IS RELOCATION REALLY GOOD FOR THE HOST ECONOMY?

EVIDENCE REGARDING FDI IMPACT

IN THE ROMANIAN MANUFACTURING INDUSTRY

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Abstract

This paper is focused on FDI impact in Romania, keeping in mind that the process of international relocation, that substituted – to a large extent – the more traditional international expansion, especially in oligopoly-type of industries, has also been instrumental in recent FDI flows to Romania. This paper provides evidence for the fact that FDI relocation may induce to the host economy higher productivity at sector levels, higher revealed comparative advantages and higher intra-industry trade, but it also leads to job destruction, „defensive adaptation" strategy from local firms and specialization in low value added products in foreign trade.

Introduction

There is an extensive, yet controversial, literature on how relocation of FDI influences the country of origin. Job losses, export losses, vertical and horizontal effects are debated. However, there is less literature devoted to the impact of FDI relocation on

1

the beneficiary countries, the host countries. It is assumed to be a positive effect, and host countries fiercely compete among each others to attract the relocating FDI.

This paper raises a rarely asked question: is relocation really good for the host economy? Aside from the first glance impression, what is the impact of FDI relocation on the host economy? If new jobs are created, are they created in the right direction? If exports are booming, do they help increasing the value added? Is relocation synonym with the development of the host country? Is it at least compatible with it? What kind of economic perspectives are enhanced by relocated FDI? Consequently, should countries really make use of various incentives to attract FDI, or do they only alter competition in this way?

This paper looks into three types of effects of FDI relocation: effects on sector-based productivity levels, effects on domestic firms, and effects on foreign trade.

1. Theoretical framework

The paper is built on an alternative model of the eclectic paradigm (Dunning 1997, 2003 and Voinea, 2002). The eclectic paradigm (Dunning, 1993) explains foreign investment decisions and host country policies towards foreign affiliate in a complex framework including firm's ownership (of technology, trade marks, capital, etc), firm's internalization (of production process at the global scale), and host country's location advantages (a mix of infrastructure, resources, labour force skill and costs, large technological advantage of the foreign investor, fiscal policy, etc). All those location advantages are derived from the principles of scale and scope economies, and they represent triggers for foreign investors looking to invest in Romania. Cheap labour force

has stayed as Romania's main competitive advantage, according to the World Investment Report (UNCTAD 2002), that includes Romania among the „winners" in the trade with low capital intensive goods. In addition to cheap labour, a large domestic market (domestic consumption has been moving upward since 2001) and the perspective to join the EU (which means more institutional convergence) bring in the country an increasing number of investors rellocating their activities from more advanced transition economies.

In a contribution to the eclectic paradigm, Voinea (2001) describes three types of business environment that may result following host country's policies regarding FDI: anti-competitive, pro-competitive and hostile. When the host country grants positive discrimination (various types of market power inducements) to a FDI carrier, it creates an anti-competitive environment for other potential investors. Especially in the case of FDI attracted by privatization deals, ownership advantage may result not from innovation, but due to the market power inducements granted by the state in the process of direct sale. A subsidy lessens the net cost disadvantage of multinational production, therefore decreasing the magnitude of innovations under FDI (Glass, Saggi 2002); positive discrimination is such a subsidy. FDI carriers are less stimulated towards innovation and integration in international networks of production and distribution.

Table 1. Impact of host country policies on foreign firms

Host-country policies	Positive discrimination	Pro-competitive	Restrictive
Resulting business environment	Anti-competitive	Pro-competitive	Hostile
Technology transfer	Perverse incentives against innovation; monopoly rents from market power inducements	Incentives for transfer of new technologies	Counter-incentives to technology transfer

Source: the author

Indeed, the possibility to conclude special deals with the Government was probably a significant factor for the investment decision in a number of FDI projects. Since 1997, "direct sales", which allows for direct negotiations of market power inducements, has become prevalent among the privatization methods. The privatizations of SIDEX - the largest steelmaker in Romania, Dacia – the largest carmaker in Romania, Romtelecom – the national telecommunications operator, and all the privatizations in the cement industry fall under the direct sales method. In the short and medium run, investment opportunities of this kind may appear primarily in connection with the privatisation of energy producers and distributors. However, the net welfare gain for the economy depends on the type of investor that benefits from market power inducements.

