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Contents

Factors determining supply linkages between transnational corporations and local suppliers in ASEAN

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A significant potential beneficial impact of foreign direct investment arises from a foreign affiliate's propensity to purchase inputs from suppliers in the host economy. This issue is of particular interest where the host is a developing country and the linkage is likely to contribute to the development of local suppliers. We compare variations in local input linkages across four countries: Cambodia, Malaysia, Thailand and Viet Nam, all member countries of the Association of South-East Asian Nations (ASEAN). Using multiple linear regressions, our findings indicate that the degree of local input linkages is highest when foreign affiliates perform a strategic role in the transnational corporation network and are embedded in the host economy. Non-firm factors are also important determinants, especially the industry of investing firms and the existence of a supply base. Building on the findings, a series of policies to enhance supplier-foreign affiliate linkages are proposed.

Key words: transnational corporations, supply linkages, ASEAN, regionalization, electronics industry, garments industry
JEL classifications: F23, F02

1. Introduction

This article aims to analyse the sourcing patterns of transnational corporations (TNCs) in South-East Asia, with a focus on explaining *local* input linkages in the electronics and

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textile and garment industries. A supplementary aim, essentially cast by the findings, is to suggest appropriate policies that would enable governments to develop further supplier linkages with TNCs.

TNCs' linkages – and their expansion - in host economies have become a particularly important issue, especially in South-East Asia after the Asian financial crisis, as the inflows of foreign direct investment (FDI) have decreased and recent inward FDI is increasingly sustained by the reinvested earnings of existing foreign affiliates in the region. Through local supply linkages, TNCs potentially generate considerable benefits for host economies, both from value-chain multipliers and technology transfers and spillovers. Studies have shown that the linkage potential of TNCs is higher than that of domestic firms in some developing countries (Potter *et al.*, 2003; Alfaro and Rodríguez-Clare, 2004; Jensen, 2004). Given their importance, it is perhaps surprising that relatively few studies have examined the factors explaining the level of local sourcing by TNCs in host economies (McAleese and McDonald, 1978; Driffield and Noor, 1999; UNCTAD, 2001; Belderbos *et al.*, 2001; Tavares and Young, 2002). Even fewer have focused specifically on technology transfer to local suppliers (Halbach, 1989; Wong, 1991; IDE, 1994; Rasiah, 1995; Supapol, 1995; Crone and Roper, 2001; UNCTAD, 2001; Giroud, 2003) or how TNCs enhance local suppliers through the introduction of focused assistance programmes (Dries and Swinnen, 2004). This article contributes to the literature by analysing the determinants of TNCs' local supply linkages in two industries in South-East Asia: an analysis that is enhanced by comparing the issue in four countries that are geographically close and part of the same regional grouping, yet exhibiting vastly different levels of economic development (a situation partly resulting from varying degrees of maturity as FDI hosts). The implications of this regional development are further explored in the context of the development of the Association of South-East Asian Nations (ASEAN) in section 2.

Section 3 of this article then concentrates on theoretical concepts and the literature review. We first develop a theoretical

framework, borrowing concepts from transaction cost theory, various international business theories, multinational network theory, and development economics. We then review the literature to establish concrete hypotheses to be tested, focusing on the type of factors that are likely to explain the motive for local sourcing - as opposed to importing - of inputs. In section 4, we present the methodology for identifying factors explaining local supply linkages from our sample, followed by an analysis of the resulting dataset from 85 foreign affiliates located in Cambodia, Malaysia, Thailand and Viet Nam in the electrical/electronics and textiles/garment industries. Data were collected through face-to-face interviews with managing directors and other key managers at each affiliate from late 2001 through 2002. Foreign affiliates provided details about their local purchasing activities and their overall strategy. The focus on two industries allows us to compare and contrast two very different industries. It is difficult to create a perfect evaluation system for assessing local sourcing. The dependent variable in this article is the share of total inputs purchased locally by each foreign affiliate. This is essentially the concept of local sourcing as defined by the United Nations (UNCTAD, 2001, p. 134). Local sourcing indicates the share of inputs supplied by firms in a host country, with no detailed information available on the ownership of suppliers (domestically-owned or foreign-owned). One key disadvantage of this method is that local supplies may not be produced locally, as some local suppliers may merely be distributors of imported inputs. However, using the share of imported inputs would simply be the mirror image of the share of locally purchased inputs, and we therefore decided to use the former.

The results presented in section 5 are intended to help understand better an important aspect of TNCs' activities in host economies. We initially identify relationships between the local supply linkages of foreign affiliates and various company and country factors before testing these relationships within a linear regression analysis model. The findings identify three factors as being strongly linked to local supply linkages, namely the experience of activities in the host economy, the foreign

affiliate's role in the TNC network and the industry in which the firm is operating. There is some indication that the host developing economy is also important in explaining local vertical linkages. These findings are then incorporated in a broader discussion in section 6 of the implications for government policy towards supplier-foreign affiliate linkages, especially in the context of international competition and evolving TNC supply strategies (discussed in section 2). Section 7 concludes.

2. The co-evolution of investment policies in ASEAN and inward FDI

ASEAN was established in 1967 and initially consisted of five member countries, Indonesia, Malaysia, the Philippines, Singapore and Thailand; since then, it has expanded and now includes ten economies, essentially all the potential member countries in geographic South-East Asia, except Timor-Leste, which has only recently become independent. The original five member countries have prospered since the Association's establishment, especially in the cases of Singapore, Malaysia and Thailand. In 1977, ten years after ASEAN's creation, these three countries' gross national income (GNI) per capita was $2,880, $930 and $420 respectively. Since then, Singapore has progressed to the status of an advanced industrial economy (GNI per capita of $21,230 in 2003), while Malaysia and Thailand – both with much larger populations – are significant industrial powers in their own right with respective GNI per capita's of $3,780 and $2,190 (table 1).

The creation of ASEAN in the late 1960s was serendipitous. In the early 1970s, the world economy entered a period of prolonged crisis, which forced companies to adopt a number of "survival strategies"; among them was the transfer of production to cheap labour locations in developing countries - a process which then developed its own dynamics and became a primary motor for the "globalization" of the contemporary world economy. As table 2 shows, in the halcyon days before the Asian economic crisis of 1997, ASEAN as a region had

Table 1. ASEAN Member Countries: Comparative Data, 1977 and 2003

	Area (sq km)	Population (millions) 2003	Gross National Income Per Capita (Dollars) 1977	Gross National Income Per Capita (Dollars) 2003	FDI Stock (million of dollars) 2003	Exports (millions of dollars) 2003
Brunei	5,770	0.4	na	15,000 (est.)	7,427	4,000 (est.)
Cambodia	181,040	13.4	na	310	1,930	1,623
Indonesia	1,919,440	214.5	300	810	57,209	60,650
Laos	236,800	5.7	90	320	618	371
Malaysia	329,750	24.8	930	3,780	58,979	100,726
Myanmar	678,500	49.4	140	250 (est.)	4,376	2,802
Philippines	300,000	81.5	450	1,080	11,467	37,065
Singapore	633	4.3	2,880	21,230	147,299	144,134
Thailand	514,000	62.0	420	2,190	36,910	80,253
Viet Nam	329,560	81.3	160	480	18,574	19,660

Sources: World Bank (1979, 2004); UNCTAD World Investment Directory, www.unctad.org/wid.

accumulated up to a quarter of all FDI stock in developing countries – and this during a period when TNCs were expanding international production at a rapid rate, especially to developing countries (UNCTAD, 1999; Taketoshi and Krueger, 2000; Urata *et al.*, 2005). Singapore, Malaysia, Thailand and Indonesia were (and are) the main recipient countries in South-East Asia. The relationship between FDI, growth and development is complex, but at least in ASEAN, the relationship is, on balance, positive (Mirza and Giroud, 2004). The significant and prolonged role of FDI in local/regional economies makes South-East Asia an ideal "test case" for investigations of the impact of TNC operations on local development, including supplier-foreign affiliate linkages.

The regional dimension is also important for a number of other reasons. First, geographic proximity (and common membership of ASEAN) facilitated a strong policy-level demonstration effect by Singapore on other member countries, particularly Malaysia and Thailand. The benefits of ASEAN membership, especially gaining from the ASEAN "cachet" and learning from more successful neighbours, were among the

primary reasons behind accession by the five newer members, especially poorer countries, such as Cambodia and Viet Nam (Gates, 2000; Mirza and Giroud, 2004). One of the main reasons for our decision to investigate the four particular countries in our study was because two (Malaysia and Thailand) were the most successful of the early ASEAN member countries in attracting manufacturing FDI apart from Singapore; and the other two (Cambodia and Viet Nam) have the most manufacturing FDI among the newer member countries. They represent a viable basis for researching foreign affiliate-supplier linkages in the region.

Thirdly, and very importantly, reflecting the era, until recently the FDI policies of all ASEAN member countries were essentially framed in the context of *national* economic development strategies. Priority was given to national, individual

Table 2. Inward Foreign Direct Investment Stock in ASEAN, 1980-2003
(Millions of dollars)

Region/Country	ACCUMULATED STOCK				
	1980	1990	1995	2000	2003
South East Asia (ASEAN)	25,242	95,712	169,848	270,311	344,789
Brunei	19	26	62	3,856	7,427
Cambodia	Neg.	Neg.	307	758	1,930
Indonesia	10,724	38,883	50,755	60,638	57,209
Laos	2	14	206	550	618
Malaysia	6,078	14,117	38,453	54,315	58,979
Myanmar	5	173	937	2,408	4,376
Philippines	1,225	2,098	6,852	12,688	11,467
Singapore	6,203	32,355	55,491	89,250	147,299
Thailand	981	7,980	16,775	27,924	36,910
Viet Nam	7	66	397	17,956	18,574
Other East Asia	8,098	55,588	180,462	884,218	963,112
South Asia	2,178	4,252	10,088	33,170	44,508
Total	35,518	155,552	360,478	1,187,699	1,352,409
ASEAN's share of FDI in Developing Countries (%)	8	24	19	14	15
ASEAN's share of FDI in East and South Asia (%)	71	61	47	23	25

Source: UNCTAD World Investment Directory, www.unctad.org/wid.

country goals, rather than potential shared opportunities. In consequence, most foreign affiliates in the region had far stronger links (both in terms of inputs and outputs) with the local/national economy than other economies in the region. Initially - indeed well into the 1980s - this "silo" strategy suited TNCs because they were mainly producing for international markets. Even for the foreign affiliates in our sample, some of which have been in ASEAN for quite some time, the primary orientation for inputs and outputs is local (or with the home/international economy), not ASEAN (table 3). This explains the focus in our study on *local* supplier-foreign affiliate linkages (regional linkages are less common and patchy).

Table 3. Local and ASEAN share of Inputs and Outputs by Host Country (sample companies)
(Percentage)

	Origin			Destination		
	Local	ASEAN	Other	Local	ASEAN	Other
Malaysia	35	8	57	29	7	64
Thailand	35	1	64	26	13	61
Viet Nam	20	23	57	40	2	58
Cambodia	0	18	82	0	0	100

Source: authors' survey.

Finally, however, there are now significant new pressures for ASEAN governments to promote *regional* FDI-related activities, including linkages. There are three main reasons for these pressures. (i) The dynamics of development in the region has meant that South-East Asia is no longer simply a supply base, but increasingly a significant market (the population is over 500 million and some 30 years of growth has created a large consumer base), which has led to the creation of the ASEAN Free Trade Agreement (AFTA) to reduce barriers to trade across the region (Wee and Mirza, 2004). (ii) Since the early 1980s, FDI stock in ASEAN, though rising in absolute terms, has slipped as a share of inward FDI stock in developing countries (table 2). (iii) Perhaps most critically from the

perspective of supplier-foreign affiliate linkages, the pressure of global competition – especially in industries such as electronics, automobiles and garments – has fostered new TNC supply strategies relying on outsourcing, global contract manufacturing and global suppliers. In this context, ASEAN suppliers increasingly have to adopt – at the very least – a regional perspective. These forms of pressure towards regional-level FDI activities/linkages underlie our discussion of future policies in ASEAN towards supplier-foreign affiliate linkages.

3. Theoretical literature and hypotheses

The theoretical concepts covered in this section are mainly related to the TNC. Some concepts related to host country economic development are also added, with a focus on developing host economies.

Theoretical concepts and vertical linkages

The core theoretical discussion behind the creation of a TNC's vertical linkage is the understanding of the complex decision-making behind the production process internal to the firm on a global, regional and local basis, and the decisions being made regarding sourcing. The debate revolves around global logistics within TNCs and the internal flow of intermediate products, parts and components between plants, as well as individual firms' external purchasing behaviour within host economies and from overseas. Depending on the extent of coordination and integration of production facilities worldwide, foreign affiliates can purchase inputs internally (that is the manufacturing of inputs is performed by the parent firm, the foreign affiliate itself, or by sister affiliates) or externally (either through import or by sourcing from locally-owned firms or foreign firms established in the host economy). This initial decision for a firm is referred to as the "make or buy" decision. The decision to make or buy rests on the production and transaction costs involved. Transaction cost theory, which originates from the work of Coase (1937), is useful in explaining institutional arrangements, and particularly why production is

not carried out entirely in the principal firm. The decision to make or buy will depend upon various transaction characteristics between economic partners (Williamson, 1991), as well as asset-specificity and potential additional investment conducted by either the buyer or the supplier depending on the requirements of the transaction (Joshi and Stump, 1999). Companies nowadays tend to concentrate on their core capabilities and therefore purchase an increasing amount of component parts and services externally (Casson, 2000; Krause *et al.*, 2000); this has led companies, national or multinational, to increased dependence on their supply system and greater vertical linkages. Concepts derived from transaction cost theory are incorporated in some TNCs theories, such as the internalization theory (Buckley and Casson, 1976) or the OLI paradigm (Dunning, 1993). These theories led to the notion of proprietary assets or ownership advantages of the TNC, whether they be at the parent level or increasingly at the foreign affiliate level (Bartlett and Ghoshal, 1998; Birkinshaw and Hagström, 2000; Andersson *et al.*, 2002). The foreign affiliate is the unit of analysis in this paper, and its specific place and role within the multinational network needs to be considered because it influences the type of activities the foreign affiliate conducts within host economies and affects the related development of local supply linkages.

Foreign affiliates and their place within the TNC

Supply patterns by foreign affiliates in host economies depend on the existing international, regional and national succession of production processes of the TNC. International business researchers have suggested that, as they internationalize, TNCs assign specific strategic roles to their foreign affiliates (see, for instance, Pralahad and Doz, 1987; Ghoshal and Bartlett, 1990; Forsgren and Pahlberg, 1992; Birkinshaw, 1997). The greater the autonomy exercised by the affiliate, the more likely it is to try and identify local suppliers and create relationships with them (UNCTAD, 2001, p. 137; Eberhardt *et al.*, 2004). Among foreign affiliates in Europe, Tavares and Young (2002) found a positive significant relationship between input's import propensity and foreign

affiliate' roles. In the case of ASEAN, where host developing economies are predominantly used for pure manufacturing purposes and many of the companies in our sample have only recently been set up, we distinguish between pure "manufacturing platforms" and foreign affiliates that have been allocated a strategic role by the parent company, such as R&D or marketing responsibilities.

Hypothesis 1: The strategic role of the foreign affiliate is positively related to the degree of local supply linkages.

Foreign affiliates gain some autonomy over time, or when assigned a specific role by the parent company. Time is thus an important factor inasmuch as foreign affiliates become more familiar with the environment in which they operate and tend to rely less on their parent firm's network of suppliers. Existing empirical analyses have focused on the age of the foreign affiliate, as a proxy for the level of embeddedness in the host economy. Studies have found that the longer the foreign affiliate has been established in the host economy, the higher the level of local supply linkages becomes (McAleese and McDonald, 1978; Driffield and Noor, 1999; Görg and Ruane, 2001). Or, measured by input import propensity, the age of the foreign affiliate is negatively associated with import propensity (Tavares and Young, 2002).

Hypothesis 2: The age of the foreign affiliate is positively related to the degree of its local supply linkages.

It has been reported that foreign ownership is related to the supply linkages of foreign affiliates (Belderbos *et al.*, 2001; UNCTAD, 2001; Smarzynska Javorcik and Spatareanu, 2003; Chen *et al*., 2004). However, one must note that regardless of the entry mode of foreign firms, relationships and linkages created by foreign firms do not necessarily lead to an increase in the productivity of suppliers (Smarzinska Javorcik, 2004). Studies that have used firm-level data have not found any conclusive relationships. Driffield and Noor (1999) and Eberhardt *et al.* (2004) find no relationship between "joint ventures" and local supply linkages, and Tavares and Young

(2002) find no relationship between the foreign affiliate being a greenfield venture and the input's import propensity. Because we adopt a firm-level methodology, we expect no relationship between entry mode and local vertical linkages.

Hypothesis 3: The mode of entry strategy is unrelated to the level of local supply linkages.

In the South-East Asian context, many foreign affiliates have been established as manufacturing platforms to export products to the European, North American and Japanese markets. Studies have found that local market-orientation leads to variations in the level of local content and subsequent relations with host suppliers (Pangestu *et al.*, 1992; Supapol, 1995). Export-oriented firms will tend to purchase less locally in developing countries (Belderbos *et al.*, 2001; UNCTAD, 2001), even though they show a tendency to have closer relationships with existing local suppliers (Giroud, 2003), and have been shown to provide greater productivity benefits (Smarzynska Javorcik, 2004). Thus, we expect that foreign affiliate that are manufacturing for the local market will show higher propensity to purchase inputs locally.

Hypothesis 4: The share of local sales is positively related to the degree of local supply linkages.

Some studies have indicated that the size of the foreign affiliate may affect sourcing and linkages (UNCTAD, 2001, p. 138; Chen *et al.*, 2004), while others found no significant relationship (Driffield and Noor, 1999; Tavares and Young, 2002). This leads us to suggest that there is no relationship between the size of the operation and the degree of supply linkages.

Hypothesis 5: The size of the foreign affiliate is unrelated to the degree of local supply linkages.

The factors discussed above are related to the foreign affiliate itself, its role and place within the parent firm's multinational network, its level of embeddedness within the host

economy and its key characteristics, such as the mode of entry, market orientation and size. Having considered factors that are likely to influence local vertical linkages internal to the firm, we now address key factors concerning the business environment that might also impact upon linkages.

Key business environment factors

Industry characteristics

The industry in which the foreign firm is operating influences the level of vertical supply linkages. In this paper, we focus on the manufacturing sector, and more specifically on the electrical/electronics and textiles/garments industries. Within the manufacturing sector, the textiles and clothing industry shows a relatively low level of local linkages (UNCTAD, 2001, p. 139). In selected European countries, Tavares and Young (2002) also found that foreign affiliates in the textiles, clothing and footwear industry have a strong propensity to import inputs, with few local supply linkages being created. Both the textile and garment industries have a global dimension, and are geographically dispersed and highly trade dependent. The garments industry differs inasmuch as distributors have a key role in the determination of the production and the type of fabric being used. The production chain in this industry is foreign *buyer-driven* (Dicken, 2003, p. 319), which does not facilitate the generation of local supply linkages because buyers in developed markets are not inclined to select suppliers in the host developing country. Within the electrical and electronics industry, the level of local purchasing may be limited in developing countries, but there is an extensive scope for linkage creation between foreign affiliates and local suppliers (Halbach, 1989; Dobson, 1993; Rasiah, 1995; Supapol, 1995; Giroud, 2003). TNCs in the electronics industry in South-East Asia manufacture electronic components (active and passive) as well as electronic equipments and consumer electronics. The electronics industry is dominated by foreign affiliates, which creates opportunities for firms to purchase inputs from other

foreign affiliates in the host country, as well as from purely indigenous firms. Thus,

Hypothesis 6: The degree of local supply linkages differs according to the industry in which the foreign affiliate is operating.

Hypothesis 6a: Firms with activities in the electrical and electronics industry are more likely to develop local supply linkages.

Hypothesis 6b: Firms with activities in the textiles and garments industry are less likely to develop local supply linkages.

Host countries and vertical linkages

The analysis in Lall (1993) points towards some specificities of host economies in explaining the propensity of foreign firms to purchase local inputs. The level of development of the host economy plays a central part in explaining local linkages, particularly as the local supply industry depends upon and reflects the economic environment of the host. Numerous studies have analysed the relationship between TNCs' activities and their impact on host countries' development trajectories (Hood and Young, 2000; Lall and Narula, 2004). Within a region such as ASEAN, the local supplier industry, or the related and supporting industries (as described by Porter, 1990), may be strongly related to the presence of companies in other countries in the region as well as within a particular host economy. The four countries under study in this paper are all developing economies, but are at differing levels of economic development, as discussed in section 2. They also show varying degrees of experience with FDI. The experience of Malaysia and Thailand in hosting substantial amounts of FDI started well before Cambodia and Viet Nam. Cambodia and Viet Nam are also at a much lower level of economic development (Yusuf *et al.*, 2004). Finally, there is a distinction in terms of government policies, with more favourable environments in the case of Thailand and Malaysia than for Viet Nam and Cambodia. Taking these three host-country related issues into consideration, we postulate that:

Hypothesis 7: Foreign affiliates' degree of local supply linkages differs depending on the level of development of the host economy.

Hypothesis 7a: Foreign affiliates in Malaysia and Thailand will exhibit a higher degree of local supply linkages than those in Cambodia and Viet Nam.

Origin of the parent company

Previous studies have not indicated a strong country of origin effect when explaining input behaviour (Driffield and Noor, 1999; Belderbos *et al.*, 2001; Tavares and Young, 2002). Studies that find a relationship between the origin of the parent company and the degree of local supply linkages (for example, Javorcik and Spataraneu (2004) who looked at United States, European and Asian firms in Romania) are based on broad measures of "spillover", such as productivity gains using panel data, rather than specifically analysing input linkages. Hence, we do not find sufficient support in the literature for the hypothesis that levels of local supply vary depending on the country of origin of the parent firm. However, the nature of our sample and the regional perspective of this study suggest that this hypothesis might be useful for differentiating between companies originating from the region itself as opposed to those from outside the region.

Hypothesis 8: The country of origin is unrelated to the degree of local supply linkages.

4. Methodology

This analysis is based on the results of a survey of TNCs located in four ASEAN countries, namely Cambodia, Malaysia, Thailand and Viet Nam; and in two industries, the electrical and electronics and the textiles and garments industries. These four countries were chosen to reflect differences in the level of economic development, differences in the experience of each country in hosting TNCs, and the level of embeddedness in the

local economy of foreign firms. Information was collected by means of face-to-face interviews with either managing directors and/or other key top managers at foreign affiliates in each of the four countries mentioned, using a semi-structured questionnaire. A preliminary list of companies was compiled by the researchers, taking into account the origins of firms. Researchers were careful to select companies that reflected the population of foreign firms in each host country, which is a mix of firms from East Asia, Europe, Japan and the United States, as well as investors from neighbouring countries (particularly in the case of Cambodia). As such, the sample is representative of foreign investment in the host countries and the profile of companies interviewed reflects the structure and origin of foreign investors. Initial contacts with firms were organized in collaboration with the respective Board of Investments in host economies. In the case of Cambodia, additional support was received from the Garment Manufacturers' Association of Cambodia (GMAC) for contacting targeted companies. Local collaborators were key to organizing the interviews. A total of 85 firms reflecting the foreign investors' population were interviewed during the fourth quarter of 2001 and throughout 2002. Given the nature of the data collection method through in-depth interviews, the sample size of 85 firms is large and comparable to or larger than similar studies (see, for example, Crone and Roper, 2001; Driffield and Noor, 1999).

Table 4 presents descriptive statistics related to the variables under study. The average age of foreign affiliates is just over 13 years, although clearly, this varies considerably depending on various factors. The length of operation of the foreign affiliates indicates that these firms are well-established in their host economies and have invested long term. Considering the fact that firms have been in operation, on average, for over a decade, the low average share of local suppliers is somewhat surprising: only a little over a quarter of total supplies are purchased from the host economy. Details on local supply linkages are provided in appendix 1. The average levels of local supply are the highest in Malaysia and Thailand and non-existent in Cambodia, where firms in the garment industry import all

materials used in the manufacturing process. The average degree of local supply linkage is similar in the electrical and electronics industry, as well as the textiles industry. There is, however, a marked difference in the case of the share of local supply linkages in the garment industry as a whole, primarily owing to the fact that most firms in this industry (in our sample) are located in Cambodia, where purchase of material locally is nil. Firms originating from neighbouring ASEAN countries show the lowest degree of local supply linkages. This is partly because

Table 4. Descriptive statistics

	Mean	Standard deviation	Number of positive
Dependent variable			
Share of supplies bought on the local market	26.79%	25.57%	
Independent variables			
Subsidiary characteristics			
Strategic role			39 (45.9%)
Age	12.92	9.44	
Entry mode			
Greenfield venture			57 (67.9%)
Joint venture			31 (36.5%)
Share of local sales	27.25%	36.81%	
Size (Number of employees)	1696	2720.11	
Industry			
Consumer Electronics			20 (23.5%)
Electronics			37 (43.5%)
Textiles			5 (5.9%)
Garments			23 (27.1%)
Host country			
Cambodia			11 (12.9%)
Malaysia			27 (31.8%)
Thailand			25 (29.4%)
Viet Nam			22 (25.9%)
Home country			
Japan			26 (30.6%)
United States			11 (12.9%)
Europe			10 (11.8%)
3 NIEs			25 (29.4%)
ASEAN			7 (8.2%)
Other			6 (7.1%)

Source: authors' calculations.

half of the ASEAN-originated firms in our sample are located in Cambodia and because a third of them import more than 80 percent of their supply from their parent company (which is located nearby). Firms in the sample have a very large average size, with 1,600 employees on average, which reflects both the labour-intensive nature of the activities and the scale of investments (especially in Malaysia and Thailand).

Operationalization of variables

A key strength of this study is the level of details related to individual firms' characteristics and local supply linkages. The dependent variable is the share of inputs purchased locally in the host economy and is expressed in percentage terms.

Table 5 describes the key variables to be tested and the expected sign of their relationship with local supply linkages (the results are also summarized in this table); relationships are then tested using linear multiple regression models. A correlation analysis showed no evidence of multicollinearity between independent variables. Independent variables are divided into four groups. First, we consider the foreign affiliates' characteristics. Managers discussed with the researchers the roles assigned to the affiliate by parent companies, and the significance and breadth of their functional activities. Sample firms are separated into two categories; one comprises affiliates for which the sole function is manufacturing, and the other comprises affiliates performing other strategic roles also (such as engaging in marketing or R&D activities). The second independent variable is represented by the age of the affiliate, indicating the length of operation, which is adopted as a proxy for the likely level of **embeddedness** in the local economy. The **entry strategy** is assessed with two dummy variables; one of them takes the value "1" if the affiliate is a joint venture, and the other if it is a greenfield operation. The **market-orientation** of the affiliate is evaluated by the share of the output sold in the local market, as opposed to being exported to other markets. The **size** of the foreign affiliate is represented by the number of employees of the affiliate in the host country. In the second

Table 5. Description of variables and Summary of Findings

Variables under study	Type	Description	Expected Sign of Relationship	Findings (Hypothesis Confirmed)
Dependent variable:	C	share of overall supply purchased in the host economy		
Subsidiary Characteristics				
Strategic role (H1)	D	1 = subsidiary is not solely a production plant; has some strategic roles in one or more functional areas	+	Confirmed
Age (H2)	C	number of years the subsidiary has been in operation in the host economy	+	Confirmed
Entry mode (H3)				
Greenfield venture	D	1 = investment is greenfield; 0 = otherwise	(none expected)	Confirmed
Joint venture	D	1 = subsidiary is a joint venture; 0 = otherwise	(none expected)	Confirmed
Local sales (H4)	C	share of total output sold on the local market	+	Not Confirmed
Size (Number of employees) (H5)	C	total number of employee s at the subsidiary	(none expected)	Confirmed
Industry (H6)				
Consumer Electronics	D	1 = subsidiary is part of the consumer electronics industry; 0 = otherwise	+	Confirmed
Other Electronics	D	1 = subsidiary is part of the other electronics industry; 0 = otherwise	+	Not Confirmed
Textiles	D	1 = subsidiary is part of the textiles industry; 0 = otherwise	-	Not Confirmed
Garments	D	1 = subsidiary is part of the garments industry; 0 = otherwise	-	Confirmed
Host country (H6)				Inconclusive
Cambodia	D	1 = host economy; 0 = otherwise	-	
Malaysia	D	1 = host economy; 0 = otherwise	+	
Thailand	D	1 = host economy; 0 = otherwise	+	
Viet Nam	D	1 = host economy; 0 = otherwise	-	
Home country (H7)				
Japan	D	1 = parent from Japan; 0 = otherwise	(none expected)	Confirmed
United States	D	1 = parent from the United States; 0 = otherwise	(none expected)	Confirmed
Europe	D	1 = parent from Europe; 0 = otherwise	(none expected)	Confirmed
ASEAN	D	1 = parent from ASEAN; 0 = otherwise	(none expected)	Relationship
Other	D	1 = parent from 'other'; 0 = otherwise	(none expected)	Confirmed

Source: authors' calculations

Notes: D = Discrete. Dummy variables represent a single category of a non-metric variable. C = Continuous

group, that is business environment factors, we consider the **industry** in which the foreign firm is operating. This is indicated by a series of dummy variables, depending on whether the firm is part of a particular industry or not. The four categories include *Consumer Electronics*, *Other Electronics*, *Textiles* and *Garments*. Similarly, four dummy variables are used for each **host country** under study. Finally, the **home country** aspect is included by using dummy variables for each major country or region.

5. Results, findings and discussion

The results of the five models explaining the levels of local supply linkages are presented in table 6. We focus on parsimonious models, using stepwise selection. The regression models provide statistical evidence for the relationships between the local supply linkages and the series of factors presented in the framework developed earlier. All regression models are significant. There is a strong theoretical justification behind the order in which variables were entered into the model, with firm characteristics identified as the major explanatory factors explaining the degree of local supply linkages. Regression 1 tests the hypothesis linking the role of the foreign affiliate and its age to local supply linkages. Both independent variables have statistically significant coefficients with the expected signs. In a second step, the remaining independent variables related to the affiliates' characteristics were entered in the regression, but were not found to be significant and are left out of the model. In regression 2, the *Consumer Electronics* variable is added to the model. It is significant and positively related to local supply linkages. The categories *Other Electronics* and *Textiles* were not identified as significantly related to the dependent variable. However, regression 3 shows the significance of *Garment* with a negative sign (as expected). In regression 4, the host country variables were tested. This parsimonious model highlights *Cambodia* as the sole host country significantly and negatively related to local supply linkages. Finally, regression 5 tests the relationship between the TNC's home country and the dependent variable. Only firms originating from *ASEAN* are significantly

Table 6. Linear Regression Models

	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5
Subsidiary characteristics					
Strategic role	.295***	.288***	.254**	.270***	.309***
	(15.072)	(14.724)	(12.987)	(13.800)	(15.779)
Experience in host economy	.349***	.367***	.275***	.279***	.299***
	(.943)	(.994)	(.744)	(.755)	(.807)
Mode of entry					
Sales on the local market					
Size of the subsidiary					
Industry					
Consumer electronics		198***			
		(11.754)			
Other electronics					
Textiles					
Garments			-.242**		
			(-13.958)		
Host economy					
Cambodia				-.256***	
				(-20.012)	
Malaysia					
Thailand					
Viet Nam					
Home economy					
United States					
Japan					
Europe					
ASEAN					-.195***
					(-17.872)
Others					
Model statistics					
Adj. *R*-sq.	.255	.286	.298	.307	.283
F-value	15.059***	11.959***	12.581***	13.125***	11.799***

Source: authors' calculations

Notes: Significance levels: *** p<0.01, ** p< 0.05, * p < 0.1, all two-tailed tests. Values for the independent variables are standardized beta coefficients. The intercept was insignificant in all models. All models were re-run without the intercept, the results in terms of significance levels remained similar to those presented in the models above.

related to the degree of local supply linkages, and negatively so, as expected. In the parsimonious models presented, only the significant variables were added to the equation, leaving out unnecessary dummy variables. We found some evidence of heteroscedasticity, which is to be expected with small sample sizes. This does not negate the core relationships highlighted. Given the nature of our study, our models are valid and point to existing relationships that were not previously shown in the literature. While we cannot correct for the number of cases, we acknowledge the need for caution in the discussion of results.

The series of regression models presented in table 6 enable us to test the hypotheses linking various explanatory factors to local supply linkages.

With hypothesis 1, we investigated the link between local supply linkages and the type of foreign affiliate and its integration within the TNC. All regression models indicate a strongly significant and positive relationship between the role played by foreign affiliates and local supply linkages. These results are particularly noteworthy, because they enhance the knowledge and understanding of local supply linkages, as previous studies have not paid sufficient attention to the strategic role played by the foreign affiliates and local supply linkages. The length of time a foreign affiliate has been established in the host economy, and hence the degree of embeddednes of the firm, is strongly and positively related to the degree of local input linkages. Hypothesis 2 is confirmed: the older the foreign affiliate, the larger the share of local input sourced within the host economy. Our results are consistent with previous studies (McAleese and McDonald, 1978; Driffield and Noor, 1999; Tavares and Young, 2002). *Age* is a key factor explaining local supply linkages and may also reflect the natural development of supply capabilities as industrial development takes place in host countries.

Confirming results obtained in earlier studies, we find no significant relationship between the entry strategy and local supply linkages. Hypothesis 3 is confirmed, supporting the results obtained by Driffield and Noor (1999) and Tavares and Young (2002).

We find no relationship between the local market-orientation and the level of supply linkages; thus hypothesis 4 is not confirmed. Having said this, our sample consists of a set of companies that are predominantly engaged in manufacturing for export markets, with 40% of firms having no local sales at all in host economies, and only 40% of the firms exporting less than 90% of their production. There is therefore a great bias towards export-orientated firms in our sample, which may, therefore, not be appropriate for testing this relationship.

Hypothesis 5 is confirmed, in line with results from previous studies, and we find no relationship between the size of the firm and the degree of local supply linkages.

Hypothesis 6 is partly supported. The findings were significant for two industry categories. *Consumer Electronics* exhibited a positive relationship: companies in this industry tended to display higher levels of local supply linkages. Contrariwise, there was a negative relationship between the relevant variables for companies in the garments industry; companies in this industry tended towards lower degrees of local supply linkages. This is in line with the literature. The consumer electronics industry is dominated by assembly plants, which are in a position to purchase inputs from other electronics manufacturers established in ASEAN. On the other hand, the garments industry in our sample is essentially composed of companies originating from East and South-East Asian home countries with foreign affiliates located in Cambodia (and, to a lesser extent, in Viet Nam), where the textiles industry necessary for the production of inputs is non-existent (though there are some textile plants in Viet Nam). Thus, the low levels of local supply linkages can be explained by the specificity of the industry in this part of the world. There is some evidence that local supply linkages differ according to the host economy, especially because of the existence of more autonomous foreign affiliates in Malaysia, Thailand and Viet Nam and of a more established supply base (especially in Malaysia and Thailand). Overall, this results in a strongly negative relationship in the case of Cambodia in regression 4, because all foreign affiliates are in the garments industry and there are no purchases of inputs from local suppliers. However, given the specific nature of the local environment in Cambodia, and the fact that no other significant difference has been found between Malaysia, Thailand and Viet Nam, it is impossible to confirm fully this hypothesis. While there is some indication that local supply linkages vary depending on the host economy, statistical support for this hypothesis is insufficient to fully confirm this among the four countries under study, with the exception of Cambodia.

Finally, we find little evidence that the degree of local supply linkages differ depending on the home country of the

foreign affiliate. Hypothesis 8 is confirmed. We do, however, find that companies originating from ASEAN have a negative relationship with the level of local supply linkages. These companies are strongly reliant on intra-firm imports of materials. On the one hand, this can be explained by the specific nature of the industry, as many of them are garment manufacturers that have relocated to Cambodia to take advantage of the availability of cheap labour, but still rely on existing suppliers, including their own factories in some cases. On the other hand, since companies from ASEAN are new international investors, they might well be expected to show high levels of reliance on their parent company. A similar tendency is identifiable, in a less pronounced manner, with companies originating from the three newly industrializing economies in the survey (Hong Kong (China), the Republic of Korea and Taiwan Province of China).

6. Policy implications: some global and regional dimensions

Overall, three key groups of variables were confirmed in our findings above to explain the degree of local supply linkages in the ASEAN countries analysed in this study. We acknowledge the small sample size and the tentative nature of this policy discussion. The argumentation points to key areas that need to be addressed and studied further by policy makers and researchers.

The first set of confirmed explanatory variables were two particular characteristics of the affiliates themselves: first, the existence of a specific strategic role played by the foreign affiliate, indicating a level of independence or autonomy from the parent company in terms of decision-making power; and secondly, the age of the foreign affiliate, which represents the level of embeddedness of the foreign firm in the local economy, and the consequent level of relationships established with local actors in the economy such as customers and, especially, suppliers. The second group of variables found to be significant were the industries in which companies operate; these are critical to the levels of local supply linkages (in the case of this study, electronics firms display a much higher propensity to utilize local suppliers than those in the garment industry). Finally, albeit with strong support for only one country (Cambodia), the

analysis finds that some differences in supply linkages occur depending on the level of development of the host economy and the local supporting industry. Our results for the third explanatory factor are case specific, but still underline the necessity for the host economy to develop a solid support industry if it wishes to benefit fully from the presence of foreign affiliates.

A number of policy implications for governments can be drawn from the above findings, especially because the local sourcing of inputs is still at a quite low level in the surveyed host countries.

Policy Implications of the Findings on Firm Age and Strategic Orientation

Inasmuch as the *age of foreign affiliates* (consequently experience, embeddedness etc.) is important in determining the degree of supply chain linkages between foreign affiliates and local firms, section 2 indicated that ASEAN countries – including some of those in this study – are fortunate to have hosted considerable numbers of TNCs for some time (indeed very few major TNCs are *not* represented in the region as a whole). This is especially important for older ASEAN member countries (e.g. Malaysia and Thailand) that have witnessed an increase in reinvested earnings rather than new capital inflows. We suggest that:

1. Malaysia and Thailand can improve existing policies aimed at encouraging supply linkages. Governments ought to do more in terms of providing support to the development of existing SMEs, particularly in the electronics industry, and in providing additional financial incentives for *existing* TNCs to source a greater proportion of their input locally.

2. This policy advice should also apply at the regional level, with ASEAN governments acting in concert to promote cross-ASEAN supplier-foreign affiliate linkages (within the framework of the ASEAN Investment Area).

Within a wider Asian context, despite the relative ascendancy of China, ASEAN countries remain an integral part

of a globally orientated production system that stretches across East Asia; their role in this system may well increase in the near future because of TNCs' changing *strategic orientation*. There are two reasons for this: (a) TNCs, having initially shifted operations to or consolidated in China, are now reassessing their over-dependence on that economy and are moving some production back to ASEAN (JBIC, 2004); and (b) the pursuit of the ASEAN plus 3 concept (i.e. ASEAN is currently negotiating free trade agreements with China, the Republic of Korea and Japan) (ASEAN Secretariat, 2004) will affect the strategic stance of TNCs towards ASEAN *vis-à-vis* other parts of East Asia. Hence:

3. ASEAN governments can consider the benefits of facilitating supply not only within ASEAN but within the East Asian production system as a whole.

This would not only favour the economic integration of regional economies, but would also have the advantage of further strengthening the competitiveness of TNCs established in ASEAN countries (including ASEAN TNCs). Given the results of our model (e.g. firms that have operated in these countries for some time generate higher linkages) and considering the current trends in FDI inflows especially in Malaysia and Thailand:

4. Both countries should pay more attention to retaining and expanding the activities of existing investors, as opposed to focusing (as is the current orientation of many ASEAN governments) almost exclusively on promoting inflows of new capital and investors.

