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TECHNOLOGICAL INTEGRATION AND GLOBAL MARGINALISATION OF CENTRAL AND EAST EUROPEAN ECONOMIES: THE ROLE OF FDI AND ALLIANCES

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SUMMARY

This paper takes a critical view of the *a priori* arguments in favour of foreign direct investment (FDI) as a factor of economic transition. The key questions are: does a given piece of FDI involve technological integration? And what are the key general conditions of effective technological integration? FDI is in practice only one among a number of possible vehicles of technological integration - alliances and other non-equity forms of business cooperation may be equally effective vehicles. But no one of them is either a necessary or a sufficient condition of technological integration. Lack of empirical research makes it difficult to assess the true content of the relatively high number of alliances involving transition countries that have been forged in recent years. It seems likely, however, that a considerable proportion of the total number has involved a significant technological content. Alliances represent, by definition, voluntary associations of independent corporate identities. Where they have a genuine technological dimension, they should, therefore, reflect a common perception of scope for productivity increases in a way that cannot be assumed for foreign direct investments. That said, it must be recognised that strategic alliances, like foreign direct investments, carry within them a very real danger of marginalisation for the less developed of the partner economies.

1 INTRODUCTION

It is still too early to attempt to give any kind of overall assessment of the impact of foreign direct investment (FDI) on the transition economies of Central and Eastern Europe (CEE) and the former Soviet Union (FSU). General levels of FDI into the region have been modest (see Tables 1 and 2). Perhaps partly for that reason, no clear pattern of correlation between levels of FDI into particular countries and levels of economic performance by country has emerged. Hungary, in particular, stands out as a country with a relatively very high level of FDI and a rather moderate level of economic performance, while in Poland, one of the top-performing transition countries, levels of FDI have only recently started to pick up from relatively low levels . But there is a clear upward trend in FDI in the region as a whole, and it is striking that in Russia, where the perception of 'medium-term political risk' has intensified over the last year or so, FDI doubled between 1994 and 1995 All of this is at least consistent with the *a priori* case that FDI will tend to improve economic performance in the host country, which can be argued on the following grounds:

1 It will increase the aggregate rate of investment.

2 It will generate transfers of 'hard' technology.

3 It will generate transfers of 'soft' managerial technology.

4 It will tend to induce patterns of networking and sub-contracting with other firms in the host country which are conducive to a general increase in levels of technology and productivity.

5 It will generally help the host economy to integrate into the global economy.

Table 1 Total and per capita FDI in selected countries

Estimated inflows for 1995 and estimated stocks end-1995

	Inflow total $USm	per capita $US	Stock total $USm	per capita $US
Czech R	2500	242	5900	571
Hungary	4000	392	12700	1245
Poland*	2500	65	6800	176
Slovakia	140	26	700	131
Slovenia	150	75	1500	754
Bulgaria	130	15	600	71
Romania	310	14	1600	70
Russia	1600	11	5000	34
China	35500	30	131500	110

* Data for Poland include only projects with minimum $US1m capital

Source: Hunya, 1996a, p4.

Table 2 Number of FDI projects (flow)

	1989	1990	1991	1992	1993	1994
Czech R						
Hungary - newly founded			5642	4101	4286	4331
Poland		1216	3151	5335	5157	4570
Slovakia					2318	2064
Slovenia	174	616	491	1490	485	
Bulgaria				817	1097	1021
Romania		1529	6368	12780	8457	13966
Russia			2022	3252	7989	
Ukraine			400	2000	2800	

Source: Hunya, 1996a, p11. For Russia and Ukraine Jermakowicz, 1994, p7.

In this paper we take a sceptical view of these *a priori* propositions. We argue that the effects of FDI, and of the opening-up to trade, on Central and Eastern Europe (CEE) and the former Soviet Union (FSU) are more complex than usually assumed. In particular we question the implicit assumption that post-socialist economies, emerging from an extended period of

isolation, will be able, more or less automatically, to engage in *technological integration* at the global level. By technological integration we understand a process whereby the given economies are assimilated into the dynamic learning patterns of international companies. Technological integration means that the host economies and their constituent firms are not just passive recipients, but rather active adapters and sources of technological knowledge. In the opposite case, where countries are *technologically marginalised*, their constituent firms are not in any significant degree involved in processes of technological accumulation at the international level.