The process of international relocation, that substituted – to a large extent – the more traditional international expansion, especially in oligopoly-type of industries, has also been instrumental in recent FDI flows to Romania. It is worth mentioning here that foreign investments in transition economies tend in fact to concentrate in sectors with international markets dominated by large oligopoly firms (Kogutt, 1996) such as: auto, food processing, tobacco, cement. In Romania, these industries are already dominated by foreign capital.

2. FDI dynamics in Romania

Cumulative FDI inflows in Romania in the 1990-2003 period total 10 billion dollars. FDI inflows increased substantially since 1997, when alltogether 9 billion dollars accumulated. FDI inflows to GDP ratio in the 1997-2003 ranged between 2.6 per cent and 4.9 per cent; FDI stock to GDP ratio was 19 per cent in 2002. Such data are not impressive when compared against those recorded by the first wave of EU accession

countries, but they have helped the Romanian economy to better accomodate with a severe decrease in the ratio of domestic investment (partly overturned in the last couple of years). 2004 was a special year, with the privatization of Petrom representing more than one third of a record 4 billion euro FDI.

In the first transition years, FDI flows were rather modest, being affected by a mix of negative factors: (i) administrative barriers; (ii) soft budget constraints to local firms acting as competitors of potential foreign investors; (iii) the substitution of market-seeking FDI by imports, in the context of trade liberalization; (iv) a certain reluctance to privatise major companies, including public utilities and banks can be mentioned in this respect; (v) the prevalence of privatisation methods that were scarce in foreign inflows (MEBO and voucher-type privatisation).

Furthermore, information asymmetries led to the preference for licensing instead of FDI (Glass and Saggi, 2002). Private commercial lending was also modest, as it couldn't compete with non-performing loans granted by domestic banks, and it was replaced by official lending. Portfolio inflows from the lack of available financial instruments and they were replaced by non-regulated transactions, falling under "errors and omissions" chapter in the balance of payments.

Since 2000, Romania has embarked on a path of economic growth. FDI flows were almost constant at just above 1 billion dollars per year. On the one hand, they contributed to the substantial improvement in the ratio between autonomous (non-debt creating) to compensatory (debt-creating) flows, from 1:9 in the early 1990s to 1:1 in 2001. On the other hand, there appears to be a strong positive correlation (Voinea 2002)

between FDI inflows and private foreign debt, which has increased five times, as a share in total foreign debt, between 1995 and 2004.

Most of FDI is concentrated in industry (44.4 per cent), followed by wholesale trade (14.4 per cent), services (17.0 per cent), transport (7.4 per cent), retail trade (5.8 per cent), construction (4.5 per cent), agriculture (3.6 per cent) and tourism (3.1 per cent). Major investing countries in Romania are the Netherlands (14.3 per cent), Germany (9.5 per cent), France (8.4 per cent), USA (7.9 per cent), Cyprus (6.8 per cent), Austria (6.7 per cent), Italy (6.6 per cent). Data above reflect shares in total FDI stock by the end of 2001 (Romanian Chamber of Commerce, 2002). As manufacturing is concerned, foreign-controlled enterprises account for more than one third of the share capital (34.8 per cent in 2001, compared to 4 per cent in 1995), one quarter of the employees, and 43.9 percent of exports (Hunya 2003).

