tech products belonging to section 7 (machinery, transport equipment).

Table 1. Branch structure of industry in Central and East European countries in 1991 (total industry = 100)

Country	Poland	Hungary	Czecho-Slovakia
Global production in constant prices[a]			
Extractive industry	6.4	6.4	6.0
Power generation	5.2	8.2	6.4
Metallurgy	11.0[b]	7.8	11.2
.Machine-building	22.4	17.2	25.8
Construction materials	3.3[c]	2.8	2.2
Chemicals	9.7[d]	21.3	11.7
Wood and paper	5.4	2.0	5.2
Textile	3.4	3.2	4.3
Clothing	2.6	1.6	0.9
Leather industry	1.9	1.5	1.8
Food industry	20.7	24.3	19.7
Other industries	8.0	3.7	4.8

Source: Statistical Bulletin Poland-Czecho-slovakia-Hungary, 1992/4, Central Statistical Office, Federalni Statisky Urad, Kozponti Statisztikai Hivatal, Warsaw, 1992, p. 13 and my own calculations.

Notes: [a] Hungary: in 1990 prices; Poland: sales of industrial production in constant 1990 prices.

[b] Including metal mines.

[c] Including extraction of raw materials.

[d] Including extraction of sulphur.

The research on Polish exports to the EU markets carried out for the subsequent years point to certain shifts in comparative advantages (Wysokińska, 1994). The following tendencies were observed in 1992:

- the greatest comparative advantage in Polish exports to the EU occurred in commodity groups covering basic manufactured products (SITC section 6);
- SITC section 8 covering manufactured goods at a higher level of processing recorded a drop in the RCA indices for all the commodity groups (with the exclusion of furniture) which had comparative advantages in 1989;
- section 5 (chemicals) also recorded a decline in the level of comparative advantage, with the exception of fertilizers;
- section 7 (machinery and transport equipment) recorded no comparative advantage for any of its commodity groups.

The outcomes of the research for 1993 are only approximate. They show certain favourable changes in comparative advantage in Polish exports to the EU markets, (Wysokińska, 1994a) i.e.:

- goods at a higher processing level (SITC section 8) recorded improvements in the RCA level for all the divisions with the exception of division 88 covering cameras, optical equipment, clocks and watches;
- comparative advantage was revealed in section 7, division 79 which covers other transport equipment.

Unfavourable tendencies continued and deepened with reference to SITC section 5 (chemicals). As it follows from the above characteristics, export competitiveness of the analyzed Central and East European countries diverged from the model assumptions. The discrepancy was most conspicuous in the case of Poland, where the revealed comparative advantages were largely characteristic of the first stage of economic development in the Ozawa model (the incomplete and approximate data on the shifts in the pattern of comparative advantages in exports of goods in 1993 do not give grounds for changing this conclusion). Hungary and the former Czecho-Slovakia, which have - in addition to advantages typical of the 1st stage of development - also advantages in exports of chemicals and basic manufactures seem to have a more synchronized phase of economic development with its specific competitiveness pattern although even in this case there is no full compliance with the model assumptions.

At this stage of analysis, it is necessary to consider the character of FDI flowing to the countries of Central and Eastern Europe. The question is to what degree FDI flows to labour-intensive and capital-intensive areas and whether FDI strengthens exports comparative advantages of these countries and increase these exports. In answering this question it is helpful to analyze the FDI branch structures in the examined countries although it should be noted that fully comparable data are not

available. The data on the branch structure of FDI stock capital in each of the countries analyzed from that angle lead to the following conclusions:

FDI flowing to Poland were located at first (1992) in labour-intensive industries, such investment accounted for 42.5% of total FDI; 25.9% of total FDI was located in capital-intensive industries and retail trade also had a relatively high share - 15.7% of total FDI (cf. Table 2).

Such proportions in the branch structure of FDI meant that investment did not comply with the model regularities according to which FDI is attracted to capital-intensive areas in the 2nd stage of economic development. In 1993, the structure of FDI stock capital underwent a shift towards capital-intensive branches (cf. Table 3), where 44% of total FDI stock capital was invested. 31.4% of FDI stock capital was invested in labour-intensive industries, among which food continued to have a high share (14.3%). FDI engaged in retail had a falling but still considerable share (11.2%). The shift of FDI towards capital-intensive industries resulted from the investment of bigger capital in the transport equipment industry, which - given the large dispersion of FDI among other branches - could be crucial to the increase in the share of FDI in capital-intensive industry.