What are the conditions for effective technological integration through FDI? First, FDI effects technology transfer to the extent that countries have developed indigenous technological capabilities (ITC). The critical factor in the success of particular major pieces of FDI, or the sub-contracting ramifications thereof, is always the domestic environment in the host economy (Bell, 1996). Chain-reaction technological upgrading consequent on FDI will only occur if domestic firms are prepared to make the effort to raise their game. Effective assimilation of major elements of foreign technology is crucially dependent on the existence of congenial market structures in host countries. It is for that reason that FDI-led growth is very rare, and that FDI pulled along by indigenously generated growth is much more common.[1]

Second, the structure and pattern of FDI inflows are the result of a complex interaction between the corporate strategies of domestic and foreign companies, as moulded through government policies. It is for that reason that it is difficult to explain the huge variations in FDI inflow between the FSU and CEE countries, and indeed between individual CEE countries, purely on the basis of factor endowment differences. Put another way, international firms will undertake far-reaching investments in developing or transition countries only where they believe they can impose their 'soft' management technology comprehensively, so that they

[1]FDI moves into branches that have domestic or regional markets with relative stability or growth potential. They do not move into collapsing branches with shrinking markets. As Hunya (1996b, p24) puts it: 'Once market access is consolidated there remains little interest to make further investments if the targeted market is not growing'.

can keep control of productivity, and where they believe the local environment will support them in that task. If these conditions are not met, there will simply be no basis for the kind of FDI that can produce technological integration.

Third, technological integration can only take place if the general pattern of globalisation reaches beyond a certain critical level. Standard liberalisation packages tend to integrate transition economies very strongly at the level of 'shallow integration' (trade and finance), but do not necessarily integrate them at the level of production networks, let alone at that of technological networks ('deep integration'). *In practice, there can be no technological integration without deep integration at the level of production networks.*

There is every reason, therefore, to be sceptical of any assertion that FDI is a sufficient condition of technological integration. There is, furthermore, plenty of evidence to suggest that FDI is not even a necessary condition of such integration. Effective technological integration of software firms in transition countries, for instance, has been successfully implemented through forms of cooperation with international firms that do *not* involve FDI as such (Dyker, 1996). There is, indeed, a whole gamut of (sometimes overlapping) forms of international business cooperation, running from 'classic' FDI through sub-contracting to 'strategic alliances', all of which may - or may not - provide the necessary conditions for technological integration. In this paper we concentrate on two of these - FDI as such, and alliances. Specifically, we pose three questions

- Are alliances in CEE countries only a transitional form towards FDI, or are they essentially different from FDI?

- What technological capabilities are transferred through FDI and alliances?

- In what ways can FDI and alliances integrate - or marginalise - CEE economies vis-à-vis the global economy? More specifically, how can intra-firm productivity improvements be transformed into intra-sectoral productivity improvements?

Before proceeding, it is necessary to clarify the notions of FDI and strategic alliances as used in the paper, viz.-

FDI is defined in terms of those investments which are made with a view to acquiring a lasting interest in a foreign enterprise, and of having an effective voice in its management.[2] In the case of the CEE and FSU countries, it is important to distinguish between *greenfield* FDI, on the one hand, and *indirect acquisitions* (joint-ventures) and *direct acquisitions* (majority stakes through privatisation) on the other.

Alliances or collaborative agreements are defined in terms of the establishment of common interests between independent industrial partners (i. e. partners not connected through majority share holding) (Hagedoorn, 1990).

2 ALLIANCES: TRANSITIONAL OR DISTINCTIVE FORMS IN THE CEE AND FSU COUNTRIES?

While international production (in the sense of intra-firm trade) is currently stagnating in relative term**s** (not, of course, in absolute terms), there is a growing trend towards sourcing through sub-contracting, joint ventures and alliances, as organisational forms for co-ordinating production internationally (See Radoševic, 1996a.). As FDI expands, so too does a whole range of different types of purchasing agreement**s**. This tendency forms part of a shift in the direction of 'externalisation' of markets for intermediate products, and towards new organisational modes of international sourcing. One indicator of the process is the increasing importance of sub-contracting (which will not be discussed here) and strategic alliances. Both

[2]IMF, *Balance of Payments Manual*, 1993.

developments reflect a trend towards non-equity based trade and linking, going beyond the purely arm's length level, in East-West trade. Are minority ownership and non-equity forms of co-operation only transitory forms towards the acquisition of full control, or are they distinct forms where considerations other than outright control are predominant? In the case of the developed countries, both empirical research (see Hagedoorn and Sadowski, 1996) and theoretical inquiry (Chesnais, 1996) suggests that strategic technology alliances are *not* a transitional forms towards mergers and acquisitions, but rather represent a distinct category.[3] Alliances as distinctive organisational forms may be based on what Chesnais (1996) calls *relational economies* - economies that cannot be achieved within a single company, but only within semi-integrated or network relationships.

