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FDI and Restructuring Business Organisations in Central Eastern Europe: Lessons from Sector and Region focused Projects in the Transformation Economies

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Contents

1. Foreign Direct Investments (FDI): Short Overview and Hypothesis

The today `s world economy is goring through various kinds of great changes, certainly one of the most important of them is the de-localisation of industrial production from the matured capitalistic countries (e.g. USA, Western Europe and Japan) in the developing countries. Among the developing countries of Latin America, South-East Asia, from the late 1980`s the former socialist countries of Central and Eastern Europe have became important target countries for FDI. The economic significance of these changes is well illustrated by the fact that the Foreign Direct Investment in the last three decade has risen faster than exports, GDP. (Carson, 1998:5)

Evaluating the significance of the role of FDI, it is necessary to distinguish between `portfolio` investment and `direct capital investment`. In the first case, the investors are buying securities issued by companies or foreign governments` bonds, but they do not practice ownership rights to control the operation of the foreign company. In the second case, investors also intend to practice their ownership rights acquired in the foreign company in question. The following types of `direct capital investments` could be distinguished (Árva, 1994:8):

a). Foundation of new companies, mainly in the form of the `green-field` sites;
b). Purchase of a controlling ownership stake in an existing foreign firm;
c). Reinvestment of profit earned in a foreign company;
d). Lending and raising capital between the parent company and its subsidiary operating in the foreign country.

FDI is not per se benevolent for the receiving country. Scholars have distinguished between `colonial type` capital export and `trade generating` investments. Colonial type capital export aims at raw material extraction, etc. and in general does not generate a noticeable economic development for the receiving country. The so-called trade generating (and not trade substituting) capital investment develops export capacities in the target countries and thus gives way to an increase in world export. The South-East Asian countries have received such type of capital export from Japan in the early 1970`s before they themselves became export oriented countries.

The transformation process related modernisation in the post-socialist countries of Central and Eastern Europe (CEE) would be unimaginable without significant FDI and the related privatisation - in spite of the anti-foreign campaign of the populist-nationalist forces in these countries. For instance, in the Hungarian case, foreign-owned firms are producing up to 70 per cent of manufactured exports, up from 50 per cent in 1993 and the strongest labour productivity increase was experienced in the last five years in the foreign-owned joint ventures (Hámori, 1996:10.)

There is a commonly shared hypothesis among the business scientists (Soulsby-Clark, 1996.) that among the foreign-owned firms, Multinational Corporations (MNCs) are playing key role in modernizing managerial organization and methods of the privatized former large state firms. Moreover, these firms have become not only the `engines` of export performance but have accelerated the introduction of new technology and of new managerial practices in the post-socialist economies (e.g. TQM, team-working, flat-hierarchy, outsourcing, benchmarking etc.). Due to the important facilitator role of FDI in shaping the patterns of skill and manpower use, it is worth to give a short survey on the FDI in the transformation economies of the CEE.

Among the post-socialist countries of the Central and Eastern European region, Hungary received the largest portion of the FDI until the middle of 1996; its share represents USD 15.1 billions. (But Poland is beginning to edge out Hungary in the race for FDI.)

The distribution of the FDI between economic sectors in the country is the following (Népszabadság, 1996: 10.):

- Industry: more than 50 per cent;
- Telecommunication: 15 per cent;
- Energy sector: 13 per cent;
- Financial sector: 6 per cent;
- Wholesale sector: 6 per cent;
- Others: 10 per cent.

The composition of the FDI within the country is very unequal, which further strengthens the existing inequalities in Hungary. If we are using a three-point scale to characterise the level of economic development, the following three regions should be distinguished:

a). `Strong regions`;
b). `Intermediary regions`;
c). `Weak or peripheral regions`.

The so-called `strong-regions` (e.g., the agglomeration of Hungarian capital and the Northers Transdanubian regions) received almost as much as three quarters (73.5 per cent) of the country` FDI. The `intermediary region` (e.g. the Great Hungarian Plain) and the `weak and peripheral` regions (e.g. the Northern-Eastern Hungary and the South Trans-Danubia) have similar share (13 - 13.5 per cent) of FDI. (Cséfalvay, 1993.) Since the middle of 1990`s, this pattern of FDI distribution in the country has remained the same. For instance the capital of the newly created foreign owned firms in the Hungarian capital in 1997, represented 77.7 per cent of the total foreign capital. (Tóth, 1998: 30.)

The CEE region has attracted significant amounts of foreign investment since 1989, with Hungary received 55 per cent of all long-term FDI in the region, more than USD 13 billions by the end of 1995. However, „... despite the often cited USD 13 billion figure, needs facing the region pale to the capital in-flow. France, for example, has received more foreign investment in the last two years than the entire Eastern Block has received since 1989." (Ellingstad, 1996.:8) Since that the size of FDI invested in Hungary over passed the USD 15 billion at the end of 1996 and represents 40 per cent of FDI targeted to the CEE region (Árva, 1997: 1008.)

Within the broad range of FDI, it is necessary to distinguish between the investments into *`green-field` versus `brown-field` sites*. The `green-field` investments were carry out by such internationally well-known firms as Suzuki, IBM, TDK, Sony, Ford, etc. The `brown-field` investments were carried out by such multinational firms as NOKIA, Siemens, G.E. Audi, etc. These two distinctive forms of FDI have different impact on the restructuring or modernizing business organizations in the transformation economies of the CEE region. According to *our hypothesis, more balanced distribution of `green-field` and `brown-field` investments speed-up the diffusion of modern managerial knowledge and organization. In other words, the diffusion of new technology and leading edge management practices will create stronger multiplier or homogenizing effects in organizing economic activities in comparison to domination of elther `brown-field` or `green-field` investments.* In other words, the strong presence of foreign owned firms, especially in the form of `green-field` sites, does not speed up the diffusion of state of art technology and management methods in the FDI receiving country.

The role of FDI in upgrading quality level of products, services and management is significant not only in the `transformation economies` of CEE but also in the countries belonging to the matured market economies. According to the study made by McKinsey, the US management consultant firm, more than two-thirds of UK suppliers, 44 per cent of US suppliers and 85 per cent of Japanese suppliers received his high evaluation of quality. Top management in the UK car component industry „has ... devoted itself intensely to quality, more than that of any other country in Europe", says the report. According to the McKinsey, the driving force behind the change in Britain has been the *influence of car plants set up by Japanese groups. They have made „upping quality level ... a matter of survival for British suppliers"*, says the report of the US management consulting firm. German companies, in contrast, have lacked this stimulus. The report says their „catch-up effort will need to begin with a drastic reduction in current levels of over complexity ... and a focus on strategically important (management) levels (for change). In the case of Germany, „to management commitment to quality which has been only average to date, will need to greatly increase", the report warns, while companies will also need to follow the UK example of operating more „team-working" on factory floors to harness the

„problem solving" skills of employees. (Marsh, 1996.)

Before presenting the pattern of FDI in the so-called `Visegrad countries` - Hungary, Czech Republic, Poland and Slovakia - it is worth to have a look on the general weight off FDI in the post-socialist countries of Eastern European region.

Table 1 Foreign Direct Investment (FDI) in Eastern Europe (in million USD)

Country	1989	1990	1991	1992	1993	1994	1995	1996	Total
	Annual FDI flow								
Bulgaria	10	20	100	130	200	105	98	150	813
Romania	20	18	187	240	221	341	367	555	2080
Slovakia	5	20	53	130	350	181	180	150	1960
Slovenia	10	20	100	130	200	128	176	160	1900
Ukraine	10	50	100	280	520	91	266	440	1757
Czech Republic	10	166	200	1210	600	750	2525	1200	6800
Poland	60	88	470	830	1100	1600	1134	2300	9200
Hungary	500	900	1700	1700	2550	1300	4500	1900	1505

Source: Árva, L. (1997), `Külföldi m□köd□t□ke, hazai beszállítói kapcsolatok, külkereskedelmi mérleg és technológiatranszfer, Közgazdasági Szemle, XLIV évf. november, p. 1008.

In the case of the so-called `Visegrad-countries` - which are in the focus of our study - the weight of FDI in the middle of 1990`s (measured by USD/capita) presented in the Table 2.

Table 2 FDI in the `Visegrad Countries

Countries	1995	1996
	in USD per capita	
Czech Republic	563	660.19
Hungary	1.410	1.505
Poland	177	240.21
Slovakia	138	369.81

Source: Business Central Europe, 1996: 39, Árva, L. 1997: 1008.

Following the earlier presented hypothesis, *the simultaneous and balanced presence of `green-field` and `brown-field` investments have stronger `harbinger effect` in diffusing new managerial skill and practices than the one-sided dominance of either `green-field` or `brown-field` investments.* In relation to that, we may further develop the following hypothesis: in a post-socialist economy, *where the `mono pattern` of FDI is dominant* (either in the form of `green-field` or `brown-field` sites), *the multiplier effects of FDI on the business performance (e.g. labour productivity) is more limited (creating only islands of us modern technology and management practice)* compared with the presence of *`hetero-pattern` of FDI.*

Comparing the 10 top investments in the two `Visegrad countries` having the highest par capita FDI, Hungary and the Czech Republic, we may identify significant differences, see the tables 3 and 4.