3. FDI effects on sector based productivity

Productivity of foreign affiliates is believed, in theory, to be superior to that of domestic firms, at least in countries less intensive in capital, know how and management practices. Empirical evidence is given, inter alia, by UNCTAD (2002) for countries like Ireland, Portugal, China or Malaysia; and Holland and Pain (1998) for transition economies like Czech Republic, Hungary, Poland, Slovakia, Slovenia. Counter evidence can also be provided – Patibandla and Sanyal (2002) found no evidence that foreign investment increased firm-level productivity in India. As far as Romania is concerned, Damijan, Majcen, Knell, Rojec (2002) found that foreign ownership contributed to the average growth rate of firms with 1.1 per cent – the highest level among EU candidate

countries. An earlier study on Romania (Munteanu et al., 1998) already indicated that labor productivity is higher in foreign owned firms than in domestic firms.

Data show that, as of 2001, the following sectors record an above the average foreign capital contribution: food industry (DA); non-metallic mineral products (DI); metallurgy (DJ); machines and equipment (DK); electrical and optical equipment (DL); means of transportation (DM). As for other sectors such as textiles and clothing (DB), footwear (DC) and furniture (DN) – which account on aggregate for more than 55 per cent of Romanian exports to the EU - , the lower FDI presence is outbalanced by the wide-scale use of subcontracting practices (lohn mainly) through intermediaries.

Table 2. Share of majority owned firms in manufacturing sectors' turnover, per cent

|	1995	1998	2001
D. Manufacturing industry	4.90	11.50	29.10
DA. Food industry, incl. beverages and tobacco	5.44	13.54	32.15
DB. Textile and clothing	5.50	13.50	21.05
DC. Leather and footwear	2.40	10.50	20.40
DD. Wood processing, excl. furniture	5.20	6.80	16.50
DE. Pulp and paper	10.75	13.02	22.22
DF. Refined petroleum	0.00	0.00	0.00
DG. Chemical industry	4.60	19.70	27.90
DH. Rubber and plastic products	3.80	14.50	26.50
DI. Other non-metallic mineral products	20.40	21.80	38.20
DJ. Metallurgy, incl. basic metals and fabricated metal products	0.76	4.78	38.35*
DK. Machines and equipment	2.24	9.33	30.64
DL. Electrical and optical equipment	28.56	27.92	49.65
DM. Transport equipment and means of transportation	10.97	12.69	49.05
DN. Manufacturing, incl. furniture	1.60	6.20	6.00

Note: Data refer only to majority foreign owned companies (foreign capital represents at least 50% of the share capital), with a minimum share capital of 50,000 dollars (which is the average sum invested per newly established firms).
* it does not account for the takeover of SIDEX, that took place at the end of 2001.

Manufacturing sectors with above the average foreign capital penetration also recorded above the average productivity levels (they had relative productivity gains). A simple regression exercise suggests (see ecuation in figure 1.) that there is a positive

correlation, indeed, between the foreign penetration in a Romanian manufacturing sector and the productivity gains in the same sector.

Figure 1. FDI penetration (2001) and productivity dynamics (2001 vs. 1995), %, by manufacturing sectors
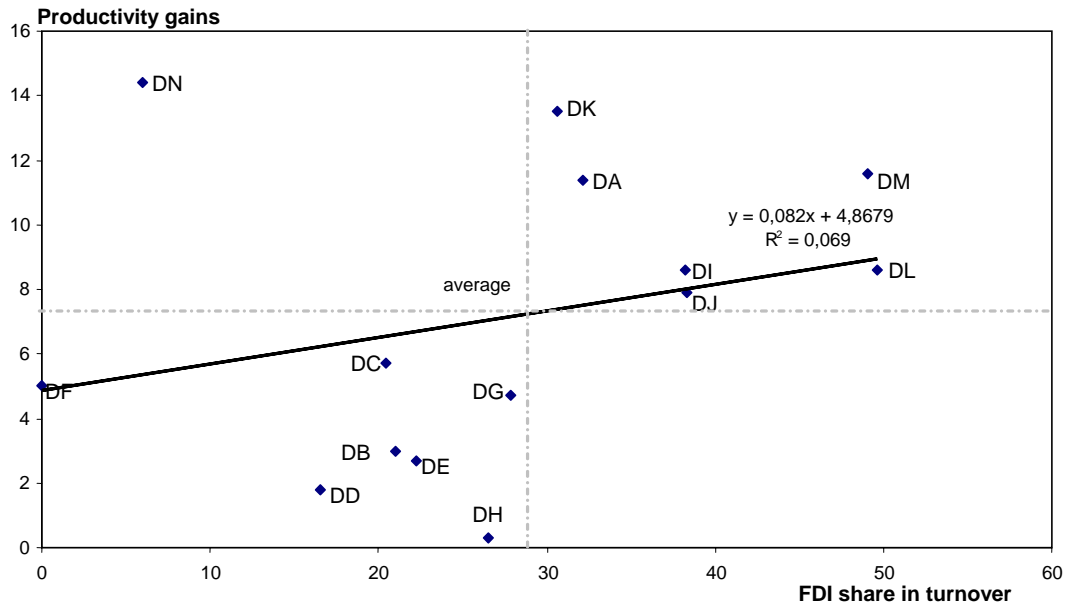
Note: Productivity calculated as turnover/employee (WIIW 2002)
Source: author