In the case of the CEE and FSU countries, however, no testing has yet been done on any such hypothesis on the true nature of alliances. Lack of a systematic data base, sub-critical numbers of observations and still relatively short time series, are obvious problems for econometric testing. Our provisional hypothesis is that both aspects - alliances as transitional forms towards mergers and acquisitions *and* alliances as a distinctive form - may be present in this particular case. In order further to clarify that proposition, it is necessary first to look back at the different forms of technology transfer that may be operational in CEE and FSU countries, and the factors which have conditioned them.

Diversification of technology transfer forms

The opening-up of previously closed economies clearly changes the patterns and modes whereby these economies are integrated into the global economy. In the past, the CMEA countries were linked into the world economy predominantly through trade, with the import of equipment and licences serving as the main vehicle of technology transfer. Now the whole gamut of mechanisms available to the open economy is at their disposal. Simple trade, FDI,

[3]This proposition has not yet been tested in the case of production and marketing alliances. The probability is that these do *not* have distinctive features, and do, in fact, represent an essentially transitory form on the road to full control.

and the various forms of minority equity or non-equity type of relationship, are all now possible as vehicles for technology transfer.

Table 3 Technology transfer channels before and after 1989

Before 1989	***After 1989***
Import of equipment	FDI
Licences	Alliances (incl. joint ventures)
Joint ventures (only from 1988)	Import of equipment
	Subcontracting
	Licences

Three phases can be discerned regarding the relationship between FDI and alliances within this general context:

1 Before and at the early stage of transition foreign investors concentrated on joint ventures (JVs) with state-owned enterprises (SOEs), within which they had minority positions. Until 1990 the dominance of JVs was overwhelming. This was simply because in many cases JVs were the only permissible form. It is estimated that over the period 1988-1990 the number of JVs in CMEA countries rose from 383 to over 10,000 (see Table 4). In practice, this was very much a transitional phase, and many of these JVs were transformed into direct investments after 1989.

2 In the current, second, phase, FDI is the preferred mode of entry. From 1990 the importance of FDI grows sharply in all post-socialist countries. But while minority shareholdings (joint ventures, minority acquisitions) have diminished in importance, they still make up a significant proportion of total foreign business involvement in the CEE countries, and indeed still dominate in Russia. The Hungarian pattern is, perhaps, typical. In that country, in 1990, 62% of FDI capital was placed in minority-owned foreign investment

Table 4 Joint ventures in Central and Eastern Europe and the former Soviet Union

	Population 1988 (m)	01-Jan 1988	01-Jan 1989	01-Jan 1990	01-Mar 1990	01-Jul 1990	31-Dec 1990
Soviet Union	286	23	191	1261	1480	1734	2800
Hungary	11	102	270	1000	1000	1600	5000+
Poland	38	13	55	918	1000	1550	2400
Czechoslovakia	16	7	16	60	60	60	n/a
Bulgaria	9	15	25	30	30	30	n/a
Romania	23	5	5	5	5	5	n/a
TOTAL	383	165	562	3274	3575	4979	Over 10,000

Source: Dunning, John (1991): *The Prospects for Foreign Direct Investment in Eastern Europe*, Discussion Papers in International Investment and Business Studies, No 155, University of Reading, August.

enterprises (FIEs). By 1991, however, only 34% of cumulative total foreign capital was placed in minority companies, and by 1993 only 25.5% (Hunya, 1996b). In Russia the share of joint-ventures in the total number of FIEs decreased from 95.7% in 1992 to 55.4% in 1995 (Astapovich *et al*, 1995). It is only in the telecoms sector that foreign minority shares are still the rule, as a function of the enormous volumes of investment involved and, in some cases, the political complications surrounding a basic infrastructural element. Even here, however, the situation may change significantly, indeed is already changing in some countries. In Hungary, for example, foreign partners which initially controlled just 27% of Matav, the national telecoms company, obtained majority control in 1995.