Table 3 Ten top investments in the Czech Republic

Investor (country)	Target	Commitment	Sector
1. Tel source (NL, CH)	SPT Telecm	USD 1.423 m	telecom.
2. Volkswagen (G)	Skoda Auto	USD 962 m	automobile
3. Inter.Oil (NL, USA)	Unipetrol	USD 615 m	petroleum
4.Philip Morris (USA)	Tabak	USD 500 m	tabacco
5. Steyr (A-Daewo-K)	Avia	USD 384 m	automobile
6. IFC Kaiser (USA)	Nova Huta	USD 231 m	steel
7. Linde (G.)	Technoplin	USD 154	industrial gas
8.Energy consortium (USA)	Energetické centrum	USD 154	energy
9. Pepsi-Cola (USA)	Green-field site	USD 120	soft-drink
10.Gloverbal (Belgium)	Glasunion	USD 115	glass

Source: Business Central Europe, 1996: 54.

Table 4 Ten top investments in Hungary

Investors (country)	Target	Commitment	Sector
1.Magyar Com. (G., USA)	Matáv	USD 875	telecom.
2. General Electric (USA)	Tungsram	USD 600	lighting
3. AUDI (G.)	Green-field site	USD 350	automobile
4. General Motors (USA)	Green-field site	USD 383	automobile
5. Suzuki (Japan)	Green-field site	USD 280	automobile
6. Douwe-Egbert (NL)	Compack	USD 150	food
7. UNILEVER (NL, UK)	Green-field site	USD 150	consumer goods
8. ALCOA (USA)	Köfém	USD 146	aluminum
9. Pepsi-Cola	Green-field site	USD 135	soft-drin
10. AEGON International (NL)	AB-Aegon	USD 135	insurance

Source: Business Central Europe, 1996: 54.

In Hungary, not only in the case of the 10 top investments, but also in the whole process of privatization, the more balanced distribution of FDI (or `hetero-pattern` of FDI) and greater variety in ownership and organizational forms have speed up the managerial learning process and created different `priority list` of managerial problems in the Hungarian firms compared to the other countries of CEE. (According to the leading expert of the Hungarian FDI, ten investors represent the 50 per cent of the all green-field sites. The most significant green-field investors are the followings: GM, Audi, Suzuki, IBM, Ford, Guardian Glass, Philips, Souftec, L.U.K., and Procter and Gamble, Népszabadság, 1998.a.)

It is extremely difficult to get reliable information on the uneven pace of the

managerial and organizational learning process in the post-socialist firms. Until now, we have very few sector or region oriented comparative studies on the firm level transformation process in the transformation economies. In the next parts, we present the main results of an international comparative survey on changing ownership and the related organizational restructuring process in the `Visegrad-countries`. Following this presentation we try to identify the key impacts of FDI, using the empirical evidences from a regional study of Székesfehérvár.

2. Uneven Pace in Restructuring Business Organizations. Lessons from the Sector Focused `Hokkaido Project`

The Hokkaido Project initiated survey was conducted in Spring 1996 in the firms employing at least 500 employees in the machine industrial sector in the `Visegrad countries` . (1) During the survey, each national team participating in the Project, used the same structured interview conducted with top managers of the firms surveyed (usually general director).
The interviews focused on the following items:

- corporate governance;
- patterns of communication channels;
- current business performance and main effecting factors;
- firm-level labor relations;
- influence distribution in the firms` decision making system.

In relation to modernizing business organizations, we devote core attention to transferring managerial skills and organization from Western Europe into the post-socialist countries of CEE, the focus of analysis will be centered on changing managerial tasks and influence structure to map the possible uneven development in the managerial and organizational learning process.

According to the data of this survey, 54.4 per cent of the Hungarian managers interviewed classify their firms` state of business achievement as successful, a figure considerable higher than the 25.4 per cent average for the other three `Visegrad countries`. (See Table 5.)

Table 5 Present state of business achievement in the `Visegrad countries`

State of business	Czech Republic	Hungary	Poland	Slovakia
Successful	20.0 %	54.5 %	43.3 %	13.0 %
Recovering	56.6 %	34.3 %	46.6 %	60.9 %
Stagnant	16.7 %	8.6 %	6.7 %	21.7 %
Declining	6.7 %	0.0 %	0.0 %	4.4 %
On the verge of bankruptcy	0.0 %	2.6 %	3.4 %	0.0 %

Source: The Hokkaido Project (1996)

While such bright figures may seen counterintuitive given Hungary very lackluster GDP and employment figures in 1996, this can partly explained by the very uneven patterns of economic recovery in this country - both by sectors and regions - and also the relatively large role foreign capital has played in transforming Hungarys` machine industry. (In the machine industry sector surveyed, 37 per cent of Hungarian firms are majority foreign owned, compared with 6.6 per cent in Poland, 3.3 per cent in the Czech Republic, and 8.3 per cent in Slovakia.) The finding of this survey are backed by the results of other projects, including a 1048-firm survey carried out by the Economic Research Institute (GKI), which reveals lags, both between manufacturing and non-manufacturing firms, and foreign-owned (which are mostly manufacturing) and domestic firms. *Further, despite weak macro-level economic performance, there are indeed areas - particularly in export oriented manufacturing - which give cause for optimism. The utilization of many meso-level and firm-level viewpoints may in the end be more telling than broad, macro-level figures most casual observers rely on.* The evidences learned from the machine industry sector survey, already at the beginning of 1996 have anticlpated the economic upswing of the Hungarian economy, which were know for the large public only since the 1997, when such macro-economic indicators as GDP growth, employment level etc. visible improved.

The uneven development of organizing economic activities in the past and the variety of privatization process after 1990, have strong impact on the speed of the managerial learning process in post-socialist firm of the CEE region. The unequal stages in the development of the organizational restructuring are well reflected in the differences identified in the prioritized list of measures by firms` management in the machine industry sector.

(It is worth to note that from 1998`s there is a growing awareness even among the world leading consulting firms on the uneven character of economic development in the emerging market economies in the region. For instance, the well-known US Merrill Lynch and Co. London base office distinguished the following three phases of the post-socialist industrial economies: „The first is *value investment,* when investors first discover an economy. Resources may be cheap, but there is a high political risk that reforms may not come through in the near future and a large potential for macro-economic shocks, including inflation and trade deficit. As those risks diminish and if reformers stay in power, stock become attractive. Substantial amounts of foreign capital flow into the countries, and the markets begin to perform well. ...this is the *transition-to-growth phase.* For those who know what to look for, it can be the ideal season for stock hunting. One stocks reach fair value, compared with price-to-earnings ratios in developed markets, investors need an incentive to stay. Earnings growth is usually the key.

This takes time to deliver. Companies must restructure and do all the nasty things that that word implies: lay off workers; improve efficiency; develop new products, marketing and sales techniques; invest in equipment and dump Communist-era managers who cannot adopt. Until the whole process is well underway, there is rarely any visible earning growth, largely because there are no profits. One the restructuring occurs, an economy enters ... the *growth-investment phase*, when well-tuned companies pump out products and services, increasing earnings and the value of their shares. ... Hungary had reached phase three, largely with the help of foreign direct and strategic investors ... Poland is near the end of phase two. Many Polish corporations are only now being handed of to private investors. Stuck deep in phase two with little sign of movement is the Czech Republic, where a voucher privatization plan pumped little cash into companies") (Green, 1998.a: 17.)

According to the results of the Hokkaido Project, in the case of Poland, the Czech Republic and Slovakia, managers interviewed still place a high priority (ranked second in all of these three countries) on employment reduction, commonly associated as a `firm-internal transformational problems`. Hungarian managers, on the other hand, focus almost exclusively on product and market-oriented issues: customers and suppliers, R and D, in addition the increase of exports are the primary focal points. Dividing the list of measures into two rough categories *`firm internal transformation`* and *`market/product oriented` or `firm external`*, and summing responses, one finds that Hungary`s scores much lower in the `firm internal transformation` measures, 37.6 per cent in Hungary compared to 63.3 per cent in Poland, 56.9 per cent in the Czech Republic, and 58.0 per cent in Slovakia.

The differences may be the result of either, or both, of the two factors:

- Hungarian firms in the machine industrial sector are slightly ahead of other `Visegrad-countries` firms in transforming their enterprises, because of a more ambitious privatization program (while a slightly higher proportion of all Czech business are privately owned, the networks of investment fund and bank ownership make for a more convoluted owner-management behavior) and a higher degree of foreign ownership; and/or
- Firm, `internal-transformational` issues in Hungarian firms are dwarfed by `market-oriented` problems caused by the break-up of the COMECON (former economic integration institution: „Council for Mutual Economic Aid") trading regime. Hungary has neither the large internal market of Poland (noticeable in the relatively smaller importance given to export by Polish firms) nor the long history of export- orientation for the machine industry that Czechoslovakia had even within the former COMECON.