The explanatory power of the independent variable „foreign penetration", proxied by the FDI share in each manufacturing sector's turnover, is nevertheless limited in explaining the evolution of the dependent variable „productivity gains".

One possible explanation refers to the issue of causality: foreign firms might tend to establish themselves in high productivity industrial sectors. In the period analyzed, 1995-2003, four of the six sectors with relative productivity gains in Romania also obtained relative productivity gains in most of the other transition economies (WIIW 2002).

Another possible explanation is that some sectors might had been underdeveloped or underperforming before the FDI penetration, but this was not primarily due to the lack

of FDI. The economic structure inherited from the communist regime misallocated resources and some industrial sectors were overstuffed with employees. One way to obtain productivity gains was to lay off employees, and this practice took place irrespective of the nature of the capital (local or foreign). The number of employees went down, 2001 against 1995, by 3.6 per cent in the food industry; by 13.8 per cent in metallurgy; by 23.1 per cent in mechanical machines and equipment; by 3.8 per cent in electrical equipment industry. When calculating productivity gains based on value added, a stronger correlation with foreign ownership is found (Smarzynka, 2002); however, the latter data cover only the period 1996-2000 and make no distinction between various manufacturing sectors.

Productivity gains were also recorded in sectors that had below average foreign penetration, yet they depended on foreign demand and/or capital; as mentioned before, subcontracting replaced the need for FDI in sectors like textiles and clothing, leather and footwear, or furniture. More than two thirds of Romanian exports in the textiles and clothing industry are done under lohn agreements.

Finally, the level of FDI penetration may not be the perfect tool to analyze the FDI impact in a transition economy, as one suit does not fit all foreign investors. Recent international literature goes in the direction of conceptualizing strikingly different empirical observations, finding that foreign ownership in itself is not a determinant factor for the performance gaps between foreign and local firms; instead, multinationality of firms turns out to be more important.

Regarding the net effect of FDI expansion (or relocation) and domestic firms' reorganization, the theory predicts that labor productivity gains will in the long run

translate themselves in wage raises, price cuts, consequent increases in demand, and therefore increases in the demand for labor (IPTS, 2002). However, this may be valid only for well established markets and growing sectors.

In transition economies, Romania included, productivity gains do not translate automatically in welfare gains for a number of reasons.

First, wages increase by only a portion of productivity gains, as low unit labor costs are a very significant aspect of competitiveness (more important than innovation, for example). This is in particular true for efficiency-seeking FDI (as opposed to market-seeking FDI), but also for local firms trying to survive. In the Romanian manufacturing industry, 2002 against 1998, unit labor costs more than halved (Voinea, 2003).

Second, prices were initially below world market levels (in tradables); the Balassa-Samuelson model predicts price increases going hand in hand with economic progress (catching-up).