In general, the data indicate a decrease in the importance of joint ventures as a form of foreign involvement, on account of general liberalisation which allows for direct acquisitions, greenfield investment with 100% foreign ownership, and other, more advanced, forms of inter-corporate co-operation.

3 In the coming, third phase, further increases in the weight of non-equity forms and minority shareholdings are to be expected, as the transition economies recover and start to

grow steadily, and as domestic firms start to go global.[4] An exclusively FDI-based scenario is, therefore, unlikely.[5] World-wide experience indicates that when the process of 'catching-up' is accompanied by FDI, direct investments are usually complemented by strategic alliances, including technological alliances. Certainly, technological alliances are less in evidence among developing countries (see Hagedoorn and Freeman, 1994). Even here, however, there is evidence of an upward trend in the most recent period (see Vonortas and Safioles, 1996). Among the developing countries it is the group of highly dynamic Asian economies like Hong Kong, Taiwan, South Korea and Malaysia that show the biggest concentrations of alliances. This suggests that technological alliances as a distinctive form of inter-company co-operation will become a specific feature of the CEE and FSU economies only as recovery speeds up and technological 'catching up' begins.

Data from the Strategic Technology Alliances in Information Technologies data base (ITSA) (See Table 5) does, in fact, indicate that the number of strategic technology alliances in the IT sector in FSU countries is the highest among the groups of developing countries (including the economies in transition), at least up to 1994. The number of alliances formed by FSU countries (in practice mainly by Russia) in the period 1989-1994 - 294 - is higher than for China, Hong Kong or South Korea. While the comparison with countries like Hong Kong and Korea may be misleading, in view of the small size of those economies, that with fast-growing China is really quite startling. There is obviously a need for further investigation into the true nature of strategic alliances in the Russian case. Two plausible *a priori* explanations suggest themselves. First, alliances in Russia could be very much transitional phenomena, ploys to circumvent restrictions on mergers and acquisitions imposed in an attempt to control 'insider privatisation'. Alternately, the high number of IT alliances could simply reflect unexploited opportunities for S&T cooperation, in an area where the human

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[4]For a rare contemporary case of globalisation of a central European firm (the Czech company Škoda Plzen) see *Business Central Europe*, April 1996.

[5]Vigorous growth in FDI is, nevertheless, expected. Projections by the Economist Intelligence Unit for the period up to the year 2000 indicate that the total stock of FDI by that year will be: in Russia $27bn; in Poland $22bn; in the Czech Republic $15.5bn; and in Hungary $11bn (*Business Central Europe*, April 1996).

Table 5 Strategic alliances in information technology, 1984-1994*

FSU	294	China	270
Hungary	80	Hong Kong	247
Poland	77	South Korea	239
Czechoslovakia	49	Taiwan	179
Bulgaria	20	Mexico	165
		Singapore	158
Romania	13	India	105
Albania	1	Israel	105
		Brazil	80
		Thailand	74
		Malaysia	60
		Latin America	45

* Based on the IT Strategic Alliance (ITSA) database, which records publicly announced inter-firm strategic alliances in IT, worldwide. All alliances that include at least one firm from the developed OECD countries are covered.

Source: Vonortas and Safioles, 1996.

capital resources of Russia - and indeed of a number of other transition economies - is substantial. Case-study material from the software sector would tend to corroborate this latter thesis, with licensing and franchising agreements with international companies furnishing software firms in transition countries with a springboard for technological dynamism, *which the latter are then able to exploit as a basis for integrating back into the global system which provided the licences and franchises in the first place, ultimately generating a process of two-way technology transfer* (see Dyker, 1996). All of this lends support to the argument that alliances can be considered as a distinctive form.

3 TECHNOLOGY TRANSFER THROUGH FDI AND ALLIANCES

FDI and alliances involving CEE and FSU countries aim to exploit the existing factor endowments and cumulated capabilities of these economies, as well as to compensate for their weaknesses by bringing in competencies which are otherwise lacking. FDI usually involves complete packages of skills, finance and organisation, while technology alliances are normally

based on complementarities between partners. In order to understand the real content of technology transfer within FDI and alliances, it is necessary to take into account the specific competence profile that firms have inherited from the centrally planned system. Table 6, below, indicates how that competence profile changes in the post-socialist period.