Although Hungarian firms arguably face more difficult market conditions for their products; for both geographic and economic reasons, the likely

fundamental reason for the differing emphasis observed lies fundamentally in the temporal component having to do with the particularities of the different market environments. While Hungary and Poland experienced what is politely called „shock therapy", Poland's slower privatization regime and slightly more protectionist trade laws at the outset of the transformation provided a larger cushion - and a lower set of incentives to transform the firm - than was presented to Hungarian firms. Both the Czech Republic and Slovakia experienced sharp falls in demand, but as alluded to earlier, firms owned by investment funds have often been in the functional equivalent of privatization half-way house. The differences are temporal in that the general goals, broadly defined, will be reached by all `Visegrad countries` in the not too distant future (it is important to keep in mind that this enormous `transformation project` was embarked upon but few years ago). To the extant that one gives credence to this explanation, one also assumes that the vast majority of these Hungarian firms have already more or less turned the corner, while `Visegrad firms` are to varying extent still engaged in, and beginning to emerge from, the process of fundamental transformation.

It is worth noting that a surprisingly large number of Hungarian managers surveyed in machine industry sector, reported to have increased efforts on research and development, which may also be seen as a sign that crisis times in the machine industry are over (as returns on R and D outlays usually accrue in the longer-term, beyond the horizon of a firm struggling just to survive or in the phase of „growth-investment phase" using the earlier mentioned distinction of `Merill Lynch and Co.). In the last decade, R and D activities in Hungarian firms have declined precipitously, with 57 per cent of firms claiming no R and D activity whatsoever, and there have been fears that Hungary is losing R and D capacity, both as a result of economic stagnation and the tendency of foreign firms to build manufacturing capacity in Hungary, but keep R and D functions near company headquarters. In the next part dealing with the regional-dimension of the FDI and the transformation process, we present more details on the lack of interests of the Multinationals Companies towards the use of the Hungarian R and D potential. However, two large companies, AUDI and Knorr Bremse in car industry, General Electric in lighting industry and Nokia in telecom etc. have recently announced plans to move R and D facilities to Hungary, to be closer to their factories here. (The other good news related to the revival of IKARUS, the well-known bus manufacturer, which almost disappeared following the collapse of the COMECON market. During its restructuring process - among other things - an American-Hungarian joint-venture of IKARUS, „NABI" was established in 1993, represents a text-book example how to combine Western management methods and financing. As the founder of joint-venture („NABI") - an enterprising Hungarian emigré -noticed: „Originally, our advantage was cost ... our other big advantage is the design team.", (Green, 1998.b.: 11) This mean the foreign investors are discovering not only the advantages of the cheap and skilled labor force, but also the flexible and innovative engineering skill necessary for

original design in such competitive market as USA.)

The degree to which the CEE countries are able to compete on more favorable terms of long-term trade will depend largely on their ability to be price and qualitative-competitive not just in manufacturing, but also in product and process innovation.

A glance at current capacity utilization illustrates the relatively successful restructuring process of management and organization in the Hungarian machine industry. See table 6 on the next page.

Table 6 Current capacity utilization

Capacity utilization	Czech Republic	Hungary	Poland	Slovakia
0 - 10 %	-	-	-	-
11 - 20 %	-	3 %	-	-
21 - 30 %	-	-	-	-
31 - 40 %	3.7 %	3.0 %	3.0 %	-
41 - 50 %	14.8 %	8.8 %	13.3 %	-
51 - 60 %	14.8 %	-	20.0 %	16.7 %
61 - 70 %	14.8 %	14.7 %	16.7 %	27.8 %
71 - 80 %	22.2 %	14.7 %	33.3 %	27.8 %
81 - 90 %	18.5 %	20.6 %	13.3 %	11.1 %
91 - 100 %	11.1 %	35.3 %	-	16.7 %
Average	73.1 %	81.6 %	68.5 %	71.5 %

Source: The Hokkaido Project, 1996.

With an *average utilization rate of 81.6 per cent, Hungary falls comfortable within OECD averages, and provides added proof that in the machine industry sector, the depth of the crisis have already been reached.* Of special note is the fact that fully 35.3 per cent of firms are operating at 91 - 100 per cent capacity, and a majority of firms (55.9 per cent) are operating above 81 per cent of capacity.

Using the international comparison of the countrys` competitiveness, among the 46 countries, in 1998 Hungary produced the most striking improvement. His position improved by 8 places and is represents the 28th country, following Spain and Portugal. Hungary is participating in the international evaluation procedure from 1994. In 1994 and 1995 the country had 41 position, in 1996: 39 position, in 1997: 36 position. According to the evaluation, in the last five years Hungary improved the efficiency/quality in the field of government, infrastructure and financial services. The other fields of positive changes are the following: participation in the international trade, quality of company management, enterprising ability and scientific/technological development. Among Poland, Czech Republic and Russia, Hungary received the

best evaluation on the indicator of countrys` competitiveness. (HVG, 1998:33.)

2.1 Privatization in Hungary: Creating Real Owners and Managers

Almost a decade past since the collapse of the state-socialist political-economic regime, but until now we have rather few firm or meso-level empirical studies on the impact of privatization and the transformation of the managerial labor process. According to the lessons learned from the previous section, the ownership (either state or private) matters not in itself but in the forms of investment in new technology and introducing new managerial concepts and methods (e.g. world leading management practice).

Fortunately, recently several studies have been carried out on the changing governance and organization structure in both post-privatized or newly created private firms in the post-socialist countries. (Child-Markóczy, 1993., Simon-Davies, 1996., Child-Czeglédy, 1996., Adorján-Balaton-Galgóczi-Makó-Ternovszky, 1996, Whitley-Czabán, 1998., Tóth, I. 1998.) These interesting studies have no primarily ambition to compare the development of management and business organization at sector level among the CEE countries.

The other wave of studies, dominating the scene of social debate in Hungary are dealing with management as a distinctive social-occupational group and its role in the emerging new political-economic elite. In the center of this interest, among other things, is the degree of autonomy practiced by the new owner vis-á-vis the management. One school of thought, most commonly associated with the University of California`s Iván Szelényi, holds that firm-internal transformational processes are slowed (or at least not promoted) by top and middle-level managers, who maintain control over the everyday workings of the firm and who still operate, to some degree, according to non-market and often clanistic incentives (or regulation) which previously existed. (Szelényi, 1996.) In contrast, University of Celumbia`s David Stark has found that given the proper conditions, owners, not manager, hold the upper hand and they are indeed willing and capable of intervention to protect their own interest. (Stark, 1996.)

In the earlier section presented data of the `Hokkaido Project`, carried out at the beginning of 1966 in effect mirror not only this debate but inform us also on the uneven development of the relations between owners and managers as well as of the managerial learning process. (Yamamura-Ishikawa-Makó-Ellingstad, 1996.) First, by examining the relative decision making power of top mangers compared to the owners, we see that *owners are more powerful exactly where we expect: the appointment of managing director, capital investment and profit distribution.*

However, in questions of reorganization, the overwhelming balance of

power falls to top management, which is, after all, chosen by owners. The rather large gulf in the reorganization category does suggest that management enjoys considerable flexibility in pursuing ownership`s strategic goals, as expressed through capital investment and the appointment of the managing director.

An interesting contribution to the debate over the efficiency of coupon privatization can be observed with the results that show the Czech Republic, on average, as having the lowest gulf in influence distribution between top management and ownership. This seems to suggest that the huge investment funds in the Czech Republic (and to a more limited extent, Slovakia) take a more active role in management than has previously been ascribed to them. Poland, having the largest proportion of state-owned firms - in the machine industry firm`s sample of `Hokkaido-Project ` - predictably shows the largest gap between top mangers and owners.

The differences between top and middle management are significantly larger in the Czech Republic and in Slovakia than in Hungary and Poland, suggesting that indirectly - through the appointment of top managers - Czech and Slovak owners have more influence over the every day operations of the firms surveyed.

2.2 Variety in Forms of Privatization facilitates the Restructuring of Business Organizations

The results of the extensive privatization programs in the CEE region over almost the past decade are evident. According to the World Bank report, the private ownership is dominant both in the share of employment and in GDP in the post-socialist countries of CEE region. (Borish-Noel, 1996.) In the Hungarian case, due to the rapid and strategic privatization, the contribution of the private sector about 75-80 per cent of the gross domestic product (GDP) compared with 10 per cent ten years ago.

In examining the results of privatization at sector level (e.g. machine industry) we may discover noticeable variety in forms of the ownership. For Hungary, only 14.3 per cent of firms sampled are classified as a state-owned joint-stock company (i.e., the stocks are majority-owned by state holding company), with no firms being classified as traditional state owned enterprises (SOE). See table 7!

Table 7 Types and Legal Forms of Enterprise (Sample of machine industrial firms)

Forms of Ownership	Poland	Czech Republic	Slovakia	Hungary
1. State enterprise	26.7 %	3.3 %	4.2 %	0.0 %
2. Former state firm:				
a. State-owned joint-stock co.	36.7 %	3.3 %	12.5 %	14.3 %
b. Privatized joint-stock co.	30.0 %	70.0 %	58.3 %	22.9 %
c. Limited liability co.	6.7 %	3.3 %	0.0 %	20.0 %
3. New private enterprise				
a. Joint stock co.	0.0 %	3.3 %	4.2 %	2.9 %
c. Limited liability co.	0.0 %	3.3 %	0.0 %	0.0 %
4. Joint-ventures	0.0 %	3.3 %	8.3 %	20.0 %
Other	0.0 %	10.0 %	8.3 %	20.0 %
No answer	0.0 %	0.0 %	4.2 %	0.0 %

Source: The Hokkaido Project, 1996.