Third, recessionist cycles, exchange rate depreciations, and episodes of increased fiscality – to mention just a part of the determinants – have not encouraged domestic consumption. Furthermore, an increase in domestic consumption does not mean automatically an increase in domestic employment; quite the contrary, an increase in foreign employment may be stimulated if the local demand for current consumtion goods is met primarily from imports, which is the case of Romania.

4. FDI effects on domestic firms

The impact of FDI can be twofold: direct, at the level of the foreign affiliate itself; and indirect, at the level of the other firms operating in the local economy, through imitation, competition, cooperation, and learning. (Kokko, 1992).

The FDI impact at the level of foreign affiliate itself contributes to economic development, yet to an exogenous type of growth, meaning that a would-be disinvestment later on would not leave behind more developed local competitors. Only the FDI contribution to the modernization of other firms as well, aside the foreign affiliate itself, supports host transition countries' efforts to catch-up with more advanced economies (Fabry, 2002).

When direct effects are considered, the profile of the foreign investor proves determinant. In the SIDEX case, the largest foreign acquisition in the Romanian manufacturing industry, the fiscal incentives granted by the state will pay off in only three years, meaning that within the first three years after privatization, the state budget will observe a net positive effect.

Table 3. Net direct effect[1] of the SIDEX acquisition by ISPAT on the public budget

Gains, mil.USD		Loses, mil. USD	
Acquisition price	70	Liabilities written off	770
losses under state ownership yearly	300	Interest rate for postponed social contribution payments (3 years postponement)	15
aggregated in 3 years	900	Compensatory payments paid by the state for layoffs (until November 2004)	47
Total	970	Total	832
Net effect	Positive starting with the third year after acquisition		

Source: the author, based on SIDEX financial statements and the provisions of the SIDEX deal

The profile of investor has been decisive in the SIDEX case: the buyer is a global player in the respective industry, aiming at creating competitive advantage over global competitors by taking over emerging markets.

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[1] The interest rate is considered at mid-2003 market average of 15%; payments were considered based on the number of jobs lost (11000) and net average wage. However, the compensatory payments are likely to be paid from the RICOP program of the World Bank. We consider them a loss anyway because they represent an opportunity cost (other projects could have been supported instead).

In Romania, LNM obtained a bunch of fiscal facilities, debt swaps at discount rates, and a global advantage by avoiding US's surcharge on imported steel. Other investors obtained similar market power inducements, but failed in most cases to make a more competitive product and to increase overall welfare. OTE (Greece) –Romtelecom, in telecommunications, and Noble Ventures (US) – CS Resita, in metallurgy as well, are notorious cases. Both investors mentioned above obtained numerous facilities and incentives, but the final result was disappointing. CS Resita is now back under state's administration, while OTE scored rising operational losses and was even fined by the Competition Council for monopolist behavior.

An explanation why the latter deals proved underperforming might be the fact that these foreign investors have no global reach. They are, at the best, regional or niche players; their managerial experience in reviving distressed companies is limited, and their international network is not sufficiently expanded. Therefore, the incentives and facilities obtained in Romania offered them a local competitive advantage, but not a global competitive advantage. In turn, they exploited this advantage in a way detrimental to innovation and to consumers' welfare.

As far as the indirect effects are regarded, Meyer (1998) designs a framework to mirror transformation of local enterprises under FDI pressures. Choices are, depending on their initial competitive position: defensive adaptation (size decrease, productivity increase); strategic reorganisation (new products, new limits of the firm); organisational changes (competitive culture based on cost-advantages analysis).

In the same line of thought, Richet (2001) explains that local firms that had been on the market before FDI came in can find themselves in one of the following situations:

de-specialization and subsequent respecialization on a narrower production range (size economy), in search of the minimal scale of efficiency; outsourcing part of the activities, favouring subcontracting either by diving up former trusts or facilitating the entry of new operators; re-capitalization to finance investments needed for their modernization and expansion.

How do these theoretical arguments fit the Romanian experience? What has happened with the Romanian firms that remained under Romanian ownership even after foreign capital penetration of a certain industrial sector?