As a result of the recorded shift in the branch structure of FDI, the agreement stated in the Ozawa model is reached between the economic development stage and the character of FDI in the case of Poland. At this point it is necessary to make a reservation that only observation of the branch structure of FDI in Poland in the following years will show whether the above tendency will continue.

The comparison of the branch structure of FDI in Poland with the comparative advantages described earlier, possible only to a limited degree owing to the divergent statistical classification leads to a conclusion that up to 1992 the branch structure of FDI only in part matched the Polish revealed comparative advantages (e.g. in the food, paper and wood industries). A considerable part of FDI corresponded to the revealed comparative advantages but both these advantages and the structure of FDI did not match the achieved stage of economic development. The changes in the FDI structure surfacing in 1993 (shifts towards capital-intensive industries) and changes in the comparative advantage indices towards exports of manufactured goods to the EU markets, the main trading partner can be interpreted - with much caution - as the beginning of the process of economic development which would be characterized by compliance between the stage of development, FDI structure and pattern of comparative advantages.

The determination of the size and structure of exports by firms with foreign capital participation will be helpful in answering the question of whether FDI has a stimulating impact on exports of the country hosting it and whether FDI changes its hitherto export structure.

Table 2. Branch structure of FDI in Poland in 1992

Branches of national economy	FDI in USD million[a]	Percentage share in total FDI
Total industry	*950.1*	*67.5*
of which:		
- coal	4.0	0.3
- fuels	7.9	0.6
- power generation	0.2	0.01
- iron metallurgy	2.3	0.2
- non-ferrous metallurgy	1.0	0.1
- metals	36.2	2.6
- machine-building	34.2	2.5
- specialized machine building	28.2	2.0
- transport equipment	16.6	1.2
- engineering and electronics	71.3	5.1
- chemicals	106.1	7.5
- construction materials	23.5	1.7
- glass	5.3	0.4
- ceramics	0.6	0.04
- wood	62.5	4.4
- paper	208.4	14.8
- textiles	17.3	1.2
- clothing	60.5	4.3
- leather	10.4	0.7
- food	220.6	15.7
- animal feed and utilization	7.0	0.5
- printing	12.8	0.9
- other industries	12.8	0.9
Construction	39.1	2.8
Agriculture	3.0	0.2
Forestry	0.7	0.1
Transport	30.7	2.2
Communications	25.7	1.8
Retail trade	221.4	15.7
Other material branches	57.4	4.1
Communal services	27.1	1.9
Housing and non-material communal services	1.4	0.1
Science and technology development	0.4	0.2
Education	1.1	0.1
Culture and arts	6.0	0.4
Health protection	1.9	0.1
Physical culture, tourism	19.2	1.4
Other non-material services	18.7	1.3
Finance and insurance	4.7	0.3
Total	**1,408.5**	**100.0**

Source: Own calculations on the basis of data of the Central Statistical Office.

Note: [a)] Calculated according to the 1992 average exchange rate of the zloty to the US dollar, which was PLZ 13,631.

Table 3. Branch structure of FDI in Poland in 1993

Branches of national economy	FDI in USD million[a]	percentage share in total FDI
Total industry	*1,474.8*	*75.50*
of which:		
- coal	4.5	0.20
- fuels	1.9	0.10
- power generation	1.1	0.06
- iron metallurgy	39.4	2.00
- non-ferrous metallurgy	1.1	0.06
- metals	117.8	6.00
- machine-building	27.7	1.40
- specialized machine building	21.3	1.10
- transport equipment	313.2	16.00
- engineering and electronics	112.8	5.80
- chemicals	162.2	8.30
- construction materials	58.1	3.00
- glass	20.4	1.00
- ceramics	1.0	0.05
- wood	56.2	2.90
- paper	71.0	3.60
- textiles	20.6	1.10
- clothing	35.5	1.80
- leather	102.6	5.20
- food	280.2	14.30
- animal feed and utilization	7.6	0.40
- printing	13.9	0.70
Construction	53.1	2.70
Agriculture	4.7	0.20
Forestry	0.5	0.03
Transport	28.2	1.40
Communications	23.1	1.20
Retail trade	218.7	11.20
Other material branches	66.2	3.40
Communal services	30.7	1.60
Housing and non-material communal services	1.2	0.10
Science and technology development	0.1	0.01
Education	0.9	0.05
Culture and arts	2.2	0.10
Health protection	0.9	0.05
Physical culture, tourism	20.8	1.10
Other non-material services	20.4	1.00
Finance and insurance	9.4	0.50
Total	**1,956.0**	**~100.00**

Source: Basic Information about Economic Units with Foreign Capital Participation in 1993, Information and Statistical Studies, Central Statistical Office, Warsaw, 1994 and my own calculations.