A rather small percentage - 2.9 per cent in the case of Hungary - of firms are newly created `green-field` sites. Green-field sites, which have attracted increasing attention as the CEE countries become an increasingly attractive location for exporting into the EU, are likely underrepresented precisely because they are new in the period of our survey. (Note: in the next section of this paper we shall present the results of a regional project (REGIS: Regional Innovation System) carried out in a region where `green-field sites` have higher concentration rate than the national.)

In relation to the privatization process it is worth mentioning the variety of approaches adopted by the former socialist countries. As one foreign observer noticed; „After initially utilizing `spontaneous` privatization, *Hungary has used the so-called `strategic` privatization method, whereby the willingness and capacity to invest in the privatized company is often given as much weight as the actual bid price.* This approach tend to favor larger (mainly foreign) investors as opposed, for example, Czech coupon privatization, which concentrates control in the hands of banks and investment funds often via domestic investors. As such post-privatized companies in Hungary generally offer a more visible contrast to their predecessors than for instance in the Czech Republic, where the picture is more blurry because of slower, more convulated changes in management structure." (Ellingstad, 1996: 48) According to the opinion of a well-known Hungarian FDI expert, the „...it is widely known that due to the positive professional expectation in relation with the foreign investments, the Hungarian government rejected the coupon based privatization and instead created an environment favorable for the strategic foreign investors." (Akar, 1997: 1008.)

It is not surprising, therefore, that Kornai analysis on the economic restructuring process in the CEE countries and Russia explains the impressive labor productivity development in Hungary - among other factors (i.e., sever budget constraints, no more `unemployment` within factory gate) - by the

positive impact of privatization schemes which did create `real owners` pushing managers to initiate and carry out deep restructuring in their firms and are creating strong profit motivation within management. See Table 8!

Table 8 Labor Productivity in the `Visegrad countries`

Country	Average Labor Productivity (Real GDP/employment; 1989=1)					
	1989	1990	1991	1992	1993	1994
Poland	1.00	0.92	0.91	0.98	1.00	1.07
Czech Republic	1.00	0.97	0.88	0.89	0.88	0.91
Slovakia	1.00	0.98	0.95	0.93	0.92	0.96
Hungary	1.00	0.98	0.92	1.05	1.11	1.16

Source: Kornai, J. (1996) `Kiigazítás recesszió nélkül', *Közgazdasági Szemle,* XLIII. Évf. július-augusztus, p. 609.

Explaining the better productivity figures in Hungary, it is necessary to emphasis the `core roles` of the `green-field` sites of multinational corporations (MNCs) established by the large FDI inflow into the country. It is necessary to add to the Korna`s explanation of labor productivity increase that the *new manufacturing sites speed-up the introduction of both new technologies and `leading-edge` managerial methods and practices in Hungary.* Such well-known high-precision manufacturing firms as GM, Audi, Ford, IBM, Matsushita, Philips, Sony etc., were attracted to Hungarian location - and also in the other `Visegrad countries` - not merely by low-wages but the combination of low-wage rate and a relatively highly skilled work-force together with the relatively developed infrastructure and other advantages (i.e., tax holiday, etc.). In the globalized manufacturing environment today, quality, flexibility of work-force and market opportunities are at least as important as low-wages. However, it is necessary to stress the strong role of wage competition among the former socialist-countries. For example, in the special new year number of `Economist` dealing with the next year tendency in 1997, we could read about the signs that western companies already have discovered that the Ukrainian labor at a cost of USD 40 a month irresistibly attractive compared with Czech at 400 USD - in comparison with German at USD 4.000 a month in the clothing industry sector. (Lacas, 1996:42.)

In the weak labor market context in Hungary, MNCs or foreign owned firms in general pay 20 - 30 per cent above average wages to the blue-collar workers to keep skilled employees. In the case of professionals and managers the gap between the Hungarian and Western European is much more moderate.

Summing up, the Hungarian machine industry firms are in a slightly better position than other `Visegrad countries` in transformation process, because of their *wider opportunities to learn in the former socialist past. Plus, the strategic privatization, and the greater diversity of ownership structure*

increased the opportunities to acquire new managerial and organizational methods and practices.

It is necessary te note, that the role of foreign-owned firms in Hungary much more important in comparison not only with Czech Republic, Slovakia and Slovenia but also with Austria. For instance, in the Hungarian manufacturing sector 36.1 per cent of work-force is employed by forelgn-owned companies, the same indicator in the case of Austria is 32.9 per cent and in the Czech Republic only 13.1 per cent. In Hungary, 50 per cent of industrial output is produced by the subsidiaries of the foreign companies. (Népszabadság, 1998.b.: 14.)

2.3. Firm-level Patterns of Social Relationships between Unions and Management

The labour relations component offer some very interesting findings, with numerous consequences both for Human Resource Management (HRM) and the labour market as a whole. Given Poland`s recent history of comparatively higher strike rates (Makó-Simonyi, 1997.), it should come as no surprise that Poland`s composite labour score is significantly above the other `Visegrad countries`. If we try to compare the patterns of firm-level relationships between management and trade unions, the differences are visible. See the Table 9.

Table 9 Patterns of Relationships between trade unions and management

Countries	"Mutual under-standing and cooperating"	"Mainly cooperating, but sometimes opposing"	"Mainly opposing, but sometimes cooperating"	"Opposing and conflicting"	"Difficult do answer"
Czech Republic (n=35)	13 %	53 %	28 %	3 %	3 %
Slovakia (n=35)	4 %	73 %	19 %	4 %	0.0 %
Hungary (37)	50 %	44 %	3 %	0.0 %	3.0 %
Poland (n=119)					
a. Solidarnosc (n=98)	14.3 %	38.1 %	19.0 %	28.6 %	0.0 %
b. OPZZ (n=21)	16.7 %	50.0 %	22.2 %	11.1 %	0.0 %

Source: Ishikawa, A. (1998) `Organization and Activity of Trade Union in Central and Eastern Europe`, Slavic Research Center, Hokkaido University, March, Sapporo, *Occasional Papers on Changes in the Slavic-Eurasian World,* No. 65. p. 22-23..

Kasahara, K. (1998) `Introduction of Market Economy and Industrial Relations in Poland`, Slavic Research Center, Hokkaido University, March, Sapporo, *Occasional Papers on Changes in the Slavic-Eurasian World,* No. 64., p. 59.

Hungary represents on extreme, where the „mutual understanding and cooperation" characterize the firm-level relationships between trade unions an management. Poland located the other-extreme of the scale of pattern of social relations, where the „opposing and conflicting" interests - especially in the case of „Solidarnosc" trade union - dominate the union and management relationship. Czech Republic and Slovakia have a middle position between Hungary and Poland on the scale of cooperation-conflict between union and management. An interesting comparison can be made between Hungary and Poland. Poland history of strikes and relatively confrontational union-management relations - at a time of historical labour weakness - might support the conclusion that in the longer-term, when the period of transition passes and labour markets are presumably tighter, patterns of industrial relations will likely be spicier in Poland than elsewhere in the CEE region.

Table 10 Bottom-up Communication Channel on Wage-Related Issues

Channels of communication	Poland	Czech Republic	Slovakia	Hungary
Via trade union	77.6 %	46.7 %	47.8	28.6
Via Works Council (+)	0.0 %	0.0 %	0.0 %	28.6 %
Via foreman or shop-floor chiefs	23.3 %	30.0 %	30.4 %	5.7 %
Via unofficial leaders	0.0 %	0.0 %	0.0 %	14.3 %
Directly or individually by workers	0.0 %	20.0 %	13.0 %	11.4 %
Other	0.0 %	3.3 %	8.7 %	11.4 %

Note: Among the `Visegrad countries`, only the Hungarian Industrial Relations has the institution of Works Council for the employee participation.
Source: The Hokkaido Project, 1996.

The above presented Table shows how Poland reflects its history of trade union activism compared to the more indirect and subtle labor relations system which have arisen in the other `Visegrad countries`, especially in Hungary. In this country, the examination of the bottom-up communication channels, and the significant role of `informality` in the social relations of the firm.

The `co-operative` pattern of union-management relations and the pluralistic communication channels are functioning as facilitators of organizational changes and new practices of human resources utilization in the Hungarian firms in comparison to other post-socialist companies in the CEE region. (2)

3. Role of Strong Region in Re-Organizing Economic Activities. The Case of „Székesfehérvár Region"

The core interest of the EU supported „Regional Innovation System" (REGIS) Project was to identify the existence or lack of existence of the regional innovation system in eleven European regions. (3)

In this section we intend to present the results of the Hungarian survey connected to the role of FDI. The firm level interviews were conducted at 75 firms in the Székesfehérvár region, using standardized questionnaire elaborated and accepted by the all REGIS Project participants. The categories for the data analysis were selected on the basis of ownership structure (private ownership, joint-private/state ownership, and state-ownership), on the basis of firm age (green-field sites and brown-field sites), and on the basis of nationality of ownership (domestically owned and foreign owned firms). The Table 11 illustrates the break-down of the categories which will be used for comparison.