Table 6 The changing competence profile of enterprises in post-socialist economies

Centrally planned system	*Post-socialist economy*
production know-how, technical complexity, cost- and user- insensitive	marketing, finance, organisation, system integration at product level, network building at firm level, cost-driven

Source: Radoševic, 1996b.

Swaan's empirical research on the Hungarian economy (1995) produced similar conclusions. Swaan found that the group of capabilities in which the Hungarian economy can be considered (very) strong involve either a high level of definable, transferable knowledge (high level of education), or types of tacit knowledge which are not related to commercial application and marketing (abundance of qualified engineers and skilled labour). The aspects in which the Hungarian economy is weak are all related to complex organisational capabilities involving a high degree of market-related tacit knowledge and complex (inter)organisational co-operation, capabilities without which it is not possible to control the effectiveness of strategies, the time required for product development and marketing, the implementation of total quality management, and the general level of technology and R&D.

In a system where the top-down, linear innovation model was totally dominant, we would expect that research and design capabilities would be relatively better developed than capabilities relating to process improvements, networks and the organisation of distribution. In market conditions, learning from the marketing side becomes all-important, while technical complexity *per se* is no longer an issue. This is especially important for FSU and CEE

economies, which at present mainly export products for which demand is saturated, and where collective brands and dislocated distribution are the norm. Significantly, empirical research shows that downstream activities are precisely the area where restructuring is most intensive. In 96.4% of cases of acquisition in Poland, for example, post-acquisition activity has been dominated by the reorganisation of *marketing* activities, followed by the introduction of new *production* programmes (see Jermakowicz, 1994).

Taking into account the high degree of imbalance in the distribution of R&D, production and marketing competencies, alliances in post-socialist economies can be classified, following our earlier analysis, into three distinctive types: R&D alliances; production alliances and marketing alliances[6] (see Table 7).

Table 7 A taxonomy of alliances

	R&D alliances	*Production alliances*	*Marketing alliances*
Areas of technology co-operation	- research - software development - design	- process improvements - quality control - packaging	- distribution and marketing of partners' products; - franchising;

In the case of R&D alliances we would expect to find strong complementarities between partners founded on the developed research base inherited from the old system. In the case of production and marketing alliances this may not necessarily be the case. This suggests that R&D alliances are a distinctive form, while production and especially marketing alliances are a transitional forms towards mergers and acquisitions. In countries where privatisation into foreign ownership is already at an advanced level, much of FDI is motivated by the quest for access to distribution channels. That again suggests that alliances in such cases are temporary solutions, pending full take-over. In countries with mass privatisation schemes (the Czech

[6]In practice it is, of course, unusual to find any of these in its pure form. In most cases we find mixtures of the three types.

Republic; Russia; Lithuania) marketing alliances are, after all, the only way to acquire (at least a degree of) control over distribution channels.

Production alliances seem to be the rarest form of alliance - presumably on account of a general lack of complementarities here, and the problems involved in radical 'turn-around' of domestic enterprises. (The exception is production-sharing agreements, which are, however, confined to the Russian oil and gas sectors. Technological complementarities are an important consideration in these agreements, but are nevertheless secondary to the negotiation of specific legal constraints in relation to privatisation.[7]) In the case of large investments in the production and services spheres, joint ventures as transitional forms and wholly foreign-owned subsidiaries (these are as a rule new enterprises) have proved much more attractive to foreign investors - particularly in the motor vehicle and paper industries, construction and tourist/travel and financial services (UN ECE, 1995, p13).

It is our guess that mutual technological exchange is present in the case of R&D alliances, and is much less frequent in the case of production alliances. In the case of marketing alliances, technology transfer does take place, but is uni-directional, and generally motivated by the prospect of full take-over.

4 FROM INTRA-FIRM TO INTRA-SECTORAL PRODUCTIVITY IMPROVEMENTS: TECHNOLOGICAL INTEGRATION OR MARGINALISATION ?

'Deep integration' issues

The CEE and FSU economies are now within reach of global or regional companies whose business strategies are governed by considerations of global competitiveness.[8] How the CEE

[7]Among large foreign investment projects in European transition economies, production-sharing agreements made up $2,4bn or 14% of total initial investment commitments and 39% of total pledged investment at end 1994 (See UN ECE, *East-West Investment News*, No 2, Summer 1995).