Our results indicate that foreign affiliates benefiting from some level of autonomy in their activities show higher levels of linkages. Therefore:

5. Governments increasingly need to develop flexible policies encouraging TNCs with significant strategic roles in their economies, rather than only adopting policies applicable to all TNCs.

Policy Implications of the Findings on Industry and Host Country

If ASEAN governments are to build on the strategic orientation of foreign affiliates in order to expand the degree of supply linkages, they need to assess the influence of particular attributes or characteristics these foreign affiliates might possess. For example, our findings suggest that foreign affiliates producing consumer electronics are more likely to develop a high degree of linkages with local suppliers.

6. Industry characteristics are important and the existence of such types of foreign affiliates should be recognized. Furthermore, certain types of electronics firms with crucial regional-global strategic orientations have a significant presence in the region.

Within the electronics industry, governments can enhance or develop policies that maintain or increase the presence of major global contract manufacturers because such companies offer indigenous suppliers considerable opportunities to develop or enhance the skills and competencies needed to participate in the global economy, directly or indirectly. The textiles industry might also be essential (to supply the garments industry), but few supply linkages are generated by this industry because of its high capital intensity; again, any policies supporting the retention of this industry have to be made on grounds other than the generation of *local* supply linkages.

Finally, the confirmatory result on Cambodia strongly underscores the fact that linkages with suppliers depend heavily on economic development (hence education, infrastructure etc.) and the development of supporting industries. This has implications for Malaysia and Thailand as well as Cambodia and Viet Nam, because in the highly competitive global environment, an ongoing upgrading of a country's assets is essential. In the wider ASEAN setting, the development of "sub-regions", such as the poorer "CLMV" (Cambodia, Laos, Myanmar and Viet Nam) region of Indochina, is important for countries such as Malaysia and Thailand because this supports

the development of the ASEAN division of labour (e.g. firms in Viet Nam supplying foreign affiliates in Thailand).

7. Conclusions

The sourcing patterns of TNCs are receiving increasing attention in the academic literature. This aspect is currently under-studied and there is a considerable need to understand fully the sourcing behaviour of foreign firms in host economies, particularly host developing economies where spillovers to locally-owned suppliers can be an important means for these countries to gain competitive advantage. This paper further builds on findings on firm characteristics by advocating a series of policies designed to enhance supplier-foreign affiliate linkages.

One of the strengths of our analysis is the uniqueness of the data collected and the level of detail of the information presented. Other studies on supply linkages usually address the issue from a macro-economic perspective, but are not in a position to fully assess crucial firm-level factors in the understanding of local supply linkages. This is the first cross-country analysis in ASEAN of supply linkages, and the results presented in this paper are a useful basis for the development of government strategies towards foreign affiliate-local supplier linkages. The critical issues to be addressed by governments in the region when formulating and implementing policies towards TNCs and linkages generation are the level of local embeddedness of foreign affiliates, the strategic roles played by these affiliates, and the industry concerned. Governments also need to refine their policies to distinguish between new and existing investors, as well as the extent and breadth of supply linkages established by TNCs.

In future research, scholars will need to consider the competitive pressures and changes in the international institutional architecture. This article has pointed to the role of firms' strategies and foreign affiliates' roles in the determination of linkages in host economies. This will need to be further studied at the firm level and ought to include more precise

accounts of foreign affiliates, and their place within the broader TNC's global network. In addition, as TNCs develop new global supply strategies predicated on "deverticalization", with the increase in *outsourcing* of some manufacturing and distribution operations, concepts of global contract manufacturing and global suppliers must also be considered carefully in host government policies aimed at increasing the degree of linkages between foreign companies and local suppliers, especially indigenous ones.

Finally, there is some truth in the assertion that, until recently, ASEAN developed as a region, but without significant *cross-regional development*. The future of *local* supplier-foreign affiliate linkages will increasingly depend on pursuing *regional* options across both ASEAN and the broader East Asian region. From an ASEAN government perspective, these issues can be partly addressed by a significant move from policies promoting national export-orientated manufacturing to those encouraging the establishment of regional-global production-supply platforms. The existence of a diverse regional division of labour in South-East Asia, as well as a burgeoning ASEAN policy framework, bodes well for the creation of a potential, full-scale, regionally orientated production system. ■

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Appendix 1

Table A1. Number of subsidiaries by host and home countries
(Frequency)

Host economy	Malaysia	Thailand	Viet Nam	Cambodia	Total	Share (%)
Home country						
Japan	10	9	7	0	26	30.5
United States	7	2	1	1	11	12.9
Europe	5	2	3	0	10	11.7
3 NIEs	4	8	8	5	25	29.4
ASEAN	0	0	3	4	7	8.2
Others	1	4	0	1	6	7.0
Industry						
Consumer Electronics	7	5	8	0	20	23.5
Other Electronics	18	16	3	0	37	43.5
Textiles	1	1	3	0	5	5.8
Garments	1	3	8	11	23	27.0
Total	27	25	22	11	85	100

Source: authors' calculations.

Table A2. Average share of inputs purchased locally: host country by home countries and industry
(Percentages)

Host country	Malaysia	Thailand	Viet Nam	Cambodia	Total
Home country					
Japan	37.1	49.8	12.0	0	34.1
United States	38.5	20.0	60.0	0	37.0
Europe	15.0	25.0	15.0	0	17.0
3 NIEs	40.0	21.8	28.7	0	22.6
ASEAN	0	0	10.0	0	4.2
Others	60	43.7	0	0	39.1
Industry					
Consumer Electronics	34.4	39.6	31.1	N/A	34.4
Other Electronics	32.5	36.7	8.3	N/A	32.3
Textiles	90.0	50.0	8.3	N/A	33.0
Garments	20.0	13.3	18.8	0.0	9.5
Total	**34.7**	**35.0**	**20.4**	**0.0**	**26.8**

Source: authors' calculations

Note: The three NIEs (newly industrializing economies) are Hong Kong (China), the Republic of Korea and Taiwan Province of China.

Reinvested earnings as a component of FDI: an analytical review of the determinants of reinvestment

Sarianna M. Lundan*

Reinvested earnings represent an important component of foreign direct investment, but the managerial and policy implications of affiliate reinvestment have been neglected in the international business literature, although they have received attention in the economic literature on taxation. This article presents an analytical review of the determinants of reinvestment, paying particular attention to the role played by taxation. We consider reinvestment as a form of marginal investment, and discuss six determinants grouped under three headings, namely, factors encouraging reinvestment, factors encouraging the repatriation of earnings and the influence of agency considerations on the financial management of the TNC. We also discuss issues of measurement, and the empirical testability of our conceptual model of reinvestment. We think that a better theoretical and empirical understanding of sequential flows of investment has great relevance for policies aimed at investment attraction, which have tended to focus on greenfield investment and have often failed to deliver the desired results in the past.

Key words: reinvestment, taxation, financial management

1. Introduction

As the stock of foreign direct investment (FDI) in the global economy becomes more mature, new investment is more likely to be sequential, i.e. additional to existing investments,

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and possibly influenced by strategic considerations, such as trying to pre-empt or imitate the industry leaders. In addition to these types of investment, incremental FDI is also more likely to take place as a result of the reinvested earnings of the foreign affiliates of existing transnational corporations (TNCs). The spectacular growth of FDI, particularly in the 1990's, has given grounds for an investigation into the importance and implications of reinvested earnings as a component of these investment flows. To our knowledge, in the international business literature to date, nothing has been written regarding the empirical importance of reinvested earnings, or what factors govern the decision of whether income earned at a foreign location is repatriated to the parent in the home country, or whether it is reinvested at the foreign location. The conceptual model of reinvestment we present here treats reinvestment as a form of marginal investment, and consequently, we focus on factors that increase the attractiveness of the host country as an investment location, as well as the factors that increase the attractiveness of the alternative of repatriation. We identify six major factors, namely, macroeconomic factors affecting investment opportunities in the host country, the profitability of foreign investment, exchange rates, different systems of corporate governance, the tax treatment of repatriated foreign income (intra-firm dividends), and the use of dividend policy as a means of managerial control. In our discussion, we pay particular attention to the literature on taxation, since several studies in this tradition have examined the issue of intra-dividends (the repatriation of earnings), which forms the counterpart to our focus on reinvestment. We also consider in some detail the issues related to the operationalization of these determinants in empirical research. In order to motivate our discussion, we begin by presenting a brief overview of the patterns of reinvestment in the transatlantic context. We hope to demonstrate that reinvestment is quantitatively important, and warrants more attention both on a theoretical level, as well as in terms of empirical study. We then move on to the determinants of reinvestment, including the factors encouraging reinvestment, the factors encouraging the repatriation of earnings, and the influence of agency considerations on the financial management of the TNC. In the

concluding section, we consider the relevance of reinvestment for the policies of investment attraction and point to areas of future research.

2. Patterns of reinvestment in the transatlantic context

Using the publicly available balance of payments data from the United States Department of Commerce, Bureau of Economic Analysis (BEA), we present an overview of the extent of reinvestment in United States FDI abroad, as well as for FDI into the United States. The balance of payments data collected by the BEA are among the most detailed and consistent of its kind. The data on reinvestment are drawn from mandatory enterprise surveys that are conducted annually. These are supplemented by comprehensive benchmark surveys every five years. The data are collected in a consistent manner for both outward and inward FDI, enabling comparisons to be made between the two series.[1]

Ideally, one would like to contrast these data with data from European or Japanese sources on investment abroad. However, triangulation with other data sources is difficult in this case, since the balance of payments data that are available from other source countries vary in its treatment of reinvested earnings. Although the guidelines issued by the IMF and the OECD have been adopted in most countries, and as a result, the balance of payments statistics are now more consistent in their definition of FDI, the treatment of reinvestment is still far from uniform. The primary reason for this is that since reinvested earnings do not give rise to cross-border transactions that would flow through the banking system, enterprise surveys are required to obtain the data. This is in contrast to the other components of FDI, for which data can be collected from central bank sources. Consequently, a number of countries, such as Denmark, France, Japan, Spain, Singapore and Thailand have either not collected

[1] The definitions of the different components of foreign direct investment, and the methodology employed by the BEA in data collection, are detailed in Quijano (1990) and Mataloni (1995).

data on reinvested earnings, have collected the data but do not report it, or have only collected data pertaining to either inward or outward transactions.

In light of these difficulties, and since FDI from the United States to Japan has been extremely low, we focus on the pattern of investment between the United States and Europe.[2] The leading European investors (in terms of stocks) are the United Kingdom, France, Germany, the Netherlands and Switzerland. The same five countries also account for the largest share of United States investment in Europe.

The balance of payments data yield the following information: the investment position at historical cost at year end, after-tax income earned by the affiliates, and the annual flow of investment broken down to its three component parts, namely equity, inter-company debt and reinvested earnings. Reinvested earnings are the only major component of the foreign investment position that originates in the host country, rather than being transferred from the home country.[3] In line with other measures of FDI relying on balance of payments data, these data do not represent the total assets or extent of activity in a foreign affiliate, but rather they represent the proportion of financing for the foreign affiliate that originates in the home country of the parent. In most cases the affiliate receives financing from other sources as well.

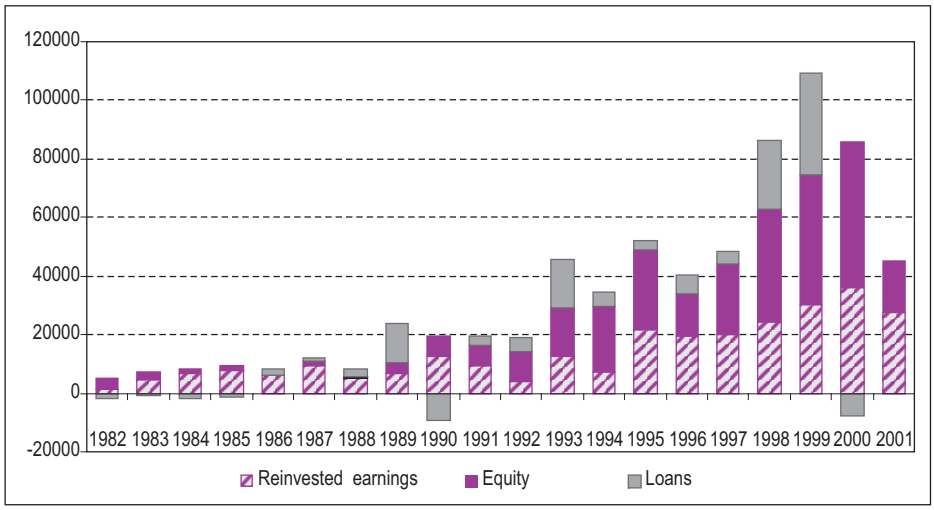
Figures 1a and 1b illustrate the breakdown of the flows of United States FDI to Europe and European FDI to the United States. In the period of 1982-2001, the average share of

[2] United States FDI to Europe accounted for an average of 54% of the total outflows of United States FDI in 1982-2001. Although Europe encompasses a larger group of countries at the end of the period than in the beginning, on average the five largest investors accounted for roughly three quarters of all the investment to Europe.

[3] Valuation adjustments, which occur when foreign assets recorded at historical value are sold and their value is adjusted to reflect the market price, is another component of the foreign investment stock that does not represent a direct transfer of resources from the home country.

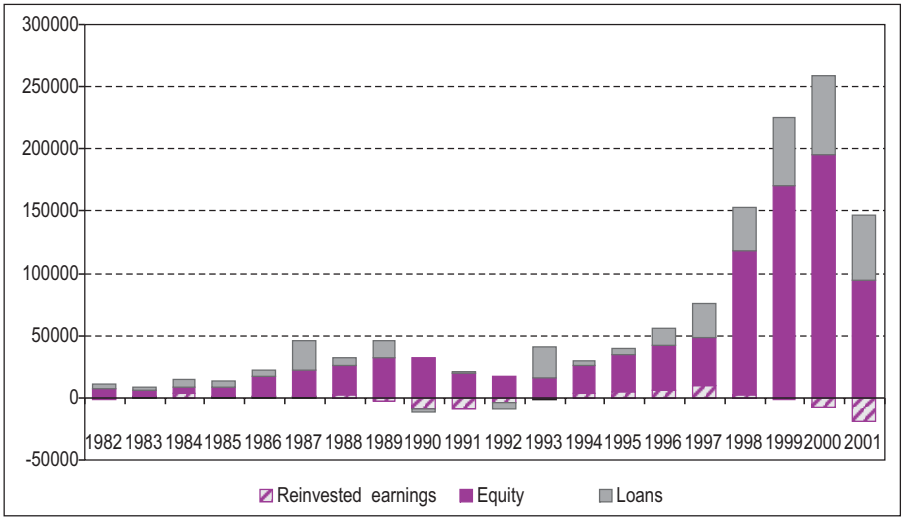
reinvestment in the outflows of United States FDI was 39%, with flows of equity investment accounting for 44%.[4] In absolute

Figure 1a. United States FDI flows to Europe
(Millions of dollars)



Source: United States Department of Commerce, Bureau of Economic Analysis.

Figure 1b. European FDI flows to United States
(Millions of dollars)



Source: United States Department of Commerce, Bureau of Economic Analysis.

[4] In principle, the BEA data is available until 2005. However, the inward FDI data for 2002-2005 is in the process of being revised, and consequently we only report the data until 2001.

terms, these flows corresponded to an average of $13.5 billion of reinvestment annually, for a total of $270 billion in cumulative reinvestment over the entire period. For European FDI in the United States, the share of reinvestment was negligible (-2%), while equity flows accounted for 74% of the total flows (although this was strongly influenced by M&A activity in the late 1990s). The average annual reinvestment was negative, amounting to a total of -$18 billion in cumulative withdrawals over the entire period.

Facilitating the two-way comparison is the fact that a high degree of intra-industry investment characterizes the transatlantic relationship within the manufacturing industries, although following growth through acquisitions since the mid-1990s, the largest individual industry in terms of United States investment in Europe is now financial services, including insurance but not including depository institutions (banks). Chemicals (pharmaceuticals) is the largest manufacturing industry, and the petroleum industry is also notable, although not particularly so in the five largest host countries. Germany and France host the largest share of United States manufacturing investment, while financial services are relatively more important in the Netherlands, Switzerland and the United Kingdom. For European investment in the United States, extensive investment in chemicals (pharmaceuticals), and a considerably lower share of financial services are notable. Other important industries for outward investment are petroleum investment from the Netherlands, motor vehicles from Germany, the telecommunications industry from the United Kingdom and the insurance industry from Switzerland.

Overall, we observe that for United States FDI abroad, reinvested earnings have represented a notable component of annual flows of FDI. Indeed, it has exceeded equity flows of FDI for fifteen of the 20 years covered here. For European investment in the United States, reinvested earnings have been a substantial component of the FDI flows in some years, but this has been followed by sizable cumulative withdrawals, making European reinvested earnings volatile, but negligible

in absolute terms in this period. This means that during the period of study, cumulative European withdrawals were larger than incremental investment using reinvested earnings.[5] Also, the average income earned by United States investors on their investment in Europe is about twice as high as the income earned by European firms on their investment in the United States. As a proportion of income, European firms also reinvested a lower proportion than did United States firms.

Although we are perfectly wiling to accept that some of the differences we note here may be influenced by the way in which the BEA data are reported and collected, as well as the tax minimizing strategies of foreign investors in the United States, it seems unlikely that differences of this magnitude are merely a statistical artefact. We believe these data demonstrate that reinvestment is both quantitatively important, as well as being variable in its determinants across countries, and both of these factors suggest a need to achieve a better understanding of what drives these flows of investment. We now move to consider six possible determinants of reinvestment.

3. Factors encouraging reinvestment

Comparative investment opportunities

When TNCs earn income abroad, this income can either be reinvested in the affiliate, or it can be repatriated to finance projects in the home country or in third countries. What determines the proportion of income that is reinvested has not been investigated in the literature to date, although some attempts have been made to model the pattern of repatriation of earnings (the payment of intra-firm dividends).

[5] Negative reinvestment represents a reversal of prior reinvestment, which is distinct from divestment, which shows up as a one-time capital flow back to the investor country. Negative reinvested earnings indicate that reversals of reinvestment from prior years exceeded new reinvestment in a given year.

In this paper, we conceptualize the issue of reinvestment as a form of marginal investment in a predetermined location. Our approach is akin to that taken by Kopits (1972), who argued that TNCs have a desired level of capital accumulation (financed through reinvestment), which in turn determines the level of the intra-firm dividend. This self-financing argument has strong historical support (e.g. Penrose, 1956; Chandler 1990), although the use of reinvested earnings to finance affiliate expansion may have become somewhat less important over time. Consistent with this view, we expect investment opportunities in the host country to be the most important determinant of reinvestment. Many ways of characterizing investment opportunities exist in the economic literature. Here, we consider two simple measures, one at the country level, and one at the industry level. The most obvious macro-level determinant of investment opportunities is the rate of growth in GDP, or alternatively, the difference between the rates of growth in the host country and the home country. Favourable economic conditions in the host country would encourage reinvestment, while favourable conditions in the home economy would encourage repatriation. (Of course, data permitting, differences in the rates of growth at the sectoral level could also be employed.)

At the level of the industry, income earned by TNC affiliates in a given industry could also be considered as an indication of further investment opportunities in the host market. Although positive income is necessary for reinvestment to take place, it is not clear whether higher levels of income would encourage higher levels of reinvestment, or higher levels of repatriation. We hypothesize that higher levels of income would signal better operating conditions in a given industry, and therefore encourage more reinvestment.

At the level of the firm, Tobin's q has been used as a proxy for investment opportunities in the economic literature. However, at the level of the TNC affiliate, another proxy would need to be found, since Tobin's q can only be calculated for firms with a known market value. One possibility is to follow Shin and Stulz (1998), who used lagged segment sales growth

to proxy for the missing q in their study of the efficiency of internal capital markets. For companies that are not listed but nonetheless have financial information available, the sales to assets ratio has also been used as a proxy of investment opportunities. Affiliate profitability, which is discussed in the following section, could also be considered a measure of the opportunities that are firm-specific.

Affiliate profitability

The second factor we consider is that affiliate reinvestment is likely to be influenced by firm-specific differences in profitability. This is in line with other models of firm-level investment behaviour, but testing it in a cross-country context is complicated by the fact that any differences in profitability are likely to be at least partly masked by differences in accounting standards and disclosure requirements, as well as the use of transfer pricing.

Unlike investment opportunities, which at the country and industry levels are external to the firm, differences in productivity (and consequently profitably) are internal to the firm, and reflect the use of firm-specific assets (FSAs) and capabilities. In the case of a TNC affiliate, they reflect both the mobile FSAs of its parent, as well as the mobile and immobile affiliate-specific assets of the affiliate (Rugman and Verbeke, 2001). To the extent that high profitability results from the exploitation of such advantages in the host county context, we would expect higher profitability to encourage reinvestment. However, if high profitability is the result of transfer pricing, the incentives for reinvestment are likely to be weaker.

Some of the earliest studies on FDI demonstrated the superior productivity of foreign affiliates over indigenous producers, such as the higher productivity of United States firms as opposed to the indigenous British firms (Dunning, 1998[1958]), and the productivity gap between foreign and domestic firms has been confirmed in a large number of studies since then. Indeed, the ownership-specific advantages

underlying performance are considered to be essential in explaining why firms would find it profitable to exploit their capabilities via direct investment rather than some other modality. Somewhat paradoxically, the low profitability (rather than productivity) of both Japanese as well as European investors in the United States has also been noted repeatedly in the literature. Notable studies documenting the financial and managerial difficulties of foreign firms in the United States have included Delios and Beamish (2001) and Jones and Gálvez-Muñoz (2002), while the implications of different corporate objectives to the profitability of Japanese firms have been explored by Buckley and Hughes (2001).

Few studies have directly addressed the issue of the extent to which such profitability gaps are real, or caused by differences in accounting conventions and different corporate objectives, as well as transfer pricing. The most comprehensive analysis to date was carried out by Grubert, Goodspeed and Swenson (1993), who observed that in 1987, foreign affiliates in the United States had nearly four times lower taxable income than their United States counterparts, whether measured in relation to total assets or in relation to sales. Since transfer pricing is nearly impossible to measure directly, the authors investigated a range of other possible reasons for the low affiliate profitability, including a greater reliance on debt, lower cost of capital, fixed costs related to mergers and acquisitions (M&As), fluctuation in exchange rates (in the period of the late 1980s) and transfer pricing.

They found that the distribution of taxable income to assets of foreign firms was centred around zero within a narrow range, while the distribution of domestic firms was wider, and shifted to the right. This implies that the average domestic firm was more likely to have positive taxable income, although the profitability of foreign controlled firms did show a rising trend over time. They also found that exchange rates had a significant effect on the profitability of wholesale companies, and that the ratio of taxable income to assets was understated for many foreign companies due to recent asset re-valuations connected

to acquisitions. At the same time, levels of debt and interest income, or possibly poorer performance of acquired United States firms, did not seem to be an explanation for the low level of profitability of foreign affiliates. Cost of capital differences also did not seem to be important, and, if anything, the parents of foreign companies tended to be more profitable than comparable United States companies. The authors concluded that up to a half of the differential between rates of return on foreign and domestic companies could be explained by factors other than transfer pricing, leaving the other half unexplained, and thus possibly accounted for by transfer pricing. In a more recent study, Mataloni (2000) found that there was still a persistent gap between the return on assets (ROA) of foreign non-financial affiliates and indigenous United States firms in the period 1988-97. The gap was present in 22 out of 30 industries, but it did show some signs of narrowing over time, possibly due to a catch-up effect, as new acquisitions from the late 1980s became integrated into the acquiring (European and Japanese) firms.

Indeed, the majority of the spectacular growth in inward investment into the United States in the late 1990's was equity investment in the form of M&As. Most of this investment was undertaken by European firms in the new technology-intensive industries, such as computers and communications equipment and services, as well as in finance and insurance, particularly life-insurance (Howenstine and Troia, 2000). The investment in computer and microelectronics was undertaken at least in part to close the technology gap with the United States industry, and as a consequence, the 'latecomer' argument, which has generally been applied to Japanese technology intensive investment in the United States (e.g. Belderbos, 2003), might apply for this investment as well. Thus, even if the earnings gap between foreign affiliates and indigenous United States firms might have narrowed during the 1990s, the new wave of acquisitions suggests that another period of lower performance owing to a renewed "latecomer" status might again be expected, with possible effects on reinvestment.

4. Factors encouraging the repatriation of earnings

In addition to these two drivers of reinvestment, we also need to consider the contextual factors that might influence reinvestment behaviour by making the repatriation of earnings more (or less) attractive. These are changes in exchange rates, differences in the system of corporate governance, and differences in the system of taxation.

Depreciation of the host country currency

A sustained depreciation of the host country's currency can be expected to discourage repatriation, and therefore to increase reinvestment.[6] It should be noted, however, that on a theoretical level, such macroeconomic explanations are antithetical to the idea of FDI arising from the exploitation of the firm-specific assets and capabilities of the investing firm. The desire to manage an enterprise abroad is fundamentally separate from portfolio investment, which is a financial investment solely predicated on obtaining the highest available return. Although some theories based on macroeconomic considerations do explain some forms of FDI, the accepted view sees them as partial determinants of FDI flows, and considers exchange rates as more likely to affect the timing rather than the level of FDI (Dunning, 1993).

Corporate governance

The second contextual factor affecting the attractiveness of repatriation is due to the different expectations of corporate performance that prevail under different systems of corporate governance. In the broad groupings of economies employed by Hall and Soskice (2001), "liberal market" economies such as the United States and the United Kingdom are characterized by flexible labour markets and high stock market capitalization, while the "coordinated economies" such as Germany,

[6] Strictly speaking, it is expectations about future changes in exchange rates that should be relevant to prospective investment.

Switzerland and, to an extent, France and the Netherlands operate a bank-based system, which is characterized by a high reliance on debt financing and the cross-ownership of banks and corporations. Continental European firms, like Japanese firms, are said to take a more long-term view as regards affiliate performance, and to tolerate lower earnings in the short to medium term than their liberal market counterparts. We would therefore expect firms in a liberal market system, which are generally more concerned about short-term financial performance and shareholder value, to be more eager to repatriate earnings, while affiliate reinvestment would be a consistent choice for the firms in a coordinated market system. However, as an empirical matter, it should be noted that separating the influence of different systems of corporate governance from other country-specific factors, such as differences in systems of taxation is likely to be quite difficult. This is because systems of corporate governance and systems of taxation are neither entirely separate, nor completely overlapping. Additionally, since the number of countries with significant levels of inward or outward FDI is relatively small, country-specific factors are likely to interact with the influence of the systems of governance and taxation.

Taxation of affiliate income

The third contextual factor influencing reinvestment is the tax system. The literature on TNCs and taxation is quite extensive, and distinguishes between two main types of effects, namely locational effects and behavioural effects. We will discuss these in turn, since they illustrate different aspects of the difficulties encountered in empirical studies dealing with TNCs and taxation. The primary effects we are concerned with here are behavioural effects that affect the form in which a TNC would choose to repatriate its earnings, whether through intra-firm dividends, interest payments or royalties.[7] An important

[7] Corporate income taxes might also affect the desirability of reinvestment directly, although this is more likely to be the case with greenfield investment rather than reinvestment.

difference to the approach adopted in this article is that the studies on taxation tend to assume that the TNC makes a decision on the desired level of repatriation (intra-firm dividends), and that the level of reinvestment is determined by default.

When TNCs repatriate affiliate income, or in other words, pay themselves dividends from abroad, the tax treatment of this income differs across countries. In addition to TNC affiliates being subject to corporate income taxes in their host location, most home countries tax the repatriated earnings of foreign affiliates as well. Two basic systems of affiliate taxation exist, which seek to neutralize the effects of this double taxation. The system applied by the United States and the United Kingdom (as well as Japan) is one where credit is applied for the taxes paid by incorporated affiliates in the host country against the tax liabilities of parent firms. Under the credit system, depending on the differences in rates of taxation between the home and host country, either more taxes will be due, or credit can be accumulated if more tax was paid in the host country than was due in the home country. Most credit system countries also allow for tax deferral, so that tax is only incurred if and when income is repatriated to the home country.[8]

The second system, sometimes referred to as territorial taxation, exempts income earned abroad from domestic taxation. This system is applied in most EU countries, with the exception of Greece, Ireland, Spain and the United Kingdom, although the extent to which income is fully or partially exempted varies across countries and is affected by the provisions of bilateral tax treaties (Commission of the European Communities, 2001; Hines, 1996; Mooij & Ederveen, 2003). An exemption system is also applied in Switzerland, but only the earnings of branches are exempt, while incorporated Swiss affiliates in the United States are subject to home-country taxation, which again varies by canton (Hines, 1996).

[8] Branch plants are subject to United States taxes whether or not dividends are paid, and thus without deferral, but these account for less than 5% of all the affiliates of United States firms.

There are four types of tax rates commonly used in the literature: statutory tax rates, average tax rates (ATR) based on micro or macro data on actual taxes paid, and effective marginal tax rates (EMTR) or effective average tax rates (EATR) computed from the tax code.[9] Average tax rates based on data are also known as backward looking or *ex post* rates, while statutory rates and effective calculated tax rates are forward looking or *ex ante* rates of taxation.

While statutory tax rates are readily available, they do not necessarily reflect the real burden of taxation on TNCs, which depends on the available deductions and exemptions. Average (*ex post)* tax rates based on micro or macro data have the benefit of reflecting all of the elements of the tax code. However, they are likely to suffer from endogeneity problems, since the average tax rates based on data also reflect underlying differences in, for example, profitability or rates of growth between locations. On the other hand, *ex ante* tax rates calculated from the tax code are based on assumptions about interest rates, forms of financing and so on, which may influence the results. Devereux *et al.* (2002), who constructed *ex ante* tax rates using a range of different assumptions, argue that when a TNC decides whether to serve a foreign market by export or by FDI, or when it decides between two locations, such choices are discrete. Furthermore, such decisions are made by firms with market power that expect to earn economic rent on the investment. Consequently, they argue that for the location decisions of a TNC, EATR is the relevant rate, while affiliate reinvestment may be more sensitive to EMTR.

(i) Effects of taxation on the choice of location. Since the location decisions of TNCs are complex, the extent to which it is possible to separate the influence of taxation on cross-border location is limited. Success in assessing the impact of differences in tax regimes on the choice of location rests on the degree to which other determinants of location are adequately accounted

[9] Although rates based on actual tax revenues are also sometimes called effective tax rates to distinguish them from statutory rates.

for in the model. In addition to factors such as market size (measured typically by GDP or population) or level of development and the quality of demand (measured by GDP per capita), several factors related to agglomeration play a role in the choice of location. These factors can be related to the locational specificity of the distribution of natural resources, or the distribution and locational specificity of created resources.[10]

Overall, the empirical literature points to a negative impact of corporate taxes on the inflow of foreign investment. The literature reviewed by Hines (1999) suggested a consensus estimate of –0.6, e.g. a 1% higher tax rate would lead to a reduction in inbound investment by 0.6% (or a semi-elasticity of –2% for a tax rate of 30%).[11] However, such literature surveys, by necessity, combine studies that use different model specifications, data and methodology. To (partially) overcome these problems, de Mooij and Ederveen (2003) conducted a meta-analysis of 25 empirical studies, where they converted the results of the studies into comparable elasticities, and then examined the characteristics of the underlying studies to see if these systematically influenced the observed elasticities.

The authors found a median tax elasticity of around -3.3, but there was substantial variation across studies. Systematic differences in the results were due to the type of tax rates used and the measure of foreign capital. However, there were no systematic differences between investors from tax credit countries and tax exemption countries. M&As (as a subset of FDI) seem to have strongly positive semi-elasticities, but this

[10] These can also be labeled as endowment effects and agglomeration effects. Endowment effects refer to the immobile resources, either natural or created, that make particular locations attractive for economic activity. Agglomerative economies refer to the additional benefits derived by a firm from locating in the proximity of other firms due to expected spillovers, or other strategic or competitive considerations.

[11] Elasticity is defined as the percentage change in one variable in response to a percentage change in the other variable. A semi-elasticity is a level change in one variable in response to a percentage change in the other variable.

finding was based on only one study.[12] Studies employing statutory tax rates had the lowest (but still negative) elasticities, followed by ATR, then EMTR and EATR, which had strongly negative elasticities.

In the EU, Gorter and Parikh (2003) found that a reduction of one percentage point relative to the EU mean in the effective corporate income tax rate increased FDI from another EU member state by 4%. Their model was simple, containing only population and GDP per capita, but it used both backward looking rates based on Worldscope data (ATR) and forward looking rates (EMTR) based on the tax code. In another study of the EU, Devereux and Griffith (1998) employed a more complex model of foreign production that included the option of exporting or not serving the foreign market at all. In their model, in addition to taxes, agglomeration effects, unit labour costs and the cost of capital determined the choice of location. They found that EATR played a role in location choice, conditional on a firm having decided to produce in Europe. Thus, for example, a one percentage point increase in EATR in the United Kingdom would lead to a 1.3 percentage point reduction in the probability of a United States firm choosing to produce there. However, EATR did not play a role in determining whether to export to Europe, or not to produce there at all.

In line with the argument of Devereux *et al.* (2002), Bellak *et al.* (2006) argued that while the use of statutory rates is relatively easier, doing so may mask the size of the true effect of taxation on FDI location. In particular, they argued that bilateral effective average tax rates (BEATRs), which are calculated from the tax codes of the home and host countries and include the terms of any double taxation agreements (exception or credit), are preferable to statutory tax rates. They constructed BEATRs for seven prominent source countries investing in eight host countries in Central and Eastern Europe.

[12] Swenson (2001) found that higher state tax rates in the United States attracted fewer new plants and plant expansions, but they did not discourage foreign acquisitions.

Bellak and Leibrecht (2005) employed these rates in a gravity model of FDI, which also included a comprehensive list of other location variables. They found semi-elasticities of –3.3 to –4.6, which are larger than those reported in earlier studies and arguably closer to the true effect.

In the United States, Hines (1996) evaluated the influence of the differences between tax rates at the state level on investment in plant, property and equipment. This study also controls for the agglomeration factors affecting location choice, such as the inherent desirability of regions like New York City or Silicon Valley. The effects Hines found were large, as a 1% difference in state tax rates was associated with a 9-11% difference in the share of capital by fully taxed investors as compared to lightly taxed investors. (Lightly taxed investors were those foreign investors who received home country credits for the taxes paid in the United States, i.e. investors from Japan and the United Kingdom.) However, five states had zero rates of corporate tax, and if these states were removed from the model, the effect of taxes on capital ownership was not different from zero.

Finally, using data on United States TNCs, Desai *et al.* (2004) found that the indirect tax burden significantly exceeded the foreign income tax obligations of the affiliates of United States TNCs, and would therefore be expected to influence the location of FDI.[13] They found that indirect tax rates were negatively correlated with investment levels (as measured by assets), approximately to the same extent as corporate income tax rates. Their results suggested that an increase in the local indirect tax rate of 10% would be associated with 7.1% less affiliate assets, which is similar to the effects of income taxes. Furthermore, they found that affiliate output fell by 2.9% in response to a rise in indirect taxes of 10%, while higher income taxes had more modest output effects. They also found that high

[13] The role of indirect taxes is particularly important in countries like the United States, that do not permit foreign tax credits to be accumulated on taxes other than income taxes.

corporate income tax rates depressed the capital-labour ratios and profit rates of foreign affiliates, while indirect taxes did not.

An alternative to re-locating real activities is for the TNC to use transfer pricing to achieve a tax-minimizing allocation of profit.[14] An interesting feature of the previous study by Desai *et al.* (2004) is that since indirect taxes are not a function of corporate income, they are unaffected by the form of financing of foreign affiliates, or by transfer pricing. In other words, the measured effects related to indirect taxes are uncomplicated by any tax-motivated shifting of profit or changes in the form of affiliate financing between debt and equity.

The modern TNC embodies a large volume of intra-firm transactions of both tangible and intangible nature. Since the benefits of internalization are particularly important for R&D intensive and advertising intensive TNCs, such firms typically have higher volumes of intra-firm transactions, and consequently more opportunities for transfer pricing (e.g. Harris *et al.*, 1993; Grubert, 2003). However, even in the case of intra-firm trade in tangible goods, identifying comparable prices for transactions that involve non-homogenous goods can be wrought with difficulty. Even more problematic (for the TNC itself as well as for the tax authorities) is the pricing of R&D related intangibles within the firm (Borkowski, 2001; Eden, 2001, 2005).

While it is clear that not all of the trade conducted within the firm is motivated by tax-related considerations, measuring the true extent of abusive transfer pricing is very difficult, and consequently any estimates about the extent to which transfer pricing influences the impact of taxation on TNC activity must be considered suggestive at best.

[14] It should also be noted that TNCs from different industries differ a great deal in the extent to which they are able to re-locate productive activities across borders, with e.g. simple assembly tasks being relatively footloose, while activities employing a skilled labour force engender higher costs of transfer.

(ii) Effects of taxation on TNC behaviour. While the effect of tax rates on FDI location is difficult to assess, the effect of taxation on the behaviour of TNCs is arguably somewhat easier to come to grips with. Like all forms of regulation, taxation changes the incentives facing firms in ways that may distort their behaviour and induce inefficiencies. The behavioural effects of taxation on TNCs have been studied extensively by using the BEA data for United States TNCs. This research has uncovered distortions in TNC behaviour in four main areas, namely the extent and timing of repatriation of affiliate earnings, the financing of affiliates, the payment of royalties and technology transfer, and joint venture activity.[15]

Taxation affects both the timing and extent of profit repatriation, although the magnitude of this effect is difficult to ascertain, since there is little understanding of what constitutes a "normal" level of repatriation by TNCs.[16] Desai *et al.* (2001) conclude that while a variety of non-tax considerations affect repatriation decisions, lower rates of tax on repatriated profits are nonetheless associated with higher rates of repatriation. They found that foreign affiliates of United States TNCs that were taxed higher had higher dividend payout rates, but if the firm was in a position of excess credit, or foreign income was exempt, these effects would disappear. By contrast, firms in low tax countries might prefer to engage in reinvestment within the TNC network (perhaps making use of tax havens) rather than repatriate income.[17]

[15] Hines (1999) offers a comprehensive review of the literature concerning taxation and TNC behavior, while Desai *et al.* (2006) summarize some recent research results.

[16] Desai *et al.* (2001) apply a Lintner dividend payout model, which is usually applied to dividends to shareholders, as a baseline for intra-firm dividends.

[17] Deferral of repatriation may also be increasingly undertaken via indirect affiliate ownership. Desai *et al.* (2002) show that indirect ownership of United States affiliates has increased from around 15% of all affiliates in 1982 to over 35% in 1997.

Excess foreign tax credits arise when firms pay taxes abroad that are higher than they would have been required to pay in their home country. A tax rate decline in the home country, all other things being equal, would thus make it more likely for firms to be in a position of excess credit. Excess foreign tax credits blur the distinction between credit and exemption countries as regards TNC behaviour. While the sensitivity of firms from credit and exemption countries to high rates of taxation should be clearly different, this is not always the case empirically, because firms in credit countries differ in the degree to which they have excess credit. Firms without excess credit are relatively insensitive to (high) foreign rates of taxation, while firms with excessive credit behave more like firms from exemption countries, and are more sensitive to high rates of taxation. For example, a study by Slemrod (1990) compared the behaviour of foreign affiliates from credit and exemption countries in the United States, and found no difference in their behaviour. The type of FDI was found to matter, however, as higher taxes had a negative effect on (equity) FDI and transfer of funds (intra-firm loans), but not on reinvested earnings.