Note: [a]Calculated according to the average exchange rate of the zloty to the US dollar in 1993: = PLZ 18,135.

The data on the size and branch structure of exports by firms with foreign participation acting in Poland in 1992 are shown in Table no. 4.

The data point to a generally small share of these firms in Polish total exports (14%). At the same time the data indicate that firms with foreign capital participation had sizable shares in exports of some commodity groups. Their high shares in total Polish exports are conspicuous in the following SITC divisions: 25, i.e. exports of wood pulp and waste paper (63%), 64, i.e. exports of paper, cardboard and wood pulp products (39%), 82, i.e. exports of furniture (38%), 61, i.e. exports of fur and leather products (37%) as well as in exports of tobacco and tobacco products (36%), clothing (26%), dairy products and eggs (26%), fish, shell fish and related products (32%), vegetables and fruit (23%), sugar and honey (22%).

If we assume total exports by firms with foreign participation to be 100%, then the first place in the structure of their exports is taken by clothing (about 10%) and the further places are occupied by furniture (9.2%), vegetables and fruit (8.2%), electric machinery and equipment (4.8), products made of wood and cork, excluding furniture (3.6%), road vehicles (3.6%), products made of non-metal materials (3.5%), live animals mainly for food (3.2), milk products and eggs (3.2%), metal ore and scrap (3%), paper, cardboard and wood pulp products (3.2%).

The above structure of exports shows that labour- and raw material-intensive products are dominant. Capital-intensive and technology-intensive goods do not play any major role in exports by these firms.

The statistical data on the FDI branch structure in Hungary in 1991 show that investment located in capital-intensive industries was predominant and accounted for 38.3% of total FDI; on the other hand, investment in labour-intensive industries accounted for 32.1% of total FDI (cf. Table 5). FDI had also significant shares in retail and services, amounting to 16.3% and 16.8% respectively. Compared with the Polish branch structure, such a branch structure of FDI in Hungary complied more with the model regularities saying that FDI is attracted to capital-intensive areas in the second stage of economic development. A relatively high share of FDI in the machine-building industry (20.1%) and in the food industry (15.9%) as well as a rising share in the chemical industry (6.3%) indicate that FDI in Hungary was located in these areas in which this country had revealed comparative advantages with a certain shift towards capital-intensive and technologically advanced branches.

Table 4. Exports of firms with foreign participation acting in Poland (1992).

SITC division	Branches	Value in Zloty billion	Value of total export of Poland in zloty billion	Value in USD million	% of total export of Poland
00	food and live animals	716,48	3110,40	52,80	23,03
01	live animals	270,14	3016,00	19,86	8,96
02	dairy products, bird eggs	729,74	2844,00	52,99	25,66
03	fish, crustaceans, mollusc	355,55	1094,60	26,00	32,48
04	cereals, cereal preparations	363,96	2268,50	27,99	16,04
05	vegetables and fruit	1872,91	8245,60	136,91	22,71
06	sugar, sugar preparations, honey	288,12	1317,40	21,04	21,87
07	coffee, tea, cocoa, spices	49,91	477,30	3,50	10,46
08	animal feed stuff	26,05	169,70	1,92	15,35
09	miscellaneous, edible products	18,36	399,00	1,31	4,60
11	beverages	44,75	483,70	3,22	9,25
12	tobacco, tobacco manufact.	188,89	537,30	14,10	35,16
21	hides, skins, furskins, r-aw	24,45	583,90	1,86	4,19
22	oil seed, oleaginus fruit	31,35	714,30	2,26	4,39
23	crude rubber	5,85	554,50	0,42	1,06
24	cork and wood	491,61	4397,10	35,97	11,18
25	pulp and waste paper	241,25	381,40	18,21	63,25
26	textile fibres	69,03	475,50	5,10	14,52
27	crude fertilizer, mineral	118,15	3183,20	8,53	3,71
28	metalliferous ore, scrap	666,14	4022,90	50,04	16,56
29	crude animal, veg.materl.	115,69	968,50	8,50	11,95
32	coal, coke, briquettes	155,52	16006,90	11,30	0,97
33	petroleum, petroleum products	5,14	2152,50	0,37	0,24
35	electric current	367,23	1149,80	25,84	31,94
41	animal oil and fats	3,24	63,90	0,24	5,07
42	fixed veg. fats and oils	0,93	69,60	0,07	1,33
43	animal, veg. fats, oils, n-es	19,52	134,10	1,45	14,55
51	organic chemicals	71,36	3393,50	5,35	2,10
52	inorganic chemicals	33,82	2587,50	2,51	1,31
53	dyeing, tanning and colouring materials	6,90	587,70	0,50	1,17
54	medicinal and pharmaceutical products	103,76	1701,90	7,48	6,10
55	essential oils and perfume materials	68,07	385,50	4,93	17,66
56	manufactured fertilizers	5,05	2358,90	0,36	0,21
57	plastics in primary forms	53,39	1861,80	4,11	2,87
58	plastics in non-primary forms	26,07	406,50	1,88	6,41
59	chemical materials and products,n.e.s.	185,26	2137,40	13,48	8,67
61	leather, leather manufactures and dressed furskins	135,75	752,80	9,90	18,03
62	rubber manufactures	112,75	988,50	8,23	11,41