Table 11 Categories utilized for Comparison

Hungarian Firms	% of total	% in Hungarian category	N=
Privately owned	41.3	63.3	31
Private/State ownership	10.7	16.3	8
State owned	12.0	18.3	9
Green-field site	12.7	19.1	9
Brown-field site	53.5	80.9	38
Total	64.5		49
Foreign Firms	% of total	% in Foreign category	
Green-field site	28.2	83.0	20
Brown-field site	5.6	16.7	4
Total	35.5		26

Source: Makó-Ellingstad-Kuczi, T. 1997: 2.

For the purpose of this paper, foreign firms are considered those being in majority foreign ownership. Green-field sites are considered those which did not exist in 1990. (Please not that for the Foreign-Brownfield site category the sample is so small as to provide only a very limited usefulness in statistical analysis, and therefore, we shall be concentrating on results from this category. Missing data prevented the proper green-field versus brow-field sites categorization of two Hungarian firms, as well as two foreign-owned firms. The results from these firms will be examined only in the broader national categories)

The sample is representative of the Székesfehérvár region, where the vast majority of FDI has been directed not on privatization projects (acquisition of the former state owned companies) but on green-field manufacturing sites. The region - which once gave locations for such „flagship" socialist firms as Videoton in computer and consumer electronics, Ikarus the bus manufacturer etc. - has well-trained, inexpensive work-force, a relatively well-developed infrastructure,

and a variety of local and national investment incentives (e.g. including 5 and 10 years tax holiday on profits, no local taxes for five years etc.) have attracted such leading-edge firms as Ford, IBM, Phillips, etc., which tend to concentrate their local activities on assembly line operations. (Note: ten years later, these very generous local incentives for foreign-owned firms did create new type of conflicts between the subsidiaries of MNCs and the local governments. The current disputes have centered on the calculation bases of the local taxes.) (Tóth, 1998: 30.)

3.1. Strengths and Challenges of the Firms Operating in the Region

The firms surveyed were relatively optimistic and gave themselves high marks concerned their advantages over the competitors. *Quality* (91.7 per cent), *timely delivery* (89.6 percent), and *price* (87.5 per cent) were listed as the top three advantages by *Hungarian firms,* with state-owned firms giving themselves generally lower scores. Hungarian firms also rated those three factors as the most important, with *user-friendliness, ecological environment* and *after sales services* being judged the least important.

Foreign-owned firms top-listed advantages were *quality* (96.3 per cent), *after sales service* (85.2 per cent), and *technical standard/innovation* (81.5 per cent). These firms rated quality, technical standards and after sales service as the most important factors, with *user friendliness* and *an ecological environment* being judged the least important.

When asked how their firms sustain competitive advantage, *noticeable differences were noted between Hungarian and foreign-owned firms on issues relating to innovation.* Internal *research and development* activities were given as a reason for competitive advantages by 62.5 per cent at foreign-owned firms, compared to only 45.8 per cent at Hungarian-owned firms. Similarly, *patent-ownership* was given as a reason 62.5 per cent versus only 35.4 per cent. As shall be discussed in more detail later, these differences can not be solely accounted for on the basis of on-site research and development, but rather, company-wide research and development. Larger, international corporations (MNCs) are able to garner more advantageous economies of scale in research and development than smaller domestic companies, and this phenomena is by no means limited to Hungary. (Cooke, 1998.)

Therefore, for smaller, domestic firms *collaborative research undertakings* may be especially important as a way to lower initial costs and share risks. In this respect, however, perhaps surprisingly given an intuitively greater need, *Hungarian-owned companies seem less active than their foreign-owned counterparts.* The latter category reports stronger scores not only in co-operation with EU institutions (50.0 per cent to 29.9 per cent), but also in

national (62.5 per cent to 55.3 per cent) and regional (54.2 per cent to 43.8 per cent) co-operative ventures. Hungarian-owned companies also rate co-operative agreements, generically and in the region, national and international contexts, as less important than do foreign-owned companies.

Managers were also asked what challenges they see their firm facing. Responses reveal that *foreign-owned firms slightly more pro-active*, especially in regards to *improving product quality, cutting personnel costs and product development.* Averages the scores for all possible challenges, foreign-owned firms responded in the affirmative 86.3 per cent, compared to 76.7 per cent for Hungarian firms. The smaller, newer Hungarian enterprises scored especially low on these questions. The follow up query, *„Does your company respond to the following challenges?"*, sheds further light on these Hungarian `green-field` business, which returned the lowest scores of all categories in half of the responses listed. Of particular importance is the fact that *only 33.3 per cent of Hungarian `green-field` sites plan any sort of product development* (compared to a Hungarian average of 55.1 per cent and a foreign-owned average 75 per cent*), and only 22.2 per cent plan a R and D co-operation with other firms* (again, it is exactly the smaller firms which stand the most to gain from such ventures). Here also, forelgn-owned firms reported higher scores (on average 50.0 per cent versus 40.8 percent), with particularly wide gaps being observed in responses such as increased outsourcing and product development. *Of note is the fact that more Hungarian firms (61.2 per cent) plan to intensify internal R and D, compared to the foreign-owned firms (54.2 per cent).* See Table 12.

Table 12 Company`s Responses to the Challenges

Hungarian firms	Cutting cost	Org. Restructuring	Speeding up prod.dev.	Intens. internal R and D	Outsourcing	Subcontracting	Marketing co-peration	R and cooper.
Privately owned	93.5 %	74.2 %	54.8 %	61.3 %	25.8 %	38.7 %	61.3 %	35.5 %
Private/ State ownership	87.5 %	87.5 %	50.0 %	62.5 %	37.5 %	12.5 %	75.0 %	37.5 %
State owned	100.0 %	88.9 %	55.6 %	55.6 %	55.6 %	33.3 %	55.6 %	55.6 %
Green-field site	100.0 %	66.7 %	33.3 %	66.7 %	22.2 %	22.2 %	44.4 %	22.2 %
Brown-field site	92.5 %	82.5 %	60.0 %	60.0 %	37.5 %	37.5 %	67.5 %	45.0 %
Total	93.9 %	79.6 %	55.1 %	61.2 %	34.7 %	34.7 %	63.3 %	40.8 %
Foreign firms								
Green-field site	100.0 %	84.2 %	73.7 %	57.9 %	52.6 %	42.1 %	52.6 %	52.6 %
Brown-field site	100.0 %	75.0 %	75.0 %	25.0 %	25.0 %	0.0 %	25.0 %	25.0 %
Total	100.0 %	83.3 %	75.0 %	54.2 %	50.0 %	37.5 %	50.0 %	50.0 %

Source: Makó-Ellingstad-Kuczi, 1997:12.

It is worth noting, that the relatively *heavier reliance of foreign-owned firms on outsourcing,* one should keep in mind that this is an example of a practice which often makes more sense in the matured market economies than it does in the emerging market economies in the CEE. It originally arose in high wage countries as a result of significant wage gaps between core production workers and peripheral support staff. By outsourcing non-essential support functions, firms could save money and utilize more flexibility. However, in Hungary and other CEE countries, there are no significant wage differences to be found between direct and indirect production personnel (wages are generally uniformly low), and therefore, savings possibilities are lessened. The main reason for the reliance on outsourcing in Hungary has to do with flexibility.

3.2. Research/Development and Firms` Innovation Profiles

Questions regarding firms` individual and collaborative research and innovation efforts also reveal sizable rifts between Hungarian and foreign-owned companies. The biggest difference noted is not in absolute R and D expenditures, but rather in R and D expenditures as a proportion of turnover. Here, foreign-owned firms spent on average 0.21 per cent, compared to 2.06 per cent for Hungarian firms. It must be noted that all these figures are very small in the international context. (See Table 13!)

Table 13 Research and Development Profiles

Hungarian Firms	R and D expend. In 1990 (in 1000 ECU)	R and D expend. 1995 (in 1000 ECU)	%	R and D as 1995 turnover	R and D staff, 1995	% of total staff	Planning to expand R and D
Privately owned	22.9	36.7	160	2.48 %	1.59	7.55	33.3 %
Private/State ownership	5.0	0.71	14.3	0.14 %	0.14	0.01	14.3 %
State owned	46.8	80.0	171	1.33 %	12.57	0.87	28.6 %
Green-field site	--	0.0	--	0.00 %	0.25	1.76	25.0 %
Brown-field site	20.43	53.95	181	2.50 %	5.78	6.00 %	30.6 %
Total	29.43	38.95	132	2.06	3.14	5.06	29.5 %
Foreign Firms							
Green-field site	--	6.25	--	0.24	2.00	0.43	15.8 %
Brown-field site	133.3	42.67	32.0	0.09	--	--	25.5 %
Total	133.3	38.95	29.2	0.21	3.30	0.56	20.0 %

Source: Makó-Ellingstad-Kuczi, 1997: 16.