The excess credit status of TNCs will also affect the desirability of financing a foreign affiliate by debt as opposed to equity, since the interest payments are tax deductible. Desai *et al.* (2004) examined the attractiveness of using debt financing for foreign affiliates in high tax countries and equity financing for affiliates in low tax countries between groups of affiliates that are controlled by the same United States parent. They found that levels of debt were significantly higher among affiliates that were located in countries with a higher tax rate.[18] They also found that borrowing from the parent was more sensitive to tax rate differences than borrowing from external sources. Additionally, firms with excess foreign tax credits have an incentive to defer from repatriation from high-tax source countries, and they also have an incentive to repatriate income in the form of royalties rather than dividends.

[18] In response, "thin capitalization" rules have been introduced in many countries to prevent the excessive leveraging of affiliates.

The existing evidence on TNC activity and taxation leads us to believe that tax considerations are likely to play a role in forming decisions on reinvestment, but estimates of the magnitude of the effect are dependent on model specification. Taxes are likely to impact reinvestment in two ways. The primary effect is that differences in corporate tax rates between the home and host country affect the desirability of reinvestment, subject to the credit position of the parent company. The secondary effect is that the tax treatment of intra-firm dividends affects the costs of repatriation. Since the locational component can (almost) be assumed away in the case of reinvestment, it provides a particularly interesting context for the study of the tax-related behavioural effects. Recent literature also points to a reconsideration of the tax rate used and suggests that carefully constructed bilateral marginal and average tax rates, which account for all of the relevant aspects of the tax code of the home and host countries, provide a more realistic measure of the tax burden for discrete as well as marginal investment. However, as discussed earlier, this still leaves unsolved the considerable problem caused by TNCs' use of transfer pricing and the fact that TNCs optimize their tax liabilities on a global basis.

5. The role of agency considerations

Like the tax studies, studies that treat the issue of intra-firm dividends in a manner analogous to the dividends paid to shareholders also consider the relevant decision to be one of determining the level of intra-firm dividends rather than the level of reinvestment. The key to this approach, however, is to attribute deviations from optimal tax behaviour to agency considerations. High dividend payments to shareholders can be seen as a signal of the good financial health of a firm, or alternatively, they can be seen as a tool to discipline management. Similarly, high intra-firm dividends might either signal the good performance of the affiliate, or they might be used by corporate management to try to control the affiliate. The expectation here is that an affiliate in a culturally or institutionally distant and/or politically risky country would present a greater agency risk to the parent, and

therefore the parent would desire a higher degree of control of the affiliate's investment behaviour. Under such conditions, the parent might require higher intra-firm dividend payments (repatriation rather than reinvestment of affiliate income) than it requires from its other affiliates in less risky or more familiar markets.

To test this proposition, Lehmann and Mody (2003) analyzed the dividend repatriation patterns of United States, United Kingdom and German foreign affiliates based on a panel consisting of annual aggregate data on income and dividends from national sources for the period 1982-2001. They found that United Kingdom investors had the highest and most stable dividend payout ratios, followed by the United States and Germany. Host country political risk, statutory tax rate, economic growth and incidence of currency crisis had inconsistent effects of dividend payout rates. However, this result might be due to examining three source countries in a very large number of host countries, both developed and developing, with very different sectoral composition of investment across countries.

Using firm-level data from the BEA on 23,799 majority-owned affiliates for the period 1982-1997 and Compustat data of parent dividends to shareholders, Desai *et al.* (2001) applied a Lintner dividend payout model (Lintner, 1964) as a baseline for intra-firm dividends. They found that, just as in the case of dividends paid to shareholders, United States TNC had a desired level of dividends they did not want to deviate from year-to-year, but this was conditional on earnings. In a later study, Desai, Foley and Hines (2003) found that dividend payments from United States affiliates to their parents were "common, large and persistent", and a third of affiliates reported positive dividends, with a median ratio of dividends to net income of 78%.[19] Furthermore, 72% of affiliates that paid dividends in 1996 also paid dividends in 1997, although this is still lower

[19] In 1984, only 16% of the foreign affiliates of United States firms paid dividends (Hines and Hubbard, 1990).

than the persistence of dividends that firms pay to their shareholders. The inclusion of affiliate capital expenditure had little effect on the Lintner model, implying that an absence of intra-firm dividends could not simply be equated with capital expenditure (which could be financed by other means as well). Furthermore, a comparison of publicly and privately held parents suggested that there was little influence of outside shareholders on the dividend policy. While incorporated affiliates did adjust long-run payout ratios to reflect tax costs, their payout ratios were remarkably similar to foreign branches, which do not face tax consequences from dividend remittances.

An interesting, although less robust, finding from Desai, Foley and Hines (2003) is that United States TNCs continued to reinvest in affiliates even when it was not optimal in terms of the overall tax burden. This occurred specifically when parents invested new equity in an affiliate, while simultaneously receiving a dividend. Partially owned affiliates, affiliates that were located far away and had high political risk (weak legal protection) had the most rigid dividend policies, and they were most likely to engage in tax penalized behaviour, suggesting that managerial decision making, and possibly control issues, may underlie these patterns.

While this approach is intriguing, it does not offer any direct evidence that agency considerations have played a role in intra-firm dividend decisions. The proxies used to characterize the riskiness of host countries or the cultural/institutional distance associated with affiliate operations are imperfect, and they are particularly problematic in the context of investment between OECD countries due to limited variability.[20] Indeed, the fundamental question of whether TNCs make decisions on repatriation or on reinvestment has not yet been addressed in

[20] In addition to the familiar Kogut and Singh (1988) index of cultural distance, recent studies have also began to use the measure of institutional distance devised by Yiu and Makino (2002), as well as institutional measures drawn from political science, such as the index of Kaufmann *et al.* (2005).

the literature and would require survey-based data to determine more conclusively.

6. Discussion and suggestions for further research

This paper has demonstrated that reinvested earnings are an important component of the flows of FDI, and that differences exist in the patterns of reinvestment in the transatlantic context. While United States firms show a preference for relatively high levels of reinvested earnings that are stable over time, European firms show a pattern where reinvested earnings are an important component in some years, only to be reversed in subsequent years. The conceptual model of reinvestment presented here treats reinvestment as a form of marginal investment, and consequently, in our discussion, we examined the influence of factors that increase the attractiveness of the host country as an investment location, as well as the factors that increase the attractiveness of the alternative of repatriation.

In a separate study, we undertook panel data analysis using the industry-level transatlantic investment data that were available from the BEA and found that the income earned in the industry was by far the most significant and positive determinant of reinvestment (Lundan, 2006). While this may seem like an obvious result at first, it is obvious only in the sense that positive earnings are necessary for reinvestment to take place. As long as a firm has positive earnings, it has the choice to reinvest or to repatriate a lower or a higher proportion of those earnings. Existing work on United States TNCs at the firm level has confirmed that they set a target level for the intra-firm dividend that they do not like to deviate from over time. Since our focus is on reinvestment, this suggests that it would be useful in future work to model reinvestment as a dynamic adjustment process whereby TNC affiliates seek to reach their desired level of capital.

Another important topic for further empirical study, which cannot be addressed by means of secondary data, concerns the question of which decision is actually made by TNCs; the

decision concerning the repatriation of earnings, or the decision concerning reinvestment. If the decision is made concerning reinvestment, which is the approach taken in this paper, then other factors relevant to the profitability of marginal investment are likely to play a role. If the decision that is made concerns intra-firm dividends and the repatriation of earnings, then a different set of factors comes into play, including factors that involve the mitigation of agency problems within the firm.

We believe this work has significant implications in two areas central to international business. First, if the benefits from FDI are tied to the affiliate's degree of integration to the local economy, the pattern of reinvested earnings can have a significant impact on the stability of FDI in host countries, and it is therefore relevant to the discussion on policies aimed at investment attraction and retention. Second, the use of dividend policy within the TNC to mitigate agency problems in the headquarters-affiliate relationship offers a new way of integrating issues of financial control into the discussion of the strategic management of an integrated TNC. We discuss these briefly.

As the stock of FDI matures globally, reinvestment will contribute a growing share of the flows of FDI, and consequently, they should be relevant to policies aimed at investment attraction and retention.[21] The issue of to what extent foreign affiliates integrate into local clusters has been the subject of extensive study, particularly by scholars on regional issues (Cooke, 2001; Peck, 1996). Since reinvested earnings represent gradual investment in the same location, the increasing size of the investment makes the opportunity costs of relocation higher, and therefore affiliates that engage in reinvestment might have better incentives to integrate into the local economy. While reinvested earnings is not the only means by which an affiliate can grow and become integrated into its host location, internally generated funds represent a low risk means of financing future

[21] See e.g. Mudambi (1999b) and Young *et al.* (1994) on investment attraction and retention.

growth, and older affiliates have been found to be more likely to engage in sequential investment in the same location (Mudambi, 1998). Consequently, investing public resources into retaining firms that have a record of reinvestment may have a better risk-return profile in the long run than trying to attract new investment (Lundan, 2003).

As regards the issues of control, over the past decade, the international business literature has moved from focusing on the headquarters-affiliate relationship to considering affiliate roles and affiliate autonomy, and in recent years there has been an enormous growth of studies that centre on the process of knowledge acquisition within the firm. Affiliates within integrated TNCs have distinct roles, and while some might obtain global product mandates that utilize the affiliate's unique capabilities and generate independence from the parent firm, other affiliates remain much more directly dependent on the parent firm. The opportunities to gain mandates are limited, and often involve a high degree of activity by the affiliate, but when successful, affiliates' entrepreneurial initiative can become the driver for corporate competitiveness (Birkinshaw, 1996; Birkinshaw, Hood and Jonsson, 1998).

While affiliate initiative and independence contribute to the competitiveness of the TNC, they also create control problems for the parent. The use of expatriates, training programmes and other forms of socialization can be used as a form of control in integrated TNCs (Harzing, 2001). However, Rugman and Verbeke (2001) have argued that not only defined affiliate roles, but also the more general conditions under which affiliate specific advantages are developed contribute to the differentiation between affiliates of the TNC. Importantly, they also argue that the independence of the affiliates cannot adequately be managed by socialization and corporate culture, but that some transparent, recognizable metrics are required within the firm, and that the control problems are likely to be particularly acute following takeovers and mergers.

We believe that integrating financial control as a means of solving agency problems is a promising way to enrich the research on affiliate control. In the international business literature the role of financial control has been largely absent with a few notable exceptions, such as research on managing the effects of currency fluctuations within the accounting system of a TNC (Jacque and Vaaler, 2001; Oxelheim and Wihlborg, 1997). Other studies have considered the role of the TNC headquarters as managing an efficient capital market within the firm, in which case increased affiliate autonomy might detract from the efficiency of the internal market (see e.g. Mudambi (1999a) on foreign engineering affiliates in the United Kingdom). Survey-based research is needed to uncover what the role of the headquarters in setting the internal dividend payout ratio is, and whether dividend payout ratios are indeed a means to exercise control in TNC affiliates, or whether instead, these are determined as a consequence of the desired levels of reinvestment.■

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Does democracy moderate the obsolescing bargain mechanism? – an empirical analysis, 1983-2001*

Jo Jakobsen**

Developing country governments have seemingly become more receptive towards transnational corporations (TNCs). Nonetheless, political risks remain. The present article contends that authoritarianism and the host-TNC bargaining relationship still represent two potent sources of government intervention risk. In particular, the lack of democracy and executive constraints increases the likelihood of obsolescing bargaining and thus increases the risk of *ex post* intervention. I perform two empirical tests. In the first model, I use four different measures of political freedom and three different specifications of the dependent variable to examine if TNCs prefer to invest in democracies. Results confirm that democracy positively impacts on foreign direct investment. To substantiate the claim that the presumed credibility-enhancing properties of democratic nations reduce intervention risk, I also test the effect of political freedom on property rights protection. Here, too, the findings support the hypothesis. Evidently, democracy and international capital flows are highly compatible.

Key words: political risk, FDI, democracy, obsolescing bargain, developing countries

Introduction

In the past two decades, governments in the developing world have seemingly become more receptive towards

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transnational corporations (TNCs) and foreign direct investment (FDI). Much has changed since the 1960s and 1970s - the era of large revolutions, fiercely anti-capitalist and nationalist developing nations, across-the-board nationalizations, and a booming political risk assessment and insurance industry. As other sources of capital had dried up by the late 1970s, and the much-favoured protectionist development programmes had proved unsuccessful, these countries started to take a more pragmatic and cooperative approach to FDI (Graham, 1996; Narula and Dunning, 1999).

In spite of this general trend, I contend that political risks remain. This assertion is supported by three arguments concerning TNCs and the environments in which they invest. First, I hold that while spectacular macro-political events have become rare, less dramatic and more subtle micro-political risks still represent huge problems for TNCs. First and foremost among such risks is the risk of *policy changes* and *government intervention*, including price controls, forced contract renegotiations, ownership restrictions, corruption and tax increases.

Second, government intervention in TNC affairs is often the result of a gradual shift in the relative bargaining power of the host government and the TNC. This shift – identified by Vernon (1971) and referred to as the *obsolescing bargain mechanism* (OBM) – largely transcends the ideological orientation of the government and functions independently of the world's general investment climate. The OBM dictates that the host government, *ceteris paribus*, increases its leverage *vis-à-vis* the TNC after the latter's capital is sunk in the host country. Third, I argue that the obsolescing bargain problem is magnified in non-democratic countries with weak political institutions and few institutional or partisan constraints on the executive. This is mainly because the ability of dictators or other unconstrained policy-makers to change the terms of an initial agreement with foreign investors is practically unbounded and the promise not do so is inherently not credible (Henisz, 2000; Henisz and Williamson, 1999; Jensen, 2003, 2006).

This article, then, contends that a lack of democracy, being highly correlated with policy discretion, increases the likelihood of the obsolescing bargain mechanism and thereby increases the risk of government intervention and policy reversals. These arguments will be theoretically outlined and empirically demonstrated in three main steps. First, I will discuss the link between various sources of political risk and political risk effects. Second, through a time-series cross-section (TSCS) analysis of 96 developing end emerging economies from 1983 to 2001, I test whether democracy and executive constraints are related to FDI inflows. Since some argue that many available indicators of democracy are not interchangeable despite being highly correlated (Casper and Tufis, 2003), in these tests, I employ four different measures of political freedom. I also use different specifications of the dependent variable and perform extensive sensitivity tests. Results suggest that political freedom is robustly related to FDI. These findings, however, do not by themselves exclude other possible causal mechanisms. To investigate further whether democracy and "checks and balances" really lower the risk of government intervention, I therefore test the effect of political freedom on property rights protections. Here, too, the findings support my hypothesis.

Political risk

Following the Cuban, Iranian, and Nicaraguan revolutions, the 1970s and early 1980s saw the publication of a large number of studies dealing with definitional and conceptual issues in the field of political risk analysis (Green, 1974; Robock, 1971; Simon, 1982). Explicitly or implicitly, these studies focused on the causal link between sources of political risk and risk effects. Somewhat surprisingly, no real academic consensus on these issues was ever reached.

The early literature yielded two contrasting definitions of political risk (Desta, 1985; Kobrin, 1979). Following the violent upheavals and mass expropriations in a number of developing countries, one group of scholars defined political risk as the occurrence of political events that could directly or

indirectly affect the foreign investor (Bunn and Mustafaoglu, 1978). Two main categories of such events were identified. The first is *political instability*, which could result in the deterioration of the general investment climate of a country and cause losses for the firms (Thunell, 1977; Weston and Sorge, 1972). The second category concerns political events that take place "at the junction of environment and enterprise" (Kobrin, 1979, pp. 68-69) - for example, expropriations, nationalizations, tax increases, and exchange controls. These incidents are normally the *actions of governments* that directly obstruct the goals of TNCs.

The latter category of political events involve host government interference with TNCs' operations and was, by the second strand of scholars, perceived to be the main direct cause of investor losses, i.e. the main form of political risk *effects*. That is, many analysts questioned the value of focusing too heavily on political instability on the grounds that such instability happened infrequently (Rummel and Heenan, 1978), did not necessarily lead to policy changes relevant to foreign investors (Kobrin, 1979), and thus did not *per se* pose a significant risk to TNCs (Robock, 1971). More often than not, the argument went, TNCs suffered losses due to relatively undramatic changes in policy towards foreign affiliates.

Most scholars now acknowledge that policy changes and government intervention constitute the most important class of political risk outcomes (Graham, 1996; Jensen, 2006; Wells, 1998). Substantial or subtle changes in the "rules of the game" seem to pose a greater threat to TNCs than events initiated by non-government forces, like kidnappings, sabotage, and terrorism. This is so despite the fact that dramatic mass expropriations have all but ceased to be a major issue (Minor, 1994). Evidence from the political risk insurance industry is illustrative. Even though insurance claims related to damages from political violence are more numerous than "expropriation" losses (with expropriation being broadly defined; see Moran and West, 2005), losses of the latter nature are usually far more costly in dollar terms (Jensen, 2005; O'Sullivan, 2005). This

can be true even if the action that causes the loss seems innocuous and unspectacular. A "death of a thousand cuts" (Zonis and Wilkin, 2001, p. 178) – which often arises from ineffective legal or regulatory regimes – could hurt a company more than a violent *coup d'état*, which does not necessarily have any bearing on TNCs' activities (Morisset and Neso, 2002). The notion that micro-political risks are a significant impediment to FDI also receives support from recent surveys of TNCs (A.T. Kearney, 2003; Batra, Kaufmann and Stone, 2003). Often such risks, of which there exists a wide variety, are placed under the general heading of "creeping expropriation" as they gradually, yet significantly, erode the firms' property rights (Oetzel, 2005). In the existing literature, the heterogeneity of possible political risk outcomes is matched by an equally vast array of potential *sources* of risk. Some argue that political instability is what matters (Green, 1974; Weston and Sorge, 1972). Others highlight host country attitudes in general (Ascher and Overholt, 1983) and economic nationalism in particular (Lipson, 1985; Moran, 1974). Yet another group of scholars identify the host country-TNC bargaining relationship and industry-specific characteristics as prime causes (Poynter, 1985; Vernon, 1971). Furthermore, some scholars and practitioners treat political risk as more of a multidimensional phenomenon (Bunn and Mustafaoglu, 1978; Robock, 1971; Simon, 1982), while a recent series of studies have focused more sharply on host country institutions (Henisz, 2000; Jensen, 2006).

This brief review of the literature suggests that a more succint and, at the same time, more powerful framework for explaining political risk effects is needed. Taking as my point of departure the observation that policy changes and government intervention are the most important forms of direct obstacles to TNCs, I contend that the sources of such outcomes are often – albeit not exclusively – to be found in: (1) the relative bargaining power of the host and the firm, and the inevitable shift in this bargaining relationship over time; and (2) specific characteristics of the host country's political system. Moreover, these two root causes of risk often work in tandem, ensuring that the risk of host government appropriation of sunk TNC assets – a risk that

is significant irrespective of institutional traits – is heightened in autocratic nations with few checks and balances.

The obsolescing bargain

Initially proposed by Vernon (1971), the obsolescing bargain model states that investment deals involving the deployment of significant fixed assets will, almost unavoidably, be susceptible to later revisions by the host government. This is so mainly because investment, once undertaken, becomes a "hostage" in the custody of the host country. Large oil rigs, production plants or copper mines cannot easily be removed by the TNC. Consequently, the firm cannot, *ex ante*, credibly threaten to pack up and leave if the host government reneges on the agreed contract. All else being equal, the relative bargaining power of the firm decreases and that of the host government increases with time.

The pre-investment distribution of bargaining power tends to favour the TNC; hence, the initial deal is often relatively advantageous for the investor. Depending on the nature of the proposed investment, the foreign investor can offer the host much needed capital, management know-how, marketing skills, advanced technology and access to export markets (Fagre and Wells, 1982; Vachani, 1995). The "bargaining chips" of the host country include its market size and growth prospects, access to cheap and/or highly skilled labour, natural resources, infrastructure, and an investor-friendly regulatory regime (Dunning, 1988). The outcome of the bargaining is also influenced by the level of TNC and host country competition. While the TNC may succeed in working out a favourable initial agreement for itself, the point Vernon (1971) makes is that this deal might not last for long if immobile fixed assets are involved. In countries where the risk of expropriation (however defined) is substantial, the host government's inclination to renege on contracts increases with the degree of asset specificity, which makes investments involving large sunk costs a particularly risky undertaking (Teece, 1986). Paradoxically, the size of the required

investment, which in the pre-investment phase is a crucial bargaining chip for the TNC, becomes a liability in the post-investment phase. This mechanism has proved particularly troublesome for companies in extractive industries, where fixed-asset investments are substantial and the period required for recouping investment is long (Bray, 2003; Moran, 1974, 1998). The infrastructure industry is also vulnerable, as evidenced by the wide-ranging forced contract renegotiations and investment disputes that followed the FDI boom of the 1990s (Ramamurti and Doh, 2004; Wint, 2005).

TNCs' profits also constitute a double-edged sword. High initial returns may make an affiliate a more attractive target for government takeover or the imposition of regulation (Poynter, 1985), and even more so if monopoly rents are extracted by the firms, as is often the case with infrastructure investments (Jodice, 1980; Wells, 1998). Besides, once a foreigners' project has proven commercially viable, the "risk premium" from the pre-investment phase – a common feature of investments in natural resources – suddenly looks excessive and unfair; accordingly, both politicians and the public at large are inclined to demand a larger slice of the revenue as time passes. Moreover, as technical and management skills spread to host country nationals, the government comes to realize that the project can - and perhaps should - be run by locals (Poynter, 1982).

The general outcome of these processes is the increased risk of government intervention. There exist many studies on government interference where the root causes are to be found in the logic of the obsolescing bargain. Moran's (1974) seminal analysis of the gradual *nacionalización* of United States copper firms in Chile is perhaps the most comprehensive empirical treatment of the model. Others, too, have used Vernon's model to account for TNC losses (Poynter, 1982; Vachani, 1995; Wint, 2005). Considering the empirical evidence, the notion of the obsolescing bargain appears to be a valid theoretical explanation of politically-induced TNC losses.

Democracies, autocracies and veto players

While highlighting the bargaining relationship as a potential source of political risk is fairly uncontroversial, the notion that foreign investors prefer democracy over autocracy is not left uncontested in the literature. O'Donnell (1978), for example, argues that various military dictatorships in the 1960s and 1970s forged strong alliances with international capital. Likewise, Li and Resnick (2003) contend that autocracies tend to support TNCs' oligopolistic or monopolistic behaviour and are more capable of offering generous fiscal incentives to foreign investors. In addition, authoritarian regimes may, through their ability to suppress the criticism of deals with TNCs, provide some protection, which democracies – especially fledgling ones – cannot (Przeworski and Limongi, 1993; Wells, 1998).

The benefits of democracy should nonetheless far outweigh the costs associated with its supposed lack of flexibility. Some recent qualitative evidence suggests that sound political institutions matter more to TNCs than financial incentives, and investment promotion agencies utilize their respective countries' democratic institutions as a major selling point (Jensen, 2006). Similarly, although the evidence is still mixed, recent quantitative studies find little to suggest that TNCs are particularly attracted by autocratic governments, repressive regimes or low labour standards (Busse, 2004; Jakobsen and de Soysa, 2006; Jensen, 2003; Neumayer and de Soysa, 2005).

Political institutions, first and foremost, enter into the consideration because the likelihood of policy reversal is such a major concern for investors. Olson (1993), for example, argues that democracies are more conducive to investment and growth than autocracies because an autocrat is unable to commit credibly to protect his citizens' property rights. Citizens in autocracies will thus invest and produce less than the optimal level. Of course, an autocrat does have an incentive to *promise* property rights protection, but such a promise lacks credibility because it is not backed up by any independent sources of power. Sound

political institutions, although they do not *guarantee* policy stability, do enhance the credibility of promises to protect investors' assets (Henisz, 2000; Henisz and Williamson, 1999; Jensen, 2006). This is of utmost importance to TNCs, given that most FDI is undertaken with a long-term view. Having invested in immobile assets in the host country, the TNC's financial viability will surely be under threat if foreigners are discriminated against; contracts are not upheld; or business laws are enforced in an arbitrary manner (North, 1990; Rondinelli, 2005; World Economic Forum, 2004). Forward-looking TNCs, therefore, generally value solid political institutions and secure property rights more than investment incentives (e.g. tax breaks), because good governance is the foundation for *future* policy stability, while FDI incentives are perceived as non-permanent and unstable (Morisset and Pirnia, 1999; Streeten, 2005).

The credibility-enhancing nature of democracies is in no small part due to the existence of veto players and executive constraints, such as the parliament, opposition parties, independent courts and regional/local governments (Henisz, 2000; Leeds, 1999; Levy and Spiller, 1994). These are actors of the political system that can block the adoption of a policy (Tsebelis, 1995). The central thesis is that for policy stability to be effectively promoted, the state or government must be limited in its ability to exercise its power arbitrarily. By definition, checks and balances favour the status quo, diminishing the scope for policy reversals, uncertainty and self-interested behaviour (Leeds, 1999; North, 1990). Other things being equal, a low number of veto players increases policy risk (McIntyre, 2001; Tsebelis, 1995).

Henisz (2000), for example, argues that the *feasibility of policy change* is proportional to the level of political hazards or political risk. Based on this idea, he creates a simple spatial model of political interaction or political constraints (POLCON) that includes a number of relevant actors (the executive, the lower and upper houses of legislature, sub-federal units, and the judiciary) and their possible preferences. He then proceeds to calculate yearly POLCON scores for 157 countries for the

period 1960-94,[1] thereby generating an *objective* measure of an important source of political risk.

The checks and balances concept can usefully be regarded as a subset of democracy, which, in turn, is an important factor in the make-up of a nation's general institutional arrangement. A widely held belief is that investing in emerging markets requires that the "soft infrastructure" be in place (Dunning, 1998; Globerman and Shapiro 2002). If political freedom, bureaucratic efficiency and the rule of law prevail, uncertainty and transaction costs for economic actors are reduced and rent-seeking and opportunistic behaviour are curtailed (Eggertsson, 1990; Mudambi and Navarra, 2002; North, 1990). In contrast, if institutions are poor, as they are in many developing countries, nations tend to become trapped in a vicious circle of autocratic arbitrariness, poorly defined and ineffective property rights, high transaction costs, lack of fixed investments and long-term agreements, and subsequently lack of growth (North, 1990).

The argument that democracy enhances credibility is adopted by Jensen (2003, 2006), who advances the explanation by suggesting that the existence of "audience costs" further induces democratic leaders not to break promises. When state leaders are held accountable by their constituencies, reneging on promises tends to come with a political price, as policy reversals are bound to harm important sub-groups in the host country (e.g. suppliers of TNCs' suppliers, employees, customers). Thus, the fear of an electoral backlash can contribute to constraining democratically elected leaders (Jensen, 2003, 2006; Leeds, 1999).

The preceding discussion outlines the main reason why democratic environments are conducive to FDI. Yet, non-democratic nations have a number of other characteristics that

[1] The database has since been updated and now contains POLCON scores for practically all economies of the world for the period 1800-2004. The dataset is available at http://www-management.wharton.upenn.edu/henisz/.

also tend to make them politically riskier than their democratic counterparts. For example, political freedom may decrease the ability of bureaucrats or local businesses to extract rents from administrative procedures and to exploit institutions often marred by cronyism (Jakobsen and de Soysa, 2006; Morisset and Neso, 2002). Others point out that autocratic regimes, although seemingly stable, may hide an underlying instability, eventually causing erratic and unpredictable change (Bremmer, 2005; Feng, 2001). Another common contention is that investing in repressive autocratic regimes causes reputational risks for TNCs and increases the likelihood of vigorous NGO (and shareholder) activism and costly litigation processes against the management (Bray, 2003; Kobrin, 2005).

The obsolescing bargain mechanism in autocracies

Some argue that the OBM transcends partisanship at the level of national politics and brings the perceived national interest to the forefront (Moran, 1998). For instance, the many expropriations and forced divestments in the 1960s and early 1970s were instigated by governments of different political orientations; often the interventions had the characteristics of a rational process that was pursued to achieve national politico-economic objectives (Jodice, 1980; Kobrin, 1980). Yet, in terms of political institutions, the vast majority of countries undertaking mass expropriations in this time period were severely under-developed and their respective governments had come to power either through coups, revolutions or abrupt decolonization processes (Kennedy, 1993). In the absence of a functioning democracy, the hands of the executive power are untied, credibility is lacking, and government intervention becomes more likely (Leeds, 1999; Moran, 1998).

The relevance of the OBM depends critically on political institutions. Without credible commitments, contracts and policies are mere promises; they are not self-enforcing and therefore cannot be expected to be adhered to (Schelling, 1960; Williamson, 2000). The OBM predicts that the host government will behave opportunistically, once sunk investments are made,

but the scope for such opportunism is significantly constrained if veto-wielding players are present, as they usually are in democracies (North, 1990). In countries without well-developed checks and balances, on the other hand, government intervention risk is magnified.

Recent evidence from oil-rich Venezuela is illuminating. Having been elected as president in late 1998, Hugo Chávez has since strived to curtail the political power of the opposition.[2] Acting on the basis of a temporary enabling law that gave the president and the government legislative powers, Chávez announced in November 2001 the enactment of 49 new economic laws, which had been subjected to hardly any consultation. Among these laws was a new hydrocarbons legislation that almost doubled royalty taxes and required the state's equity participation in joint ventures to exceed 50%. Critics complained that the move amounted to a virtual "renationalization" of the petroleum industry in which foreign corporations have invested billions.[3] Since then, the TNCs have suffered several tax hikes, the most sudden and dramatic of which occurred in April 2005 when the authorities made an unanticipated announcement – amid record oil prices – that they would raise both income taxes and royalties in the industry, securing for the state a minimum of 82.5% of profits.[4] A few months later, the government declared that the 2001 Hydrocarbons Law was to be applied retroactively and that 32 contracts signed with oil firms between 1992 and 1997 would be revised, to secure state majority ownership.[5] Similar contract revisions have also affected foreign-owned mining firms,[6] while a controversial land reform

[2] In 2000, Venezuela's political constraints (POLCON) score dipped from 0.18 to 0, the lowest possible value.

[3] "Venezuela's 'revolutionary' laws", *The Economist*, 22 November 2001; "Venezuelan oil law 'threatens investment'", *Financial Times*, 20 November 2001.

[4] *Financial Post – Canada*, 18 April 2005: "Venezuela announces plan to increase income tax on private oil projects;" *The Economist*, 10 November 2005: "Chávez squeezes the oil firms."

[5] "Venezuela gives Exxon ultimatum", *BBC News*, 20 December 2005.

[6] "Venezuela reviews foreign deals", *BBC News*, 8 February 2005.

scheme – which was also initiated under the 2001 enabling law – has resulted in the confiscation of allegedly idle rural estates.[7]

In the sections that follow, I will empirically investigate the hypothesis that political freedom and executive constraints reduce investor risks. First, this will be examined by way of a TSCS analysis of democracy's effect on TNCs' investment location decisions (i.e. FDI inflows). Granted, such a test does not exclude other possible mechanisms. To explore further the argument that political freedom mitigates the OBM and thereby reduces government intervention risk, I also test whether democracy and checks and balances are reflected in the strengths of property rights protection.

Democracy as a determinant of FDI – an empirical analysis

Evidence in the empirical literature is somewhat mixed on the relationship between political freedom and FDI. Oneal (1994), for example, finds no evidence that investment flows are significantly related to the regime type, although the rates of return in developing countries seem to have been larger in autocracies. In a more recent study, Li and Resnick (2003) find that democratic developing nations actually receive less FDI than autocratic developing countries, if democracy's positive impact on property rights protection is controlled. Replicating that study, Jakobsen and de Soysa (2006) show that once the sample is extended and certain methodological problems are addressed, the relationship between democracy and FDI, in fact, becomes positive and significant. These results are supported by Jensen (2003). Likewise, neither Busse (2004) nor Harms and Ursprung (2002) find any consistent support for anti-globalization activists' claim that TNCs prefer to invest in countries with regimes that repress civil and political rights, although this conclusion is valid only for the 1990s. Others have found little evidence to suggest that TNCs find the business environment in autocratic countries more attractive because of restrictive conditions imposed on labour (Neumayer and de

[7] "Venezuela's chaotic land reform", *The Economist*, 13 January 2005.

Soysa, 2005). Although, on balance, recent empirical literature suggests a complementary relationship between FDI and democracy, the evidence is not yet unambiguous. The discrepancies in findings may be partly due to the fact that different studies employ different specifications of both the dependent and the independent variable(s).

Model

My main dependent variable is FDI inflows (FDI), logged in order to reduce skewness; to avoid problems of undue "influence" and heteroskedasticity; and to improve the model's fit.[8] However, the existing studies on the determinants of FDI determinants differ in the choice of the dependent variable. Some studies utilize (logged) FDI per capita (Busse, 2004; Harms and Ursprung, 2002), while many employ FDI divided by GDP (Asiedu and Lien, 2004; Büthe and Milner, 2005). Even though different FDI measures are highly correlated (see table 1), in some tests I also use per-capita FDI (FDIPC) or the ratio of FDI to GDI (FDIGDP) to ensure that results are robust.

Table 1. Correlation between democracy, property rights and FDI

	POLITY	FREEDOM HOUSE	VAN HANEN	POLCON	PROPERTY RIGHTS	FDI	FDIPC	FDIGDP
POLITY	1.00							
FREEDOM HOUSE	0.86	1.00						
VANHANEN	0.75	0.73	1.00					
POLCON	0.77	0.69	0.67	1.00				
PROPERTY RIGHTS	0.21	0.29	0.31	0.23	1.00			
FDI	0.28	0.25	0.33	0.30	0.40	1.00		
FDIPC	0.29	0.33	0.35	0.29	0.45	0.89	1.00	
FDIGDP	0.25	0.26	0.27	0.26	0.33	0.88	0.96	1.00

Source: Own calculations, based on sources described in the text.
[a] FDI, FDIPC, and FDIGDP are logged.

[8] Data are from UNCTAD and can be downloaded from http://stats.unctad.org/fdi/. Transforming variables presents a few minor problems, such as how to treat negative and zero values. In my model, such values are set to a very small number (i.e. $0.01 million) relative to the lowest absolute values in the sample. This transformation, however, only affects about 9% of the total in my sample.

Since some argue that most available indicators of democracy are not interchangeable despite being highly correlated (Casper and Tufis, 2003), I test the effects of four different measures of political freedom and executive constraints on FDI. The first is the POLCON index (POLCON) by Henisz (2000), which specifically and objectively measures the level of constraints on the executive. POLCON ranges from zero (no constraints) to one (maximum constraints). Second, I draw on data from the Polity IV Project and include the Polity 2 index (POLITY) in some of the specifications. This broader (and more subjective) estimate of democracy is re-scaled so as to range from one (full autocracy) to 21 (full democracy).[9] Third, I also use Freedom House's aggregate political and civil rights index (FREEDOM HOUSE). This variable is also re-scaled and ranges from 1 to 13.[10] And finally, in some tests, I use the only available objectively measured indicator of democracy based on electoral data (Vanhanen, 2000). This latter measure of polyarchy (VANHANEN) gauges the narrowness of victory for the largest party winning any given election for executive office. The resulting variable is then interacted with the percentage of the population that participates in the election.[11]

In an analysis of the determinants of FDI, a number of variables that influence the host-country's potential to attract FDI have to be controlled. Some of these determinants have proven to be very stable over time (Nunnenkamp and Spatz, 2002). In the empirical literature, a consistent finding is that market size matters, as does market growth. I therefore include ECONOMIC SIZE (GDP, logged) and ECONOMIC GROWTH in my model. As a measure of the host country's trade potential

[9] POLITY contains country-level information on executive constraints, political competition, and the competitiveness and regulation of political participation and executive recruitment. The Polity 2 version of the index also codes democracy scores for interregnum years previously reported as missing (Gurr and Jaggers, 1995). The Polity IV dataset is available at http://www.cidcm.umd.edu/inscr/polity/.

[10] Data can be downloaded from http://www.freedomhouse.org/.

[11] The Polyarchy data are available from http://www.prio.no/cwp/vanhanen/.

for export-oriented TNCs, trade openness (i.e. the sum of exports and imports, divided by GDP and logged) is, in most studies, also found to be a potent predictor of FDI (Harms and Ursprung, 2002; Jun and Singh, 1996). In addition, the variable ECONOMIC DEVELOPMENT (GDP per capita, logged) is included to control for the level of development, even though this variable is often found to have little statistical effect on FDI inflows (Li and Resnick, 2003; Neumayer and Spess, 2005). Data on these four variables are from the World Bank (2004).

To proxy investment risks that are not directly related to political freedom, I use several measures. Acknowledging that exchange-rate movements can have an impact on TNC profits, especially for manufacturing firms (Miller and Reuer, 1998), I control for exchange rate volatility (EXCHANGE RATE), as others do (Brunetti and Weder, 1997).[12] Following Li and Resnick (2003), I also use a proxy for regime durability, extracted from the Polity IV dataset. This variable is measured as the number of years since the last regime transition (i.e. a 3-point or greater shift in the Polity index). In addition, I include a dummy variable for civil war (CIVIL WAR) with over 25 battle-related deaths (Gleditsch *et al.*, 2002) to account for political instability.[13] CIVIL WAR, I suspect, is more relevant than proxies for general political stability and violence, which are sometimes used but often turn out to be insignificant (Brunetti and Weder, 1997) or even positive (Campos and Nugent, 1998). Given the recent evidence that government ideology matters (Jakobsen and de Soysa, 2006), I also include a dummy for the party political affiliation of the government. This variable (LEFTIST EXECUTIVE) is drawn from the World Bank's Database on Political Institutions (DPI), which is an indicator for the "economic policy orientation" of the ruling party and coalition. This database deems a government "rightist"

[12] EXCHANGE RATE is the standardized absolute exchange rate deviation from the average exchange rate of local currency units *vis-à-vis* United States dollars over the last three years. Data are from the World Bank (2004).

[13] Data are obtained from the PRIO/Uppsala Armed Conflict Dataset, available at http://www.prio.no/cwp/ArmedConflict/.

if ruling parties are defined as conservative, Christian democratic or right-wing, and "leftist" if ruling parties are communist, socialist, social democratic or left-wing (Beck *et al.*, 2001).

Some hold that failure to control for property rights and government policy may lead to contradictory results in analyses of FDI determinants (Knack and Keefer, 1995; Lecraw, 1996). I therefore include a proxy for property rights protection, which is based on expert-generated data from the International Country Risk Guide (ICRG) and closely resembles the index calculated by Knack and Keefer (1995) and utilized by Li and Resnick (2003) and Jakobsen and de Soysa (2006).[14] The measure, PROPERTY RIGHTS, runs from 0 to 60 and is a weighted average of four of the 12 variables included in ICRG's political risk index: investment profile (weighted 40%), quality of bureaucracy (20%), corruption (20%) and the law and order (20%).

Geographical closeness to TNCs' home countries may be a factor in location decisions. I therefore include a variable indicating FDI outflow-weighted summed surface distance between host countries and four major political and financial centres: Brussels, Washington D.C., Tokyo and Hong Kong.[15] The variable (WEIGHTED DISTANCE) is logged to reduce skewness.

I also acknowledge that FDI, by definition, exhibits a significant degree of stickiness and I thus include a measure of accumulated FDI divided by GDP (FDI STOCK). FDI STOCK also reflects the presence of other TNCs in a country, which by itself signals host-country potential and possible agglomeration economics (Dunning, 1998).

[14] The weighting and naming of the individual variables included in ICRG's composite political risk index has changed somewhat over the last few years. Therefore, I am not able to exactly replicate Knack and Keefer (1995).

[15] Data on distances between world capitals can be obtained from http://wcrl.ars.usda.gov/cec/java/capitals.htm. Data on FDI outflows are from UNCTAD's database at http://stats.unctad.org/fdi/.