Table 4. Exports of firms with foreign participation acting in Poland (1992).[contin.]

SITC division	Branches	Value in Zloty billion	Value of total export of Poland in zloty billion	Value in USD million	% of total export of Poland
63	cork, wood manufactures	738,42	3708,80	53,98	19,91
64	paper and paper manufactures	649,73	1858,50	47,71	34,96
65	textile yarn and fabrics	403,75	3786,30	29,76	10,66
66	non-metallic mineral manufactures	417,04	4765,70	30,49	8,75
67	iron and steel	306,39	12955,20	22,14	2,36
68	non-ferrous metals	548,80	13075,00	40,31	4,20
69	metals manufactures, nes	1231,09	6831,50	90,78	18,02
71	power generating machinery and equipment	1554,07	3703,00	116,16	41,97
72	specialized machinery	553,68	3628,40	40,29	15,26
73	metal working machinery	29,14	1127,00	2,07	2,59
74	other industrial machinery	536,21	3583,80	38,99	14,96
75	office machines and a.d.p. equipment	22,69	249,90	1,67	9,08
76	telecomm. and sound recording apparatus	101,37	521,80	7,48	19,43
77	electrical machinery	3763,31	7557,20	272,16	49,80
78	road vehicles	849,56	6524,80	61,50	13,02
79	other transport equipment	53,53	7680,00	3,89	0,70
81	prefabricated buildings, sanitary heating and lighting fi	226,18	670,30	16,40	33,74
82	furniture	2037,13	5507,60	148,29	36,99
83	travel goods, handbags	29,56	198,90	2,13	14,86
84	clothing	2021,02	8903,80	149,61	22,70
85	footwear	164,32	1729,80	11,92	9,50
87	professional and scientific instruments	143,89	846,80	10,36	16,99
88	photoappar., optical goods,watches and clocks	13,87	106,10	1,01	13,07
89	miscellaneous manufactured articles, n.e.s.	678,13	3145,30	49,04	21,56
97	gold, nonmonetary excl. ores	0,80	1035,60	0,06	0,08
Total		**25115,79**	**179684,70**	**1838,70**	**~ 14,06**

Table 5. Branch structure of FDI in Hungary in 1990-1991

Branches of national economy	Shares of foreign investors in registered capital			
	1990		1991	
	bn forint	%	bn forint	%
Mining	0.2	0.2	0.7	0.3
Power generation	0.0	0.0	0.0	0.0
Steel	2.0	0.2	2.0	0.9
Machine building	14.9	16.0	43.3	20.1
Construction	6.5	7.0	12.7	5.9
Chemicals	6.2	6.7	13.6	6.3
Light	9.8	10.5	15.6	7.3
Food	6.1	6.5	34.2	15.9
Other industries	0.4	0.4	0.6	0.3
Total industry	*43.1*	*49.5*	*112.7*	*57.1*
Construction	6.1	6.5	13.3	6.2
Agriculture	0.5	0.5	1.2	0.6
Transport	2.0	2.1	3.3	1.5
Retail trade	16.3	17.5	35.1	16.3
Public utilities	1.5	1.6	3.0	1.4
Public and economic services	19.2	20.6	33.0	15.3
Health, social and cultural services	1.4	1.5	3.1	1.4
Local and public administration services	0.2	0.2	0.2	0.1
Total	**93.2**	**100.0**	**215.0**	**100.0**

Source: Foreign Companies in Hungary: 1991 Statistics/02, HSO, 1991.