Of special interest to us is the *very marked lack of R and D profile for green-field firms. Hungarian green-field firms in absolute and relative terms, and foreign green-field firms in relative terms. Hungarian green-field firms reported spending nothing on research efforts in 1995.* This may have to do with the service-oriented nature of these businesses, as well as not properly associating more mundane product development efforts as R and D. Informal R and D efforts may also escape notice in this category as well. As for foreign-owned green-field sites, it is particularly important for Hungary future development that they begin to take on a more active R and D profile, for the simple fact that they are now by far the fastest growing sector of the national economy, accounting for some 70 per cent of manufactured exports. If Hungary and other CEE economies are to move up the product ladder, they must be active not only in assembly and production, but also in research and design.

One reason for Hungary`s very low R and D profile is simply the general contraction which has taken place in the economy since the collapse of the state-socialist political-economic regime, with the myriad of effects this has had on firms reliant on domestic market. All too often, in Hungary and as in most other countries, „luxuries" such as R and D spending are the first to be sacrificed when companies are faced with tough times. *Generally, foreign firms which have set up manufacturing operations in Hungary and other post-socialist countries of CEE are interested not in the capacities of Hungarian scientists and engineers, but rather, in the generally inexpensive across-the-board labour costs. This is perfectly understandable, as they have possess the sufficient intellectual capital to produce and market successfully*

As mentioned previously, there are temporal considerations at play here, too, however. Foreign managers who originally came with the sole intention of assembling products have slowly begun to notice that not only are Hungarian workers very capable of more flexible and dillgent performance than workers in the home country (such observations, for example, have been made by Audi, NOKIA, General Electric, etc.) but also there is a great deal of untapped intellectual capital. Thus, we see the first sings (for companies such as Audi, GE and Nokia) of foreign companies moving their research facilities to be closer to their production facilities.

When company managers were asked how they become aware of innovations, no great differences were noted by ownership categories, with the expectation of a relatively greater reliance of state-owned firms on more traditional institutions such as universities and higher education institutes. Generally, however, these institutions - technology transfer agencies - received very low scores.

Of particular note is that fact that *Hungarian green-field firms* - which we can consider small and medium sized firms, SMEs - *have particularly weak*

innovation network links. This category of firms used the various innovation sources 43.2 per cent on average, compared to a Hungarian average of 55.8 per cent and a foreign-owned average of 56.0 per cent.

When queried as to main partners in the product or process innovation, managers` responses yielded some very interesting responses. Again, looking at Hungarian green-fields characterised by the absence of formalised institutions (contract research agencies, universities, subsidy providers, government agencies) in any innovation role. (We must surmise that to the extent programmes designed to aid Hungarian small and medium sized business development are available (generally, they are just now beginning operations, often with various EU programme funds), Hungarian SMEs seem unaware, or are unwilling to participate.

In contrast to Hungarian SMEs, *state-owned firms* appear to be the most *connected to traditional co-operative efforts, especially in conjunction with government-sponsored efforts.* The vast majority of *both Hungarian and foreign-owned companies claim that the major source of product/process innovations are customers and suppliers.* This serves to underscore the point to why it is so important for Hungarian firms to become a more active part of the component supply networks of the more technologically advanced foreign-owned firms operating in Hungary. Without such relationships, technology and management knowledge and organisation transfer is an indirect, convoluted, and often non-existent process.

Dramatic differences are noticed as to the location of main customers, suppliers and consultants between Hungarian and foreign-owned firms. See in detail Table 14!

Table 14 Location of Firms` Customers, Suppliers and Consultants

Location of the main partner	Hungarian-owned firms	Foreign-owned firms
Customer - Region	80.0 %	52.2 %
Customer - Nation	75.6 %	65.2 %
Customer - EU	37.8 %	73.9 %
Customer - Rest of World	22.2 %	26.1 %
Suppliers - Region	64.4 %	34.8 %
Suppliers - Nation	68.9 %	39.1 %
Suppliers - EU	44.4 %	73.9 %
Suppliers - Rest of World	24.4 %	21.7 %
Consultants - Region	22.2 %	13.0 %
Consultants - Nation	37.8 %	39.1 %
Consultants - EU	13.3 %	69.6 %
Consultants - Rest of world	2.2 %	34.8 %

Source: Makó-Ellingstad-Kuczi, 1997: 19.

On average, customers were located in the region and nation for a combined total of 155.6 per cent for Hungarian firms, compared to combined total of 117.2 per cent for foreign-owned firms. *Differences are even more striking when looking at the arguably more important location of suppliers; here Hungarian firms rated a regional/national combined total of 133.3 per cent, compared to a mere 73.9 per cent for foreign-owned firms.* Concurrently, foreign-owned firms rely on foreign partners for main customers and suppliers much heavier than Hungarian firms. *Differences in the consultants category, where foreign-owned firms rely overwhelmingly on foreign-consultants (104.4 per cent to 15.5 per cent for Hungarian firms*), can be ascribed to both the more expensive nature of international consultancies, as well as company-wide relations built up with a given set of international consultant firm networks.

3.3. Region as an Economic Player in the Transformation Process

The great majority of firms - both Hungarian and foreign owned companies - surveyed in the „Székesfehérvár-region" (86.7 per cent) expressed such a view that the regional industrial culture plays positive role in the firm-level innovation process. This extremely favorable opinion on the innovation friendly regional industrial culture of the firms partly contradicts the opinions of the key institutional players in the regional innovation system. According to the latter view, the innovation supporting culture and regional innovation policy have marginal importance. The evidences learned from the REGIS Project supports the opinion of the regional institutional players. Especially clusters and official networks (which have been seen as strong factors in some other regions participating in the REGIS Project like in Baden-Wurtenberg, Basque country and Wales) have negligible effects in this region. It is not by chance, that beside the lack a natural resource - which is a geographical characteristic about which not much can be done - another weakness is the lack or low density of institutions which could be function as innovation supporters. The other disadvantageous feature of the region surveyed was the lack of trust relations among the economic actors.

As concerning the advantages or innovation potential of the region investigated, it is necessary to mention the large pool of firms with well developed production methods, as well as high quality of human resources - including both blue collar and professional (managerial) groups. The rich reserve of highly skilled and flexible workforce is a „common product" of the long-industrial tradition of the „Székesfehérvár region" and the co-presence of the newly founded SMEs and MNCs. For example, the presence of such global economic players as IBM, Ford, Alcoa, Phillips etc. could serve as a potential „integrating factor" between the firms of the region/nation and the international economy. (In the next section we focus our attention on the fundamentals of this

integration function or using another term, on the multiplier effects of the presence of foreign companies.)

Evaluating advantages and disadvantages of the regional economy from the point of view of the firms` innovation process, the key lessons are the followings. The regional „physical capital" (i.e. development of transportation and communication infrastructure) ranks behind the quality of available work-force and the presence (or pool) of firms having developed production methods. In this respect, it is interesting to compare the results of the „Székesfehérvár-region" study with another regional economy study aimed at to understand the complex role of the region in the transformation process.

Recently, several case studies were have focused on the transformation process in the „Berlin-Brandenburg region" in the unified Germany. In case studies, roughly similar regional characteristics - as were used in the Hungarian REGIS Project - were evaluated by the firms operating in this region.(4)

The key results on the attractiveness of „public goods" in the „Berlin-Brandenburg" region are summarized in the Table 15.

Table 15 Regional Factors Playing Role in the Economic Success of the Firm
(Subsidiaries of West German Firms in Berlin-Brandenburg Region)

Regional characteristics	Evaluation of Regional Characteristics by Firms
1.Availability of a highly qualified workforce	D1 (++), D2(++), D3(++), D4(++), D5(++), D6(++), D7(++), D8(++) (*)
2.Availability of cheap workforce (**)	..... D7(+), D8(+), D9(+)
3.Proximity to the most important customers	D1(++), D2(++), D3(++) .... D6(+), (***), D7(++), D8(+) (***)
4.Proximity to the most important input suppliers	D1(++), D2(++) .....D8(+)
5. Proximity to the most important suppliers of services relevant to the company	D1(++), ... D3(++), ... D5(+) (****) ... D7(+), D8(++), D9(+)
6.Proximity to research institutions	.....D5(++)
7.A competent local government	D1(++), (*****), D2(+), ... D4(++), D5(++) (******), D7(++), (*******), D8(+).
8.A relatively well developed infrastructure in the region	... D2(+), D3(++), D4(++), ... D6(++), D7(+), D8(++), D9(++).

Notes: (*) ++: very important, +: important, not listing: unimportant

(**) The personnel managers of companies D1 and D3 see stable and high wages ass an important incentive increasing productivity. Hence, he does not think that paying the lowest wags possible is desirable. Company D2 has made bad experiences with cheap labor.

(***) "Contacts are more important than geographical proximity."

(****) Here the manager in charge of procurement mentioned the proximity of service suppliers which had been separated out of the original Kombinat and are independent companies now.
(*****) "This would be highly desirable ... but there is no solidarity with East German products. The West German lobbies have more power in East German local government, than the lobbies representing local industry have." The Prokurist in company D2 has similar opinion when he states that in practice the company receives no support from the local government.
(******) Company D5 describes its relationship with the local government as good since it is one of the biggest employers in that quarter of Berlin and are thus in regular contact with the authorities.
(*******) The Senate is the main customer of company D7, thus its competence is very important to this company. A manager in company D9 however stated: „If this was of any importance at all to our success, than we would have long left Brandenburg."