The data have a panel structure, containing information on each country (*i*) for each year (*t*) over the period 1983-2001. Consequently, a TSCS design is employed. All independent variables – except WEIGHTED DISTANCE, whose hypothesized effect is immediate – are lagged one year under the assumption that it takes some time for changes in the explanatory variables to affect FDI. This should also ease possible endogeneity problems. My model only focuses on developing and emerging market economies, as is the convention in the bulk of the empirical literature (Jun and Singh, 1996; Schneider and Frey, 1985).

Following Beck and Katz (1995), I choose to estimate my regression parameters by OLS, which should yield consistent, albeit inefficient, results. The standard errors, on the other hand, are probably distorted. Since the model is cross-sectional dominant ($N>T$), the Parks-Kmenta FGLS estimation technique cannot, and the panel-corrected standard errors (PCSEs) method should not, be used (Beck and Katz, 1995; Wiggins, 1999). The recommended estimation method in Stata, especially when the sample size is large, is to regress cluster (Wiggins, 1999; Wooldridge, 2003), i.e. OLS regression with Huber-White's heteroskedastic-consistent robust estimates of the standard errors .

The model is likely to be plagued by serial correlation in the error terms (as well as contemporaneous correlation, i.e. correlation between the errors of different units). Following Beck and Katz (1995), I therefore include a lagged dependent variable (LDV) on the right-hand side of the equation. By doing so, I basically treat the LDV as an explanatory variable in its own right, expecting it to represent relevant omitted historical factors and thus to account for a large part of the variance in FDI (Kittel, 1999; Wooldridge, 2003). In addition, the inclusion of the LDV should rid the model of autocorrelation. This expectation is confirmed by a TSCS version of the Lagrange-multiplier test. Since FDI levels vary greatly from year to year, suggesting that there may be large unit-invariant differences between time periods, I also include time dummies among the regressors.

Results

Table 2 presents results when FDI is regressed on four different proxies for democracy and executive constraints.[16] All of the main variables of interest are positively and significantly related to FDI in developing and transition economies as expected. A 1% increase in POLITY, other things being equal, induces a 5.76% increase in FDI inflows, and a ten-point POLITY improvement is associated with a 75% increase in FDI. Likewise, a relatively modest 0.10 improvement in POLCON (which ranges theoretically from 0 to 1) yields 21.56% more FDI. The other measures of political freedom show similar results.

The inclusion of a lagged dependent variable complicates the interpretation of substantive effects. However, the presence of the LDV increases the statistical significance of other explanatory variables. This is so because the LDV tends to soak up variance and masks or reduces other possible causal effects of the independent variables (Kittel, 1999). Therefore it seems that results reported in table 2 are reasonably reliable.

Regarding the control variables, most of them are significant and have the expected sign. Specifically, two of the market-related variables, ECONOMIC SIZE and ECONOMIC GROWTH, are positive and highly significant, confirming results reported by many other studies (Busse, 2004; Globerman and Shapiro, 2002; Schneider and Frey, 1985). ECONOMIC DEVELOPMENT, however, is negative, and sometimes significantly so. This, however, should come as little surprise;

[16] Several diagnostics tests were performed. VIF and tolerance scores did not show a problem with multicollinearity. A Lagrange multiplier test indicated that including a lagged dependent variable was warranted; the test was insignificant after the inclusion of the LDV. Histograms showed that the untransformed version of the dependent variable was highly skewed and that logging was necessary. Logging ensured that the dependent variable approximated a normal distribution and also removed the "fan" pattern whereby residuals increased as fitted values increased. No cases of undue influence (leverage) were detected.

Table 2. Determinants of FDI in developing countries, 1983-2001

Independent variables	(1) FDI	(2) FDI	(3) FDI	(4) FDI
LAGGED DEPENDENT	0.440***	0.478***	0.465***	0.470***
	(8.62)	(8.15)	(8.34)	(8.61)
POLITY	**0.056*** **			
	(3.22)			
FREEDOM HOUSE		**0.118*** **		
		(3.04)		
VANHANEN			**0.037*** **	
			(3.71)	
POLCON				**1.952*** **
				(4.16)
PROPERTY RIGHTS	-0.000	-0.010	-0.005	-0.005
	(0.04)	(0.85)	(0.43)	(0.41)
CIVIL WAR	-0.579***	-0.424*	-0.528**	-0.558***
	(2.67)	(1.92)	(2.40)	(2.63)
REGIME DURABILITY	0.055	0.059	0.056	0.077
	(0.61)	(0.67)	(0.66)	(0.83)
LEFTIST EXECUTIVE	0.245*	0.279*	0.357**	0.353**
	(1.71)	(1.79)	(2.49)	(2.35)
ECONOMIC SIZE	0.662***	0.635***	0.617***	0.603***
	(8.96)	(7.03)	(7.66)	(6.99)
ECONOMIC GROWTH	0.044**	0.048**	0.040**	0.040**
	(2.39)	(2.49)	(2.23)	(2.20)
ECONOMIC DEVELOPMENT	-0.369**	-0.247	-0.348**	-0.251
	(2.58)	(1.34)	(2.27)	(1.59)
EXCHANGE RATE	0.000	-0.000	-0.001	0.000
	(0.21)	(0.27)	(0.43)	(0.03)
TRADE	0.382	0.357	0.344	0.304
	(1.59)	(1.54)	(1.54)	(1.37)
FDI STOCK	0.288***	0.187*	0.255***	0.250***
	(3.53)	(1.72)	(2.96)	(2.67)
WEIGHTED DISTANCE	-0.249	-0.129	-0.011	-0.228
	(1.10)	(0.59)	(0.05)	(1.02)
Constant	-11.259***	-11.484***	-11.925***	-11.154***
	(3.52)	(3.69)	(3.77)	(3.75)
Countries	94	95	95	95
Observations	1043	1002	1048	1052
R^2	0.550	0.554	0.550	0.552

Source: Own calculations, based on sources described in the text.

[a] Regression with robust standard errors (regress, cluster() command in Stata 8.0).

[b] Time dummies are used in estimation but not reported.

[c] *t*-statistics in parentheses.

[d] All independent variables except WEIGHTED DISTANCE are lagged one year.

* Significant at the 10% level.

** Significant at the 5% level

*** Significant at the 1% level.

while GDP per capita is a proxy for wealth and hence for the purchasing power of the host-country population (and, in effect, also for physical infrastructure), it is also an implicit measure of wages and should thus be negatively correlated with *efficiency-seeking* FDI. Others, too, report that the effect of income is not significant (Neumayer and Spess, 2005). WEIGHTED DISTANCE also exhibits little effect on the dependent variable, a result confirmed by Altomonte (2000). It seems, thus, that countries are not rewarded for being geographically close to TNCs' home countries.

The fact that FDI STOCK is consistently positive and significant is as expected. However, table 2 and further unreported analyses suggest that the inclusion of FDI STOCK works to eliminate the impact of TRADE on FDI.

The two proxies for political instability and regime instability vary in their observed effects. Reassuringly, CIVIL WAR seems to lower FDI inflows, possibly indicating that this variable is better suited to control for *investor-relevant* instability than the commonly employed event counts measures of instability that aggregates coups, revolutions, assassinations, riots and strikes into a single index. In fact, a similar reasoning may account for why REGIME DURABILITY is insignificant. Frequent changes of government or regime do not *per se* force a change in investment rules and thus do not necessarily pose a significant risk to foreign companies (Kobrin, 1979; Robock, 1971). Exchange-rate volatility, too, has little impact on aggregate FDI flows, a result also reported by others (Globerman and Shapiro, 2002).

The leftist dummy, however, is positive and significant, consistent with the findings of Jakobsen and de Soysa (2006). In other words, the popular perception that leftist governments deter TNCs *ex ante* receives no empirical support in this study. Similar results were reported by Schneider and Frey (1985) some 20 years ago. As we have suggested above, the OBM largely transcends partisanship, with rightist governments being no less prone to acting in the country's perceived self-interest (Moran, 1998).

Somewhat surprisingly, PROPERTY RIGHTS – which should proxy *current* government intervention risk – is insignificant in all specifications. Perhaps this suggests that measuring the current investment regime reveals little information regarding what the future might bring. In fact, Henisz (2000) argues that his POLCON measure should perform better than most other proxies for political risk because the commercial risk assessment industry is rarely forward-looking. TNCs, on the other hand, invest on a long-term basis; political risk would therefore be defined in terms of the possibility of *future changes* in the investment regime, and the risk concept is probably better captured by proxies which focus on the current attributes of political institutions (e.g. executive constraints) that might – at a later stage – cause changes in the rules of the game. Nevertheless, different measures of political freedom are all positive and highly significant also after controlling for property rights protection, suggesting that democracy has an additional positive effect on FDI over and above its indirect effect via PROPERTY RIGHTS. Table 3 does not alter this conclusion. Here, FDIPC and FDIGDP are employed as dependent variables, while all independent variables are retained (only POLITY and POLCON are used to proxy political freedom).[17] Again, results indicate that democracy and executive constraints positively impact on FDI inflows.

Sensitivity tests

Using alternative democracy measures as well as different specifications of the dependent variable make for solid robustness tests. Using table 2 (columns 1 and 4) as points of reference, additional sensitivity tests were also conducted. None of these tests changed the main findings. The effects of political freedom on FDI were just as pronounced when the lagged dependent variable was not included and when the robust standard errors were replaced with PCSEs and employed the AR(1) correction for first-order autocorrelation instead of

[17] Since market size is captured in the *Y* term, when FDIGDP is employed as the dependent variable, ECONOMIC SIZE is not included among the regressors.

Table 3. Determinants of FDI per capita and FDI/GDP in developing countries, 1983-2001

Independent variables	(1) FDIPC	(2) FDIPC	(3) FDIGDP	(4) FDIGDP
LAGGED DEPENDENT	0.440***	0.471***	0.444***	0.473***
	(8.62)	(8.61)	(8.61)	(8.72)
POLITY	**0.057*** **		**0.052*** **	
	(3.25)		**(3.00)**	
POLCON		**1.971*** **		**1.841*** **
		(4.19)		**(3.99)**
PROPERTY RIGHTS	-0.001	-0.005	-0.000	-0.005
	(0.05)	(0.42)	(0.02)	(0.46)
CIVIL WAR	-0.580***	-0.559***	-0.525**	-0.521**
	(2.68)	(2.64)	(2.46)	(2.51)
REGIME DURABILITY	0.055	0.076	0.070	0.090
	(0.61)	(0.83)	(0.77)	(0.97)
LEFTIST EXECUTIVE	0.247*	0.356**	0.265*	0.367**
	(1.72)	(2.37)	(1.79)	(2.42)
ECONOMIC SIZE	0.103*	0.074		
	(1.67)	(1.18)		
ECONOMIC GROWTH	0.044**	0.040**	0.045**	0.040**
	(2.41)	(2.22)	(2.45)	(2.20)
ECONOMIC DEVELOPMENT	0.191	0.279*	-0.247*	-0.155
	(1.26)	(1.84)	(1.77)	(1.06)
EXCHANGE RATE	0.000	0.000	0.000	0.000
	(0.22)	(0.04)	(0.27)	(0.06)
TRADE	0.382	0.303	0.237	0.214
	(1.58)	(1.37)	(1.04)	(1.02)
FDI STOCK	0.288***	0.250***	0.259***	0.222**
	(3.52)	(2.66)	(3.25)	(2.45)
WEIGHTED DISTANCE	-0.258	-0.238	-0.209	-0.188
	(1.14)	(1.06)	(0.92)	(0.84)
Constant	-3.506	-3.810	-1.740	-2.716
	(1.22)	(1.41)	(0.64)	(0.99)
Countries	94	95	94	95
Observations	1043	1052	1041	1050
R^2	0.486	0.493	0.430	0.431

Source: Own calculations, based on sources described in the text.

[a] Regression with robust standard errors (regress, cluster() command in Stata 8.0).

[b] Time dummies are used in estimation but not reported.

[c] *t*-statistics in parentheses.

[d] All independent variables except WEIGHTED DISTANCE are lagged one year.

* Significant at the 10% level.

** Significant at the 5% level

*** Significant at the 1% level.

including an LDV. Excluding the CIS as well as Eastern and Central European countries did not alter democracy's coefficient.

In the analyses of FDI determinants, where economic growth and trade are prime control variables, endogeneity might be an issue, given that FDI could boost both growth and trade.[18] In the main models, this potential problem is addressed by the quite elementary fix of using lagged independent variables (as well as an LDV) on the right-hand side of the equation. To further explore this matter, I adopted the instrumental variable (IV) approach and ran a two-stage least squares regression using TRADE (lagged two years) and first differenced ECONOMIC GROWTH as appropriate instruments. The main findings did not change, however. Furthermore, a Durbin-Wu-Hausman test for endogeneity turned out to be insignificant, lending further credence to the results.

Diverse additional control variables were also included in the base model for robustness analysis. None of the proxies for natural resources[19] turned out to be significant, and these were dropped from the reported models. Different controls for property rights protection were also included. An index of economic freedom,[20] the number of bilateral investment treaties (BITs) signed and membership in the International Centre for Settlement of Investment Disputes (ICSID) were employed as controls, but none of these variables altered the results. The findings also held when the CIVIL WAR dummy was replaced with a variable measuring the number of years since the last civil war. Using inflation as a proxy for macroeconomic instability had no effect either. And lastly, I included controls for physical infrastructure, wealth and human capital.[21] Results stayed the same.

[18] I would like to thank one of the anonymous reviewers for stressing this point.

[19] Tests were conducted using measures of oil reserves (logged), fuel exports, resource_rents/GDP, and ores and metals exports.

[20] The Economic Freedom index is available at http://www.freetheworld.com/download.html.

[21] I used a measure of fixed line and mobile phone subscriptions per 1,000 people (World Bank, 2004) and UNDP's Human Development Index, available at http://www.undp.org/.

Evidently, democracies are rewarded by TNCs, as are countries where the executive cannot easily use its power arbitrarily. This relationship holds even when alternative measures of democracy and FDI, different testing methods and various model specifications are used. This article argues that the relationship is largely due to the fact that the OBM is constrained in democratic nations with well-developed checks and balances. The findings do not, however, exclude the existence of other causal mechanisms. TNCs may, for example, prefer to avoid autocracies because democratic countries are less likely to be marred by rent-seeking and cronyism; they are less prone to dramatic socio-political change; or they lower reputational risks. To further investigate whether political freedom and executive constraints really decrease the risk of government intervention, I will test if democracy affects property rights protection in the next section.

Democracy as a source of government intervention risk – an empirical analysis

There is a lack of empirical studies exploring the relationship between *sources* of political risk and political risk *effects*. This is partly because of the difficulties involved in finding a suitable proxy for the dependent variable. Theoretically, the concept of "political risk effects" includes all politically-induced events that hamper TNCs' activities. Systematic information-gathering at the level of the corporation is bound to be extremely time-consuming and costly and is hence limited to specific industries (Henisz, Holburn and Zelner, 2005) or to particular dimensions of risk effects (Jodice, 1980; Kobrin, 1980). Some studies instead regress aggregate TNC returns on diverse independent variables (Chase, Kuhle and Walther, 1988; Oneal, 1994). Others focus on host countries' macroeconomic performance (Henisz, 2004; Miller and Reuer, 1998). One paper utilizes expert-generated data on (perceived) TNC losses (Howell and Chaddick, 1994), while a recent study draws on pricing information from the political risk insurance industry and finds that constraints on politicians reduce (slightly) expropriation and transfer risk coverage (Jensen, 2005).

The link between democracy and political risk effects is nevertheless severely under-explored in the empirical literature. The study by Jensen (2003) is an exception. He follows a strand in the literature that examines economic determinants of country risk ratings (e.g. Cosset and Roy, 1990) and regresses the risk of debt default on democracy (a positive relationship is found). However, sovereign risk ratings are first and foremost relevant to international *creditors*. Instead, the present study uses a measure of property rights protection which specifically measures the current risk of *government intervention against foreign direct investors*. Using property rights protection should therefore be far better suited to answering my basic research question: do democracy and executive constraints enhance host government credibility, mitigate the OBM and thereby reduce the risk *ex post* government intervention?

Model

As stated earlier, the dependent variable – PROPERTY RIGHTS – follows Knack and Keefer (1995) and is a weighted average of four of the 12 variables included in ICRG's expert-generated political risk index: investment profile (which consists of the three subcomponents, contract variability/expropriation, profit repatriation and payment delays), quality of bureaucracy, corruption (broadly defined), and law and order. This measure is fairly broad and should thus capture several dimensions of the heterogeneous concept of political risk effects, including a number of "hidden" risks – e.g. administrative corruption and bureaucratic delays – which tend to have detrimental effects on TNCs (Poole-Robb and Bailey, 2003).

The main independent variables of interest are the four measures of democracy, but other potential sources of risk effects, both political and economic, need to be controlled. ECONOMIC DEVELOPMENT, ECONOMIC GROWTH and TRADE are included in the model as the level of risk may decrease with current and potential wealth, as well as with the host country's integration into the world economy. I also control for exchange rate volatility, given that sharp depreciations could lead to the implementation of restrictions on capital and profit remittances.

Following the early political risk literature (e.g. Thunell, 1977; Weston and Sorge, 1972), I include among the regressors different measures of political and regime instability, including CIVIL WAR, REGIME DURABILITY and REGIME INSTABILITY, the latter of which is a dummy variable that takes the value 1 if a country has experienced a 3-point or greater change in the Polity index in the last three years. The LEFTIST EXECUTIVE dummy, which proxies government ideology, is also included in the model. Lastly, I control for two variables which may signal to the investor that the host government intends to protect its property rights (Büthe and Milner 2005). The first of these variables measures the number of BITs a country has signed (BIT).[22] The second is a dummy variable that takes the value 1 if a state is a member of the Centre for Settlement of Investment Disputes (ICSID MEMBERSHIP).[23]

Results

The basic TSCS model – an OLS regression with heteroskedastic-consistent robust standard errors – is shown in table 4. These specifications do not contain a lagged dependent variable on the right-hand side, and they should thus be interpreted with caution. Yet, the results do indicate that some of the independent measures might affect the level of property rights protection. Of particular interest, all four measures of democracy and executive constraints are significantly associated with the dependent variable. The same is true for all proxies for economic sources of risk effects. Only three of the controls are insignificant: REGIME INSTABILITY (which, incidentally, is highly correlated with REGIME DURABILITY), ICSID MEMBERSHIP and LEFTIST EXECUTIVE. Having earlier established that leftist governments do not deter TNCs *ex ante*, the latter result indicates that government ideology is also a poor predictor of political risk effects. Nonetheless, we should not place too much confidence in these findings. An *ovtest* suggests that the model has omitted variables, and a Lagrange multiplier

[22] UNCTAD data are downloaded from http://stats.unctad.org/fdi/.
[23] See http://www.worldbank.org/icsid/.

test shows that autocorrelation in the residuals renders the significance tests and confidence intervals invalid. Further diagnostic testing reveals that these problems are remedied when an LDV is included.

Table 4. Determinants of property rights in developing countries, 1983-2000

Independent variables	(1) PROPERTY RIGHTS	(2) PROPERTY RIGHTS	(3) PROPERTY RIGHTS	(4) PROPERTY RIGHTS
POLITY	**0.141****			
	(2.38)			
FREEDOM HOUSE		**0.339*****		
		(2.79)		
VANHANEN			**0.096****	
			(2.42)	
POLCON				**4.955*****
				(2.64)
CIVIL WAR	-3.191***	-2.503**	-2.884***	-2.910***
	(3.07)	(2.48)	(2.83)	(2.77)
REGIME DURABILITY	1.003**	0.984**	0.984*	0.942*
	(2.04)	(2.07)	(1.97)	(1.98)
REGIME INSTABILITY	-0.199	0.007	-0.006	-0.117
	(0.17)	(0.01)	(0.00)	(0.10)
BIT	0.101***	0.110***	0.092***	0.099***
	(3.49)	(4.00)	(3.11)	(3.29)
ICSID MEMBERSHIP	0.643	0.279	0.264	0.470
	(0.50)	(0.22)	(0.20)	(0.37)
LEFTIST EXECUTIVE	1.353	1.117	1.318	1.362
	(1.38)	(1.12)	(1.31)	(1.41)
EXCHANGE RATE	-0.009***	-0.011***	-0.011***	-0.009***
	(2.65)	(3.19)	(3.13)	(2.64)
ECONOMIC DEVELOPMENT	2.814***	2.482***	2.518***	2.695***
	(4.73)	(4.14)	(4.15)	(4.57)
ECONOMIC GROWTH	0.278***	0.277***	0.279***	0.274***
	(5.20)	(5.21)	(4.97)	(5.06)
TRADE	1.655	1.795*	1.840*	1.854*
	(1.62)	(1.71)	(1.71)	(1.84)
Constant	-4.565	2.328	-1.821	-3.555
	(0.80)	(0.39)	(0.33)	(0.62)
Countries	96	96	96	96
Observations	1051	996	1052	1053
R^2	0.407	0.401	0.388	0.395

Source: Own calculations, based on sources described in the text.

[a] Regression with robust standard errors (regress, cluster() command in Stata 8.0).

[b] *t*-statistics in parentheses.

[c] All independent variables are lagged one year.

* Significant at the 10% level.

** Significant at the 5% level

*** Significant at the 1% level.

Table 5 presents results from an estimation where the insignificant controls from table 4 are removed and where an LDV is included to account for autocorrelation and omitted variables, as recommended by Beck and Katz (1995). This amounts to a very conservative test of the effects of the other causal variables, as the LDV will tend to soak up much of the variance in the dependent variable and mask or reduce the effects of the other regressors (Kittel, 1999). Nonetheless, POLITY, FREEDOM HOUSE, VANHANEN and POLCON are all significantly and positively related to PROPERTY RIGHTS. Of these four measures, POLCON exhibits the highest level of significance. Considering this article's main hypothesis – that the existence of veto players is the primary mechanism through which the OBM is mitigated and intervention risk reduced – this result is not surprising. In fact, if democracy is measured more broadly than merely as an institutional device that constrains executive arbitrariness and discretionary policy-making, it may also capture a few of the traits that, some argue, work to *increase* investor risk (e.g. opposition attempts to criticize deals with TNCs; see Li and Resnick, 2003; O'Donnell, 1978).

The fact that both CIVIL WAR and REGIME DURABILITY are insignificant in the presence of the LDV gives further support to my view that the relationship between political and regime instability, and government policy risk is far less clear than the link between political institutions and risk effects. Granted, civil war does affect TNCs in other ways – particularly by physically threatening assets and employees – but such conflicts do not *per se* cause expropriations or contract abrogation. Likewise, BITs can arguably convey to the TNC that the host government intends to adhere to investment contracts. However, if BITs are not backed up by a favourable institutional environment, they are rarely effective. Of course, *ex post* government intervention cannot be completely ruled out even if checks and balances are in place, but the scope for opportunism is likely to be significantly constrained if veto-wielding players are present.

Table 5. Determinants of property rights in developing countries, 1983-2000, controlling for lagged property rights

Independent variables	(1) PROPERTY RIGHTS	(2) PROPERTY RIGHTS	(3) PROPERTY RIGHTS	(4) PROPERTY RIGHTS
LAGGED DEPENDENT	0.870***	0.869***	0.873***	0.872***
	(67.23)	(60.40)	(64.85)	(66.24)
POLITY	**0.025****			
	(2.25)			
FREEDOM HOUSE		**0.061****		
		(2.33)		
VANHANEN			**0.020****	
			(2.32)	
POLCON				**1.204*****
				(2.96)
CIVIL WAR	-0.383	-0.186	-0.311	-0.305
	(1.45)	(0.65)	(1.18)	(1.12)
REGIME DURABILITY	-0.071	-0.109	-0.086	-0.084
	(0.81)	(1.16)	(0.94)	(0.92)
BIT	0.003	0.003	0.001	0.001
	(0.34)	(0.39)	(0.15)	(0.13)
EXCHANGE RATE	-0.003**	-0.003***	-0.003**	-0.003**
	(2.20)	(2.64)	(2.35)	(2.10)
ECONOMIC DEVELOPMENT	0.319***	0.256**	0.251***	0.281***
	(3.24)	(2.33)	(2.65)	(2.94)
ECONOMIC GROWTH	0.081***	0.081***	0.083***	0.079***
	(3.86)	(3.63)	(4.04)	(3.84)
TRADE	0.401**	0.409**	0.420**	0.459***
	(2.47)	(2.43)	(2.60)	(2.90)
Constant	0.002	1.446	0.539	0.077
	(0.00)	(1.28)	(0.61)	(0.08)
Countries	96	97	97	97
Observations	1091	1040	1094	1099
R^2	0.851	0.847	0.849	0.851

Source: Own calculations, based on sources described in the text.

[a] Regression with robust standard errors (regress, cluster() command in Stata 8.0).

[b] *t*-statistics in parentheses.

[c] All independent variables are lagged one year.

* Significant at the 10% level.

** Significant at the 5% level

*** Significant at the 1% level.

Table 6 presents the results when country-specific effects are also controlled.[24] Since including *N*-1 country dummies into a cross-sectional dominant data set drains the model of degrees

[24] ECONOMIC GROWTH is excluded from these specifications, as variation in growth rates is captured by country-specific variation in ECONOMIC DEVELOPMENT.

of freedom and seriously inflates VIF scores (Wooldridge, 2003), the fixed-effects estimation is merely performed as a robustness test and to illustrate the effect of institutional change on property rights protection *within* a given country. Here, too, results are generally supportive of my hypothesis, albeit VANHANEN's coefficient is rendered insignificant. On the whole, it seems that nations that move to democratize, in particular by constraining the executive's discretionary power, reduce the risk of *ex post* government appropriation of TNCs' sunk assets. The evidence

Table 6. Determinants of property rights in developing countries, 1983-2000, controlling for country-fixed effects

Independent variables	(1) PROPERTY RIGHTS	(2) PROPERTY RIGHTS	(3) PROPERTY RIGHTS	(4) PROPERTY RIGHTS
POLITY	**0.319****			
	(2.14)			
FREEDOM HOUSE		**0.505***		
		(1.81)		
VANHANEN			**0.126**	
			(1.45)	
POLCON				**7.118****
				(2.52)
CIVIL WAR	-2.667*	-2.590	-2.884*	-2.774*
	(1.78)	(1.65)	(1.83)	(1.77)
REGIME DURABILITY	0.924*	0.463	0.388	0.390
	(1.78)	(0.95)	(0.79)	(0.95)
BIT	0.068	0.081	0.075	0.068
	(0.494)	(1.61)	(1.42)	(1.38)
EXCHANGE RATE	-0.007**	-0.009***	-0.009***	-0.008***
	(2.48)	(3.31)	(3.24)	(3.01)
ECONOMIC DEVELOPMENT	6.079	5.736	5.752	5.917
	(1.66)	(1.57)	(1.51)	(1.63)
TRADE	4.418***	5.305***	5.802***	5.555***
	(3.00)	(3.37)	(3.70)	(3.57)
Constant	-46.711	-43.438	-51.81*	-50.686
	(1.42)	(1.54)	(1.78)	(1.56)
Countries	97	98	98	98
Observations	1112	1061	1115	1120
R^2	0.690	0.678	0.670	0.679

Source: Own calculations, based on sources described in the text.

[a] Regression with robust standard errors (regress, cluster() command in Stata 8.0).

[b] Country-specific dummies are used in estimation but not reported.

[c] *t*-statistics in parentheses.

[d] All independent variables are lagged one year.

* Significant at the 10% level.

** Significant at the 5% level

*** Significant at the 1% level.

clearly indicates that democracy and international capital flows are compatible.

Conclusion

The empirical analyses in this article suggest that TNCs prefer democratic environments for their investments and that democracy and executive constraints improve property rights protection and lower the risk of government intervention and policy reversals. These findings can be further interpreted as evidence that foreign investors are less responsive to the state of the *current* investment regime – as proxied by the property rights index, which was insignificant in all tests – than to the risk of *future changes* in the treatment of TNCs. This latter risk is captured by the various measures of democracy which focus on current attributes of political institutions that may bode ill – or well – for the future. The obsolescing bargain theory outlines a dynamic mechanism and acknowledges just this: most FDI is conducted with a long-term view and sunk assets are particularly at risk. Hence, the future rules of the game may have little to do with the current ones. The second body of my analysis indicates more clearly that autocracies are more inclined to change these rules *ex post*. Democracies, on the other hand, provide firmer institutional barriers against policy arbitrariness.

Security of property and democracy evidently work in tandem; TNCs reward democracies, and democracies reciprocate by offering investors increased security for their assets. Considering the intensity and urgency of the ongoing debate about the virtues or vices of (the co-existence of) political freedom and economic globalization (e.g. Milner and Kubota, 2005; Shapiro and Hacker-Cordón, 2002), these are important findings.■

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Inward FDI, concentration, and profitability in the CEECs: Were the domestic firms crowded out or strengthened?

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This article examines the impact of foreign direct investment (FDI) on domestic market concentration and profitability in 13 Central and East European countries. The hypotheses are tested with linear and non-linear regressions using firm-level data from the BEEPS II database complied by the EBRD and the World Bank. The endogeneity between the ratio of FDI stock to GDP and domestic profitability and concentration is eliminated by using instrumental variables capturing the business environment. It appears that FDI has strengthened domestic enterprises, increasing their profitability and reducing concentration in those countries.

Key words: foreign direct investment (FDI), transition economies, Central and Eastern European Countries (CEECs), profitability, concentration, spillovers, crowding-out, Business Environment and Enterprise Performance Survey (BEEPS)

1. Introduction

This article examines the impact of foreign direct investment (FDI) on domestic market concentration and profitability in 13 Central and East European countries (CEECs). One can expect a strong interaction between foreign direct investments (FDI) and the intensity of competition in the CEECs. In economies that have been opened up abruptly after a long period in which technological and managerial standards fell behind and the availability of domestic capital was limited, FDI

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is expected to have a significant impact on the domestic market structure, but the direction of the influence is not certain. It may intensify competition by depriving former state-owned monopolies of their dominating position, but transnational corporations (TNCs) can also dominate the market, crowding out small newly established domestic enterprises. To complicate the issue, the causality works in the other direction also; competition intensity among incumbents may also influence foreign investors' entry decisions. TNCs may rather invest in markets that are not too competitive (UNCTAD, 1997, p. 20). For empirical analysis, such two-way causality clearly creates a potential endogeneity problem.

In this study, the impact of FDI is tested with linear and non-linear regression models using firm-level data from the second edition of the "Business Environment and Enterprise Performance Survey" (BEEPS II) compiled by the EBRD and the World Bank. The endogeneity between the ratio of FDI stock to GDP and domestic profitability and concentration is eliminated by using instrumental variables (IVs) capturing the business environment. This study undertakes a cross-country analysis rather than an apparently more popular single-country approach in the analysis of the impact of FDI on competition (Ghemawat and Kennedy, 1999; Chung, 2001; Driffield, 2001; Zemplinerova and Jarolim, 2001; Siotis, 2003; De Backer and Sleuwaegen, 2003; Amess and Roberts, 2004; Barrios *et al.*, 2005; Sembenelli and Siotis, 2005; Jordaan, 2005; Maioli *et al.*, 2006). A cross-country analysis is more suitable with regard to the use of the business environment IVs. Mencinger (2003) provided a cross-country analysis of the effects of FDI in a few CEECs but used highly aggregated data. The large firm-level dataset used in this study is expected to deliver a more refined picture.

The results of the regression analyses indicate that FDI has strengthened domestic enterprises rather than crowded them out, as the domestic firms' profitability was increased. But this is not due to increased market power as FDI has also reduced market concentration in the CEECs.

The rest of this article is organized as follows. Section 2 reviews recent literature and shows that the theories do not give an unambiguous prediction of the effect of TNCs' entry on the degree of competition. Section 3 briefly overviews the general trends concerning FDI in the CEECs, and section 4 extends the discussion on the mechanisms of the competition between foreign and domestic firms in transition economies. Section 5 sets out the hypotheses on the net long-run impacts of the entries of TNCs on the domestic enterprises in the CEECs and describes the research methodology. The data and the model are presented in section 6. The results of empirical tests of these hypotheses are reported in section 7. Section 8 concludes.

2. How inward FDI affect domestic firms: recent theoretical contributions

On the one hand, FDI may intensify competition because of the entry of foreign firms; on the other hand, these new entrants – powerful TNCs – may crowd out the domestic firms. FDI may bring a number of equally powerful TNCs that will be competing against each other; it may bring only a few large TNCs with bigger chances of monopolizing the market. Recent theoretical literature considers not only the impact of FDI on market concentration, but also many other effects, including positive productivity spillovers from TNCs to the domestic firms.

Barrios *et al.* (2005) illustrates two opposing effects of FDI in manufacturing: intensified competition and positive spillovers for domestic firms (through lower interest rates and the increased variety of new local services needed in manufacturing). This produces a U-shaped relationship between the amount of FDI and the number of domestic companies. When the level of efficiency of the incumbents is sufficiently low *vis-à-vis* TNCs, FDI may crowd out all domestic enterprises.

Haller (2004) presents a game theoretic model of foreign entry involving one TNC and two domestic companies that differ in their efficiency: the TNC has the lowest marginal cost while

the domestic firms' costs are higher but one is more efficient. If the TNC enters the market, it may decide to set up a plant or to acquire one of the domestic firms. It is shown that monopolization is independent of the entry barrier (the fixed cost of a greenfield investment) and is most likely to take place in countries where domestic firms are both far less competitive than the TNC and very heterogeneous in terms of their competitiveness (table 1).

Table 1. Results of an entry of a TNC predicted by Haller (2004)

		Efficiency gap between the domestic enterprises		
		low	**middle**	**high**
Fixed cost of setting up a plant	**low**	TNC goes greenfield, incumbents merge	incumbent and TNC merge	incumbent and TNC merge, the other incumbent exits, monopolization
	middle and high	incumbent and TNC merge	incumbent and TNC merge	incumbent and TNC merge, the other incumbent exits, monopolization

Source: Own interpretation of Haller (2004).

Assumptions: The marginal cost of domestic enterprises is higher than that of a TNC. The R&D cost is high. The size of a market, the TNC's efficiency, and the efficiency of a more efficient domestic enterprise are held unchanged.

De Santis and Stähler (2004) show how the substitutability of FDI and international trade affects the market structure. It appears that domestic firms can survive only if TNCs face a higher fixed cost of establishing their headquarters abroad compared to at home, and the fixed cost of launching a plant is not too low (table 2).

Head *et al.* (2002) depart from the reasoning of Vernon (1966) and Knickerbocker (1973)[1] and assume that the

[1] Vernon (1966) suggested that the first-mover's investment would make home market competitors notice that their global market share would shrink. Uncertainty as regards the first-mover's new cost structure would increase together with a growing risk of imports to a home country. This "bandwagon" motive for subsequent FDI was further analysed by Knickerbocker (1973).

follower's FDI is motivated by risk aversion. The follower wants to gain a similar cost advantage and keep its market share. Hence, even if the entry of efficient TNCs crowds out domestic companies, competition intensity may be preserved because equally efficient TNCs enter the host country market. In a similar vein, Leahy and Pavelin (2003) analyse the "bandwagon" FDI as a strategy aimed at maintaining a tacit collusion. Since collusion is easier to sustain when firms have comparable costs, colluding enterprises go abroad together.

Table 2. Results of an entry of a TNC predicted by De Santis and Stähler (2004)

		Fixed cost of setting up a plant		
		low	**middle**	**high**
Fixed cost of setting up a headquarter	**different**	only TNCs survive*	TNCs and domestic companies coexist, concentration grows	only domestic companies survive (only trade)
	equal	only TNCs survive*	only TNCs survive*	only TNCs survive*

Source: Own interpretation of De Santis and Stähler (2004).

* Resulting concentration depends on the levels of the TNCs' fixed costs relative to the domestic firms' fixed costs.

Thus, these theoretical studies identify a number of country- and sector-specific factors that co-determine the outcome of competition between TNCs and domestic firms. The specificity of transition also plays a role. The control variables in the empirical models used in this study allow us to isolate the impact of FDI from other factors considered in these theoretical studies. Industry and country specificities reflected in the fixed cost of setting up a plant, the fixed cost of setting up the headquarters, trade cost, and the efficiency gap between the domestic enterprises are controlled through IVs (quality of business environment and international tradability of products), sectoral sales shares, country effects (country clustering), as well as size, age, and the technological level of enterprises.

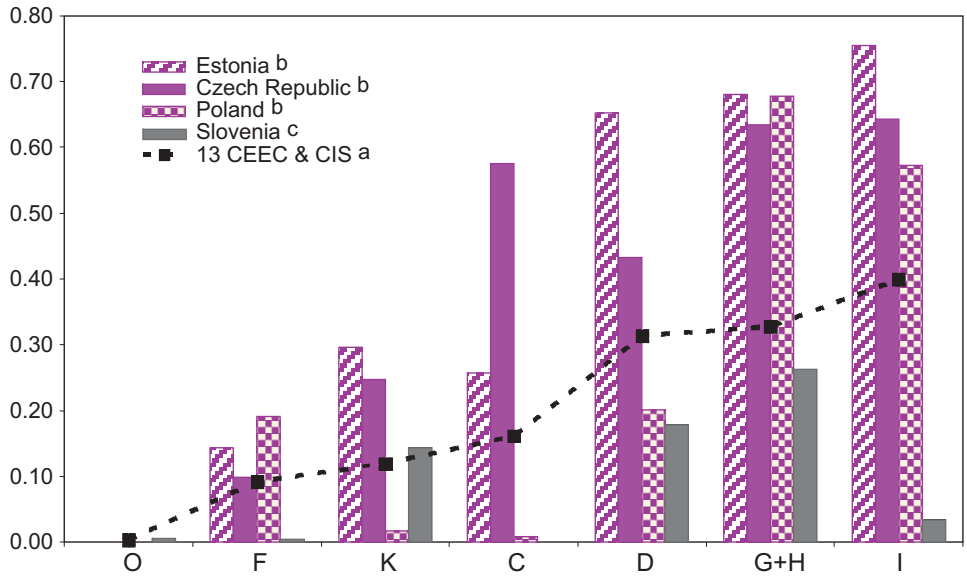
3. The importance of FDI in the CEECs

Immediately after the transition started in the CEECs at the end of the1980s, trade became the first channel of their reintegration with other European and global economies (Kalotay, 2001, 2004). With the subsequent liberalization of capital flows, FDI became increasingly important in the process of economic transformation in the CEECs, because private capital accumulation had been very weak or nonexistent before (Gütta and Gebhardt, 2005). Competition for FDI among the CEECs was intense, and it was one of the drivers of their structural reforms (Galego *et al.*, 2004), because political and macroeconomic stability and regulatory transparency were significant factors affecting foreign investors' entry decisions (Resmini, 2000). Consequently, the preparation for the recent and the upcoming enlargement of the EU and FDI inflows have been parallel and mutually reinforcing processes (Kalotay, 2004).

The growth of inward FDI stock in the CEECs has been accelerating and surpassed the growth rate of gross domestic product (GDP), which was quite high. In particular, the advanced transition economies are characterized by large FDI relative to their GDP and very high ratios of FDI inflows to gross fixed-capital formation. The latter ratio has, for most of the recent years, been higher in the CEECs than in the rest of the world. The pace of growth of FDI inward stock was also higher than the corresponding world ratio. The "top 4" CEECs in terms of the ratio of FDI stock to GDP are doing much better then the "old" EU. The figures for Estonia and for the Czech Republic have exceeded the EU-15's ratio by over 100%, while the "bottom 4" have fared only slightly worse with the lowest ratios (in Slovenia and in Poland) being about 25% lower than the EU-15's.