The tendencies outlined above continued also into 1992 (cf. Table 6). The radical shift of FDI towards services observed in 1993 (Mayer, 1994) can be treated as the beginning of a new phase of Hungarian economic development, which however still needs to be confirmed by further information from the subsequent years.

Exports by firms with foreign capital participation were at the level of USD 2.5 billion in 1991 and USD 3.2 billion in 1992 and accounted respectively for 24.8% and 30.4% of total Hungarian exports, which gives grounds for gathering that FDI in Hungary has a stimulating impact on exports (Hamar, 1993). Firms with foreign participation recorded a similar level of the so-called export propensity, i.e. the ratio of exports to total sales in the above years. In 1991, it amounted to 25.1%. The data on the structure of exports by firms with capital participation in 1992 (Table 7) show that these firms had a significant share in Hungarian exports of machinery, transport equipment and other capital goods (44.5%), consumer goods (43.4%) and food products (21.1%).

Table 6. Branch structure of FDI in Hungary in 1992-1993

Branches of national economy	Shares of foreign investors in newly registered FDI			
	1992		1993	
	bn forint	%	bn forint	%
Sector I				
- Agriculture and fishery	909	2.1	894	1.7
- Mining	1,229	2.9	332	0.6
Sector II				
-Food, beverages and tobacco	12,935	30.1	2,306	4.4
-Textile, clothing and leather	329	0.8	1,059	2.0
-Wood and paper	1,278	3.0	1,434	2.7
-Chemicals	4,073	9.5	2,768	5.3
-Mineral products (non- metal)	1,952	4.5	528	1.0
-Metallurgy	2,230	5.2	1,225	2.3
-Machine-building	3,831	8.9	3,997	7.6
-Other manufacturing industry	184	0.4	145	0.3
Total manufacturing industry	*26,812*	*62.4*	*13,462*	*25.6*
Public utilities	1,221	2.8	52	0.1
Construction	1,041	2.4	1,836	3.5
Sector III				
-Retail	4,640	10.8	9,326	17.7
-Hotel services	599	1.4	1,416	2.7
-Transport, storing	556	1.3	10,668	20.3
-Post services,telecommunications	40	0.1	6,366	12.1
-Finance	2,329	5.4	4,585	8.7
-Real estate, leasing	3,002	7.0	2,944	5.6
-Education	27	0.1	48	0.1
-Health protection	15	0.0	365	0.7
-Other services	518	1.2	252	0.5
Total	**42,937**	**100.0**	**52,546**	**100.0**
Sector I	**2,138**	**5.0**	**1,226**	**2.3**
Sector II	**29,074**	**67.7**	**35,970**	**29.2**
Sector III	**11,725**	**23.3**	**215.0**	**64.8**

Source: Hungarian Statistical Office, quoted after K.E. Meyer, Direct Foreign Investment in Central and Eastern Europe: Understanding Statistical Evidence, Series S, no.12, CIS - Middle Europe Centre, London Business School, 1994 (Statistical Appendix) and my own calculations.

Table 7. Export structure of firm with foreign participation in Hungary in 1993.

Specification	Exports of domestic firms in billion USD[a)]	Exports of firms with foreign participation in billion USD[a)]	Relations between exports of firm with foreign participation and esports of domestic firms (%)
Power, electrity	288.6	3.8	1.3
Materials,semiproducts, spare parts	3.742.2	917.8	24.5
Machinery, transport equimpent and others investment goods	1.278.6	569.7	44.5
Consumer goods	2.804,2	1.217,9	43.4
Food products	2.562,3	541.8	21.1
Total	**10.675.9**	**3.251.0**	**30.4**

Source: Foreign Trade Statistics, KOPINT (Hamar), J.Hamar, Foreign Direct Investment and Joint Ventures in Hungary. Comparative Study on the Performance of Joint Companies in 1989-1991, Kopinet - Datorg Discussion Papers, 1994, no. 17-18, p.71 and own calculations.

a) Calculations according to the avarge exchange rate for 1992, 1 USD = 78,99 HUF.