To answer this question, we consider two representative sectors of the economy, in which foreign presence is above average: the food, beverages and tobacco industry, respectively the machine and equipment industry. The choice of sectors is limited by the available firm-level data base; results obtained here may not be valid for others sectors. On these two sectors, we construct a sample of local companies, using the database provided by the secondary stock exchange – the over the counter market – Rasdaq. The selected companies fit the following conditions: a minimum of 50,000 dollars in share capital and a minimum of 50 employees; year of establishment prior to 1998; majority Romanian capital (state and/or private) in the whole period 1998-2001; their shares were traded at least once in the interval 1998-2001 and they are not restricted from stock exchange trading operations as of end of first half 2003. The selected sample accounted, as of 1998, for about one fourth of the turnover and employees in each of the two sectors selected.

Table 4. indicates that the massive increase in foreign penetration of the two sectors analysed coincides with a severe drop, both in nominal and in relative terms, of

domestic firms' shares in employment and turnover. The drop in employees is more severe than the drop in turnover; if we take turnover per employee as a measure of productivity, domestic firms record slight increases, yet these increases are much below the sectors' average.

Table 4. Turnover and employees, sample of Romanian domestic firms and total sector, selected manufacturing sectors, 2001 vs. 1998

Food, beverages, tobacco		1998	2001
Turnover	Total sector (bn ROL)	11803	40400
	Sample domestic (bn ROL)	2863	2327
	Sample/ sector, per cent	24.26	5.76
	Foreign firms/ sector, per cent	13.54	32.15
Employees	Total sector (no.persons)	105305	136912
	Sample domestic (no.persons)	23761	14694
	Sample/ sector, per cent	22.56	10.73
Turnover/employee	Total sector (mil.ROL/person)	112.1	295.1
	Sample domestic (mil.ROL/person)	120.5	158.3
Machines and equipment		1998	2001
Turnover	Total sector (bn ROL)	10221	9829
	Sample domestic (bn ROL)	2416	1760
	Sample/ sector, per cent	23.64	17.91
	Foreign firms/ sector, per cent	9.33	30.64
Employees	Total sector (no.persons)	182895	125902
	Sample domestic (no.persons)	52217	32649
	Sample/ sector, per cent	28.55	25.93
Turnover/ employee	Total sector (mil.ROL/person)	55.8	78.1
	Sample domestic (mil.ROL/person)	46.2	53.9

Note: data are expressed in 1998 current prices; data for 2001 are deflated by the each sector's index of production prices
Source: National Institute for Statistics (INSSE) and author's calculations

Other efficiency indicators refer to the gross operating result and gross financial result, both as shares in turnover. 1999 was a restructuring year for both sectors, not only for the domestic firms. One should mention here that, under pressure from external imbalancies, the then government took a package of reform-oriented measures including cutting subsidies and closing a number of companies. But the sectors' overall performances have improved since 1999, while the domestic firms in our sample have continued to reduce not only their turnover and number of employees, but also their gross

operating results. When comparing 2001 against 1998, it appears that domestic firms have downsized their financial losses, while recording a large decrease in the gross operating profit. This evolution has been accompanied by a drastic cut in turnover and employees.

Table 5. Operating and financial results, sample of Romanian domestic firms and total sector, selected manufacturing sectors, 1998-2001, per cent

Food, beverages, tobacco		1998	1999	2001
Gross operating surplus / turnover	Total sector	10.87	5.10	7.18
	Sample domestic	7.96	5.86	1.68
Profitability (gross financial result / turnover)	Total sector	1.54%	-7.40%	0.25
	Sample domestic	-4.91	-9.18	-3.78
Machines and equipment		1998	1999	2001
Gross operating surplus / turnover	Total sector	9.46	8.80	10.40
	Sample domestic	5.78	2.26	0.73
Profitability (gross financial result / turnover)	Total sector	-3.37	-9.90	-0.37
	Sample domestic	-2.00	-2.95	-2.20

Source: author's calculations - for the sample, and data adapted (aggregated to CAEN form) from Marin (coord., 2001) - for total sector, year 1999.