Therefore, FDI is expected to be a very important factor shaping the economies of the CEECs and the intensity of competition in particular. The variations in FDI penetration in these countries should facilitate the analysis (see the chart).

Sectoral FDI stock / GDP in "top 2" and "bottom 2" CEECs and the weighted mean for all the examined countries in 2000



Source: Own calculations based on GMID and UNCTAD WID.

[a] GDP-weighted average for: Armenia, Bulgaria (1999), Croatia, Czech Republic, Estonia, Hungary, Kazakhstan (2001), Latvia, Lithuania, Poland, Russia, Slovakia, and Slovenia.

[b] No data for O.

[c] No data for C. See table 5 for the explanation of ISIC sectoral codes.

4. Possible specific impact of inward FDI on the domestic firms in the CEECs

The abrupt opening of the economies to foreign capital was an essential element of what has been described as a "competitive shock" by Ghemawat and Kennedy (1999), with a rapid change of the economic environment taking place while other elements of the business environment (e.g. sociological) changed only slowly. The impact of FDI on domestic enterprises is expected to be considerable in the CEECs because TNCs bring their unique skills and resources (Bellak, 2004, pp. 31-32) to still under-developed economic sectors and are likely to have a clear technological and organizational edge over smaller and less market-experienced domestic competitors. These firm-specific skills and resources may easily be exploited to build strategic advantages (Bellak, 2004, pp. 32-33). It is also possible that foreign-owned enterprises are more competitive because

foreign investors can use much larger financial resources to take over more efficient local firms, leaving less efficient firms under local ownership. Furthermore, by taking away market shares from local firms, foreign-owned enterprises might force the domestically owned firms into less efficient scales of production (Aitken and Harrison, 1999, pp. 606-607; Lipsey, 2002, p. 34). Specifically in the transition economies, the more advanced a country is, the stronger and more competitive its domestic firms seem to be. At the same time, however, their unique knowledge of local conditions also becomes less important in competing with foreign entrants as these transition countries integrate with developed economies and harmonize their business environments with the old EU members. It means that the "liability of foreignness" (Zaheer, 1995) becomes smaller. Hence, the impact of these two "intervening variables" may, at least partly, cancel out across the CEECs. The net effect is uncertain.

Transition economies enjoy high income growth rates, which also implies that markets are growing. This should have a strong impact on the TNCs' market-seeking (or market-serving) FDI. "Market serving FDI in manufacturing industries has both a short-term and long-term component. Some TNCs may see acquisitions through FDI in CEE TEs [transition economies] as part of a short-term profit strategy of benefiting from a relative lack of competition in the local market thereby reaping significant profits. Over time, as local competitors and foreign rivals enter the market, profits may be squeezed and thus exit may be a sensible strategy as profits fall below a target level decided by company strategy. However, if an MNE [multinational enterprise] recognizes that growing consumer incomes are likely to lead to increased demand for its products, then a long-term presence is likely to be central to its strategy" (Akbar and McBride, 2004, p. 92).

As the overview of the models shows, the impact of FDI for domestic enterprises is difficult to predict, especially in the transition economies, due to the numerous factors that often counteract each other to some extent. In particular, the net effect

of competitive pressure and spillovers is theoretically ambiguous and needs to be isolated and analysed empirically.

5. Research design and contribution

While examining the competitive impact of FDI in the CEECs, a traditional approach is to study the relationship between foreign presence and the levels of concentration across industries (Ghemawat and Kennedy, 1999; Amess and Roberts, 2004). Recent studies of the competitive effects of economic integration look more and more at the profitability of enterprises (e.g. industry mark-ups, see Siotis, 2003). Taking that into consideration, one can think of a comprehensive approach in examining the impact of inward FDI on the domestic enterprises in the CEECs to tests two competing hypotheses:

> Hypothesis 1: FDI crowds out domestic enterprises, thus contributing to lower profitability of domestic enterprises *and* higher concentration.
> Hypothesis 2: Spillovers from FDI outweigh the competitive impact, and thus FDI contributes to higher profitability of domestic firms *and* lower concentration.

Clearly, there is a possibility of circular causality (endogeneity of FDI) as FDI may be attracted to a particular industry where the concentration, and hence profitability, is high. To isolate the one-way influence in a regression analysis, one has to employ some IVs. In this study, IVs should be correlated with FDI inflows as strongly as possible and, at the same time, they must not explain, by themselves, concentration or profitability;[2] IVs must not also be influenced by concentration or profitability (i.e. must not be endogenous). In this analysis, the IVs are chosen from the indicators of the business environment. The location decisions of TNCs are based on the evaluation of the quality of business environments. The environment is shaped by the country's natural endowments and policies, but the importance of different elements of the

[2] IVs can explain concentration and profitability only inasmuch as they can explain FDI.

environment can be specific to each industry (Resmini, 2000). Particular elements of the environment may impact the transaction costs non-uniformly across sectors. There may be also differences between the quality of the business environment between regions within a country, if there is some degree of autonomy of local policies or if there are business clusters (McCann and Mudambi, 2004). In the context of transition economies, different levels of the quality of the business environment are particularly important, because they differentiate more advanced transition countries from the ones lagging behind. Bevan *et al.* (2003) and Pournarakis and Varsakelis (2004) showed that the uneven allocation of inward FDI in these economies could be explained by institutional factors.

This research makes some novel contributions. Firstly, it combines both "hard" measures of FDI and "soft" data on managers' perceptions. The perception of competition intensity and competitors may not necessarily be an accurate picture of real competition intensity, given that managers can be imperfectly informed and too short-sighted (i.e. too concerned with current events). Morgan and Strong (2003) addressed a similar question in their study and noted some studies (Dess and Robinson, 1984; Venkatraman and Ramanujam, 1986) that indicated a high correlation between objective performance assessments and perceptual indicators of performance judgements. Sutcliffe and Huber (1998) found that American managers shared a homogenous perception of industrial environment when they belonged to the same company or to the same industry but non-homogenous if the industries were different. This seems to suggest that managers' perceptions are a fairly objective indicator of the industrial structure. Furthermore, a survey of managers' perceptions may bring more forward-looking results, which are at least supplementary to the ones derived from fully objective historical data (Singer and Brodie, 1990). Secondly, unlike studies carried out previously, this research looks at the whole group of the CEECs. It is expected to deliver a general picture of the impact of FDI in transition economies, unbiased by country specificities.

Nonetheless, the study has certain limitations. Neither the effects of different strategic motives (market-seeking or efficiency-seeking) nor of different entry modes are distinguished. Greenfield investments and acquisitions are likely to have different impacts on competition between foreign-owned and domestic enterprises. The available data do not allow us to separate these different types of FDI.

6. Data and model

The second edition of the BEEPS II, compiled jointly by the EBRD and the World Bank, and the single country profiles of the UNCTAD's World Investment Directory (UNCTAD WID) are the main data sources used in this study (for the description of the datasets see Rutkowski, 2006). BEEPS II was conducted in 2001 and contains answers from a representative sample of more than six thousand firms. The number of observations utilized in my study is determined, firstly, by the number of domestic enterprises from these surveyed countries for which the UNCTAD's industry-level FDI data were accessible, and secondly, by the response rate for particular questions. Therefore, the final number of observations differs across model specifications, depending on the variables used. In the end, thirteen countries were considered in the study (table 3).

Table 3. Number of domestic enterprises in the countries covered by the study

Armenia	83	Estonia	114	Lithuania	162	Slovenia	163
Bulgaria	220	Hungary	141	Poland	375		
Croatia	140	Kazakhstan	162	Russia	197		
Czech	222	Latvia	146	Slovakia	113	**Total**	**2238**

Sources: BEEPS II Dataset, GMID, and UNCTAD WID.

Two dependent variables – *CONCEN* and *CONCEN2* – have been constructed to measure the variation in the level of concentration. *CONCEN* is a binary variable based on the responses to BEEPS II question 18a: "Thinking of your firm's major product line or main line of services in the domestic

market, how many competitors do you face?". The respondents could choose one of three grades: "none", "between one and three", or "four or more" competitors. *CONCEN* takes value 1 if the answers imply monopoly or a very concentrated oligopoly with four or less players (the first and the second response in BEEPS II) and 0 if respondents claimed there were five or more players in the market including themselves (i.e. the third response was chosen). Thus, *CONCEN* can be used to fit the probability function of higher or lower concentration. *CONCEN2* follows the original three grades in the BEEPS II questionnaire and takes values 2 for monopoly, 1 for 1 to 4 competitors in a market (including a respondent), and 0 for five or more players. Profitability is represented by *PROFIT*, which is directly derived from BEEPS II question 84a1a. It approximates the profit/sales ratio for the year 2001. The responses were classified in seven grades, with the bottom grade indicating negative ratios and the top grade pointing to the ratios above 40%.[3]

The explanatory variable that I use should measure the importance of FDI for a given sector (foreign penetration), i.e. FDI directed to a sector in a particular country in relation to the size of the sector. To make the absolute figures relative, I employ sectoral GDPs from the Euromonitor's Global Market Information Database (GMID)[4] as denominators. GMID provides the maximum of seven sectors corresponding to the sectoral classification of the BEEPS II.

I use one general measure of FDI: the ratio of the inward stock of FDI in a sector (*S*) of a country (*C*) to sectoral GDP for the year 2004 (see the formula below). It is computed individually for each enterprise (*E*) based on its shares of sales in each of the seven sectors (table 4). Data on cross-sectoral FDI were compiled from the single 'country profiles' of the

[3] The width of grades is 10 percentage points, except for the three border grades: negative (grade 1) and zero profits (grade 2) and profit/sales ratio higher than 40% (grade 7).

[4] Except for Armenia, whose sectoral GDPs were missing in GMID and were obtained from UN Statistics.

UNCTAD WID[5] because there are not any publicly available datasets on cross-sectoral FDI. Resmini (2000, p. 666, p. 667, p. 682) reported that although "FDI is industry and not country specific" (she referred to Buigues and Jacquemin, 1994), few appropriate econometric works had been done because of the lack of consistent, detailed and reliable data. It seems that the data accessibility has not improved since then (Bellak, 2004, p. 34). In addition to the diverging levels of disaggregation, UNCTAD's country profiles for the CEECs were deficient in terms of very short and dissimilar time-series across countries and some missing measures (either inflows or inward stocks). Therefore, I decided to use one general measure of foreign presence: inward FDI stock of the year 2000 (with two exceptions: 1999 for Bulgaria and 2001 for Kazakhstan because data for 2000 are not reported). Data on FDI stock are available for more countries and less susceptible to potential endogeneity (Nunnenkamp and Spatz, 2003).

Table 4. Classification of sectors in BEEPS II and corresponding ISIC codes

BEEPS sector #	ISIC code	Description
1	C	Mining and quarrying
2	F	Construction
3	D	Manufacturing
4	I	Transport storage and communication
5[a]	G	Trade (wholesale and retail), and repairs
7[a]	H	Hotels and restaurants
6	K	Real estate, renting and business activities
8	O[b]	Other

Sources: MEMRB 2002: 4 and ISIC.

[a] Two sectors aggregated to comply with GMID classification.

[b] Included groups 92.1–92.4 and 93; excluded groups 92.5–92.7.

Excluded: Sewage and refuse disposal, sanitation and similar activities, activities of membership organizations (not classified elsewhere); included recreational, cultural and sporting activities and other service activities.

[5] Each 'country profile' contains extensive data on FDI flows and stocks, activities of multinationals, and the legal framework within each country related to its investment policy. The UNCTAD sources data mainly from the national central banks (10 countries) but also from the central statistical offices (two countries). In the case of Poland, two institutions submit alternative data on FDI: its central bank and the state agency for foreign investment.

Each enterprise can be active in more than one sector but this overlap is not a problem as it has been taken care of in BEEPS II. For every enterprise, the survey dataset provides the percentage of sales in each of the sectors. Each enterprise's distribution of sales among sectors is used to calculate the individual FDI/GDP impact ratios (see the formula below).[6] I eliminate all these enterprises for which data are missing on at least one of the sectors to which their sales belong.

$$FDI_{E,S,C} = \sum_{S=1}^{7} \left(SALES\_SHARE_{E,S,C} \frac{INWARD\_FDI\_STOCK_{S,C}}{GDP_{S,C}} \right)$$

In the model, a natural log of *FDI* is taken to ensure a closer to normal distribution of residuals in first-stage regressions.

The IVs are chosen from a large number of potential indicators of the quality of the business environment in BEEPS II. They encompass the answers concerning electricity, water, and telephone infrastructure, telecommunication services, court system and law, security, public regulation, bureaucratic burden, corruption, taxes, degree of anti-competitive behaviours (proxy for the quality of competition policy) plus macroeconomic stability.[7] In the second step, only the IVs correlated with significance below 0.01 with *FDI* are kept. In the next stage, the inter-correlated IVs are eliminated to avoid collinearity of instruments (those which are correlated with more than one variable are left out and those with higher correlation coefficient with *FDI* are kept). In the second last step, the IVs that are not significant (at 0.1) in the regression explaining *FDI* are eliminated. Finally, the IVs that are significant in regressions

[6] In further research, due to the mentioned limitations on the side of the GDP data, the enterprises active either in BEEPS II sector 5 or 7 are assumed to face the same FDI/GDP ratio, which is however weighted by individual sums of shares of sales in these two sectors.

[7] Q33, Q40–Q42, Q44–Q46, Q49, Q50, Q54, Q55, Q57, Q80, where numbers after each Q denote question numbers in the BEEPS II questionnaire and each Q usually contains a few indicators. Altogether, almost 50 variables were initially taken into consideration.

explaining *CONCEN*, *CONCEN2*, and *PROFIT* are removed from the respective IV regressions. Therefore, the concentration regressions and the profitability regression share just one IV: "time tax" (*TIMET*) i.e. approximation of bureaucratic burden with the share of management's time.[8] Besides, in the concentration regressions, *FDI* is explained with the fairness and effectiveness of courts (*COURT1* and *COURT2*) and the burdensomeness of labour regulations (*LABOUR*). On the other hand, the oppressiveness of anti-competitive practices (*ANTICOM*, which can also be interpreted as the level of ineffectiveness of competition authorities), problems with telecom services (*PHONE*, the number of days for which phone services are unavailable), and the existence of criminal organizations (*SECUR*, need for "protection payments") are chosen as IVs in the profitability regressions. In addition to the business environment variables, variable *TRADE* (mean of export activity and perceived import penetration) is included. It captures the extent to which goods in a given sector are tradable. In the context of the transition economies, tradability is particularly important as much inward FDI is likely to be efficiency-seeking.

One should also control for possible impacts of some other exogenous factors. *SIZE*, determined by the graded number of employees,[9] captures the impact of the economies of scale, which would be relevant in sectors where the nature of technology influences the degree of concentration. It can also be expected that exporting points to even more concentrated industries because regional or global sales are likely to offer even larger economies of scale than just domestic ones. *SIZE* would not capture this effect as the employment in possible affiliates abroad and partner firms in the distribution chain is

[8] BEEPS II question 50: "What per cent of senior management's time in 2001 was spent in dealing with public officials about the application and interpretation of laws and regulations and to get or to maintain access to public services?"

[9] BEEPS II screener question S4a: "How many full-time employees work for this company?" *SIZE* = 1 if there were 2–49 employees; 2 if 50–249; or 3 if 250–9999.

not reported. Therefore, the variable *EXPORT* (a share of firm's non-domestic sales) is included. *YEAR* denotes the year of establishment of a given enterprise and it is supposed to approximate the effect of efficiency improvement through learning. It can also cover the consequences of the investment lead. A sector with many young firms is an industry with low entry and exit barriers or an industry where high expected returns make the owners accept even temporary losses due to competition in a crowded industry (such as the high-technology industry). These two factors are likely to result in lower concentration. The impact on profitability can be ambiguous: young firms' position on the learning curve makes them less profitable, but young firms are likely to be more profitable when innovation counts. Furthermore, *PROFIT* is also likely to be dependent on the capacity utilization (*CAPUTI*, in per cent). On the other hand, higher absolute price elasticity of demand (proxied by *PELAST*) reduces the market power, i.e. the ability to set price above marginal cost, as indicated by the Lerner index. The four-grade level of *PELAST* is determined by the expected customers' response to a hypothetical 10% price rise.[10] One can capture the ambiguous impact of the state with a state ownership dummy (*STATE*).[11] State ownership may increase profitability directly as state-owned firms face "soft budget constraints". On the other hand, state ownership may entail weak ownership control and thus, lower efficiency and competitiveness. *TECH* is included to take into account the influence of the technological

[10] BEEPS II question 21: "Now I would like to ask you a hypothetical question. If you were to raise your prices of your main product line or main line of services 10% above their current level in the domestic market (after allowing for any inflation) which of the following would best describe the result, assuming that your competitors maintained their current prices?" *PELAST* = 1 if the response was "Our customers would continue to buy from us in the same quantities as now;" 2 if "Our customers would continue to buy from us, but at slightly lower quantities;" 3 if "Customers would continue to buy from us, but at much lower quantities;" 4 if "Many of our customers would buy from our competitors instead."

[11] BEEPS II screener question S2: "What is the legal organization of this company?" *STATE* = 1 if the response was "State/municipal/district-owned enterprise", "Corporatized state-owned enterprise" or "Other state owned", else 0.

edge over competitors of a respondent on its profitability.[12] As a final exogenous variable, *IMPORT* is used to control for the impact of international trade barriers and tradability on profitability (Pugel, 1980).

The summary of all the three groups of variables is given in table 5.

7. Results of regression analyses

Before the regressions were conducted, I made sure that there was not too much multicollinearity among exogenous variables or IVs (tables 6 and 7). The two highest observed correlation coefficients were about 0.4 (between *SIZE* and *YEAR*, *STATE* and *YEAR*, and between the two IVs representing the quality of the court system), with other correlations being much smaller.

All regressions, at both stages, were conducted with an adjustment eliminating a possible bias caused by heteroskedasticity; the adjustment affecting standard errors only.[13] To check the validity of the models under different assumptions, six specifications of IV regressions were used for each dependent variable (*PROFIT*, *CONCEN*, and *CONCEN2*): linear regressions and non-linear regressions (second-stage probit or tobit) appropriate for the type of data, both with and without country clustering (adjustment of standard errors for the correlation between residuals within a country to eliminate the pure cross-country effects and to see if the cross-sector effects are still significant)[14] with sectoral distribution of sales

[12] BEEPS II question 86: "Thinking of your main product line or main line of services and comparing your production process with that of your closest competitor, which of the following best summarises your position?" *TECH* = 1 if "My firm's technology is less advanced than that of its main competitor;" 2 if "My firm's technology is about the same as that of its main competitor;" and 3 if "My firm's technology is more advanced than that of its main competitor."

[13] The Eicker-Huber-White "sandwich" estimator of variance (Gutierrez and Drukker, 2005).

[14] The observations are assumed to be independent across countries, but not within them (Gutierrez and Drukker, 2005).

Table 5. The list of variables

Variable	Description	Corresponding BEEPS II question (Q) and method of calculation
Explained variables		
CONCEN	Perceived concentration (binary)	CONCEN = 1 if Q18a = 1 or Q18a = 2 CONCEN = 0 if Q18a = 3
CONCEN2	Perceived concentration (3 grades)	CONCEN2 = 3 – Q18a
PROFIT	Profit/sales in 2001 (7 grades)	Q84a1a
Instrumental variables		
ANTICOM	Anti-competitive practices of competitors as problems for operation and growth (4 grades)	Q80s
COURT1	Fair and impartial courts (6 grades)	Q41a
COURT2	Courts able to enforce their decisions (6 grades)	Q41e
LABOUR	Labour regulations as problems for operation and growth (4 grades)	Q80k
PHONE	Days in 2001 with unavailable mainline telephone service	Q33c
SECUR	Dummy for "protection payments"	SECUR = 1 if Q44a2 = 1SECUR = 0 if Q44a2 = 2
TIMET	"Time tax:" senior management's time spent in dealing with public officials (in %)	Q50
TRADE	Trade intensity: average of the share of firm's non-domestic sales and perceived importance of competition from imports	TRADE = 0.5 x [(100 – q14a1)/100] + 0.5 x [ABS(Q19 – 6)/5]
Exogenous variables		
CAPUTI	Capacity utilization	Q90a
EXPORT	Share of firm's non-domestic sales	EXPORT = (100 – q14a1)/100
IMPORT	Perceived importance of competition from imports for the main product line or main line of services in the domestic market (6 grades)	IMPORT = ABS(Q19 – 6)
PELAST	Perceived price elasticity of demand (in absolute terms, 4 grades)	Q21
SIZE	Size (number of employees, 3 grades)	S4a2
STATE	State ownership dummy	STATE = 1 if 6 < S2a < 10, STATE = 0
TECH	Perceived level of advancement of own technology relative to competitors (3 grades)	Q86
YEAR	Year in which a firm began operations in a specific country	S1a

Note: S denotes 'screener' question.

of each firm (sectoral shares) included as exogenous variables to take account of pure sectoral effects.

The estimations started with first-stage regressions to isolate the impact on *FDI* from exogenous factors and to eliminate the endogenous influence of concentration or profitability. As a non-linear model, an IV tobit regression model

with both lower and upper censoring limits was used to explain *PROFIT*. This specification was employed because the bottom and the top grades may represent profitability ratios that are very low or very high compared to the level and the interval of the ratios of the non-extreme grades. For *CONCEN*, an IV probit regression was used as it is suitable for a binary dependent variable, especially if one is interested in the precise estimation of an impact of very high and very low levels of explanatory variables. To make the tobit and the probit coefficients comparable with other estimations, marginal effects are reported.[15] To examine the non-linear model for *CONCEN2*, an IV tobit model with lower censoring was applied to take account of the fact that the bottom value may comprise a very wide range of concentration ratios. See tables 8-13 in the appendix for the results of all the regressions.

Table 6. Correlation matrixes of the exogenous variables

	Explaining PROFIT				Explaining CONCEN and CONCEN2		
	CAPUTI	PELAST	STATE	TECH		SIZE	YEAR
PELAST	–0.05						
STATE	–0.07	–0.10					
TECH	0.06	–0.12	–0.02				
YEAR	0.09	–0.02	–0.38	0.01	YEAR	–0.42	
IMPORT	0.01	0.14	–0.12	–0.04	EXPORT	0.25	–0.16

Source: Own calculations.

Table 7. Correlation matrixes of the instrumental variables

	IVs used in explaining PROFIT				IVs used in explaining CONCEN and CONCEN2				
	ANTICOM	PHONE	SECUR	TIMET		COURT1	COURT2	LABOUR	TIMET
PHONE	–0.03				COURT2	0.39			
SECUR	0.13	–0.02			LABOUR	0.00	–0.10		
TIMET	0.04	0.05	0.03		TIMET	–0.02	–0.06	0.11	
TRADE	0.08	–0.03	0.08	–0.06	TRADE	0.07	–0.02	0.10	–0.05

Source: Own calculations.

[15] Marginal effect quantifies a change in the probability for an infinitesimal change in each explanatory variable at the mean of the explanatory variables.

The estimations for the impact of *FDI* remain fairly consistent across different specifications. All the regressions show that hypothesis 1 can be rejected whereas hypothesis 2 cannot, i.e. FDI were rather favourable for the domestic firms increasing their profitability (tables 8 and 11). However, it did not happen thanks to TNCs building up entry barriers; FDI have not contributed to oligopolization or monopolization of the sectors. On the contrary, *CONCEN* and *CONCEN2* were influenced negatively by *FDI* (tables 9, 10, 12, and 13). If one takes into account purely sectoral specificities in the regressions (tables 11–13), *FDI* not only remains significant but also its impact is shown to be twice as strong as in the basic regressions (tables 8–10). This seems to imply that the industry or even firm-specific spillover effects are quite strong.

The results can be interpreted as follows. A 1% rise in inward FDI stock / GDP ratio (which corresponds to an extra accumulation of FDI equal to approximately 0.2% of GDP)[16] results in 2.2-4.9% increase in the domestic profit/sales ratio.[17] On the other hand, a 1% rise in inward FDI stock / GDP ratio reduced the probability of concentration by 15-29%.

The performance of some IVs may be surprising at first glance, but it is supported by the empirical and theoretical arguments. Firstly, the positive coefficient of *ANTICOM* signifying a positive response of foreign investors to anti-competitive practices may result from endogeneity: TNCs may restrict competition on entry especially in the emerging economies. The positive coefficient of *ANTICOM* seems to be in line with the Hymer's concept of FDI as a way of gaining monopolistic rents. Indeed, it was noticed long ago that United States FDI could be motivated by weak competition policies in host countries (Hirschey, 1982). Oliveira *et al.* (2001) found

[16] At the mean of ln(*FDI*).

[17] The lack of bias of this estimation relies on the assumption that the actual profitability ratios of the enterprises of the respondents were distributed symmetrically in each grade (interval) of the *PROFIT* variable, i.e. there were similar numbers of over- and underestimated ratios relative to the mean ratio in each grade.

that only four out of the 192 analyzed cases of M&As in Brazil in 1999 that involved FDI did not have possible anticompetitive effects. The researchers claimed that most M&As involving FDI had a potentially stifling effect on competition. TNCs also have widespread possibilities to impose vertical restraints in small host economies (Zweifel and Zäch, 2003). However, this endogeneity is not a problem in this study since IVs are supposed to be uncorrelated with error terms in the second-stage regressions and strongly correlated with *FDI,* while the direction of the relationship is not relevant. Secondly, the "protection payment" dummy (*SECUR*) is positively related with *FDI*. Security is a country problem and its impact disappears if country effects are eliminated. The observed positive correlation seems to indicate that the "liability of foreignness" appears to be still important in the CEECs. TNCs pay for security, but they also make domestic firms pay on the common "security market". Domestic firms pay less or with a smaller probability[18] but still the relation between *FDI* and *SECUR* is positive as a result. Thirdly, labour regulations (*LABOUR*) to protect employees seem to be positively associated with *FDI*. Kucera (2002) showed in his extensive study that strong labour rights were associated with higher FDI inflows. He argued that the higher effects of labour standards stretched beyond higher costs of labour, positively influencing political and social stability and levels of human capital, all of which were appreciated by foreign investors.

All exogenous variables perform as expected except for *IMPORT*, which does not appear to be significant in explaining *PROFIT*. State-owned enterprises turn out to be less profitable. As the coefficients for *YEAR* in the regressions explaining *PROFIT* make it evident, the interpretation involving innovativeness wins over the "learning curve" explanation.

[18] Probit regression based on the BEEPS II dataset shows that the probability of foreign-owned firms paying "protection payments" is by 13 percentage points higher compared to domestic ones for the countries included in this research (excluding Estonia, where *SECUR* = 0 for all responses, both from domestic and foreign firms) at the significance below 0.01 (country dummies included).

Table 8. Results of the heteroskedasticity-robust regressions for *PROFIT*

	(1)						(2)					
	ln(FDI) Coefficient	PROFIT (p-value)	ln(FDI) (p-value)*	PROFIT Coefficient	(p-value)	(p-value)	Coefficient	(p-value)	(p-value)*	Coefficient**	(p-value)	(p-value)*
ln(FDI)				0.2246	(0.045)	(0.045)				0.2426	(0.068)	(0.019)
CAPUTI	–0.0014	(0.328)	(0.490)	0.0035	(0.025)	(0.089)	–0.0014	(0.344)	(0.472)	0.0047	(0.004)	(0.102)
PELAST	0.0854	(0.001)	(0.078)	–0.1371	(0.000)	(0.008)	0.0850	(0.001)	(0.054)	–0.1038	(0.001)	(0.061)
STATE	–0.0577	(0.541)	(0.710)	–0.5003	(0.000)	(0.000)	–0.0559	(0.532)	(0.711)	–0.6244	(0.000)	(0.000)
TECH	–0.0136	(0.766)	(0.784)	0.1068	(0.018)	(0.017)	–0.0139	(0.765)	(0.775)	0.1230	(0.016)	(0.009)
YEAR	0.0011	(0.520)	(0.749)	0.0053	(0.001)	(0.019)	0.0011	(0.493)	(0.744)	0.0064	(0.000)	(0.061)
IMPORT	0.0311	(0.174)	(0.528)	–0.0217	(0.386)	(0.344)	0.0331	(0.191)	(0.491)	–0.0235	(0.414)	(0.296)
ANTICOM	0.0724	(0.008)	(0.040)				0.0761	(0.003)	(0.016)			
PHONE	–0.0061	(0.030)	(0.095)				–0.0062	(0.007)	(0.039)			
SECUR	0.1386	(0.065)	(0.366)				0.1378	(0.044)	(0.356)			
TIMET	–0.0093	(0.000)	(0.027)				–0.0096	(0.000)	(0.010)			
TRADE	0.8182	(0.000)	(0.002)				0.7951	(0.000)	(0.000)			
Constant	–4.5665	(0.199)	(0.521)	–6.8051	(0.028)	(0.125)	–4.5497	(0.169)	(0.508)			
Observations	1732			1732			1732			1732		
Uncentered R-sq.	0.8916			0.7029								
Partial R-sq. of excluded variables	0.0389											
Anderson IV relevance test				68.65	(0.000)							
Hansen J statistic				2.82	(0.589)							
Hansen J statistic*				3.54		(0.473)						
Wald test of exogeneity										2.78	(0.096)	
Wald test of exogeneity*										3.34		(0.068)

Source: Own calculations.

* Adjustment of standard errors for intra-country correlation

** Marginal effect

(1) First-stage ordinary-least-squares regression explaining ln(FDI) and two-stage least squares regression explaining PROFIT

(2) First stage maximum-likelihood (ML) linear regression explaining ln(FDI) and conditional ML tobit regression with lower and upper censoring explaining PROFIT

Table 9. Results of the heteroskedasticity-robust regressions for *CONCEN*

	(1)						(2)					
	ln(FDI) Coefficient	CONCEN (p-value)	ln(FDI) (p-value)*	CONCEN Coefficient	(p-value)	(p-value)*	Coefficient	(p-value)	(p-value)*	Coefficient**	(p-value)	(p-value)*
ln(FDI)				–0.1532	(0.000)	(0.005)				–0.1520	(0.000)	(0.000)
SIZE	0.0332	(0.431)	(0.641)	0.0390	(0.015)	(0.076)	0.0337	(0.422)	(0.626)	0.0347	(0.013)	(0.059)
YEAR	0.0014	(0.460)	(0.679)	–0.0014	(0.037)	(0.166)	0.0014	(0.462)	(0.673)	–0.0010	(0.060)	(0.243)
EXPORT	–0.4890	(0.027)	(0.287)	0.3185	(0.000)	(0.000)	–0.5362	(0.009)	(0.185)	0.2779	(0.000)	(0.000)
COURT1	0.0411	(0.080)	(0.182)				0.0344	(0.096)	(0.257)			
COURT2	0.0254	(0.263)	(0.374)				0.0192	(0.330)	(0.424)			
LABOUR	0.1085	(0.000)	(0.035)				0.1087	(0.000)	(0.004)			
TIMET	–0.0074	(0.003)	(0.072)				–0.0066	(0.005)	(0.072)			
TRADE	1.2831	(0.000)	(0.004)				1.3311	(0.000)	(0.000)			
Constant	–5.2405	(0.156)	(0.423)	2.5224	(0.057)	(0.000)	–5.2095	(0.159)	(0.411)			
Observations	1759			1759			1759			1759		
Uncentred R-sq.	0.6890			–0.0460								
Partial R-sq. of excluded variables	0.0412											
Anderson IV relevance test				73.95	(0.000)							
Hansen J statistic				1.58	(0.813)							
Hansen J statistic*				1.59		(0.810)						
Wald test of exogeneity										24.48	(0.000)	
Wald test of exogeneity*										11.35		(0.001)

Source: Own calculations.

* Adjustment of standard errors for intra-country correlation

** Marginal effect

(1) First-stage ordinary-least-squares regression explaining ln(FDI) and two-stage least squares regression explaining CONCEN

(2) First stage maximum-likelihood (ML) linear regression explaining ln(FDI) and conditional ML probit regression explaining CONCEN

Table 10. Results of the heteroskedasticity-robust regressions for *CONCEN2*

	(1)						(2)					
	ln(FDI) Coefficient	CONCEN2 (p-value)	ln(FDI) (p-value)*	CONCEN2 Coefficient	(p-value)	(p-value)*	Coefficient	(p-value)	(p-value)*	Coefficient**	(p-value)	(p-value)*
ln(FDI)				–0.1740	(0.000)	(0.009)				–0.2217	(0.000)	(0.008)
SIZE	0.0332	(0.431)	(0.641)	0.0441	(0.012)	(0.069)	0.0340	(0.417)	(0.622)	0.0499	(0.012)	(0.073)
YEAR	0.0014	(0.460)	(0.679)	–0.0016	(0.028)	(0.137)	0.0013	(0.465)	(0.675)	–0.0014	(0.050)	(0.251)
EXPORT	–0.4890	(0.027)	(0.287)	0.3479	(0.000)	(0.000)	–0.5437	(0.008)	(0.176)	0.3925	(0.000)	(0.000)
COURT1	0.0411	(0.080)	(0.182)				0.0327	(0.114)	(0.283)			
COURT2	0.0254	(0.263)	(0.374)				0.0183	(0.349)	(0.444)			
LABOUR	0.1085	(0.000)	(0.035)				0.1075	(0.000)	(0.004)			
TIMET	–0.0074	(0.003)	(0.072)				–0.0066	(0.005)	(0.072)			
TRADE	1.2831	(0.000)	(0.004)				1.3388	(0.000)	(0.000)			
Constant	–5.2405	(0.156)	(0.423)	2.8851	(0.045)	(0.000)	–5.1850	(0.161)	(0.412)			
Observations	1759			1759			1759			1759		
Uncentred R-sq.	0.6890			–0.0745								
Partial R-sq. of excluded variables	0.0412											
Anderson IV relevance test				73.95	(0.000)							
Hansen J statistic				2.51	(0.642)							
Hansen J statistic*				1.63		(0.803)						
Wald test of exogeneity										18.11	(0.000)	
Wald test of exogeneity*										7.57		(0.006)

Source: Own calculations.

* Adjustment of standard errors for intra-country correlation.

** Marginal effect.

(1) First-stage ordinary-least-squares regression explaining ln(FDI) and two-stage least squares regression explaining CONCEN2.

(2) First stage maximum-likelihood (ML) linear regression explaining ln(FDI) and conditional ML tobit regression with lower censoring explaining CONCEN2.

Table 11. Results of the heteroskedasticity-robust regressions for *PROFIT*

	(1)				(2)			
	ln(FDI)		PROFIT		ln(FDI)		PROFIT	
	Coefficient	(p-value)	Coefficient	(p-value)	Coefficient	(p-value)	Coefficient*	(p-value)
ln(FDI)			0.4895	(0.031)			0.4938	(0.040)
CAPUTI	0.0008	(0.462)	0.0029	(0.069)	0.0008	(0.459)	0.0041	(0.021)
PELAST	0.0443	(0.014)	–0.1447	(0.000)	0.0445	(0.012)	–0.1098	(0.001)
STATE	0.0828	(0.216)	–0.5287	(0.000)	0.0829	(0.186)	–0.6311	(0.000)
TECH	0.0421	(0.172)	0.0844	(0.074)	0.0421	(0.186)	0.1006	(0.053)
YEAR	0.0003	(0.805)	0.0054	(0.001)	0.0003	(0.818)	0.0066	(0.002)
IMPORT	0.0305	(0.065)	–0.0268	(0.290)	0.0321	(0.065)	–0.0295	(0.287)
ANTICOM	0.0694	(0.000)			0.0695	(0.000)		
PHONE	–0.0046	(0.028)			–0.0046	(0.003)		
SECUR	0.0792	(0.107)			0.0779	(0.089)		
TIMET	–0.0050	(0.012)			–0.0051	(0.002)		
TRADE	0.2165	(0.015)			0.2021	(0.030)		
Observations	1732		1732		1732		1732	
Uncentred R-sq.	0.8847		0.8604					
Partial R-sq. of excluded variables	0.0227							
Anderson IV relevance test			39.70	(0.000)				
Hansen J statistic			1.07	(0.900)				
Wald test of exogeneity							4.63	(0.031)

Source: Own calculations.

* Marginal effect.
Sectoral shares included in all regressions but not reported.

(1) First-stage ordinary-least-squares regression explaining ln(FDI) and two-stage least squares regression explaining PROFIT.

(2) First stage maximum-likelihood (ML) linear regression explaining ln(FDI) and conditional ML probit regression explaining PROFIT.

Table 12. Results of the heteroskedasticity-robust regressions for *CONCEN*

	(1)				(2)			
	ln(FDI)		CONCEN		ln(FDI)		CONCEN	
	Coefficient	(p-value)	Coefficient	(p-value)	Coefficient	(p-value)	Coefficient*	(p-value)
ln(FDI)			–0.2763	(0.001)			–0.2852	(0.000)
SIZE	–0.0068	(0.824)	0.0251	(0.138)	–0.0052	(0.864)	0.0200	(0.178)
YEAR	–0.0012	(0.284)	–0.0017	(0.011)	–0.0012	(0.268)	–0.0013	(0.013)
EXPORT	–0.2982	(0.069)	0.2057	(0.000)	–0.4020	(0.005)	0.1647	(0.000)
COURT1	0.0230	(0.138)			0.0168	(0.194)		
COURT2	0.0233	(0.120)			0.0133	(0.287)		
LABOUR	0.0784	(0.000)			0.0710	(0.000)		
TIMET	–0.0037	(0.055)			–0.0030	(0.065)		
TRADE	0.4765	(0.000)			0.5799	(0.000)		
Observations	1759		1759		1759		1759	
Uncentred R-sq.	0.8554		–0.1518					
Partial R-sq. of excluded variables	0.0219							
Anderson IV relevance test			39.02	(0.000)				
Hansen J statistic			4.32	(0.365)				
Wald test of exogeneity							18.12	(0.000)

Source: Own calculations.

* Marginal effect.

Sectoral shares included in all regressions but not reported.

(1) First-stage ordinary-least-squares regression explaining ln(FDI) and two-stage least squares regression explaining CONCEN.

(2) First stage maximum-likelihood (ML) linear regression explaining ln(FDI) and conditional ML probit regression explaining CONCEN.

Table 13. Results of the heteroskedasticity-robust regressions for *CONCEN2*

	(1)				(2)			
	ln(FDI)		CONCEN2		ln(FDI)		CONCEN2	
	Coefficient	(p-value)	Coefficient	(p-value)	Coefficient	(p-value)	Coefficient*	(p-value)
ln(FDI)			–0.3060	(0.001)			–0.4867	(0.001)
SIZE	–0.0068	(0.824)	0.0266	(0.147)	–0.0048	(0.874)	0.0324	(0.183)
YEAR	–0.0012	(0.284)	–0.0019	(0.008)	–0.0012	(0.265)	–0.0021	(0.013)
EXPORT	–0.2982	(0.069)	0.2226	(0.001)	–0.4098	(0.004)	0.2655	(0.000)
COURT1	0.0230	(0.138)			0.0158	(0.223)		
COURT2	0.0233	(0.120)			0.0124	(0.321)		
LABOUR	0.0784	(0.000)			0.0696	(0.000)		
TIMET	–0.0037	(0.055)			–0.0030	(0.061)		
TRADE	0.4765	(0.000)			0.5879	(0.000)		
Observations	1759		1759		1759		1759	
Uncentred R-sq.	0.8554		–0.1694					
Partial R-sq. of excluded variables	0.0219							
Anderson IV relevance test			39.02	(0.000)				
Hansen J statistic				5.86	(0.210)			
Wald test of exogeneity							10.81	(0.001)

Source: Own calculations.

* Marginal effect

Sectoral shares included in all regressions but not reported.