The comparison of the conclusions following from the analysis of the case of Poland and Hungary gives grounds for supposing that FDI plays a different role in the Hungarian economy than in the Polish economy. The dependences between the character of FDI in Hungary and the pattern of revealed comparative advantages in that country as well as the observed dependences between FDI and exports comply to a large measure with the regularities generalized in the Ozawa model. Bearing in mind the fact that decisions about FDI are sensitive to the economic, political and social situation in a given region and consequently that the observed trends need not continue in the future, it may be gathered at the present stage of analysis that Hungary entered the path of economic development foreseen in the Ozawa model, and thereby it may be stated that the model was positively verified with respect to the case of Hungary.

On the other hand, the results of the analysis carried out for Poland lead to a conclusion that at the present stage of her development, the dependences stated in the model are not revealed in full. Foreign investors take over some of the her domestic demand but they generate relatively small exports. No changes can be observed in the structure of exports going towards exports of capital-intensive and technologically advanced goods. This does not cross out the general thesis about advantages from FDI for the host economy. It only indicates that Poland has not entered that path of

development where FDI is of crucial importance, strengthening comparative advantages and stimulating exports. Thus, the Ozawa model is not positively verified in the case of Poland.

The lack of detailed data on the branch structure of FDI and the structure of exports generated by firms with foreign capital participation in the former Czecho-Slovakia precludes any full comparison of the situation of the three Central and East European countries . However, the divergent conclusions drawn on the basis of the data available for Poland and Hungary show already at this point of analysis that although these countries have many features in common, their models of economic development, including the role of FDI can be different.

3. Summing-up

The verification of the Ozawa model conducted for Poland and Hungary and only partly for the former Czecho-Slovakia showed that:

- the surveyed Central and East European countries are in the second stage of investment-driven development;

- the real pattern of comparative advantages recorded by the surveyed countries in their exports differed from the model assumptions, which was particularly conspicuous in the case of Poland; a phase of economic development synchronized more with the pattern of comparative advantages typical of this development could be observed in the case of Hungary and the former Czecho-Slovakia;

- in the case of Poland, FDI corresponded only to small degree to her revealed comparative advantages, which was manifested by the branch structure of FDI; whenever such correspondence occurred, both the comparative advantages and the FDI branch structure did not match the economic development stage achieved by Poland; greater agreement between the economic development stage, the structure of FDI and revealed comparative advantages was displayed by the Hungarian economy; at the end of 1992 and beginning of 1993, the Polish and Hungarian branch structures of FDI recorded shifts which can be interpreted as favourable for their economic development (in Poland - a shift towards capital-intensive branches, in Hungary - a shift towards transport and telecommunications services);

- the inflow of FDI to the surveyed countries had a dissimilar impact on their export growth; in the case of Hungary, FDI was unquestionably oriented at exports, in Poland - oriented mainly at the domestic market.

All in all, the above observations lead to a conclusion that the regularities stated by Ozawa with respect to the impact of FDI on economic development of the

host country were revealed in the Hungarian economy. Thereby, it can be said that this model was positively verified with reference to the Hungarian economy. In the case of the Polish economy, the dependences stated in the model are not revealed in full, especially as regards the strengthening of comparative advantages and increasing exports. Thereby it can be concluded that Poland has not entered the development path on which the inflow of FDI is of essential importance. Thus, the Ozawa model is not positively verified in the case of Poland.

At the stage of creation of an area of free trade in manufactured products, the emergence of such advantages from the conclusion and implementation of the Europe Treaty as the creation of a stable political and legal framework for FDI, and the strengthening of the location advantages of the Polish economy under the influence of tariff preferences may make Poland more attractive for increased engagement of foreign investors. Bearing in mind the specific ownership advantages possessed by foreign investors and the possibility of occurrence of different effects in the aftermath of the inflow of FDI in the economy of the host country, it can be concluded that foreign investors' rising engagement may contribute to growth of competitiveness of the Polish economy as a whole.

The shifts in the FDI structure towards capital-intensive industries and in the revealed comparative advantage in trade between Poland and the European Union towards commodity groups with a higher share of capital permit surmising that the initiated process of integration overlaying the process of transformation may contribute to a gradual elimination of the discrepancies between the elements considered in the Ozawa model, i.e. the stage of economic development, revealed advantages in trade and the branch structure of FDI.

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