Keeping in mind that total sector data include also this underperforming sample of domestic companies, foreign firms have recorded, in the same time interval analysed, higher gross operating profits (in both sectors), while managing either a decrease in profitability (in food, beverages and tobacco industry) or a reduction of their financial loss (in the machines and equipment sector). This evolution has been accompanied by a surge in foreign firms' turnover and turnover per employee ratio.

The behaviour of Romanian firms seems to fit the „defensive adaptation" strategy described by Meyer, in pursuit of the minimal scale efficiency described by Richet (see above); one could also picture this as a downsizing adjustment.

They have not had the financial means to re-organise and to compete on equal footing with foreign investors; instead, they tried to reduce the losses and went for a small market niche. On the contrary, foreign firms have been able to borrow the

necessary resources (which is seen in the evolution of their financial results) – either intra-company or from abroad – and to transfer technology; at its turn, this technology has led to higher operating profits.

At this level of data information, one can not say whether or not domestic firms would have followed the same path of downsizing adjustment in the absence of FDI. It can be submitted, however, based on the brief analysis above, that FDI impact on their own affiliates has largely been positive, while the spillovers from FDI to domestic firms in the two sectors analysed, if any at all, are rather negative. However, this says nothing about the FDI impact on newly established locally owned firms. It might be that a positive spillover can be found on the latter; but data should account for years 2001 and 2002 as well[2].

5. FDI impact on trade specialization

The sectors with above the average foreign capital penetration appear on the winning side of the Romanian foreign trade, as they both record improved performance and increased specialization. Food industry, machines and equipment, and transportation means show both upward revealed comparative advantages (RCA)[3] and intra-industry trade (IIT)[4], while metallurgy also shows upward IIT.

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[2] I found no regression study to incorporate those data and I couldn't find the data also. In the absence of new data to account for at least two years of strong growth, and of a clear correction for sector distribution, results on FDI spillovers in Romania will be biased by the low volume of FDI before 1998, and the general defavourabile macroeconomic conditions between 1997-2000.

[3] Revealed comparative advantage is calculated based on the formula:

$ACRi = \ln [(xi/mi)/(X/M)]$ where xi and mi represent exports, respectively imports from product group i, while X and M are total exports, respectively total imports. In this understanding, a products has RCA if its coverage ratio exceeds the average foreign trade coverage ratio.

[4] Intra-industry index, known as the Grubel-Lloyd index, is calculated based on the formula:

$IITi = 1 – [(xi-mi)/(xi+mi)]$ same meanings as above. This index may take values from 0 to 1; the closer to 1, the higher the specialization. The level of disaggregation employed here (two figures product groups) may determine higher IIT values; such an effect is however non-discriminating among product groups.

*Figure 2. Performance and specialization in Romanian foreign trade,
by product groups, SITC-2 classification, 2001 against 1993*

	IIT upward	IIT downward
RCA upward	- food ind., incl. beverages and tobacco (gr.IV) - mineral products (gr.V) - machines and equipment (gr.XVI) - means of transportation (gr.XVII) - optical, medical instrumental (gr.XVIII)	- unprocessed wood (gr.IX)
RCA downward	- vegetal products (gr.II)* - pulp, paper (gr.X) - cement, glass (gr.XIII) - metal products (gr.XV) - furniture (gr.XX)*	- animal products (gr.I) - animal, vegetal oils (gr.III) - chemical products (gr.VI) - produse din cauciuc, plastic (gr.VII) - leather, furs (gr.VIII) - textiles and clothing (gr.XI) - footwear (gr.XII)

Source: Voinea, 2002

In fact, the intra-industry index for the machines and equipment group reaches in Romania levels comparable to those in candidate and cohesion economies (Caetano et all, 2002). The increase in intra-industry specialization is associated with technology transfer, most usually within the intra-firm trade. The latter is linked to FDI flows: a recent econometric study (Damijan, Majcen, Knell and Rojec, 2002) finds for Romania that FDI represent an important channel of technology transfer and that the research and development activity is concentrated in foreign owned firms.