(1) First-stage ordinary-least-squares regression explaining ln(FDI) and two-stage least squares regression explaining CONCEN2

(2) First stage maximum-likelihood (ML) linear regression explaining ln(FDI) and conditional ML tobit regression explaining CONCEN

Coefficients are stable and significant across different specifications. In general, the estimated models appear to work well.

In summary, hypothesis 1 is rejected and hypothesis 2 is not; FDI contributed to the higher profitability of domestic firms and to deconcentration. Spillovers from FDI seem to have outweighed the competitive impact in the CEECs and consequently, FDI has made domestic enterprises stronger. Konings (2001) arrived at the opposite conclusions for two of three CEECs considered as regards the net spillover effect. He examined the immediate impact of the fraction of foreign affiliates' sales in the industry total on the level of domestic firms' sales. His model could be biased towards measuring mainly the crowding-out effect because foreign affiliates' sales compete with domestic sales immediately, whereas spillovers may appear with some time lag. Harrison and McMillan (2003) used precisely the same indicator to test just the size of the crowding-out effect. On the contrary, there appears to be no direct substitution between the share of foreign investment and domestic profitability. Foreign investment seems to be a more neutral indicator of foreign presence, unbiased towards any of the effects. Moreover, Konings (2001) looked at just three countries and conducted separate regressions whereas, as this study shows, comparing the same sectors across countries (with country effects controlled) gives a more precise picture of the impact of FDI on the profitability of domestic enterprises.

8. Conclusions

This study started with an overview of recent theoretical contributions that model the impact of FDI on the market structure in the host country. Special attention was given to competition between foreign-owned and domestic firms in transition economies. The theoretical discussion was concluded with two alternative hypotheses about the long-term impact of FDI, which can either crowd out the incumbents, thus making the profitability of domestic firms lower and contributing to higher concentration in an industry, or make domestic enterprises

stronger (more profitable) and decrease concentration. The hypotheses have been tested by regressions based on data from the BEEPS II. The impact of sectoral inward FDI stock / GDP ratio on domestic profitability and concentration in 13 CEECs was isolated from the reverse relation (problem of endogeneity) with IVs for different elements of the business environment. It appears that FDI had a beneficial influence on domestic enterprises, increasing their profitability and reducing concentration in the CEECs.

The study has some inevitable limitations. The positive results for profitability can probably be attributed to selection bias to some extent. In the long run, the least profitable domestic enterprises were eliminated from the markets. However, it also shows that TNCs were unable to create extra barriers to entry (or re-entry) even if some weaker domestic firms were crowded out initially. If the relevant data becomes available, further research may also refine my results through distinguishing different types of FDI in terms of different entry modes and strategic motives and examining their impact on domestic firms across different industries of all the transition countries.

Based on the reviewed theoretical models, one can try to draw some further general conclusions considering the empirical results. The initial efficiency gap must have been sufficiently small in the CEECs. Fixed costs of FDI were not prohibitive but not negligible either, and the headquarters' costs significantly differed between the CEECs and investors' home countries. The "bandwagon" motive for FDI could play some role in preserving competition, rather than an alternative scenario of "importing" the cartels of TNCs. ■

List of abbreviations

CEECs	–	Central and Eastern European Countries*
EU	–	European Union
FDI	–	foreign direct investments*
GDP	–	gross domestic product
IVs	–	instrumental variables
TNC	–	transnational corporation
UNCTAD	–	United Nations Conference on Trade and Development

* For the definitions, see http://stats.unctad.org/fdi

Data sources

BEEPS II, European Bank for Reconstruction and Development and World Bank: Dataset, http://wbln0018.worldbank.org/eca/ecspeExt.nsf/ECADocByUnid/0E84C6BFA0F47F3685256E8A00707394/$FILE/BEEPS2002PUBLICdata.zip

Gateway, European Bank for Reconstruction and Development and World Bank, http://info.worldbank.org/governance/beeps2002/

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United Nations Statistics Division, National Accounts Main Aggregates, http://unstats.un.org /unsd/snaama/SelectionBasicFast.asp.

UNCTAD FDI statistics on-line, http://stats.unctad.org/fdi.

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World Investment Report 2006

FDI from Developing and Transition Economies – Implications for Development

Overview

ANOTHER YEAR OF FDI GROWTH

Foreign direct investment in 2005 grew for the second consecutive year, and it was a worldwide phenomenon.

Inflows of foreign direct investment (FDI) were substantial in 2005. They rose by 29% – to reach $916 billion – having already increased by 27% in 2004. Inward FDI grew in all the main subregions, in some to unprecedented levels, and in 126 out of the 200 economies covered by UNCTAD. Nevertheless, world inflows remained far below the 2000 peak of $1.4 trillion. Similar to trends in the late 1990s, the recent upsurge in FDI reflects a greater level of cross-border mergers and acquisitions (M&As), especially among developed countries. It also reflects higher growth rates in some developed countries as well as strong economic performance in many developing and transition economies.[1]

Inflows to developed countries in 2005 amounted to $542 billion, an increase of 37% over 2004 (table 1), while to developing countries they rose to the highest level ever recorded – $334 billion. In percentage terms, the share of developed countries increased somewhat, to 59% of global inward FDI. The share of developing countries was 36% and that of South-East Europe and the Commonwealth of Independent States (CIS) was about 4%.

The United Kingdom saw its inward FDI surge by $108 billion to reach a total of $165 billion, making it the largest recipient in 2005. Despite a decline in the level of inward FDI,

[1] Transition economies refer to all the countries of South-East Europe and the Commonwealth of Independent States.

Table 1. FDI flows, by region and selected countries, 1994-2005
(Billions of dollars and per cent)

Region/country	FDI inflows							FDI outflows						
	1994-1999 (Annual average)	2000	2001	2002	2003	2004	2005	1994-1999 (Annual average)	2000	2001	2002	2003	2004	2005
Developed economies	373.9	1 133.7	599.3	441.2	358.5	396.1	542.3	486.6	1 097.5	684.8	485.1	514.8	686.3	646.2
Europe	220.4	721.6	393.1	314.2	274.1	217.7	433.6	326.5	871.4	474.0	281.7	317.0	368.0	618.8
European Union	210.3	696.1	382.0	307.1	253.7	213.7	421.9	304.2	813.1	435.4	265.8	286.1	334.9	554.8
Japan	3.4	8.3	6.2	9.2	6.3	7.8	2.8	22.8	31.6	38.3	32.3	28.8	31.0	45.8
United States	124.9	314.0	159.5	74.5	53.1	122.4	99.4	114.3	142.6	124.9	134.9	129.4	222.4	- 12.7
Other developed countries	25.1	89.7	40.4	43.4	25.0	48.3	6.5	22.9	51.9	47.6	36.2	39.7	64.9	- 5.7
Developing economies	166.4	266.8	221.4	163.6	175.1	275.0	334.3	64.9	143.8	76.7	49.7	35.6	112.8	117.5
Africa	8.4	9.6	19.9	13.0	18.5	17.2	30.7	2.5	1.5	- 2.7	0.3	1.2	1.9	1.1
Latin America and the Caribbean	65.2	109.0	89.4	54.3	46.1	100.5	103.7	18.9	60.0	32.2	14.7	15.4	27.5	32.8
Asia and Oceania	92.9	148.3	112.2	96.2	110.5	157.3	200.0	43.5	82.2	47.2	34.7	19.0	83.4	83.6
Asia	92.4	148.0	112.0	96.1	110.1	156.6	199.6	43.5	82.2	47.1	34.7	19.0	83.4	83.6
West Asia	3.1	3.5	7.2	6.0	12.3	18.6	34.5	0.4	1.5	- 1.2	0.9	- 2.2	7.4	15.9
East Asia	58.5	116.3	78.8	67.4	72.2	105.1	118.2	32.3	72.0	26.1	27.6	14.4	59.2	54.2
China	40.7	40.7	46.9	52.7	53.5	60.6	72.4	2.2	0.9	6.9	2.5	- 0.2	1.8	11.3
South Asia	3.4	4.7	6.4	7.0	5.7	7.3	9.8	0.1	0.5	1.4	1.7	1.4	2.1	1.5
South-East Asia	27.4	23.5	19.6	15.8	19.9	25.7	37.1	10.7	8.2	20.8	4.6	5.4	14.7	12.0
Oceania	0.5	0.3	0.1	0.1	0.4	0.7	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0
South-East Europe and the CIS	7.8	9.1	11.5	12.9	24.2	39.6	39.7	1.6	3.2	2.7	4.7	10.7	14.0	15.1
South-East Europe	2.2	3.6	4.2	3.9	8.5	13.3	12.4	0.1	-	0.1	0.6	0.2	0.2	0.5
CIS	5.6	5.4	7.3	9.0	15.7	26.3	27.2	1.5	3.2	2.5	4.1	10.6	13.8	14.6
World 548.1	1 409.6	832.2	617.7	557.9	710.8	916.3	553.1	1 244.5	764.2	539.5	561.1	813.1	778.7	
Memorandum: percentage share in world FDI flows														
Developed economies	68.2	80.4	72.0	71.4	64.3	55.7	59.2	88.0	88.2	89.6	89.9	91.7	84.4	83.0
Developing economies	30.4	18.9	26.6	26.5	31.4	38.7	36.5	11.7	11.6	10.0	9.2	6.3	13.9	15.1
South-East Europe and the CIS	1.4	0.6	1.4	2.1	4.3	5.6	4.3	0.3	0.3	0.4	0.9	1.9	1.7	1.9

Source: UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies*, annex table B.1 and FDI/TNC database (www.unctad.org/fdistatistics).

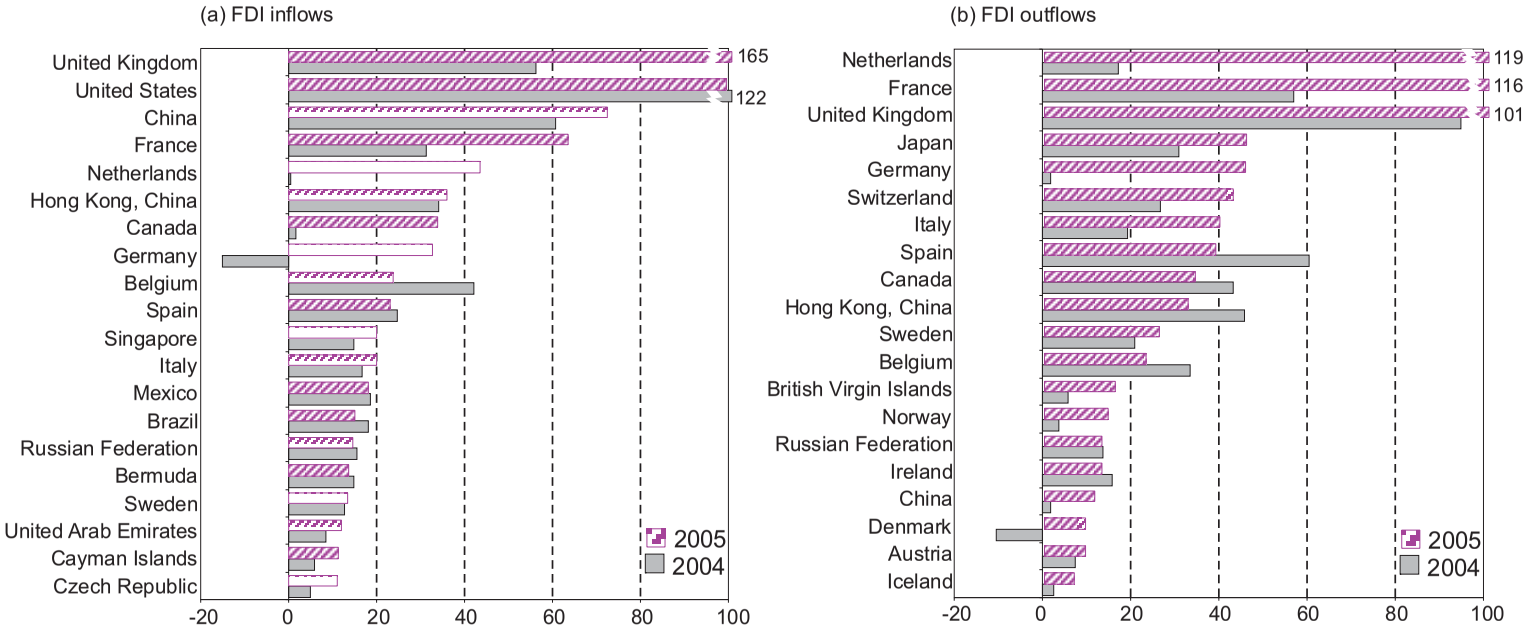
the United States was the second largest recipient. Among developing economies, the list of the largest recipients compared with previous years remained stable, with China and Hong Kong (China) at the top, followed by Singapore, Mexico and Brazil. Regionally, the 25-member European Union (EU) was the favourite destination, with inflows of $422 billion, or almost half of the world total. South, East and South-East Asia received $165 billion, or about a fifth of that total, with the East Asian South-East Asia received $165 billion, or about a fifth of that total, with the East Asian subregion accounting for about three quarters of the regional share. North America came next with $133 billion, and South and Central America followed with $65 billion. West Asia experienced the highest inward FDI growth rate, of 85%, amounting to $34 billion. Africa received $31 billion, the largest ever FDI inflow to that region.

Global FDI outflows amounted to $779 billion (a different amount from that estimated for FDI inflows due to differences in data reporting and collecting methods of countries). Developed countries remain the leading sources of such outflows. In 2005, the Netherlands reported outflows of $119 billion, followed by France and the United Kingdom. However, there were significant increases in outward investment by developing economies, led by Hong Kong (China) with $33 billion (figure 1). Indeed, the role of developing and transition economies as sources of FDI is increasing. Negligible or small until the mid-1980s, outflows from these economies totalled $133 billion last year, corresponding to some 17% of the world total. The implications of this trend are explored in detail in Part Two of this Report.

It was spurred by cross-border M&As, with increasing deals also undertaken by collective investment funds.

Cross-border M&As, especially those involving companies in developed countries, have spurred the recent increases in FDI. The value of cross-border M&As rose by 88% over 2004, to $716 billion, and the number of deals rose by 20%, to 6,134. These levels are close to those achieved in the first year of the cross-border M&A boom of 1999-2001. The recent surge in M&A activity includes several major transactions, partly fuelled by the recovery of stock markets in 2005. There were

Figure 1. Global FDI flows, top 20 economies, 2004-2005[a]
(Billions of dollars)



Source: UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies*, annex table B.1 and FDI/TNC database (www.unctad.org/fdistatistics).

[a] Ranked on the basis of the magnitude of 2005 FDI flows.

141 mega deals valued at more than $1 billion – close to the peak of 2000, when 175 such deals were observed. The value of mega deals was $454 billion in 2005 – more than twice the 2004 level and accounting for 63% of the total value of global cross-border M&As.

A new feature of the recent M&A boom is increasing investment by collective investment funds, mainly private equity and related funds. A number of factors, including historically low interest rates and increasing financial integration, have led private equity firms to undertake direct investments abroad, which are estimated to have reached $135 billion in 2005 and accounted for 19% of total cross-border M&As (table 2). Unlike other kinds of FDI, private equity firms tend not to undertake long-term investment, and exit their positions with a time horizon of 5 to 10 years (or an average of 5-6 years), long enough not to be regarded as typical portfolio investors. Thus host countries, and developing ones in particular, need to be aware of this difference in time horizon. At the same time, foreign ownership can bring market access and new technologies, and private equity investment can help host-country enterprises at a critical juncture to move to a new phase of development.

Table 2. Cross-border M&As by collective investment funds, 1987-2005
(Number of deals and value)

	Number of deals		Value	
Year	Number	Share in total (%)	$ billion	Share in total (%)
1987	43	5.0	4.6	6.1
1988	59	4.0	5.2	4.5
1989	105	4.8	8.2	5.9
1990	149	6.0	22.1	14.7
1991	225	7.9	10.7	13.2
1992	240	8.8	16.8	21.3
1993	253	8.9	11.7	14.1
1994	330	9.4	12.2	9.6
1995	362	8.5	13.9	7.5
1996	390	8.5	32.4	14.3
1997	415	8.3	37.0	12.1
1998	393	7.0	46.9	8.8
1999	567	8.1	52.7	6.9
2000	636	8.1	58.1	5.1
2001	545	9.0	71.4	12.0
2002	478	10.6	43.8	11.8
2003	649	14.2	52.5	17.7
2004	771	15.1	77.4	20.3
2005	889	14.5	134.6	18.8

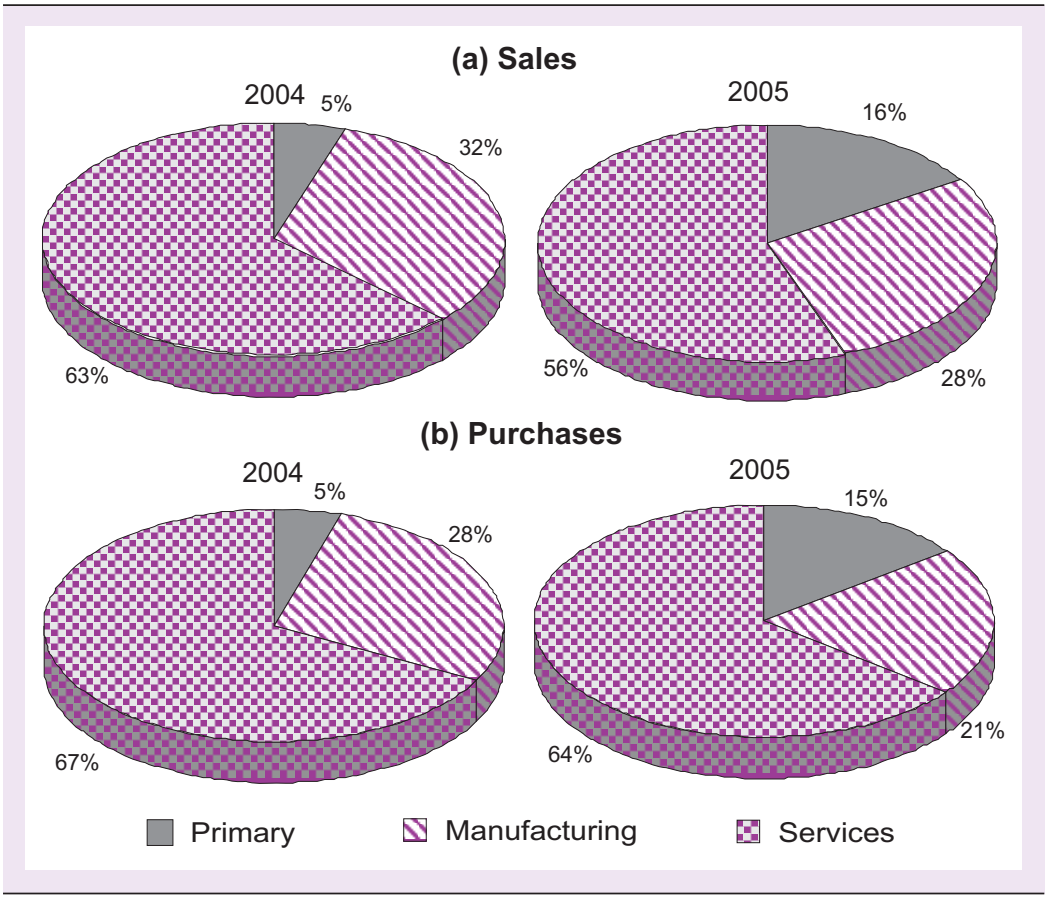
Source: UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies*, table I.6.

Most inflows went into services, but the sharpest rise in FDI was in natural resources.

Services gained the most from the surge of FDI, particularly finance, telecommunications and real estate. (Since data on the sectoral distribution of FDI are limited, these observations are extrapolated from data relating to cross-border

M&As, which accounted for a significant share of inflows.) The predominance of services in cross-border investments is not new. What *is* new is the further and sharp decline in the share of manufacturing (four percentage points lower in cross-border M&A sales over the preceding year) and the steep rise of FDI into the primary sector (with a sixfold increase in cross-border M&A sales), primarily the petroleum industry (figure 2).

Figure 2. Cross-border M&As by sector, 2004-2005



Source: UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies*, figure I.4.

There has been a significant increase in developing-country firms in the universe of transnational corporations.

Transnational corporations (TNCs), most of them privately owned, undertake FDI. However, in some home

countries (notably in the developing world) and in some industries (especially those related to natural resources) a number of major State-owned enterprises are also increasingly expanding abroad. According to estimates by UNCTAD, the universe of TNCs now spans some 77,000 parent companies with over 770,000 foreign affiliates. In 2005, these foreign affiliates generated an estimated $4.5 trillion in value added, employed some 62 million workers and exported goods and services valued at more than $4 trillion (table 3).

The TNC universe continues to be dominated by firms from the Triad – the EU, Japan and the United States – home to 85 of the world's top 100 TNCs in 2004 (table 4 for the top 25 TNCs). Five countries (France, Germany, Japan, the United Kingdom and the United States) accounted for 73 of the top 100 firms, while 53 were from the EU. Heading the list of the global top 100 non-financial TNCs are General Electric, Vodafone and Ford, which together account for nearly 19% of the total assets of these 100 companies. The automobile industry dominates the list, followed by pharmaceuticals and telecommunications.

However, firms from other countries are advancing internationally. Total sales of TNCs from developing countries reached an estimated $1.9 trillion in 2005 and they employed some 6 million workers. In 2004, there were five companies from developing economies in the list of the top 100 TNCs, all with headquarters in Asia, three of them State-owned. These five companies – Hutchison Whampoa (Hong Kong, China), Petronas (Malaysia), Singtel (Singapore) Samsung Electronics (the Republic of Korea) and CITIC Group (China) – topped the list of the largest 100 TNCs from developing countries (table 5 for the top 25 of these TNCs). (Since 1995, the *World Investment Report* has published a list of the top 50 TNCs, but in this Report the list has been expanded to cover 100 TNCs.) In 2004, 40 of the firms were from Hong Kong (China) and Taiwan Province of China, 14 from Singapore and 10 from China. Altogether, 77 of the top 100 TNCs had their headquarters in Asia; the remaining were equally distributed between Africa and Latin America.

Table 3. Selected indicators of FDI and international production, 1982-2005
(Billions of dollars and per cent)

Item	Value at current prices (Billions of dollars)				Annual growth rate (Per cent)						
	1982	1990	2004	2005	1986-1990	1991-1995	1996-2000	2002	2003	2004	2005
FDI inflows	59	202	711	916	21.7	21.8	40.0	-25.8	-9.7	27.4	28.9
FDI outflows	28	230	813	779	24.6	17.1	36.5	-29.4	4.0	44.9	-4.2
FDI inward stock	647	1 789	9 545	10 130	16.8	9.3	17.3	9.7	20.6	16.1	6.1
FDI outward stock	600	1 791	10 325	10 672	18.0	10.7	18.9	9.6	17.7	14.1	3.4
Income on inward direct investment	47	76	562	558	10.4	30.9	17.4	10.8	37.0	32.3	-0.7
Income on inward direct investment	47	120	607	644	18.7	18.1	12.7	6.3	37.0	26.6	6.1
Cross border M&As [a]	..	151	381	716	25.9 [b]	24.0	51.5	-37.7	-19.7	28.2	88.2
Sales of foreign affiliates	2 620	6 045	20 986	22 171	19.7	8.9	10.1	11.2	30.4	11.4	5.6
Gross product of foreign affiliates	646	1 481	4 283	4 517	17.4	6.9	8.8	1.9	20.3	22.8	5.4
Total assets of foreign affiliates	2 108	5 956	42 807	45 564	18.1	13.8	21.0	36.7	27.9	3.5	6.4
Export of foreign affiliates	647	1 366	3 733	4 214	14.3	8.4	4.8	4.9	16.5	21.0	12.9
Employment of foreign affiliates (thousands)	19 537	24 551	59 458	62 095	5.4	3.2	11.0	10.0	-0.5	20.1	4.4
GDP (in current prices)	10 899	21 898	40 960	44 674	11.1	5.9	1.3	3.9	12.1	12.1	9.1
Gross fixed capital formation	2 397	4 925	8 700	9 420	12.7	5.6	1.1	0.4	12.4	15.5	8.3
Royalties and licences fees receipts	9	30	111	91	21.2	14.3	7.8	7.9	14.1	17.0	-17.9
Export of goods and non-factor services	2 247	4 261	11 196	12 641	12.7	8.7	3.6	4.9	16.5	21.0	12.9

Source: UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies*, table I.2.

[a] Data are only available from 1987 onward.
[b] 1987-1990 only.

Table 4. The world's top 25 non-financial TNCs, ranked by foreign assets, 2004
(Millions of dollars and number of employees)

Ranking by:						Assets		Sales		Employment		TNI [a]	No. of affiliates			
Foreign assets	TNI [a]	II [b]	Corporation	Home economy	Industry	Foreign	Total	Foreign	Total	Foreign	Total	(Per cent)	Foreign	Total	II [b]
1	68	55	General Electric	United States	Electrical & electronic equipment	448 901	750 507	56 896	152 866	142 000	307 000	47.8	787	1157	68.02
2	4	93	Vodafone Group Plc	United Kingdom	Telecommunications	247 850	258 626	53 307	62 494	45 981	57 378	87.1	70	198	35.35
3	67	65	Ford Motor	United States	Motor vehicles	179 856	305 341	71 444	171 652	102 749	225 626	48.7	130	216	60.19
4	90	71	General Motors	United States	Motor vehicles	173 690	479 603	59 137	193 517	114 612	324 000	34.0	166	290	57.24
5	10	44	British Petroleum Company Plc	United Kingdom	Petroleum expl./ref./distr.	154 513	193 213	232 388	285 059	85 500	102 900	81.5	445	611	72.83
6	38	37	Exxonmobil	United States	Petroleum expl./ref./distr.	134 923	195 256	202 870	291 252	52 968	105 200	63.0	237	314	75.48
7	25	88	Royal Dutch/Shell Group	United Kingdom/ Netherlands	Petroleum expl./ref./distr.	129 939	192 811	170 286	265 190	96 000	114 000	71.9	328	814	40.29
8	62	91	Toyota Motor Corp.	Japan	Motor vehicles	122 967	233 721	102 995	171 467	94 666	265 753	49.4	129	341	37.83
9	20	48	Total	France	Petroleum expl./ref./distr.	98 719	114 636	123 265	152 353	62 227	111 401	74.3	410	576	71.18
10	66	47	France Télécom	France	Telecommunications	85 669	131 204	24 252	58 554	81 651	206 524	48.7	162	227	71.37
11	49	60	Volkswagen	Germany	Motor vehicles	84 042	172 949	80 037	110 463	165 152	342 502	56.4	147	228	64.47
12	16	22	Sanofi-Aventis	France	Pharmaceuticals	82 612	104 548	15 418	18 678	68 776	96 439	77.6	207	253	81.82
13	61	54	Deutsche Telekom AG	Germany	Telecommunications	79 654	146 834	47 118	71 868	73 808	244 645	50.0	266	390	68.21
14	60	62	RWE Group	Germany	Electricity, gas and water	78 728	127 179	23 636	52 320	42 370	97 777	50.1	345	552	62.50
15	19	59	Suez	France	Electricity, gas and water	74 051	85 788	38 838	50 585	100 485	160 712	75.2	546	846	64.54
16	81	79	E.ON	Germany	Electricity, gas and water	72 726	155 364	21 996	60 970	32 819	72 484	42.7	303	596	50.84
17	13	6	Hutchison Whampoa	Hong Kong	Diversified	67 638	84 162	17 039	23 037	150 687	180 000	79.3	94	103	91.26
18	39	49	Siemens AG	Germany	Electrical & electronic equipment	65 830	108 312	59 224	93 333	266 000	430 000	62.0	605	852	71.01
19	3	4	Nestlé SA	Switzerland	Food & beverages	65 396	76 965	68 586	69 778	240 406	247 000	93.5	460	487	94.46
20	92	28	Electricite De France	France	Electricity, gas and water	65 365	200 093	17 886	55 775	50 543	156 152	32.4	240	299	80.27
21	29	87	Honda Motor Co Ltd	Japan	Motor vehicles	65 036	89 483	61 621	79 951	76 763	137 827	68.5	76	188	40.43
22	52	73	Vivendi Universal	France	Diversified	57 589	94 439	11 613	26 607	23 377	37 906	55.4	245	435	56.32
23	48	83	ChevronTexaco	United States	Motor vehicles	57 186	93 208	80 034	150 865	31 000	56 000	56.6	121	250	48.40
24	34	23	BMW AG	Germany	Motor vehicles	55 726	91 826	40 198	55 050	70 846	105 972	66.9	124	153	81.05
25	93	80	Daimler Chrysler	United States/Germany	Motor vehicles	54 869	248 850	68 928	176 391	101 450	384 723	29.2	324	641	50.55

Source: UNCTAD/Erasmus University in UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies*, annex table A.I.11.

[a] TNI, the Transnationlity Index, is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment. Ranking is based on 100 TNCs.

[b] II, the "Internationalization Index", is calculated as the number of foreign affiliates divided the number of all affiliates (Note: Affiliates counted in this table refer to only majority-owned affiliates). Ranking is based on 100 TNCs.

Note: The list covers non-financial TNCs only. In some companies, foreign investors may hold a minority share of more than 10 per cent.

Table 5. The top 25 non-financial TNCs from developing economies, ranked by foreign assets, 2004
(Millions of dollars, number of employees)

Ranking by:						Assets		Sales		Employment		TNI[a]	No. of affiliates		
Foreign assets	TNI[a]	II[b]	Corporation	Home economy	Industry	Foreign	Total	Foreign	Total	Foreign	Total	(Per cent)	Foreign	Total	II[b]
1	28	4	Hutchison Whampoa Limited	Hong Kong, China	Diversified	67 638	84 162	11 426	23 080	150 687	182 000	70.9	84	93	90.3
2	80	30	Petronas - Petroliam Nasional Bhd	Malaysia	Petroleum expl./ref./distr.	22 647	62 915	10 567	36 065	4 016	33 944	25.7	167	234	71.4
3	32	24	Singtel Ltd.	Singapore	Telecommunications	18 641	21 626	5 396	7 722	8 676	19 155	67.1	23	30	76.7
4	54	14	Samsung Electronics Co., Ltd.	Republic of Korea	Electrical & electronic equip.	14 609	66 6656	1 524	79 184	21 259	61 899	44.7	75	87	86.2
5	86	71	CITIC Group	China	Diversified	14 452	84 744	1 746	6 413	15 915	93 323	20.4	14	59	23.7
6	30	27	Cemex S.A.	Mexico	Construction	13 323	17 188	5 412	8 059	16 822	26 679	69.2	42	56	75.0
7	11	13	LG Electronics Inc.	Republic of Korea	Electrical & electronic equip.	10 420	28 903	36 082	41 782	41 923	32 000	84.5	32	37	86.5
8	62	66	China Ocean Shipping (Group) Co.	China	Shipping	9 024	14 994	4 825	11 293	4 230	70 474	36.3	40	134	29.9
9	75	55	Petróleos De Venezuela	Venezuela	Petroleum expl./ref./distr.	8 868	55 355	25 551	46 589	5 157	33 998	28.7	30	65	46.2
10	37	1	Jardine Matheson Holdings Ltd	Hong Kong, China	Diversified	7 141	10 555	5 830	8 988	57 895	110 000	61.7	83	88	94.3
11	66	23	Formosa Plastic Group	Taiwan Province of China	Industrial chemicals	6 968	58 023	6 995	37 738	61 626	82 380	35.1	14	18	77.8
12	96	72	Petroleo Brasileiro S.A. - Petrobras	Brazil	Petroleum expl./ref./distr.	6 221	63 270	11 082	52 109	6 196	52 037	14.3	23	103	22.3
13	94	33	Hyundai Motor Company	Republic of Korea	Motor vehicles	5 899	56 387	15 245	51 300	4 954	53 218	16.5	13	20	65.0
14	33	12	Flextronics International Ltd.	Singapore	Electrical & electronic equip.	5 862	11 130	8 181	16 085	89 858	92 000	67.1	100	114	87.7
15	45	82	Capitaland Limited	Singapore	Real Estate	5 231	10 545	1 536	2 328	5 277	10 668	55.0	4	23	17.4
16	63	46	Sasol Limited	South Africa	Industrial chemicals	4 902	12 998	5 541	10 684	5 841	31 100	36.1	1	2	50.0
17	90	75	Telmex	Mexico	Telecommunications	4 734	22710	1 415	12 444	15 616	76 386	17.6	6	28	21.4
18	55	47	América Móvil	Mexico	Telecommunications	4 448	17 277	5 684	11 962	13 949	23 303	44.4	17	34	50.0
19	79	69	China State Construction Engineering Corp.	China	Construction	4 357	11 130	2 513	11 216	21 456	130 813	26.0	4	16	25.0
20	43	22	Hon Hai Precision Industries (Foxconn)	Taiwan Province of China	Electrical and electronic equip.	4 355	9 505	7 730	16 969	140 518	166 509	58.6	32	41	78.0
21	19	2	Shangri-La Asia Limited	Hong Kong, China	Hotels and motels	4 209	5 208	571	726	14 013	18 100	79.0	29	31	93.5
22	77	89	New World Development Co., Ltd.	Hong Kong, China	Diversified	4 202	15 567	891	2 865	12 687	47 000	28.4	7	57	12.3
23	27	7	Sappi Limited	South Africa	Paper	4 187	6 150	4 351	4 762	8 936	16 010	71.8	33	37	89.2
24	100	95	China National Petroleum Corp.	China	Petroleum expl./ref./distr.	4 060	110 393	5 218	68 952	22 000	1167 129	4.4	4	242	1.7
25	60	87	Companhia Vale do Rio Doce	Brazil	Mining & quarrying	4 025	16 382	9 395	10 380	2 736	36 176	40.9	6	48	12.5

Source: UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies*, annex table A.I.12.

a TNI is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment. Ranking is based on 100 TNCs.

b II is calculated as the number of foreign affiliates divided by number of all affiliates (Note: Affiliates counted in this table refer to only majority-owned affiliates). Ranking is based on 100 TNCs.

Liberalization continues, but some protectionist tendencies are also emerging.

In terms of regulatory trends relating to investment, the pattern observed in previous years has persisted: the bulk of regulatory changes have facilitated FDI. They have involved simplified procedures, enhanced incentives, reduced taxes and greater openness to foreign investors. However, there have also been notable moves in the opposite direction (table 6). In both the EU and the United States, growing concerns have arisen over proposed foreign acquisitions. In early 2006, the acquisition by DP World (United Arab Emirates) of P&O (United Kingdom), a shipping and port management firm, along with that firm's management of some ports in the United States, led to United States protests on the grounds of security. Similarly, in Europe concerns were voiced over a bid by Mittal Steel to acquire Arcelor, and broader European opposition to the EU's own directive relating to the liberalization of services. Some notable regulatory steps were also taken to protect economies from foreign competition or to increase State influence in certain industries. The restrictive moves were mainly related to FDI in strategic areas such as petroleum and infrastructure. For example, the Latin American oil and gas industry became the focus of attention, particularly following the Bolivian Government's decision to nationalize that industry in May 2006.

The web of international agreements of relevance to FDI continued to expand. By the end of 2005, the total number of bilateral investment treaties (BITs) had reached 2,495, and double taxation treaties (DTTs) 2,758, along with 232 other international

Table 6. National regulatory changes, 1992-2005

Item	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Number of countries that introduced changes in their investment regimes	43	57	49	64	65	76	60	63	69	71	70	82	102	93
Number of regulatory changes	77	100	110	112	114	150	145	139	150	207	246	242	270	205
More favourable to FDI	77	99	108	106	98	134	136	130	147	193	234	218	234	164
Less favourable to FDI	-	1	2	6	16	16	9	9	3	14	12	24	36	41

Source: UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies,* table I.11.

agreements containing investment provisions. A number of developing countries are actively involved in such rule-making, including through more South-South cooperation. A notable trend involves the conclusion of further free trade agreements and various economic cooperation arrangements dealing with investment. The universe of international investment agreements (IIAs) is becoming increasingly complex. The recent IIAs tend to deal with a broader set of issues, including public concerns related, for example, to health, safety or the environment. While such quantitative and qualitative changes may contribute to creating a more enabling international framework for foreign investment, they also mean that governments and firms have to deal with a rapidly evolving system of multilayered and multifaceted set of rules. Keeping this framework coherent and using it as an effective tool to further countries' development objectives remain key challenges.

Africa attracted much higher levels of FDI.

In *Africa,* FDI inflows shot up from $17 billion in 2004 to an unprecedented $31 billion in 2005. Nonetheless, the region's share in global FDI continued to be low, at just over 3%. South Africa was the leading recipient, with about 21% ($6.4 billion) of the region's total inflows, mainly as a result of the acquisition of ABSA (South Africa) by Barclays Bank (United Kingdom). Egypt was the second largest recipient, followed by Nigeria. As in the past, with a few exceptions such as Sudan, most of the region's 34 least developed countries (LDCs) attracted very little FDI. The leading source countries remained the United States and the United Kingdom, along with France and Germany further behind. Most of the FDI was in the form of greenfield investments.

FDI flows to Africa in 2005 went mainly into natural resources, especially oil, although services (e.g. banking) also figured prominently. High commodity prices and strong demand for petroleum led to an increase in exploration activities in a number of African countries, including Algeria, Egypt, Equatorial Guinea, the Libyan Arab Jamahiriya, Mauritania, Nigeria and Sudan. TNCs from the United States and the EU continued to dominate the industry, but a number of developing-country TNCs, such as CNOOC from China, Petronas from Malaysia and ONGC

Videsh from India, are increasingly expanding into Africa. Total FDI into six African oil-producing countries – Algeria, Chad, Egypt, Equatorial Guinea, Nigeria and Sudan – amounted to $15 billion, representing about 48% of inflows into the region in 2005.

Although outward FDI from Africa declined in 2005, several African TNCs deepened their internationalization, including through cross-border M&As. For example, Orascom, acquired Wind Telecommunicazioni of Italy through Weather Investments of Egypt. Most of the FDI from South Africa, the leading investor in Africa, went to developing countries in 2005.

Manufacturing attracted less FDI than natural resources and services. However, some sector-specific developments are worth highlighting. Automotive TNCs have set up export-oriented production facilities in South Africa, generating employment opportunities and export revenues. Conversely, fragmented markets, poor infrastructure and a lack of skilled workers, coupled with the ending in 2005 of the quotas established under the Multi-Fibre Arrangement (MFA), contributed to some divestment in the ready-made garments industry in countries like Lesotho. These divestments suggest that preferential market access (as provided by the United States' African Growth and Opportunities Act and the EU's Everything But Arms initiative) is not in itself sufficient to attract and retain manufacturing FDI in a globalizing environment. If African countries are to become internationally competitive, it is essential that they strengthen the necessary linkages between their export sectors and the rest of the economy by building and fostering domestic capabilities in areas such as physical infrastructure, production capacity and institutions supportive of private investment.

There have been positive developments in terms of regulatory regimes, and many African countries have signed new bilateral agreements related to investment and taxation. However, attracting quality FDI – the kind that would significantly increase employment, enhance skills and boost the competitiveness of local enterprises – remains a challenge. Africa's industrial progress requires competitive production capacity, in addition to better market access.

South, East and South-East Asia is still the main magnet for inflows into developing countries ...

FDI inflows into *South, East and South-East Asia* reached $165 billion in 2005, corresponding to 18% of world inflows. About two thirds went to two economies: China ($72 billion) and Hong Kong, China ($36 billion). The South-East Asian subregion received $37 billion, led by Singapore ($20 billion) and followed by Indonesia ($5 billion), Malaysia and Thailand ($4 billion each). Inflows to South Asia were much lower ($10 billion), though they grew significantly in several countries, with the highest level ever for India of $7 billion.