[8]Global competitiveness can be defined in terms of the need for firms to be able to mobilise a range of skills simultaneously in different regions or even continents (Hatzichronoglou, 1996).

and FSU economies will integrate into the global economy will depend, not only on the extent of trade and financial liberalisation ('shallow integration') but also on the degree to which they integrate at the level of international production and technology networks ('deep integration') (UN, 1995). The positions that domestic subsidiaries occupy within international production networks will to a significant extent determine the extent of technology inflows. The higher the technological position of the affiliate, the greater are technology inflows likely to be. Technological integration into the world economy will depend crucially on whether FDI is integrated into the respective national economies, and whether alliances, as distinctive vehicles of technology transfer, will spread. Specifically with regard to FDI, the critical question is whether individual direct investments will remain isolated enclaves, with technology inflows and modernisation confined to the level of intra-firm productivity improvements, or spread into the larger environment through the development of local supplier linkages and through movement towards higher value-added activities.

The interface between FDI, trade and technology

FDI, trade, finance and technology transfer are increasingly interlinked in the world economy (Hatzichronoglou, 1996). FDI accounts for disproportionately high shares of exports and imports in the transition countries, notably in the case of Hungary, where foreign investment enterprises (FIEs) are responsible for 50% of export sales (See Table 9). In a very real sense, then, FIEs are the main agents of deepening and extension of the trade of the CEE and FSU economies. Of course, the effects of this on the balance of payments are not always positive, and in the early phases of transition foreign direct investments were a net burden on the Hungarian trade balance. Thus the trade extension and trade deepening aspect of FDI raises serious issues in terms of the value added content of FDI, and the degree of integration of FDI into the domestic economy. From our perspective, the critical point is that *in deepening trade FDI does not necessarily deepen technological value-added.*

Initial patterns of 'deep integration'

In Radoševic (1996c) we analysed the initial patterns of 'deep integration' in FSU and CEE countries through typical examples of FDI and sourcing factory types. Scattered evidence on the micro level shows that almost every type of factory exists in the post-socialist economies, with the exception of outposts, world product mandate factories and miniature replicas. (See Table 8.)

Table 8 Typology of FDI and sourcing factory types, with typical examples from economies in transition

	>>>> *The direction of technological deepening* >>>>>		
Resource-based	**Extractors** - oil and gas industry in Russia, Kazakhstan and Azerbaijan - gold and diamond ventures in Kazakhstan - wood industry in Estonia	**Processors** - food processing industry in Central Europe	
Cost-reducing	**Offshore** - clothing industry in Poland - furniture industry in Poland	**Source factories** - car industry in CEE	**Focused factories/** - car industry in CEE **World product mandate** ?
R&D driven	**Outpost companies** ?	**R&D subcontracting** - a few Russian institutes	**High-tech joint-ventures** - Russian ventures in aerospace and aviation
Domestic market driven	**Importers** - Trading companies	**Local servers** - Telecom investments in EIT; - Ford investment in Poland	**Miniature replicas** ?

** Resource-based, cost-based and R&D driven = dominantly foreign market oriented*
Note: Based on Eden, 1991, and modified for economies in transition

Source: Radoševic, 1996c.

Intra-firm productivity improvements

The primary effects of (successful) FDI are in terms of increasing productivity and efficiency in the acquired companies (intra-firm productivity improvements) - not surprisingly, given the relatively higher share of investment and R&D in the typical foreign direct investment, as compared to domestic enterprises (see Table 9). This is the conclusion that emerges from studies on developing countries as well as from the research that is going in the case of post-socialist economies (See Hunya, 1996b, for the case of Hungary). But big intra-firm productivity improvements have not so far been accompanied by employment creation in the CEE and FSU countries. As Hunya (1996b) shows, the net employment effect of FDI in Hungary is only 33,000 jobs. In other CEE and FSU countries employment in MNCs' subsidaries is still quite nugatory. This strongly suggests that much of FDI bears an enclave-type character, with rather limited employment generation effects and technological spillovers.