When addressing the issue of specialization, one needs to distinguish between intra-industry trade with horizontally, respectively vertically differentiated goods. In the former case, the traded goods are differentiated by other characteristics than quality; horizontal IIT is driven by scale economies and imperfect competition. In the latter case, the traded goods are differentiated by their quality (reflected in the price differencies);

vertical IIT is induced by the different factor endowment. Vertical specialization, in quality-based differentiated goods, implies that competitive positions are gained through cutting costs and employing cheap labor. The basis for product differentiation is price, not innovation.

The trend of Romania's foreign trade in the past decade was to trade more vertically differentiated goods; cheap, low quality products remain predominant (Ciupagea, Cojanu and Unguru, 2002). One can see however (table 6.) a slight increase in superior quality exports, embedding a higher value added; the foreign trade structure yet remains, from the price-quality perspective, one of the most unbalanced among the candidate and cohesion economies.

Table 6. Exports classification by price-quality ranges[5], per cent in total exports

	1993			2000		
	Inferior (low technology)	Medium	Superior (high technology)	Inferior (low technology)	Medium	Superior (high technology)
Romania	78.3	8.9	12.5	63.7	16.4	19.7
Hungary	52.4	23.5	23.9	41.1	30.2	28.9
Poland	73.6	18.1	8.1	59.8	22.6	17.5
Czech Rep.	70.6	16.1	13.0	61.1	21.9	16.9
Bulgaria	62.9	21.2	12.8	44.3	46.4	9.1
Slovakia	73.8	15.9	8.9	50.5	36.9	12.6
Greece	28.9	35.3	30.2	34.0	38.8	25.2
Spain	47.4	34.9	14.7	46.1	34.6	18.3

Source: Caetano et al. (2002)

The vertical specialization, on lower quality (lower price) products in the Romanian foreign trade is nevertheless met across most industrial sectors. In metallurgy, even after being acquired by a large foreign investor, SIDEX has maintained the

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[5] Unit value of exports, respectively imports, is considered a proxy for the quality of exports and imports. Based on the ratio between exports unit value (XUV) and imports unit value (MUV), each product can be classified in one of the following three ranges: inferior (XUV<MUV by more than 15%); superior (XUV>MUV by more than 15%); medium (all other cases).

production orientation towards the flat products, which are considered of lower quality and less value added than the long products. In the auto industry, Renault, the buyer of carmaker Dacia, transfers technology and stimulates innovation with the aim of producing a new Dacia model for emerging markets only, hence inferior in quality to the Renault models sold in the Western markets. In the clothing industry, Romanian products compete on products with medium to low unit values (Cojanu, Ramniceanu and Voinea, 2003).

Final remarks

The FDI driven sectors (sectors with above average FDI penetration) have recorded highest productivity growth. These sectors are: food, beverages and tobacco, industry non-metallic mineral products; metallurgy; machines and equipment; electrical and optical equipment; means of transportation. However, FDI penetration only explains a part of the productivity gains in those sectors; furthermore, FDI induced productivity gains are not automatically translated in welfare gains. At least in two of these sectors (food, beverages and tobacco, respectively machines and equipment), local companies existing on the market prior to the FDI penetration have been forced into a defensive adaptation, a downsizing adjustment based on improved financial results at the cost of losing market shares and employees.

The FDI driven sectors have also improved trade performance (better revealed comparative advantages) and specialization (higher intra industry trade). However, the FDI induced specialization is on vertically differentiated products, competing on price, not on innovation.

To sum up, this paper demonstrates that FDI in Romania has been predominant in oligopoly type of sectors, in which relocation is the name of the game. It also provides evidence for the fact that FDI (of which relocation is an important part) may induce to the host economy higher productivity at sector levels, higher revealed comparative advantages and higher intra-industry trade, but it also leads to job destruction, „defensive adaptation" strategy from local firms and specialization in low value added products in foreign trade.

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