Over half of the inflows to the region came from developing home economies, mostly within the region. The figures for inward stock show significant growth in the share of these sources over the past decade, from about 44% in 1995 to about 65% in 2004, with a corresponding decline in the share of developed-country sources.

Manufacturing FDI has been increasingly attracted to South, East and South-East Asia, although specific locations have changed as countries have moved up the value chain. The sector continues to attract large inflows, especially in the automotive, electronics, steel and petrochemical industries. Viet Nam has become a new location of choice, attracting new investment by companies such as Intel, which is investing $300 million in the first semiconductor assembly plant in that country. In China, investment in manufacturing is moving into more advanced technologies; for example, Airbus plans to set up an assembly operation for its A320 aircraft. There is, however, a shift towards services in the region, in particular banking, telecommunications and real estate.

Countries in South, East and South-East Asia continue to open up their economies to inward FDI. Significant steps in this direction were taken in 2005, particularly in services. For example, India is now allowing single-brand retail FDI as well as investment in construction, and China has lifted geographic restrictions on operations of foreign banks and travel agencies.

A few measures were also introduced to address concerns over cross-border M&As in countries such as the Republic of Korea.

South, East and South-East Asia is also an emerging *source* of FDI (among developing countries), with outflows of $68 billion in 2005. Although this implies a drop of 11% from 2004, Chinese outflows increased and seem set to rise further in the next few years. Many of the region's countries have accumulated large foreign reserves, which may lead to more outward FDI. Among the main recent FDI deals involving companies from this region were Temasek's (Singapore) purchase of an 11.5% stake in Standard Chartered (United Kingdom) in 2006, and CNPC's (China) takeover of Petrokazakhstan in 2005. China and India have been energetically pursuing the acquisition of oil assets, and have even cooperated on some bids.

… while West Asia received an unprecedented level of inflows.

FDI inflows into the 14 economies of West Asia soared by 85%, the highest rate in the developing world in 2005, to reach a total increase of about $34 billion. High oil prices and consequently strong GDP growth were among the main factors that drove this increase. In addition, the regulatory regime was further liberalized, with an emphasis on privatization involving FDI notably in services: for instance, power and water in Bahrain, Jordan, Oman and the United Arab Emirates, transport in Jordan, and telecommunications in Jordan and Turkey.

The United Arab Emirates collectively received inflows of $12 billion, to become the largest recipient of FDI in West Asia in 2005. The next largest was Turkey, primarily on account of a few mega cross-border M&A sales in services. FDI inflows in West Asia have gone mainly into services, including real estate, tourism and financial services. Much of the FDI in real estate has been intraregional. There is also increasing FDI in manufacturing, especially in refineries and petrochemicals, in which Saudi Arabia alone received some $2 billion in 2005. There is little FDI in the primary sector, as most West Asian countries do not permit it in upstream activities in the energy industry.

West Asia is becoming a significant outward direct investor. Traditionally, most of the region's petrodollars have gone into bank deposits and portfolio purchases abroad, particularly in the United States. This is changing in both form and location. Unlike the previous periods of high oil revenues, the present phase is witnessing substantial outward FDI in services, in developing as well as developed countries. One motivation for this has been to forge stronger economic ties with the emerging Asian giants, China and India, but investment has also gone into Europe and Africa. Deals such as the above-mentioned acquisition of P&O by DP World, and the purchase of Celtel International (Netherlands) by Kuwait's Mobile Telecommunications illustrate this trend. Notable cases of South-South FDI include the purchase of a 25% share by Saudi Aramco in a refinery in Fujian, China, and a possible Saudi equity partnership with India's ONGC in a refinery in Andhra Pradesh, India.

Latin America and the Caribbean continued to receive substantial FDI.

Latin America and the Caribbean saw inflows of $104 billion, representing a small rise over 2004. Excluding the offshore financial centres, inflows increased by 12%, to reach $67 billion in 2005. Economic growth and high commodity prices were contributory factors. The region registered exceptional GDP growth rates in 2004-2005, surpassing those of the world average for the first time in 25 years. Strong demand for commodities contributed to a noticeable improvement in the regional trade balance. A significant proportion of the FDI inflows consisted of reinvested earnings, reflecting a marked increase in corporate profits. Trends varied by country: while inflows decreased in Brazil (- 17%), Chile (-7%) and Mexico (-3%), they rose significantly in Uruguay (81%), more than trebled in Colombia, almost doubled in Venezuela, and increased by 65% and 61% in Ecuador and Peru respectively.

Sectorally, the share of FDI in services in total FDI flows continued to decline, from 40% in 2004 to 35% in 2005 – a very low share compared with other regions. Some TNCs continued to withdraw from the region, in part due to disputes with host

governments in areas such as public utilities (e.g. the withdrawal from Argentina of Suez and EDF (both French firms)). Manufacturing accounted for just over 40% of inflows, including a relatively large number of M&As, such as SABMiller's takeover of breweries in Colombia and Peru, Grupo Techint's (Argentina) purchase of the steel-maker Hylsamex (Mexico), and Camargo Correa's (Brazil) acquisition of the cement-maker, Loma Negra (Argentina).

Even though a number of countries in the region introduced more restrictive policies, FDI in the primary sector grew significantly, attracting nearly 25% of inflows. Despite introducing a requirement on TNCs in the petroleum industry to operate under new contracts Venezuela received FDI inflows of $1 billion. In Colombia, petroleum-related FDI soared to $1.2 billion, a 134% rise, and in Ecuador it increased by 72% in the first half of 2005. Investment in the mining industry also expanded. In Colombia, for example, it grew by nearly 60% to $2 billion, in Chile to $1.3 billion, in Peru to $1 billion and in Argentina to $850 million.

Notwithstanding significant differences across countries, there appears to be a trend towards greater State intervention in the region, above all in the oil industry, and other natural resources. As a result of the large windfall earnings generated by the exploitation of natural resources and high commodity prices, several governments are introducing rules that are less favourable to FDI than those established in the 1990s, when commodity prices were at record lows. For instance, oil and gas resources have been nationalized in Bolivia; and the Government of Venezuela took control of 32 oilfields previously under private control, and created new State-owned companies in sectors such as sugar processing, retailing and communications. In addition, a broader shift in policy is under way in some countries, which aims at addressing income inequalities attributed to previous policy regimes.

Regional cooperation in the area of investment experienced several setbacks in 2005. Negotiations on establishing a 34-country Free Trade Agreement of the Americas

stalled owing to opposition by five countries (including Argentina and Brazil); the free-trade talks between Ecuador and the United States were suspended following a takeover by the Government of Ecuador of Occident Petroleum's production infrastructure.

FDI outflows from Latin America and the Caribbean increased by 19% to $33 billion in 2005, with TNCs from the region acquiring assets mainly in telecommunications and heavy industries. As a significant share of these investments is within Latin America and the Caribbean, it also contributes to FDI inflows into the region.

FDI flows to South-East Europe and the Commonwealth of Independent States remained relatively high...

FDI flows to South-East Europe and the CIS in 2005 remained at a relatively high level ($40 billion), increasing only slightly over the previous year. Inflows were fairly concentrated: three countries – the Russian Federation, Ukraine and Romania, in that order – accounted for close to three quarters of the total. FDI outflows from the region grew for a fourth consecutive year, reaching $15 billion, with the Russian Federation alone responsible for 87% of the total outflows. The countries of the region have different policy priorities related to inward and outward FDI, reflecting their varying economic structures and institutional environments. In natural-resource-based economies, such as the Russian Federation, Azerbaijan and Kazakhstan, most of the policy issues concern management of the windfall earnings from high international oil prices, and the definition – or redefinition – of the role of the State.

…while there was an upturn in FDI to developed countries.

FDI inflows into developed countries rose by 37% to $542 billion, or 59% of the world total. Of this, $422 billion went to the 25-member EU. The United Kingdom – the largest single recipient of global FDI – received $165 billion. The main contributory factor was the merger of Shell Transport and Trading (United Kingdom) with Royal Dutch Petroleum (the Netherlands), a deal valued at $74 billion. Other major FDI recipients, that registered significant increases in their FDI inflows included

France ($64 billion), the Netherlands ($44 billion) and Canada ($34 billion). The 10 new EU members together attracted $34 billion, a rise of 19% over 2004 and another new record high. Inflows into the United States amounted to $99 billion, a significant decline from 2004. Although well over 90% of all inflows into developed countries originated from other developed countries, several notable investments by TNCs from developing countries also took place, including Lenovo's (China) takeover of IBM's personal computer division and the above-mentioned purchase of Italian Wind Telecomunicazioni by Orascom of Egypt through Weather Investments.

As a result of the Shell merger mentioned above, the Netherlands emerged as the leading source of FDI in 2005, followed by France ($116 billion) and the United Kingdom ($101 billion). Overall, however, outflows from developed countries declined somewhat, from $686 billion to $646 billion, mainly due to a fall in outflows from the United States. The American Jobs Creation Act of 2004 contributed to the decline, as it allowed repatriated earnings of United States foreign affiliates to be taxed at a lower rate than the normal one, leading to a one-off fall in reinvested earnings.

FDI into developed countries increased in all three sectors: primary, manufacturing and services. In keeping with the global trend, investment in natural resources increased significantly. In manufacturing, some of the new EU members (especially the Czech Republic, Hungary, Poland and Slovakia) consolidated their positions as preferred locations for automotive production. Hyundai Motors, for instance, announced plans to set up new plants in the Czech Republic and in Slovakia. The new EU members are likely to maintain their comparative advantages (e.g. their average wage is 30% of the average wage in the older EU countries) for some time, and their automotive production is expected to double over the next five years, to 3.2 million vehicles.

In 2005, there were intense political discussions on various aspects of FDI, and especially cross-border M&As, in developed countries. On the one hand, some countries, particularly the 10 new EU member States, continue to privatize, reduce corporate

income taxes and provide new incentives to attract more FDI. On the other hand, various concerns have been raised in a number of countries following the increased M&A activity. National security concerns, for example, led to a blocking of the purchase of Unocal (United States) by CNOOC (China); the Governments of Spain and France tried to prevent the buyouts of Endesa and Suez, respectively, by companies from other EU countries, and steps were taken to protect national champions. Japan has postponed the approval of cross-border M&As through share swaps and adopted some restrictions in the retail industry for instance.

Overall, FDI should continue to grow in the short term.

World FDI inflows are expected to increase further in 2006. This prospect is based on continued economic growth, increased corporate profits – with a consequent increase in stock prices that would boost the value of cross-border M&As – and policy liberalization. In the first half of 2006, cross-border M&As rose 39% compared to the same period in 2005. However, there are factors that may dampen further FDI growth. These include the continuing high oil prices, rising interest rates and increased inflationary pressures, which may restrain economic growth in most regions. Also, various economic imbalances in the global economy as well as geopolitical tensions in some parts of the world are adding to the uncertainty.

FDI FROM DEVELOPING AND TRANSITION ECONOMIES

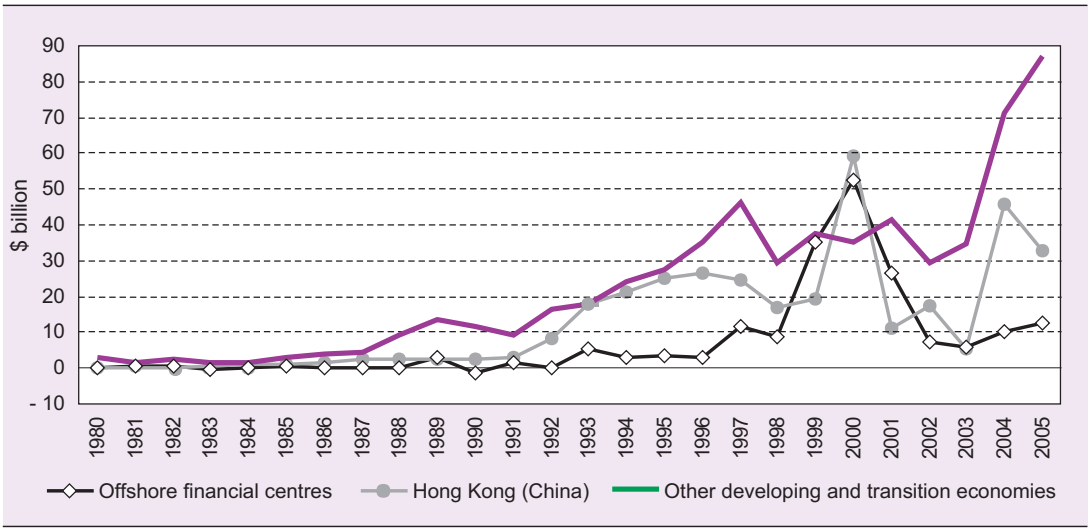
Developing and transition economies have emerged as significant outward investors…

Although developed-country TNCs account for the bulk of global FDI, an examination of different data sources shows a growing and significant international presence of firms – both private and State-owned – from developing and transition economies. Their outward expansion through FDI provides development opportunities for the home economies concerned. However, it is eliciting mixed reactions from recipient countries in different parts of the world. Some welcome the increased FDI from these economies as a new source of capital and knowledge; for others it also represents new competition.

A small number of source economies are responsible for a large share of these FDI outflows, but companies from more and more countries see the need to explore investment opportunities abroad to defend or build a competitive position. FDI from developing and transition economies reached $133 billion in 2005, representing about 17% of world outward flows. Excluding FDI from offshore financial centres, the total outflow was $120 billion – the highest level ever recorded (figure 3). The value of the stock of FDI from developing and transition economies was estimated at $1.4 trillion in 2005, or 13% of the world total. As recently as 1990, only six developing and transition economies reported outward FDI stocks of more than $5 billion; by 2005, that threshold had been exceeded by 25 developing and transition economies.

Data on cross-border M&As, greenfield investments and expansion projects as well as statistics related to the number of parent companies based outside the developed world confirm the growing significance of TNCs from developing and transition economies. Between 1987 and 2005, their share of global cross-border M&As rose from 4% to 13% in value terms, and from 5% to 17% in terms of the number of deals concluded. Their share of all recorded greenfield and expansion projects exceeded 15% in

Figure 3. Outward FDI flows from developing and transition economies, 1980-2005



Source: UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies*, figure III.2.

2005, and the total number of parent companies in Brazil, China, Hong Kong (China), India and the Republic of Korea has multiplied, from less than 3,000 to more than 13,000 over the past decade.

Sectorally, the bulk of FDI from developing and transition economies has been in tertiary activities, notably in business, financial and trade-related services. However, significant FDI has also been reported in manufacturing (e.g. electronics) and, more recently, in the primary sector (oil exploration and mining). Data on cross-border M&As confirm the dominance of services, which constituted 63%, by value, of M&As undertaken by companies based in developing and transition economies in 2005. By industry, the highest shares that year were recorded for transport, storage and communications, mining, financial services, and food and beverages.

The geographical composition of FDI from developing and transition economies has changed over time, the most notable long-term development being the steady growth of developing Asia as a source of FDI. Its share in the total stock of FDI from developing and transition economies stood at 23% in 1980, rising to 46% by 1990 and to 62% in 2005. Conversely, the share of

Table 7. Top 15 developing and transition economies in terms of stocks of outward FDI, 2005
(Billions of dollars)

Rank	Economy	2005
1	Hong Kong, China	470
2	British Virgin Islands	123
3	Russian Federation	120
4	Singapore	111
5	Taiwan Province of China	97
6	Brazil	72
7	China	46
8	Malaysia	44
9	South Africa	39
10	Korea, Republic of	36
11	Cayman Islands	34
12	Mexico	28
13	Argentina	23
14	Chile	21
15	Indonesia	14
All developing and transition economies		1 400

Source: UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies*, table III.4.

Latin America and the Caribbean in outward FDI fell from 67% in 1980 to 25% in 2005. The top five home economies accounted for two thirds of the stock of FDI from developing and transition economies, and the top 10 for 83%. In 2005, the largest outward FDI stock among developing and transition economies was in Hong Kong (China), the British Virgin Islands, the Russian Federation, Singapore and Taiwan Province of China (table 7).

A sizeable share of FDI originates from *offshore financial centres*. The British Virgin Islands is by far the largest such source, with an outward FDI stock in 2005 estimated at almost $123 billion. From a statistical point of view, trans-shipping FDI via offshore financial centres makes it difficult to estimate the real size of outward FDI from specific economies and by specific companies. In some years, flows from these centres have been particularly large. However, since 2000, their outward FDI has declined considerably and now amounts to around one tenth of the total flows of FDI from developing and transition economies.

According to UNCTAD's *Outward FDI Performance Index,* which compares an economy's share of world outward FDI against its share of world GDP, FDI from Hong Kong (China) was 10 times larger than would be expected, given its share of world GDP. Other developing economies with comparatively high outflows included Bahrain, Malaysia, Panama, Singapore and Taiwan Province of China. Meanwhile, many countries with relatively large outward FDI in absolute terms, such as Brazil, China, India and Mexico, are at the opposite end of the spectrum, suggesting considerable potential for future expansion of FDI.

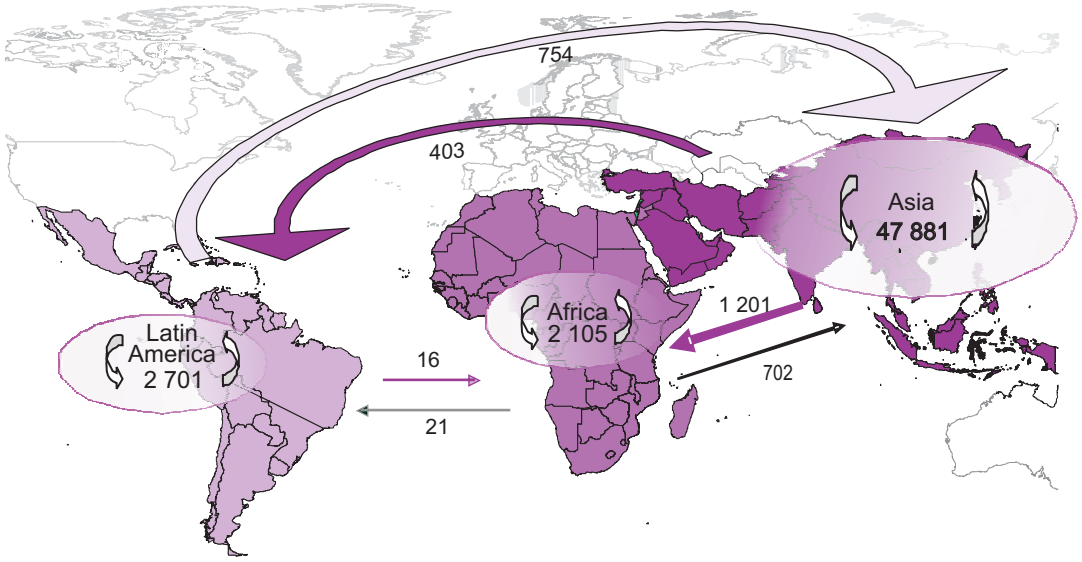
…generating considerable South-South investment flows.

The emergence of these new sources of FDI may be of particular relevance to low-income host countries. TNCs from developing and transition economies have become important investors in many LDCs. Developing countries with the highest dependence on FDI from developing and transition economies include China, Kyrgyzstan, Paraguay and Thailand, and LDCs such as Bangladesh, Ethiopia, the Lao People's Democratic Republic, Myanmar and the United Republic of Tanzania. Indeed, FDI from developing countries accounts for well over 40% of the total inward FDI of a number of LDCs. For example, in Africa, South Africa is a particularly important source of FDI; it accounts for more than 50% of all FDI inflows into Botswana, the Democratic Republic of the Congo, Lesotho, Malawi and Swaziland. Moreover, the level of FDI from developing and transition economies to many LDCs may well be understated in official FDI data, as a significant proportion of such investment goes to their informal sector, which is not included in government statistics.

UNCTAD estimates show that South-South FDI has expanded particularly fast over the past 15 years. Total outflows from developing and transition economies (excluding offshore financial centres) increased from about $4 billion in 1985 to $61 billion in 2004; most of these were destined for other developing or transition economies. In fact, FDI among these economies increased from $2 billion in 1985 to $60 billion in 2004. As FDI of transition economies account for a very small proportion of these transactions, this estimate can also be used as a proxy for the size of South-South FDI.

The bulk of South-South FDI (excluding offshore financial centres) is intraregional in nature (figure 4). In fact, during the period 2002-2004, average annual intra-Asian flows amounted to an estimated $48 billion. The next largest stream of FDI within the group of developing countries was within Latin America, mainly driven by investors in Argentina, Brazil and Mexico. Intraregional flows within Africa were an estimated $2 billion reflecting, in particular, South African FDI to the rest of the continent. Interregional South-South FDI has gone primarily

Figure 4. Intra-regional and inter-regional FDI flows in developing countries, excluding offshore financial centres, average 2002-2004
(Millions of dollars)



Source: UNCTAD, *World Investment Report 2006: FDI from Developing and Transition Economies*, figure III.8.

from Asia to Africa, while the second largest has been from Latin America to Asia. Perhaps somewhat surprisingly, total flows from Asia to the Latin American region were modest during the period 2002-2004,[2] and those between Latin America and Africa were negligible.

New global and regional players are emerging, especially from Asia…

The diversity of the home economies now emerging as significant sources of FDI precludes any far-reaching generalizations of the characteristics of TNCs from developing and transition economies, but it is possible to identify certain salient features. Although most of their TNCs are relatively small, a number of large ones with global ambitions have also appeared on the scene. They tend to be involved in particular industries, with notable variations between different home economies and regions. Compared with their developed-country counterparts, a

[2] In fact, most FDI flows between Asia and Latin America and the Caribbean involve inflows and outflows from offshore financial centres, which are not included in figure III.8.

relatively high degree of State ownership can be observed among the largest TNCs from developing and transition economies. However, these stylized observations should be interpreted with care, as there are important differences between regions and countries, as well as between individual companies.

Although more economies are emerging as FDI sources, there is still a relatively *high concentration* of countries from which the major TNCs originate: from South Africa in Africa, from Mexico and Brazil in Latin America, and from the Russian Federation in the CIS. There is less concentration in Asia, where the four newly industrializing economies, along with China, India, Malaysia and Thailand, are home countries for a growing number of companies that have expanded abroad. At the same time, a number of smaller TNCs from a wider range of developing countries are also increasing their foreign activities, mostly at the regional level. There are also an increasing number of large TNCs from developing and transition economies that feature in lists of the largest companies in the world. For example, around 1990, there were only 19 companies from developing and transition economies listed in the Fortune 500; by 2005, the number had risen to 47.

In terms of *industrial distribution* a few industries are better represented than others, but with important regional variations. Some TNCs from developing and transition economies have risen to leading global positions in industries such as automotives, chemicals, electronics, petroleum refining and steel, and in services such as banking, shipping, information technology (IT) services and construction. In some specific industries, such as container shipping and petroleum refining, developing-economy TNCs have a particularly strong presence.

In all developing regions and in the Russian Federation, major TNCs have emerged in the primary sector (oil, gas, mining) and resource-based manufacturing (metals, steel). Some of them are now competing head-on with their developed-country rivals. Examples include Sasol (South Africa) in Africa; CVRD (Brazil), ENAP (Chile), Petrobras (Brazil) and Petroleos de Venezuela (Venezuela) in Latin America; Baosteel, CNPC and CNOOC

(China), Petronas (Malaysia), Posco (Republic of Korea) and PTTEP (Thailand) in Asia; and Gazprom and Lukoil (Russian Federation).

Another cluster of activities involving many developing-economy TNCs are financial services, infrastructure services (electricity, telecommunications and transportation) and goods that are relatively difficult to export (cement, food and beverages). Because of their non-tradable nature, these economic activities typically require FDI if a company wishes to serve a foreign market. With a few exceptions (such as Cemex and the former South African companies, Old Mutual and SABMiller), however, most of the developing-country TNCs in these areas are mainly regional players, with limited (if any) activities in other parts of the world.

A third cluster of activities consists of those that are the most exposed to global competition, such as automotives, electronics (including semiconductors and telecommunications equipment), garments and IT services. Almost all the major TNCs from developing or transition economies in these industries are based in Asia. Electronics companies such as Acer (Taiwan Province of China), Huawei (China) and Samsung Electronics (Republic of Korea), the automobile firms, Hyundai Motor and Kia Motor (Republic of Korea), or smaller TNCs in the IT services industry, such as Infosys or Wipro Technologies (India), are already among the leaders in their respective industries.

In all regions studied, intraregional FDI plays a key role in TNC-controlled international networks. This is especially true in Latin America and the CIS, but also to a large extent in Africa and Asia. The subregion of East and South-East Asia has the largest number of TNCs with global aspirations. Of the top 100 developing-country TNCs in 2004, as many as 77 were based in this subregion. Five of them are also among the top 100 global TNCs: Hutchison Whampoa (Hong Kong, China), Petronas (Malaysia), Singtel (Singapore), Samsung Electronics (Republic of Korea) and CITIC Group (China).

…as developing-country TNCs respond to the threats and opportunities arising from globalization with their own distinctive competitive advantages.

The increase in the number and diversity of developing-country TNCs over the past decade is largely due to the continuing impact of globalization on developing countries and their economies. The dynamics are complex, but within them the combination of competition and opportunity – interwoven with liberalization policies across developing and developed regions – is particularly important. As developing economies become more open to international competition, their firms are increasingly forced to compete with TNCs from other countries, both domestically and in foreign markets, and FDI can be an important component of their strategies. This competition, in turn can impel them to improve their operations and it encourages the development of firm-specific competitive advantages, resulting in enhanced capabilities to compete in foreign markets.

Firms may respond directly to international competition or opportunities by utilizing their existing competitive advantages to establish affiliates abroad. This type of TNC strategy is referred to as "*asset exploiting"*. Firms can also opt for an "*asset augmenting"* strategy in order to improve their competitiveness by exploiting their limited competitive advantages to acquire created assets such as technology, brands, distribution networks, R&D expertise and facilities, and managerial competences that may not be available in the home economy. They may even combine both strategies.

While developed-country TNCs are most likely to utilize firm-specific advantages based on ownership of assets, such as technologies, brands and other intellectual property, evidence shows that developing-country TNCs rely more on other firm-specific advantages, derived from production process capabilities, networks and relationships, and organizational structure. There are, however, significant variations by country, sector and industry. For example, TNCs in the secondary sector as a whole are most likely to possess and utilize advantages in both production process capabilities and ownership of assets (in that order), with less reliance on advantages grounded in networks

and relationships, and organizations. In contrast, for TNCs in the primary sector, production process advantages are preponderant, while in the tertiary sector, networks and relationships represent the main advantage. There is some tendency to convergence with developed-country TNCs, mostly as economies become more developed (e.g. the advantages of TNCs from the Republic of Korea lie increasingly in their ownership of key technologies), but for the present a large diversity of advantages underlies the internationalization of developing-country TNCs.

Many of these TNCs also enjoy non-firm-specific competitive advantages: for example, those deriving from access to natural resources or reservoirs of knowledge and expertise in their home countries. These locational advantages might be available to all firms based in an economy, but a number of developing-country TNCs are adept at combining various sources of advantage (including firm-specific ones) into a strong competitive edge.

Many of the developing and transition economies that are home to large TNCs and are investing significant amounts of FDI overseas – such as Brazil, China, India, the Russian Federation, South Africa and Turkey – are doing so much earlier (and to a greater degree) than would be expected on the basis of theory or past experience. This intensification of FDI by these countries can be traced to around the early 1990s. The likely reason for this shift lies in the impact of globalization on countries and companies, especially through increased international competition and opportunities.

Their outward expansion is driven by various factors …

Four key types of push and pull factors, and two associated developments help explain the drive for internationalization by developing-country TNCs.

First, market-related factors appear to be strong forces that push developing-country TNCs out of their home countries or pull them into host countries. In the case of Indian TNCs, the need to pursue customers for niche products – for example, in IT

services – and the lack of international linkages are key drivers of internationalization. Chinese TNCs, like their Latin American counterparts, are particularly concerned about bypassing trade barriers. Overdependence on the home market is also an issue for TNCs, and there are many examples of developing-country firms expanding into other countries in order to reduce this type of risk.

Secondly, rising costs of production in the home economy – especially labour costs – are a particular concern for TNCs from East and South-East Asian countries such as Malaysia, the Republic of Korea and Singapore, as well as Mauritius (which has labour-intensive, export-orientated industries, such as garments). Crises or constraints in the home economy, for example where they lead to inflationary pressures, were important drivers in countries such as Chile and Turkey during the 1990s. However, interestingly, costs are less of an issue for China and India – two growing sources of FDI from the developing world. Clearly, this is because both are very large countries with considerable reserves of labour, both skilled and unskilled.

Thirdly, competitive pressures on developing-country firms are pushing them to expand overseas. These pressures include competition from low-cost producers, particularly from efficient East and South-East Asian manufacturers. Indian TNCs, for the present, are relatively immune to this pressure, perhaps because of their higher specialization in services and the availability of abundant low-cost labour. For them, competition from foreign and domestic companies based in the home economy is a more important impetus to internationalize. Similarly, competition from foreign TNCs in China's domestic economy is widely regarded as a major push factor behind the rapid expansion of FDI by Chinese TNCs. Such competition can also sometimes result in pre-emptive internationalization, as when Embraer (Brazil) and Techint (Argentina) invested abroad in the 1990s, ahead of liberalization in their respective home industries. Domestic and global competition is an important issue for developing-country TNCs, especially when these TNCs are increasingly parts of global production networks in industries such as automobiles, electronics and garments.

Fourthly, home and host government policies influence outward FDI decisions. Chinese TNCs regard their Government's policies as an important push factor in their internationalization. Indian firms, on the other hand, have been enticed by supportive host-government regulations and incentives, as well as favourable competition and inward FDI policies. South African TNCs, among others, mention transparent governance, investment in infrastructure, strong currencies, established property rights and minimal exchange-rate regulations as important pull factors. Most importantly, liberalization policies in host economies are creating many investment opportunities, for example through privatizations of State-owned assets and enterprises.

Apart from the above mentioned factors, there are two other major developments driving developing-country TNCs abroad. First, the rapid growth of many large developing countries – foremost among these being China and India – is causing them concern about running short of key resources and inputs for their economic expansion. This is reflected in strategic and political motives underlying FDI by some of their TNCs, especially in natural resources. Second, there has been an attitudinal or behavioural change among the TNCs discussed in this chapter. They increasingly realize that they are operating in a global economy, not a domestic one, which has forced them to adopt an international vision. These two developments, along with push and pull factors – especially the threat of global competition in the home economy and increased overseas opportunities arising from liberalization – adds empirical weight to the idea that there is a structural shift towards earlier and greater FDI by developing-country TNCs.

...which, together with TNCs' motives and competitive advantages, result in most of their FDI being located in developing countries.

In principle, four main motives influence investment decisions by TNCs: *market-seeking, efficiency-seeking, resource-seeking* (all of which are asset exploiting strategies) and *created-asset-seeking* (an asset-augmenting strategy).

Surveys undertaken by UNCTAD and partner organizations on outward investing firms from developing countries confirm that, of these motives, the most important one for developing-country TNCs is market-seeking FDI, which primarily results in intraregional and intra-developing-country FDI. Within this, there are differences in patterns of FDI, depending on the activity of the TNC: for example, FDI in consumer goods and services tends to be regional and South-South orientated; that in electronic components is usually regionally focused (because of the location of companies to which they supply their output); in IT services it is often regional and orientated towards developed countries (where key customers are located); and FDI by oil and gas TNCs targets regional markets as well as some developed countries (which remain the largest markets for energy).

Efficiency-seeking FDI is the second most important motive, and is conducted primarily by TNCs from the relatively more advanced developing countries (hence higher labour costs); it tends to be concentrated in a few industries (such as electrical and electronics and garments and textiles). Most FDI based on this motive targets developing countries; that in the electrical/electronics industry is strongly regionally focused, while FDI in the garments industry is geographically more widely dispersed. Generally, resource-seeking and created-asset-seeking motives for FDI are relatively less important for developing-country TNCs. Not unexpectedly, most resource-seeking FDI is in developing countries and much created-asset-seeking FDI is in developed countries.

Apart from the above motives, a common one for TNCs from some countries is that of strategic objectives assigned to State-owned TNCs by their home governments. Some governments have encouraged TNCs to secure vital inputs, such as raw materials for the home economy. For example, both Chinese and Indian TNCs are investing in resource-rich countries, especially in oil and gas (to expand supplies, in contrast to targeting customers as does market-seeking FDI in this industry). In the case of Chinese TNCs, the quest for secure supplies of a wide range of raw materials is complemented by parallel and

sustained Chinese diplomatic efforts in Africa, Central Asia, Latin America and the Caribbean, and West Asia.

In terms of location of FDI, the net result of the relevant drivers, advantages and motives is that most investments are in other developing countries (e.g. because of similarities in consumer markets, technological prowess or institutions) or within their region (i.e. neighbouring countries with which they are familiar).

TNCs from developing countries and transition economies are here to stay. As they expand overseas, they gain knowledge, which potentially benefits them in two ways. First, they learn from experience and improve their ability to operate internationally. Second, they gain expertise and technology to enhance their firm-specific advantages, thereby improving their competitiveness and performance. This improved competitiveness has implications for home countries. By the same token, developing-country TNCs can have an impact on host developing economies in a number of ways, ranging from financial resource flows and investment to technology and skills.

Increased competitiveness is one of the prime benefits that developing-country TNCs can derive from outward FDI …

The most important potential gain for a firm from outward FDI is increased competitiveness, that is, the ability to survive and grow in an open economy, and attain its ultimate objectives of maximizing profits and retaining or increasing market share. Outward FDI can be a direct path to market expansion. In certain circumstances, it is the only path, for example when there are trade barriers that inhibit exports or when the TNC is in the business of providing a service that is non-tradable. Many developing-country TNCs have indeed expanded their markets through outward FDI, either through M&As or through greenfield investments. Outward FDI can also contribute to a company's competitiveness by increasing its efficiency. Rising domestic costs, especially labour costs, have led a number of East and South-East Asian TNCs to invest in less expensive locations, with significant efficiency gains.

In the above-mentioned surveys of outward investing firms from developing countries conducted by UNCTAD and partner organizations, market expansion in a broad sense (including market diversification) was the benefit most frequently mentioned, followed by efficiency gains. Case studies confirm that outward FDI has indeed enabled developing-country firms to enter new markets and expand their businesses. In a range of industries, such as white goods and personal computers, a number of Asian TNCs, such as Acer (Taiwan Province of China), Arcelik (Turkey), Haier (China) and Lenovo (China), have successfully expanded their markets through FDI, which has helped them grow into global players. Some companies from other developing regions have also ventured beyond their borders and become successful players in regional and even global markets. For instance, in 2005, Cemex (Mexico) became the third largest cement-making company in the world, with more than two thirds of its sales in developed countries.

Enhancing enterprise competitiveness through outward FDI is a complex undertaking. It goes beyond the immediate gains arising from market expansion and/or cost-cutting, and includes upgrading technology, building brands, learning new management skills, linking up with global value chains, and moving up these chains into more advanced activities. Some of these tasks can be protracted and, in straight financial terms, bring little or no gain in the short run. This is particularly likely when the outward FDI is asset-augmenting rather than asset-exploiting, since in the former case the acquired assets must first be assimilated.

Firms that invest abroad tend to be more competitive than their domestically oriented peers. However, these firms are also subject to risks inherent in projects undertaken abroad. Some of these projects may fail for various reasons, with potential negative effects on the parent company. One of the reasons is the disadvantage of being foreign, another is the existence of cultural, social and institutional differences between home and host economies, and the third is the increasing need for coordinating activities and concomitant organizational and environmental complexities.

…while home countries can also benefit.

Outward FDI from developing countries can also contribute directly and indirectly, to a home economy as a whole. Arguably, the most important potential gain for home countries from outward FDI is the improved competitiveness and performance of the firms and industries involved. Such gains may translate into broader benefits and enhanced competitiveness for the home country at large, contributing to industrial transformation and upgrading of value-added activities, improved export performance, higher national income and better employment opportunities. Improved competitiveness of outward investing TNCs can be transmitted to other firms and economic agents in home countries through various channels, including via linkages with, and spillovers to, local firms, competitive effects on local business, and linkages and interactions with institutions such as universities and research centres. In sum, the more embedded the outward investing TNCs are, the greater will be the expected benefits for the home economy.

Evidence suggests that under appropriate home-country conditions, improved competitiveness of outward investing firms can indeed contribute towards enhancing industrial competitiveness and restructuring in the home economy as a whole. For instance**,** broader upgrading has occurred in whole industries in which firms have engaged in outward FDI. Examples are the IT industry in India, the consumer electronics industry in the Republic of Korea and China, and the computer and semiconductor industries in Taiwan Province of China.

At the same time, outward FDI may pose several risks for the home economy: it can lead to reduced domestic investment, hollowing out of parts of the economy and loss of jobs. As always, the beneficial impacts have to be weighed against possible damaging impacts. The benefits are usually reaped when certain preconditions are met, for example a reasonably competitive home market or the absorptive capacity to profit from advanced technology. The net outcome of the different economic and non-economic impacts for a home economy depends on the underlying motives and strategies of firms for investing overseas and on the characteristics of the home economy itself.

While outward FDI entails the transfer of capital from home to host country, it can also generate inflows in the form of repatriated profits, royalties and licensing fees, and payments by the host country for increased imports from the home country (often in the form of intra-firm trade). In general, in the immediate aftermath of the outward investment, net financial flows tend to be negative but then gradually become positive. Outward FDI also seems to have a delayed but positive effect on domestic investment.

The trade impacts of outward FDI on the home economy depend significantly – as in the case of developed-country FDI – on the motivations and types of investment undertaken. If the TNCs seek natural resources, outward FDI could lead to an increase in imports of those resources and exports of the inputs required for extraction. Market-seeking FDI can be expected to boost exports of intermediate products and capital goods from the home economy to the host country. If the motivation is efficiency or cost-reduction, outward FDI could enhance exports as well as imports, especially intra-firm trade, and their extent and pattern, depending on the geographic spread of the TNCs' integrated international production activities. Results of some studies on Asian developing home economies and data on trade by affiliates of developing-country TNCs in the United States and Japan suggest a positive relationship between home-country exports and outward FDI from developing countries.

Regarding employment, the impacts also vary according to the motivation of FDI. Efficiency-seeking FDI may raise many questions from a home-economy perspective. Even if it leads to a greater demand for higher skills at home, this may be of limited use to workers with low skills. Other kinds of FDI appear to have positive employment effects in the long run, depending considerably on the motivations of firms and their types of investments abroad. Evidence related to some Asian economies, such as Hong Kong (China) and Singapore, suggests that, under appropriate conditions, outward FDI can generate additional jobs in higher-skilled technical and managerial categories while reducing those in unskilled ones. On balance, in those economies, the job-creating effects of outward FDI exceeded its job-reducing

effects. Much would depend, however, on the capacities of the human resources in the home country to adapt to changes in the structure of the home economy.

Developing host countries may also gain from the rise in South-South FDI.

For developing host economies, FDI from other developing countries provides a broader range of potential sources of capital, technology and management skills to tap. For low-income developing countries, it can be of great importance. As indicated above, in a number of LDCs, it accounts for a large share of total FDI inflows. To the extent that firms from developing countries invest appreciable amounts in other developing countries, that investment provides an important additional channel for further South-South economic cooperation.

Because the motivations and competitive strengths of developing-country TNCs and the locational advantages sought by these firms diverge in several respects from those of TNCs from developed countries, their impact on host developing economies may carry certain advantages over that of FDI from developed countries. For example, the technology and business model of developing-country TNCs are generally somewhat closer to those used by firms in host developing countries, suggesting a greater likelihood of beneficial linkages and technology absorption. Developing-country TNCs also tend to use greenfield investments more than M&As as a mode of entry. This applies especially to investment in developing host countries. In this sense, their investments are more likely to have an immediate effect in improving production capacity in developing countries.