Source: Enese Lieb-Dóczy (1997) *Acquisition and the Transformation Process*, (A comparative Case Studies: from Eastern Germany and Hungary), Warwick: Department of Economics - University of Warwick, (Unpublished Ph.D. Dissertation), p. 33.

Data from the Table 13 indicate the similar tendency identified by the RGIS Project carried out in the „Székesfehérvár region" in Hungary. For instance, the existence of the well developed infrastructure as a key source for the local economic regeneration is the mainstream view among the regional developers and FDI experts in the country. Not downplaying the important role of the physical capital (e.g. transportation, communication etc.) in the regional economic development, it is worth to note that the „relatively well developed infrastructure" in the region as an attractive factor for the FDI ranks behind the availability of a „highly qualified workforce". The „competent local government" takes the third place among the regional characteristics to the economic success of the firms. What makes the post-socialist countries of *CEE region attractive to foreign investors is not only the cheap labor but rather the combination of cheaper but more significantly highly trained and flexible workforce:* „ ... regional `physical capital` ranks so far behind the importance of regional human capital`." (Enese Lieb-Dóczy, 1997: 14-15.) In relation with the importance of the `regional human capital` compared with the `physical one`, it is necessary to mention that, *if the present competitive advantage based mainly on cheaper labor and the related price advantages, this may harm in the long-run economic development of the post-socialist economies of the CEE region*; „ ... it is not likely to be sufficient for sustained long term growth. At best, it can provide the basis for market entry and an opportunity to earn resources that must immediately be invested upgrading the firms` assets and thus the economy`s asset base also." (Smallbone, 1997:2)

Unfortunately, until now, it has been impossible to identify any visible and

comprehensive national and regional economic policy initiatives which may support the sustainable growth, in developing long-term competitive advantages of such strong region as „Székesfehérvár".

3.4. Weak Multiplier Effects of FDI: Input and Output Profiles of the Firms in „Székesfehérvár" region

The product input and output profiles of firms operating in the „Székesfehérvár-region" are important when considering not only individual firm success (dynamic, successful companies tend to have a stronger than average output or export profile), but the shape and intensity of a wide range of existing and emerging regional networks. Firms which utilise the region for only a small portion of their product inputs are unlikely to have a strong interest in helping develop a regionally-based set of institutions which promote inter-firm or public-private co-operation.

One of the strongest, most significant set of differences between ownership nationality categories visible in the REGIS Project survey *has to do with the input/output (or import/export) profiles exhibited.* Managers were asked to give percentage scores for product inputs and output, differentiated by the Székesfehérvár region, Hungary, European Union, and finally, the rest of the world. Foreign-owned firms, especially *foreign-owned green-field sites, report using very few Hungarian inputs* (either components or raw materials) in the production process. On average, foreign-owned firm rely on the region for only 9.3 per cent, and on the nation for only 21.8 per cent of product inputs. Together, this gives a domestic content ratio of 31.1 per cent (only 22.2 percent in the case of green-field sites). By contrast, and not surprisingly, *Hungarian firms demonstrate far heavier reliance on domestic component producers.* Hungarian firms on average rely on the region for 27.8 per cent, and on the nation for 46.4 per cent of product inputs, yielding a domestic content ratio of 74.2 per cent (83.3 per cent in the case of state-owned firms). See Table 16.

Table 16 Product Inputs of the Firms: Székesfehér region

Hungarian Firms	Region	Hungary	EU	Rest of World
Privately owned	25.9 %	44.7 %	16.0 %	6.9 %
Private/State ownership	31.0 %	55.1 %	1.4 %	0.0 %
State owned	33.9 %	49.4 %	14.8 %	1.9 %
Green-field site	30.3 %	29.2 %	13.8 %	4.4 %
Brown-field site	27.2 %	50.3 %	15.1 %	4.9 %
Total	27.8 %	46.4 %	14.8 %	4.8 %
Foreign Firms				

Green-field site	7.1 %	15.1 %	63.5 %	14.5 %
Brown-field site	22.5 %	54.3 %	20.8 %	2.5 %
Total	9.3 %	21.8 %	54.9 %	14.0

Source: Makó-Ellingstad-Kuczi, 1997:7.

In accounting for such large gulfs, one must consider that a great many green-field sites were offered „off-shore" status, which grants duty-free importation of production components. Hungarian firms, and foreign-owned brown-field sites are generally not granted duty-free importation allowances. „Off-shore" status creates a very powerful disincentive te search for regional or national suppfier networks, especially as many of these firms have an already existing European or world-wide supplier network. (When queried as to why domestic content rates are so low, many foreign managers cite the lack of contacts among potential Hungarian firms, as well as quality concerns. According to another study, carried out in the same period as the REGIS Project (1996-1997), out of the quality and flexibility concern, the most unfavourable features of the Hungarian suppliers concerned the `timely delivery` and `reliability`. Akar, 1997:6.)

Such a heavy reliance on imported components does come with a price, however. Logistical concerns having to do with on-time delivery of components (especially when one considers that 41.7 per cent of foreign-firms and 44.4 per cent of foreign-owned green-field companies rely on Just-in-Time inventory control systems) consistently rank as one of the biggest problems facing mangers at foreign-owned green-field sites. (The reliance of the green-field sites on JIT inventory control system especially high (55 per cent) in the automobile sectors` firms in the region surveyed.)

Multiplier effects are notoriously vague and difficult to quantify, but it is obvious that such a heavy reliance on imported components (often those with the highest value-added), makes any such effects in the Székesfehérvár region, and Hungary as a whole, relatively modest. From the perspective of innovation, technological diffusion from high-tech, green-field plants to domestic producers is severely limited by the heavy reliance on imported components or on their own suppliers already operating in Hungary. From the ecological standpoint, such a situation is not without objections, as the distances imported components travel (most often by lorry) are much greater than domestic components.

It must be added, the temporal components associated with FDI flows should also be considered, and even at this early point in time, it is evident that the above-listed characteristics are beginning to change for the better. Networks - whether for supply, research and development, or distribution - do not arise spontaneously. As foreign-owned companies accumulate positive experiences manufacturing in Hungary, it is hoped they will gradually begin to expand local

production beyond low value-added assembly operations. Audi, GE and Nokia, for example, have begun to move some research and development facilities to Hungary to be closer to their production sites, and a number of foreign-owned companies have begun making the first moves towards building a local supplier network. Ford, for instance, is to locate a Central European components buying center in Hungary in the next years, following GM`s lead of opening the same type of facility in Poland.

Perhaps not surprisingly, given the above-listed figures, there is also *a wide gulf in product outputs* (exports), with Hungarian-owned firms relying heavily on the domestic market, and foreign-owned firms (again, green-field firms in particular) being especially active exporters. Hungarian-owned firms export, on average, only 15.6 per cent of output, with state-owned firms being the strongest exporters, while foreign-owned firms export a dramatic 54.5 per cent (61.6 per cent for green-field sites). See Table 17!

Table 17 Product Output of Firms operating in Székesfehérvár Region

Hungarian Firms	Region	Hungary	EU	Rest of World
Privately owned	47.2 %	40.5 %	8.6 %	3.7 %
Private/State ownership	56.8 %	34.0 %	9.3 %	0.0 %
State owned	36.4 %	39.2 %	5.9 %	18.4 %
Green-field site	58.1 %	37.5 %	3.8 %	0.6 %
Brown-field site	43.4 %	38.9 %	11.0 %	6.8 %
Total	45.8 %	38.7 %	9.8 %	5.8 %
Foreign Firms				
Green-field site	15.7 %	22.8 %	49.6 %	12.0 %
Brown-field site	30.0 %	47.3 %	16.3 %	6.5 %
Total	16.7 %	25.0 %	43.7 %	10.8 %

Source:Makó-Ellingstad-Kuczi, 1997:9.

Three observations need to be made about the survey findings regarding patterns of output or export. Firstly, is the overwhelming dominance of the EU as an export target, which while having much to do with geographic proximity and buying power, also is affected by the EU`s trading regime which gives products coming from the CEE countries slightly preferential tariff status (as a result of Association Agreements). To qualify for such preferential tariffs, the products must have a domestic and/or European Union content of over 50 per cent. Many foreign-owned green-field sites (as well as, for example, nearly all automobile manufacturers present in Hungary) qualify for preferential tariffs based on European Union, not domestic content.

Secondly, one notices the marked collapse of any strong alternative

market for Hungarian exporters. Less than ten years ago, the Soviet Union and CMEA trading bloc was the destination of the majority of Hungarian exports. The lapse of the ruble-based trading system, the collapse of buying power of consumers in these countries, as well as the very pronounced political guidance towards western markets has hurt Hungarian producers which relied on the CMEA markets.

Thirdly, and perhaps most importantly, one must be aware of the weakness of the domestic market. Consumer buying power and real wages have dropped sharply since 1989 (with a 15 per cent drop in real earning registered in the middle of 1990`s), which has hurt Hungarian companies, which by size and tradition tend to be domestically focused, much more than foreign-owned companies. While sloe improvement in buying power, and a general stabilization of macro-economic indicators - from 1997/98 - will have a positive effect on all sectors of the economy, this will be an especially welcome development for the Hungarian small and medium sized firms (SMEs).