Table 9 Share of foreign investment enterprises (FIEs) in the total economy*

	1993 or 1994, in %		
	Czech R 1994	Hungary 1993	Slovakia 1994
Nominal capital	7.4	26.6	5.0
Employed persons	6.0	20.1	3.8
Output	9.4	30.9	7.7**
Export sales	na	50.0	na
Investment	16.5	34.0	11.8

* Czech companies with at least 25 employees; Hungarian companies filing tax declarations; for Slovakia non-financial corporations with at least 25 employees

**Value added

Source: Hunya, 1996b, p7.

Intra-sectoral productivity improvements through FDI?

This is an important but under-researched topic for developing countries in general, and for transition countries in particular. Where (potential) improvements are represented simply as 'spillovers', the real content of the technology and capabilities transferred from foreign to domestic enterprises remains unclear. The majority of the studies that have tried to pin down the notion of spillover emphasise the importance of competition, which is strengthened by foreign presence and which induces intensive processes of intra-firm learning and learning through 'demonstration effects'. A second mechanism for spreading productivity improvements works through labour mobility from affiliates to entirely local companies. The experiences of developing countries in this respect have been rather divergent.[9] What is clear is that spillovers are weaker in the case of 'green fields' than in that of acquisitions - because 'green fields' are erected *ab novo* while acquisitions bring with them their inherited network of suppliers and customers. In the case of Central and Eastern Europe, the share of greenfield FDI has risen from 2.6% (1988) to 36.1% (1993) (Jermakowicz, 1994, p14), which is strongly indicative of an enclave pattern of development, with only weak ramifications beyond the initial investment. The 'enclave syndrome' is, indeed, already acute in the Hungarian economy, and this pattern will probably be followed in other countries as the volume of foreign investments mounts up. Closer integration into domestic economies is bound to emerge as a key concern for CEE and FSU governments.

In that context, the rise of alliances in the CEE and FSU countries, as distinctive rather than transitory forms, may be of some importance, to the extent that it indicates the existence of mutual technological complementarities and firm spillovers between the partners involved. While FDI may sometimes be an antidote to the disadvantages of the given domestic economic environment, alliances *assume* the existence of 'virtuous circles' within that domestic environment, which makes positive effects on intra-sectoral productivity more likely. The fact

[9]The literature gives a number of examples of failure to spillover (the Mexican *maquilla* industries; the Dominican Republic Processing Zone), but also describes very successful spillovers from FDI in Singapore and Taiwan.

that domestic companies have the capability to become involved in alliances indicates the existence of a potential for higher productivity potential, right up to the intra-sectoral level. That is as far as *a priori* analysis can take us, and we must wait for the results of systematic empirical investigation before making a final judgement. Still, the question must be posed: given that alliances may involve genuine technological integration, and given that the more general effects of FDI are, to say the least, problematic, is it not time to shift the balance of policy attention from FDI to alliances? Would it be better still to forget about the traditional system of classification of international business cooperation by type, and focus on the *essence*, ie, the question of whether a given deal will, or will not, help the given economy to raise its economic game in the most general sense?

5 CONCLUSIONS

The main points to emerge from the foregoing are as follows:

- International business cooperation involving transition economies can take a wide range of forms. While the importance of some specific forms, in particular periods, eg, joint ventures in the late communist/early transition period, can be explained in terms of the need to negotiate specific institutional and legal peculiarities, other specific developments, eg, that of some types of strategic alliance, may be of a much more 'organic' nature.

- In concentrating on two key forms of international business cooperation - FDI and alliances - we have demonstrated how much easier it is to provide necessary than to provide sufficient conditions for 'deep integration'. Both FDI and alliances may generate such integration, but there is nothing in their organisational forms as such that guarantees that.

- The ever-present danger of marginalisation is not a function of any specific organisational form. Thus both FDI and alliances are, in essence, 'organisationally neutral'. What

matters, in both cases, is the content of the particular cooperation, and the extent of its generalised ramifications, and it is on that that governments should concentrate in seeking to maximise the beneficial impact of foreign economic involvement on their own economies.

- This is a vast, and vastly under-researched area. Much of the relevant basic data series without which serious analysis - and serious policy-making - are impossible, remain to be collected. If this paper helps to provide impetus towards more thorough investigation of the nature of international business cooperation as if affects the transition countries, it will have served its modest purpose.

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