In relation te the composition and locations of suppliers-customers, it is worth noting the following tendencies. When asked if their company is supplying one or a few dominant suppliers, 66.0 per cent of mangers at Hungarian-owned companies replying „yes", as compared with 76.9 per cent at foreign-owned firms (85.0 per cent at foreign-owned green-field sites). The follow-up question, which asked what share of sales goes to the most important customer, reveals 32.4 per cent at Hungarian-owned companies and 56.8 per cent at foreign-owned companies. *The relatively greater dependence of foreign-owned companies on one or a few customers may be at least partially accounted for by the fact that many of the foreign-owned green-field operations are often processors, producers or assemblers for their company`s own world-wide production chain* (i.e., there is a noticeable lack of on-site integrated processes at the foreign-owned green-field plants, as it is part of company-wide vertically-integrated production process.)

Parallel to input/output or import/export profiles are *the locations of primary competitors. Foreign-owned companies viewed the European Union or the rest of the world as the location for a score of 100 per cent, compared to 60 per cent for the region and Hungary.* By contrast, *Hungarian-owned firms* saw gave a combined *external score of 41.7 per cent, and 112.5 per cent for the region and Hungary.* It is apparent that Hungarian and foreign-owned firms have significantly different geographical horizons.

Conclusions

This paper aimed to analyse various dimensions of the inward investments - or Forelgn Direct Investments - in the Hnngarian economy. The focus in our investigation was the firm, which is a key institution in re-organizing

economic activities in the emerging market economies of Central and Eastern Europe. For the better understanding of the extremely complex nature of changing social-organizational relations of the post-socialist firms, sector and region as often neglected variables were selected for the purpose of our investigation. Machine industry - which is often looked as an economic barometer of the national economy - was selected as a sector. Concerning the region, which was the other key variable of our analyses, a region with high concentration of FDI (Székesfehérvár) was selected.

The survey of the firm-level transformation process in the *machine industry sector* revealed the followings. First, the sector or meso-level analysis of the transformation process is more informative than the broad macro-level figures, most casual observers rely on in studying changes in the post-socialist countries. Second, evaluating the firm-level transformation process in the machine industry, we discovered an uneven speed of social and organizational learning process within the so-called `Visegrad-countries`. Third, the uneven development of the firm-level transformation process could be explained partly by the variations in the pre-history and the strategies privatization and partly by the „mono" or „hetero" patterns of Foreign Direct Investments. Combination of strategic privatization and variety in ownership structure and the presence of hetero pattern of FDI (balanced structure of `green-field` and `brown-field` investments) accelerated the organizational and managerial learning process. Fourth, the out of the earlier mentioned characteristics of privatization, the cooperative character of the firm-level labour relations further facilitated - or speeded up - the restructuring process of the Hungarian firms.

Lessons from the survey in the most FDI attracted *region* in Hungary could be summarized in the way. First, the types of ownership of the firms (e.g. Hungarian owned versus foreign owned, green-field versus brown-field sites etc.) are playing a significant filtering role in the competitiveness and innovation capacities of the companies. Second, the multiplier effects normally associated with manufacturing facilities (many of which are high-tech and produce high value-added products) are largely missing from the Hungarian environment. Third, there is a surprisingly large gap between Hungarian owned and foreign-owned firms in the following fields: competitive strength, innovation capacities, customers-suppliers relations and product input/output profiles. Fourth, the Hungarian small and medium sized firms - or the Hungarian green-field plants - show a strong tendency towards technological, product and process stagnation in comparison with the foreign-owned firms. In addition, to spending almost nothing on R and D projects, not one Hungarian green-field plant reporting participation in any kind of technology/innovation/training supporting programs. Fifth, the Hungarian small and medium sized firms have particularly weak innovation networks. Especially, Hungarian `green-field` plants characterized by the absence of formalized partner institutions (e.g. government agency, subsidy providers, university etc.) Finally, according to the experiences of the regional

survey, major source of innovation (both product and process) are customers and suppliers. This finding underscores the point why it is so important for Hungarian firms to become a more active part of the component supply networks of the technelogically advanced foreign-owned firms operating in the country.

Summing up the key conclusions from both sector and region centered studies, we would like to stress the following points concerning our findings. Transfer of ownership from state to various types of private one is not sufficient conditions for the restructuring process of economic activities in the post-socialist firms. Beside the variation in markets, available resources etc. the cooperative versus confrontational character of the firm-level labour relations have strong impact on the speed and success of the economic restructuring of companies. For the better understanding of the impacts (e.g. modernization of management, multiplier mechanisms etc.) of inward investments (FDI), it would be advisable in the future to pay more attention on suppliers - customer`s relations both in the sector and the region targeted research projects. Finally, to maintain the present relatively high level of the FDI in Hungary, it would be necessary to create regional level development agencies which could work closely with managers of both foreign-owned and Hungarian-owned firms.(5) The core function of this agency would be to guarantee interface with the relevant local authorities and public utilities to provide suitable infrastructural support.

Notes

(1) The Hokkaido Project was initiated and coordinated by Professor Rihito Yamamura, Hokkaido University, Slavic Research Center, in co-operation with Professor Akihiro Ishikawa, Chuo University, Institute for Social Sciences, Tokyo. The survey was conducted in Spring 1996, at the machine industry sector. The sample includes 35 firms in Hungary, 30 firms in Czech Republic and Poland and 24 firms in Slovakia. The firms surveyed have at least 500 employees. In order to create a statistically representative sample, the firms participating in the Project were located at least three or four different economic zones (regions) (e.g. `strong` and `weak` regions) in each participating countries. In the Hungarian case, the statistically representative sample was designed by a team of statisticians. Structured or focused-interviews were conducted by researchers and graduate students from the Department of Management and Organization, at the Budapest University of Economic Sciences. The Hungarian research (national) team was coordinated by Csaba Makó, scientific advisor at the Institute of Sociology, Hungarian Academy of Sciences and professor at the Department of Management and Organization at the Budapest University of Economic Sciences. Using the same research design and methods, at the spring of 1997, the textile and clothing industry were surveyed by the Hokkaido Project international research team. Unfortunately, concerning the later survey, the Hungarian research team evaluated only the Hungarian data and until yet had no chance to use other countries data.

(2) The rank of `world competitiveness` of the countries (46 countries) is established by the International Management Institute (Lausanne) and World Economic Forum (Davos). The two institutes evaluations are based on the opinions of leading managers of the 4300 large and medium sized firms. In 1998, eight issues representing 259 criterions were evaluated by countries. USA, Singapore and Hong Kong are keeping their leading positions but Japan gradually loosing. For example, Japan was leading in the country competitiveness list for ten years, but presently lost 9 places and located in the 18th position between Sweden and Island. (*Heti Világgazdaság,* 1998. 18.sz., május, p. 33.

(3)The REGIS Project was carried out in 1996-1997 in eleven European Regions: (1). Baden-Würtenberg, (Germany) (2). SE Brabant, (Netherland), (3). Styria, (Austria),(4). Tampere, (Finland), (5). Wales, (U.K.), (6). Wallonia, (Belgium), (7). Basque country, (Spain), (8). Centro, (Portugal), (9). Friuli, (Italy), (10). Székesfehérvár, (Hungary), (11). Lower Silezia, (Poland). In the Western European regions 833 firms, and in the CEE regions (in Hungary and in Poland) 165 firms participated in the survey aimed to study various dimensions of the company and regional-level innovation systems. The REGIS Project was

coordinated by Philip Cooke, Center for Advanced Studies, Cardiff University, UK and the participating institutions and researchers are the followings:

- University of Basque Country - Spain (G. Etxebarria),
- University of Avelro - Portugal (E. de Castro)
- University of Louvain - Belgium (M. Quevit)
- Aniversity of Tampere - Finland (G. Scienstock)
- University of Economics Vienna - Austria (F. Töedtling)
- University of Udine, - Italy (M. Schenkel)
- TNO and Technopolis - Netherland (P. Boekholt)
- University of Warsaw - Poland (A.. Kuklinski)
- Hungarian Academy of Sciences - Hungary (Cs. Makó)

(4) The research on the acquisition and transformation process in the „Berlin-Brandenburg" region is carried out by Enese Lieb-Dóczy, a Ph. D. student from the Department of Economics, University of Warwick. Within the framework of this project, 9 case studies were used to evaluate the relations (interactions) between FDI and the firms' restructuring process. One of the key ambitions of this project was to identify the impact of FDI in the East German subsidiaries of the West German firms on the following fields: a). restructuring economic activities in the firms concerned, b). know-how transfer, c). relations of the subsidiaries with other local and industrial firms.

(5) In attracting inward investment (FDI), Wales region case in UK, could be very instructive for the Hungarian national level, but mostly regional level economic players. The Wales Development Agency (WDA) is working closely with managers of foreign-owned companies. To illustrate the efficiency of the WDA, it is worth to mention the case of SONY - which now has factory in Hungary, too. SONY arrived to the region in 1973 and carried out heavy investment. According to the recent study of the Cardiff University Business School, 20 000 infrastructural jobs are now reliant on SONY. (*The Financial Times* (1998) 'Agency plays key role in making a dream comes true', July 16, p. IV.)

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