The trade impacts of FDI from developing countries also vary according to motives. Efficiency-seeking FDI is most likely to boost exports, which may include local value addition of various kinds. One recent prominent kind of efficiency-seeking FDI has been in the garments industry, which has had substantial export-boosting effects in LDCs in particular. However, local sourcing and backward linkages in this industry have been limited, with the result that the ending of MFA quotas has led to a reduction

in such FDI, for instance in Lesotho. In market-seeking FDI, especially in manufacturing, the effect is mainly one of import substitution. Resource-seeking FDI, of course, is export-oriented almost by definition, and may allow the host country to diversify its markets.

A major advantage for host developing countries of FDI by developing-country TNCs, as compared to that from developed-country TNCs, is the greater employment-generating potential of the former. The main reason is that developing-country TNCs may be oriented more towards labour-intensive industries, and may be more inclined to use simpler and more labour-intensive technologies, especially in manufacturing. Empirical evidence on average employment per affiliate in host developing countries suggests developing-country TNCs hire more people than do developed-country TNCs. In the case of sub-Saharan Africa, for example, it has been found that the labour intensity of developing-country TNCs tends to be higher than that of developed-country TNCs in the majority of industries covered. Foreign affiliates of developing-country TNCs, on average, created more jobs per million dollars of assets than did those of developed-country TNCs. The effects of FDI on wages are generally positive, as TNCs as a whole pay higher wages than local employers. Although data specific to developing-country TNCs are limited, indirect evidence suggests that, at least for skilled labour, they offer higher wages than host-country domestic firms.

But South-South FDI – like all FDI – also carries risks that can give rise to concerns. One is that foreign TNCs might dominate the local market. Another is that some host countries might feel threatened by the presence of too many firms from a single home country. For example, the dominance of South African TNCs has triggered some unease in neighbouring host countries. There is also the issue of undue political influence when an investing enterprise is State-owned, which is the case with many developing-country TNCs in natural resources. The political and social aspects of TNCs' activities may also give rise to controversy, partly due to the size of their operations. In developing host economies, such problems have sometimes been

exacerbated by the absence of an adequate regulatory framework and disparity in the allocation of economic benefits from inward FDI. In economies where domestic industries are underdeveloped, governments may not have the capabilities to ensure that acceptable labour and environmental standards, for example, are adhered to when foreign firms introduce new production processes or working methods.

In sum, outward FDI from developing countries provides a potential avenue for gains from economic cooperation among developing countries. As investment by developing-country TNCs have certain inherent characteristics, including a greater orientation towards labour-intensive industries, it is of considerable relevance to low-income countries. At the same time, outward FDI from developing countries is a relatively new phenomenon. The limited evidence presented in this Report suggests that for home as well as host developing countries, the positive effects of FDI from developing countries may outweigh the negative ones; however further research is necessary to deepen the understanding of the impact of such FDI on developing economies.

The expansion of outward FDI from developing countries is paralleled by changing policies in home countries...

The emergence of TNCs from some developing and transition economies as key regional or global players is paralleled by important changes in both developed and developing countries of policies governing FDI and related matters. The ability of countries – be they sources or recipients of such investment – to benefit from such investment activity is influenced by active policies. By providing the appropriate legal and institutional environment, home country governments can create conditions that will induce their firms to invest overseas in ways that will produce gains for the home economy.

From a home-country perspective, more and more developing and transition economies are dismantling previous barriers to outward FDI. While some form of capital control is often still in place to mitigate the risk of capital flight or financial instability, restrictions are mostly aimed at limiting other

international capital flows than FDI. Only a handful of developing countries retain outright bans on outward FDI. Countries are increasingly recognizing the potential benefits from outward FDI. A number of governments, especially in developing Asia, are even actively encouraging their firms to invest abroad using a variety of supportive measures to that end. Such measures include information provision, match-making services, financial or fiscal incentives, as well as insurance coverage for overseas investment.

There is no one-size-fits-all policy that can be recommended to deal with outward FDI. Every home country has to adopt and implement policies that fit its specific situation. Whether a country will benefit by moving from "passive liberalization" to "active promotion" of outward FDI depends on many factors, including the capabilities of its enterprise sector, and the links of the investing companies with the rest of the economy. Certain local capabilities are needed to exploit successfully the improved access to foreign markets, resources and strategic assets that outward FDI can bring about. Moreover, a certain level of absorptive capacity in the domestic enterprise sector may also be required to generate broader benefits from outward FDI. In many low-income countries, it may therefore be appropriate to focus on creating a more attractive business environment and enhancing domestic firm capabilities.

Still, for those countries that decide to encourage their firms to invest abroad, it is advisable to situate policies dealing specifically with outward FDI within a broader policy framework aimed at promoting competitiveness. The importance of generating domestic capabilities to benefit from outward FDI makes it appropriate to connect outward FDI-specific policies to those applied in areas such as development of small and medium-sized enterprises, technology and innovation. Moreover, outward FDI is only one of several ways in which a country and its firms can connect with the global production system. Government efforts to promote outward FDI can therefore benefit from close coordination with those related to attracting inward FDI, promoting imports or exports, migration and technology flows.

The most elaborate use of measures to promote outward FDI is found in South, East and South-East Asia. In several

countries of this region, governments discharge their promotional policies via trade promotion organizations, investment promotion agencies (IPAs), export credit agencies and/or EXIM banks. A range of policy instruments is applied in innovative ways, often targeting specific types of outward FDI. Some governments in Africa and Latin America have also publicly stressed the importance of outward FDI, but these statements have rarely been followed by concrete promotional measures.

Particular attention is warranted to the role of outward FDI in the context of "South-South" cooperation. Governments in Asia and Africa have outlined specific programmes to facilitate such investment. Some of these programmes are aimed at strengthening intra-regional development (as in the case of infrastructure-related FDI by South African State-owned enterprises), while others are inter-regional in scope. This is an area that needs to be further explored and supported through closer collaboration among developing-country institutions. An interesting recent UNCTAD initiative to this end is the establishment of the G-NEXID network, which will allow for the sharing of experiences among EXIM banks from developing countries.

…various policy responses in host countries …

There are also policy implications for host countries. A key question is what developing host countries can do to leverage fully the expansion of FDI from the South. In terms of enhancing the positive impact of such FDI, they need to consider the full range of policies that can influence the behaviour of foreign affiliates, and their interaction with the local business environment. This requires taking into account the specific characteristics of different industries and activities in designing a strategy to attract desired kinds of FDI. In addition, it is important to promote the amount and quality of linkages between foreign affiliates and domestic firms. Host-country governments can use various measures to encourage linkages between domestic suppliers and foreign affiliates and strengthen the likelihood of spillovers in the areas of information, technology and training. In terms of addressing potential concerns and negative effects

associated with inward FDI, there is no principal difference between the policies to apply in the case of FDI from developed countries and in the case of FDI from developing and transition economies.

The scope for "South-South" FDI has led many developing host countries to adopt specific strategies to attract such investment. In a 2006 UNCTAD survey of IPAs, more than 90% of all African respondents stated that they currently targeted FDI from other developing countries, notably from within their own region. Indeed, for African IPAs, South Africa tops the list of developing home countries targeted, while in Latin America and the Caribbean, Brazil is the most targeted country. Meanwhile, developed-country IPAs also court investors from developing and transition economies. A significant number of such agencies have already set up local offices for that purpose in places like Brazil, China, India, the Republic of Korea, Singapore and South Africa. This expanded diversity of potential sources of FDI may imply greater bargaining power of recipient countries to the extent that they are able to attract a greater number of investors to compete for existing investment opportunities.

Notwithstanding the interest in FDI from developing and transition economies, some stakeholders are less enthusiastic about some of the new investors. Several cross-border M&As by TNCs with links to their respective governments have generated national-security concerns, and others have spurred fears of job cuts. Countries in which State-owned TNCs embark on internationalization through FDI need to be aware of the potential sensitivities involved. In some host countries, State ownership is seen as an increased risk of a transaction being undertaken for other than purely economic motives. This is especially the case if the acquisitions relate to energy, infrastructure services or other industries with a "security dimension". Whether private or State-owned, investors from developing or transition economies that are anxious to tap the markets and resources of developed countries may also face growing pressure to address more fully issues related to corporate governance and transparency.

As far as the recipient countries are concerned, business leaders, trade unions as well as policymakers may have to get

used to an increased frequency of transactions involving companies from developing and transition economies as acquirers of domestic firms. There may be important benefits to a host country from having more companies competing to acquire local assets. Countries need to be careful in their use of legislation aimed at protecting national security interests, keeping in mind the risk of fuelling possible retaliation and protectionism.

…and it has implications also for the management of CSR issues…

Issues of corporate social responsibility (CSR) may also become more important as developing-country firms expand abroad. Discussions related to CSR have traditionally revolved around developed-country TNCs and their behaviour abroad; more recently the managements of TNCs from developing and transition economies are also being exposed to similar issues. While adherence to various internationally adopted CSR standards may entail costs for the companies concerned, it can also generate important advantages – not only for the host country, but also for the investing firms and their home economies. A number of developing-country TNCs have already incorporated CSR policies into their business strategies, some of them even becoming leaders in this area. For example, more than half of the participating companies in the United Nations Global Compact are based in developing countries. Moreover, some developing countries are establishing a regulatory and cultural environment that supports CSR standards. These initiatives are sometimes driven by governments and at other times by business associations, non-governmental organizations or international organizations.

…and for international rule making.

Beyond the national level of policy-making, there is a marked increased in South-South investment cooperation through IIAs, in parallel to the growth of FDI from the South. The increase of FDI from some of these economies is also likely to generate growing demand from their business community for greater protection of their overseas investments. As a consequence, in addition to using IIAs as a means to promote inward FDI, some

developing-country governments will increasingly consider using IIAs to protect and facilitate outward investments. This may influence the content of future treaties and result in an additional challenge for those developing country governments to balance their need for regulatory flexibility with the interests of their own TNCs investing abroad.

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Policymakers in countries at all levels of development need to pay greater attention to the emergence of new sources of FDI with a view to maximizing the developmental impact of this recent phenomenon. There is scope for policymakers from developing and transition economies to share their experience in this area. South-South cooperation between host and home countries may enhance opportunities for cross-border investments and contribute to their mutual development. From a South-North perspective, there is a similar need for dialogue, increased awareness and understanding of the factors that drive FDI from the South and of their potential impacts. UNCTAD and other international organizations can play an important role in this context by providing analysis, technical assistance and, not least, forums for an exchange of views and experiences, in order to help countries realize the full benefit of the rise of FDI from developing and transition economies.

Supachai Panitchpakdi
Secretary-General of UNCTAD

Geneva, August 2006

REVIEW ARTICLE

Globalization: economic opportunities, social challenges.

John H. Dunning*

The Role of Multinational Enterprises in Globalisation
Jorn Kleinert
(Berlin and New York, Springer-Verlag, 2004), xv + 211 pages

Nation States and the Multinational Corporation: A Political Economy of Foreign Direct Investment
Nathan M. Jensen
(Princeton and Oxford, Princeton University Press, 2006), xiv + 193 pages

A Corporate Solution to Global Poverty: How Multinationals Can Help the Poor and Invigorate Their Own Legitimacy
George Lodge and Craig Wilson
(Princeton and Oxford, Princeton University Press, 2006), xii + 198 pages

International Business-Society Management
Rob van Tulder with Alex van der Zwart
(London and New York, Routledge, 2006), xix + 440 pages

Over the past decade or so, the debate over the merits and demerits of globalization, and the role of transnational corporations (TNCs) in fashioning its structure and outcome, has shifted from an almost exclusive concentration on its economic implications to embracing some of its social and

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cultural consequences. Broadly speaking, the economic effects of the closer integration of people, organizations and ideas, and of the fall in transport and communication costs are well known. The impact of the lessening significance of physical distance and the easier transfer of knowledge over space – particularly between advanced industrial countries - is expertly analysed by Jorn Kleinert in his book. He argues persuasively that to reap the full economic benefits of globalization and TNC activity, markets must be kept open, competitive and flexible, and that the role of national governments and international agencies should be confined to smoothing the accommodation to change, which a highly integrated and dynamic world economy demands. Much of the argument set forth by Kleinert will be familiar to economists, but nowhere have I seen the theoretical underpinnings of distance related explanations for trade and international production more rigorously or elegantly argued.

The other three books reviewed here are very different in that they are concerned with the impact of globalization on the wider well-being of its participating constituents. While fully acknowledging the economic gains resulting from a more efficient allocation and usage of resources and capabilities fashioned by TNCs, each volume is more concerned with the impact of globalization on national or regional customs, values and belief systems; the social downsides of globalization, e.g. the easier transfer of such "bads" as drug trafficking and terrorism; and the volatility of the human environment, which technological change frequently demands. Each of the three volumes also addresses the changing interface between the main actors in the global economy, viz. TNCs, national governments, supranational entities and civil society. Each seeks to identify the creation and use of resources and capabilities and the exploitation of markets, and the conditions under which this task is consistent with the sustenance and upgrading of a socially acceptable human environment.

Each of the three volumes, then, goes beyond the issues tackled by the Kleinert book and other economic treatises. Each asserts that the gains of economic development and restructuring must be assessed by its impact on the wider objectives of its

constituents. Each strongly argues that many of these – e.g. those to do with security, health, education and the environment – require an institutional infrastructure which only extra-market actors, notably governments, can provide. Each also addresses issues concerning the incentive structures and rules of the game which will determine whether or not the kind of economic gains offered by global integration are in fact achieved. Two of the three books address specific issues related to the consequences of globalization and TNC activity. Each in its own way is quite insightful in exploring previously neglected issues. The volume by Nathan Jensen, for example, examines a number of institutional variables affecting the geography of FDI. In so doing, he finds that the content and quality of the business environment is a more significant determinant of the locational choices of TNCs than are traditional economic variables. In particular, he identifies the role of democratic political institutions, including federal institutions and the role played by the IMF, as especially significant determinants of the FDI inflows. Based on a combination of cross sectional and time series approaches for 114 countries between 1990 and 1991, Jensen constructs a carefully crafted rigorous empirical study. I very much like his analysis, not least because he complements his econometric work with a number of case studies. *Inter alia*, he finds that by mitigating risks, politically federal institutions attract more FDI than unitary regimes; government levels of spending and taxation affect FDI only marginally; and countries under IMF agreements tend to attract less FDI. Perhaps most significantly of all, Jensen finds that countries with democratic political institutions draw in as much as 78% more FDI than do authoritarian regimes.

The above results are further confirmed by the author's analysis of the websites of 115 investment promotion agencies and interviews with some nine TNCs. In Jensen's own words, "Interviews with eight investment agencies confirmed that fiscal policy is not generally a major determinant of fdi inflows" (p.68), and again "Most multinationals interviewed highlighted the advantages of investment in democracies. No firm interviewed made any claim that other regime types provided a more

favourable investment environment" (p.97). Finally, in his analysis of the influence of international institutions on the location of inbound TNC activity, he writes "IMF conditions can potentially have a positive impact but they have a negative impact if applied in a one-size-fits-all fashion" (p. 144).

If the focus of Jensen's study is on the impact of institutionally related factors on inward FDI, that of the Lodge and Wilson book is on the actual and possible role of TNCs in alleviating poverty. Again, although full acknowledgement is given to ways in which the reservoir of all kinds of knowledge and organizational skills possessed by TNCs might be transmitted to the poorest countries, the focus of this study is on the legitimacy of such organizations, as viewed from the lens of government, civil society and individuals. All too frequently, the authors assert, TNCs are perceived to behave in a socially unacceptable way, notably (so it is claimed) by an irresponsible use of economic power, fostering an uneven distribution of income, only serving the interests of their shareholders and, more generally, doing little to reduce poverty. Each of these concerns poses a challenge to the social legitimacy of TNCs. Indeed in 2001, Peter Drucker argued that such a challenge might be the biggest faced by large firms and particularly the modern TNC (Drucker, 2001).

While accepting some of the criticisms, Messrs Lodge and Wilson remind their readers that TNCs still remain the main repositories of the resources, capabilities and markets needed to promote responsible global capitalism and to reduce poverty. Because of this, they urge national governments and the international community to legitimize the role of TNCs more effectively, and to do so by providing them with the public resources to serve community needs without threatening their very existence as profit maximizing organizations.

To this end, the authors propose the setting up of a World Development Corporation (WDC) under the auspices of the United Nations. The task of the WDC would be "to harness the skills, capabilities and resources of leading global corporations

to reduce poverty and improve living standards in developing countries" (p.15). It would be a non-profit and collaborative organization in which the leading TNCs would work closely with existing international development agencies and civil society organizations. By encouraging a holistic and communitarian approach to the task of wealth creation, and by more openly demonstrating their responsibility to serve the needs of society at large, Messrs Lodge and Wilson believe that TNCs would claw back at least some of their lost legitimacy.

In elaborating this thesis, the authors are strongly critical of what they perceive as the American neoclassical economic approach to wealth creation. Instead, they propose a new ideological framework based upon communitarianism, the rights and duties of wealth creators, the needs of particular institutions, an active planning state, and a better recognition of the social and cultural inter-dependencies exposed by globalization. They argue that such a framework should not be considered as one that replaces the market as the leading wealth creating institution, but rather one which acknowledges that extra market actors – and especially national governments - are the main fashioners of the formal and informal institutions which ensure that the market meets societal needs. Yet, the authors assert that if this goal is to be realized, TNCs and extra market actors need to work together. They must recognize that each has a particular and distinctive, yet complementary, role to play in both institutional development and wealth creation. Each must accept the need for continual institutional reappraisal and for designing and implementing the incentive structures which will ensure TNCs will be responsive to societal goals. In their recommendations, the authors make a persuasive case that institutional upgrading should be given high priority in meeting the economic and social challenges posed by globalization.

The final volume to be reviewed is that by Rob Van Tulder and Alex van der Zwart. Its main task is to describe the interaction between the workings of a triad of economic and social actors – viz. the market, NGOs and national governments - in so far as, working together, they can affect and contribute towards business-society management. The book is quite

encyclopaedic in coverage, and the authors brilliantly summarize the contributions of a wide variety of scholarly disciplines in their review of the ways in which the interaction between the main constituents of capitalism can help to advance wealth-creating goals in a socially acceptable way. Each underlines the need for an integrated approach to understanding globalization and responding to its opportunities and challenges – and particularly so with respect to its implications for corporate social responsibility (CSR). Furthering CSR is one of the main interests of the authors, and their analysis of this topic and the recommendation for action is one of the very best I have read on the topic. The gamut of institutions – formal and informal, top down and bottom up, micro and macro, are all well described, and placed within the context of different national cultures and stages of economic development.

The authors introduce a host of new ideas, such as the role of institutional openness and institutional rivalry in influencing the level of structure and international business (IB) activity. They document rival success stories and alternative internationalization patterns. They evaluate the consequences of the rise of a global civil society. They reappraise the role of nation states in a closely integrated world economy. They examine the trade-offs between regionalization and globalization. They tackle the issue of the bargaining society and the changing legitimacy of the main actors. They argue the case for a holistic approach towards different measures of, and ideas about, cross-border distance, and how an interactive and cooperative approach to international corporate responsibility might help such distances to be minimized. They describe the changing characteristics of national and regional governments in a world in which values and belief systems are in flux. They examine different extra market approaches to fashioning the mindsets and behaviour of TNCs. They look into a variety of sustainability challenges as they affect the global governance of firms, corporate citizenship and structural change. They emphasize the importance of reputation as a competitive asset of a TNC, and how any damage to the reputation of corporations might be corrected by the appropriate CSR strategies. To each

and all of these issues, the authors bring a fresh and constructive appraisal, while in Part III of this fascinating and well-researched volume, there are some excellent firm-specific case studies on the international bargaining society in action.

In summary, each of the monographs by Jensen, Lodge and Wilson, and van Tulder and van der Zwart have much in common. Essentially, they are each concerned with advancing a dialogue between and among the primary stakeholders in global capitalism, viz. TNCs, national governments, supranational entities and special interest groups. They assert that such a dialogue and any strategic actions or policy changes that might stem from it, should essentially focus on issues related to the human environment, and particularly on the institutional framework which underpins the determinants and impact of TNC activity so well described by Jorn Kleinert in his monograph. The critical message of the three volumes is loud and clear. If globalization is to be economically efficient and socially inclusive, then more attention must be given by all of its constituents to the institutional framework underpinning the wealth creating activities of firms. Moreover, such issues should be more consciously included in mainstream IB teaching and research, and particularly in any evaluation of the role of TNCs in economic development.

Some of the recommendations of the volume are also very similar. Each points to the need to consider the social consequences of TNC activity, and each stresses the need for a partnership approach to ensure that the benefits of globalization are shared as widely as possible. Each emphasizes that the promotion of a common social, not to mention an ethical responsibility - as applied to the attitudes and behaviour of both market and non-market actors - need not be in conflict with the wealth creating functions of firms. Each endorses the view that TNCs might play a more important role in advising governments and international agencies on their economic and social policies, and in cooperating with them in the implementation of such policies. Each stresses the need of the main organizing entities of global capitalism to acknowledge and to do their best to reconcile the economic advantages of globalization with the

needs of local communities to advance their own social agenda and to participate in the decision taking process. Each also recommends that a reappraisal of the legitimacy of these same constituents in the light of such challenges posed by global warming, poverty reduction, international terrorism and non-ergodic economic and social change. Each is sending a clear message to IB scholars to take a fresh look at their spheres of interests and concerns, as well as underscoring the need for interdisciplinary research and for the pursuance of new (and sometimes) non-quantitative methodologies.

What, if anything, is my criticism of these four contributions? In the case of the Kleinert volume, I think that the author should have more explicitly acknowledged the extra-economic goals of globalization and of the institutions underpinning the models of TNC behaviour he evaluates. I would also have liked Nathan Jensen in his volume to have emphasized the role of economic and social incentive structures in influencing the behaviour of TNCs, and perhaps also applied his analysis to outward FDI. One lacuna in the Lodge and Wilson contribution is how TNCs might act as vehicles for transferring the best practices they have adopted or accessed as a result of their global operations to newly invested host countries. In addition, perhaps in their future research, van Tulder and van der Zwart might look further into the ways in which different kinds of formal and informal institutions effect the triangular relationship between TNCs, governments and civil society, and perhaps take up in more detail how the various stakeholder initiatives they identify might be most effectively put into practice.

In conclusion, each of the four books reviewed here deserves the widest possible readership. Yet, I doubt (though I would like to think I am wrong) that apart, perhaps, from the first, they will not be appearing on the reading list of mainstream IB courses. This I very much regret, and I think that the issues tackled by Professors Jansen, Lodge and Wilson, and van Tulder and van der Zwart are among the most critical of our day and age, and that the methodologies they pursue and the attention

they give to the institutions affecting the cognition, motivations and conduct of the main wealth creating actors in our global economy are "ahead of the scholarly" curve.

Perhaps, rather paradoxically, these volumes may find that they receive the closest attention from governments, business practitioners and NGOs. This, in itself, is to be applauded, as they are the main entities which need to be persuaded if a more interactive relationship on successfully tackling the challenges - and particularly the human challenges - is to be achieved. How can other academic communities contribute to this goal? One answer is for researchers to engage in partnerships with TNCs, national governments, NGOs and international agencies in trying to resolve (or at least shed light on) some of the key issues identified in these volumes. On a personal note, from my long experience in working with a variety of governments and international agencies, my own scholarly endeavours have enormously benefited from the interchange of knowledge, ideas and experiences.

Reference

Drucker, Peter (2001). (quoted by Lodge and Wilson). "Will the Corporation Survive?", *The Economist*, 3 November, p. 16.

Corrigendum

The August 2006 issue of this journal (vol. 15, no. 2) contained an article titled “Foreign direct investment in infrastructure in developing countries: does regulation make a difference?”, co-authored by Colin Kirkpatrick, David Parker and Yin-Fang Zhang. However, we failed to included the affiliation details of Professor David Parker. We apologize for this omission.

Professor Parker is Research Professor in Privatisation and Regulation at the Cranfield School of Management, Cranfield University, United Kingdom.

BOOK REVIEWS

World Investment Report 2005: Transnational Corporations and the Internationalization of R&D

(New York and Geneva, United Nations, 2005),
xxxii+332 pages

In the manner of the previous editions, the *World Investment Report 2005* (*WIR05*) contains two parts: Part I, which describes the latest trends in foreign direct investment (FDI) and Part II, which is thematic and analyses a specific issue. Part I, titled "End of the downturn", is focused on the signs of recovery after the downturn in the 2001-2003 period and provides a standard analysis of the factors explaining FDI trends. This part of *WIR05* brings several new analytical points that are worth highlighting.

First, while the general trend towards more welcoming FDI policies continues, the number of measures that are less favourable to FDI has increased to the highest level (36) since 1991 when UNCTAD started monitoring changes in national laws (table I.4 and p. 26). This issue is further illustrated in the case of Latin American countries, where analysis points to disenchantment with the results of the economic reforms related to FDI promotion and privatization.

Second, despite a seemingly very intensive wave of transnationalization of firms from developing countries (mainly from Asia), *WIR05* shows that the total foreign assets of all the 50 largest TNCs from developing economies in 2003 were barely equal to those of General Electric, the world's largest TNC, alone (p. 17). Another interesting new trend is the decreasing transnationalization of the top 100 TNCs, which suggests that they were refocusing more on their domestic markets at a time of worldwide slowdown.

Third, a very high transnationality index of the South-East Europe and the CIS countries suggests that this is now the

region where the importance of FDI in the local economy is highest. However, individual country data suggest that this is a very diverse group of countries, and the region's high transnationality index reflects economies with a strong presence of TNCs in resource-based industries as well as in those economies that are particularly weak. Unfortunately, there are no tables that present data that are used to calculate the transnationality index, but only the indices.

WIR05 contains a few methodological changes. First, the analysis in Part I is influenced by the inclusion of the Central and East European countries (CEECs) into the European Union. As a result, these CEECs, by a stroke of pen, have been "promoted" to the rank of developed countries. The distinction between developed and developing countries used in *WIR05*, whereby we find countries like the Republic of Korea and Singapore are among developing countries while the relatively poor CEECs are categorized as developed countries, does not say much. The categorizing of developing countries into one group does not reflect the increasing differentiation that has taken place within this group in the past 20 years. Also, *WIR05* had to make a new grouping of the "South-East Europe and the CIS" countries, which share very little in terms of economic structure. These new groupings result in a rather useless set of tables that aggregate M&A sales by sector and industry and, basically, hide very different country situations. At the same time, the analysis has necessarily become fragmented, as it has to address each specific sub-group within new groupings.There is probably very little that the authors can do in this respect as long as they are obliged to follow the UN convention, but it undermines the analytical value-added of the *Report*.

The second methodological change to note is that *WIR05* has, for the first time, introduced a list of the 50 largest financial TNCs. These data also show an increasing role of financial TNCs from developing countries.

Part II of *WIR05* is devoted to the issue of "R&D internationalization and development". The starting point is two assumptions that *WIR05* tries to debunk: first, R&D is the least

internationalized function of TNCs; and second, R&D undertaken by TNCs in developing countries is almost exclusively for adapting products and processes to local conditions. The argument is that this is now changing as depicted in the following trends:

- the degree of internationalization of R&D is rising in all key home countries as part of the trend towards the offshoring of services;
- R&D internationalization is growing fastest in developing Asia;
- the drivers of the internationalization of R&D are changing and this process is no longer driven by adaptation to local conditions but, by a variety of new pull and push factors;
- R&D in developing countries now goes well beyond adaptation and involves complex stages of R&D; and
- developing countries' firms are slowly establishing R&D centres abroad.

These trends are explained as resulting from two factors. First, the scale factor or the sheer size of FDI that is going to developing countries suggests that R&D may now be undertaken on a much larger scale. Second, the internationalization of R&D is a sign of an increasing fragmentation of services and increasing opportunities to offshore parts of R&D processes.

The analysis starts with the description of the geography and trends of R&D. Data suggest that the share of R&D undertaken outside developed countries is rising fast but it is confined to a few large developing countries (Brazil, China, India, the Republic of Korea, Taiwan Province of China) and Russia.

As a methodological novelty created for this edition of the *Report*, the authors have produced an index of innovation capability in a manner that is currently in vogue, i.e. composite indicators. The UNCTAD Innovation Capability Index is composed of a Technological Activity Index and a Human Capital Index, each of which consists of three indicators (R&D personnel per million population, United States patents granted

per million population; scientific publications per million population; and literacy rate as % of population; secondary school enrolment as % of the age group; tertiary enrolment as % of the age group). While this may have some analytical value, it also suffers from the usual weaknesses associated with these types of indicators. First, variables are chosen because of their availability rather than their desirability as an indicator. In conceptual terms, the relationships between sub-indices are rather complex and impossible to trace in this type of exercise. Finally, the Technological Activity Index actually measures R&D efforts at the technology frontier, while the majority of technology activity in developing countries takes place well "behind" the frontier. The Human Capital Index suffers from the shortcomings of enrolment rates data, as they measure the extent of the current generation in formal school systems rather than what it is supposed to measure i.e. accumulated human capital through years of schooling in the past.

Even if we ignore these problems, a question remains as to whether the Innovation Capability Index really brings value added into analysis. I would say only partially, as the links between the internationalization of R&D, FDI and new indices have not been explored. While the *Report* states that "innovative capabilities are directly relevant to the location of internationally mobile R&D" (p. 116), this line of analysis has not been pursued further by using the index in understanding determinants of FDI in R&D.

The next chapter addresses the issue of R&D by TNCs and developing countries. It shows that TNCs dominate global business R&D, and among TNCs, a relatively small number of enterprises dominate R&D activity in only a few industries that are major spenders on R&D. There seems to be a clear trend towards a growing share of R&D being undertaken outside the home economy. The other two trends are the growing role of foreign affiliates in host-country R&D and the increasing use of strategic alliances in R&D. However, this latter trend has not been further explored and relies on somewhat outdated sources.

A few points in this part are worth emphasizing. Analysis shows that the expansion of R&D by TNCs into developing countries is mainly confined to five countries (Brazil, China, Mexico, the Republic of Korea, Singapore), which account for 70% of R&D undertaken abroad by United States TNCs. *WIR05* has developed a quite useful taxonomy of greenfield R&D projects, which shows that the largest number of these projects (953) have been from developed countries investing in developing countries, while the number of R&D-related FDI projects between developed countries has been smaller (612).

Despite the high concentration of R&D by TNCs in a few countries, TNCs play a significant role in the patenting activities of these countries that expanded their patenting in the United States. However, these patents are assigned to owners i.e. TNCs headquarters. This indicates that R&D activities are still closely controlled by the headquarters of TNCs.

A separate chapter addresses the drivers and determinants of internationalization of R&D. It concludes that most of R&D internationalization is driven by the need to adapt products and processes to local markets, though it recognizes that technology sourcing and efficiency driven R&D is gaining in importance. It also recognizes that internationalization of R&D is driven by "a complex mix of driving forces" encompassing demand factors (growing markets, available talent pools at favourable costs, etc), supply factors (shortage if skills, rising costs etc.) and various enabling factors (ICT, liberalization, etc.). Among these factors, the IPR regime does not seem be a determining factor in attracting FDI in R&D. This chapter also contains a well-written case study of the rise of chip designing in Asia, which shows how technology has become more systemic and how it leads to rising costs and complexity of R&D.

Overall, the *Report* does show new evidence that supports the arguments in favour of increasing internationalization of R&D as well as the emergence of new types of R&D that go beyond adaptive R&D. Equally, the *Report* shows that adaptive R&D still dominates and that technology generation activities are still centralized at TNC headquarters.

Development implications of the growing internationalization of R&D are framed around potential benefits and costs for both host and home countries. This is a quite well structured analysis, which is, however, undertaken only at the conceptual level and at the level of individual examples, but not at the country level.

The major policy implications for host countries are analysed around the following issues: effects on the structure and performance of the national innovation system (NIS); human resource implications; knowledge spillovers form R&D by TNCs; and contributions to industrial upgrading. The discussion only tangentially touches on the role of the global R&D as a contributor to both "virtuous" as well as "vicious" growth circles, which is a very relevant issue in countries with very limited business R&D.

The discussion on spillovers is quite interesting, especially when it tries to explain the apparent lack of evidence for spillovers between countries that are already technological leaders. The argument is that the further apart the source and the recipients are in terms of the level of technological advancement, the larger the potential positive spillover from knowledge flows on the recipients (p. 189). This argument is exactly the opposite of the one advanced until recently in the literature on spillovers, which has typically argued that when a gap is too large, then spillovers may not occur (see, for example, the 1997 edition of the *World Investment Report*). A big gap in our understanding of the effects of R&D on industrial upgrading is clearly reflected in the section, "Contributions to industrial upgrading".

Issues related to the costs of internationalization for host countries' R&D are structured around several aspects: downsizing of the existing R&D capacity and losing control of technology; unfair compensation for locally developed intellectual property; crowding-out in the host country labour market and potential harm to basic research; the possible negative impact of fragmentation of R&D by TNCs; the race to the bottom and unethical behaviour. On the home country side,

the benefits analysed are: improved overall R&D efficiency, reverse technology transfer and market expansion. In comparison, analysis of costs is discussed much less.

The chapter on national policies is framed around NIS policies, i.e. promotion of R&D-related FDI and industry specific policies to enhance the benefits of FDI in R&D. This part points out that "the challenge facing countries is (…) to ensure that they connect in the most effective way with global R&D networks of TNCs and the innovation systems of other countries" (p. 222). The second important aspect is not so clearly conveyed although it is present within the *Report*. It concerns coherence between domestic NIS and FDI policies. In the world of globalization and fragmentation of business functions, globalization of R&D does not necessarily lead to technological development in a host country. This aspect has not really been given analytical prominence, although the *Report* points to the importance of strengthening the NIS. However, this by itself is not of much help as NIS policies isolated from FDI policies are not the most effective measures for catching up.

In conclusion, *WIR05* has managed to maintain the high standard of the previous editions of the *Report*. The weaknesses which have I pointed out are not of such magnitude as to undermine the very positive analytical and policy contributions that UNCTAD continues to make in the area of FDI. Analytical depth and ambiguity are things which always clash with the need to provide clear policy recommendations. The *World Investment Report* series stands between two worlds – the academic and policy worlds - and *WIR05* confirms that the authors have continued to swim successfully between these two worlds by making both sides relatively happy.

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Transnational Corporations and International Production Concepts, Theories and Effects

Grazia Ietto-Gillies
(Cheltenham, Edward Elgar, 2005), xii+252 pages

This book is a welcome addition to the available literature in International Business (IB), responding to the urgent need of more textbooks in this subject. Indeed, since the publication of John Dunning's *Multinational Enterprises and the Global Economy* (1992) and the second edition of Richard Caves's *Multinational Enterprise and Economic Analysis* (1996), there have been no new major comprehensive textbooks related to IB from an economics perspective.

This volume's main aim is to provide a general background/introduction to the IB field. It does so in a clear, well-presented, reader-friendly and didactic way. Its strong focus on economics differentiates it from other recent textbooks in IB that adopt a more managerial, strategy-focused and empirical/case-based perspective. Grazia Ietto-Gillies's book, in contrast, is dedicated to the theories and to the effects of TNCs' activities.

The book is structured around four distinct parts. The first part introduces the reader to key concepts, providing also a summary of trends and patterns related to transnational corporations (TNCs) and their activities, including a reference to the historical evolution of TNCs and the growth of their operations. Parts II (2 chapters) and III (11 chapters) present the theoretical approaches explaining the existence of TNCs and the internationalization of their activities. An historical perspective is adopted in these parts, dividing the theoretical approaches into "pre-World War" theories and "modern" theories (the latter referring to those approaches following the seminal work of Stephen Hymer). Ietto-Gillies provides a competent presentation and a critical appraisal of the theoretical approaches covered (both on their own and in comparison to other approaches), mentioning also some of the unresolved problems

in the field. The last part (Part IV) aims to provide a framework for the analysis of the TNC and its activities, in terms of their effects. It has five chapters, the first of which deals with relevant methodological aspects that help to tackle the ever-complex task of assessing the impact of TNCs' activities. The remaining chapters are dedicated to discussing specific effects, notably on performance, on labour, on international trade and on the balance of payments.

In all, this book, written by a well-respected and knowledgeable specialist in the field, provided a very pleasant read, and I found it very useful and successful in attaining its aims. It is thus a competent textbook.

Writing textbooks is no easy task, as there are always choices that have to be made regarding the content, the focus, and the level of detail. Some limitations are unavoidable. Ietto-Gillies is very clear and objective about the valid choices she made in order to put together an organized, not at all confusing, relatively small and very-reader friendly textbook. In particular, I liked her boldness in giving relevance to Marxist and neoclassical authors - something that is not very common in the field, at least with such a level of detail.

However, there are some aspects that I would like to see covered in this volume, as well as in any other modern IB textbook. These additions, as well as some comments that follow, are meant to be constructive suggestions that may be eventually taken into account in a future revision.

In Part III ("modern" theories), I would recommend the explicit consideration of three very influential theoretical approaches/areas of literature. One is the so-called knowledge-based view. At the moment, there is a thorough consideration of Cantwell's theory of technological accumulation, which is very pertinent, but I would prefer that chapter to include other authors and strands that complement Cantwell's ideas. For instance, I would like to see a reference to the "dynamic capabilities" approach (David Teece and other authors) and also insights from

the extremely influential resource based-view (based on the work of Edith Penrose and more recent authors, mainly in the United States). This literature is too influential to be ignored. I would also recommend mentioning the "network theory", that is also appearing frequently in various IB publications. Another area of relevant literature that is not included in this theoretical review and that, in my opinion, is very important to consider would be a reference to the vast literature on affiliate strategy and evolution, including the considerable body of work on headquarters (HQ)-affiliates relations. The author includes references to control issues in different parts of the book, although in the vast recent literature on vertical HQ-affiliate and lateral affiliate-affiliate linkages, these matters are treated in a very interesting and more realistic way than in the traditional literature referring to control from a rather "imperialist" and negative standpoint. These additions would provide a more up-to-date and balanced view of the most influential theoretical approaches.

The chapters in Part IV discuss key types of effects. I found these very well chosen. I would have, however, preferred to see the impact on innovation/technological development in more detail and within its own chapter. Presently, it is included in performance, which is a valid option (theoretically, all these areas in one way or another could be put into the performance umbrella), although nowadays I think innovation/technology would deserve to be treated as one of the main areas of potential impact, possibly being more relevant for the host countries that scramble to attract investment, than most other effects (and to home countries whose TNCs also conduct strategic asset-seeking investment). This last part would also benefit, in my opinion, from a more detailed reference to competitive effects (not only from a negative, monopolistic standpoint), especially the competitive stimulus eventually provided to local companies and also pointing to complementary linkage and demonstration effects. It would also be interesting to have greater consideration of the impact on clustering and agglomeration of activities, and that would also complement some of the theories presented in the earlier parts of this volume. The part on effects is much

shorter than the part on theories, so it could eventually be slightly extended in this way, even by considering some of these other effects in a residual "other effects" chapter.

The last of my comments concerns policy. Ietto-Gillies is very clear that she does not wish to dwell on policy considerations, which is a quite reasonable decision. Nevertheless, in my opinion, it would be valuable to have a last chapter with an account of the main policies, TNC-focused or more general, that may be useful to governments in their efforts to attract or maintain TNCs if they wish to do so, or to maximize the positive impact and minimize the potential negative effects of TNCs' activities.

Writing a textbook is a complex and challenging endeavour. Ietto-Gillies, with all her experience and knowledge of the field, has achieved this very competently. I believe this volume will be very useful to readers such as students of IB and for related courses at the undergraduate or postgraduate level, especially for students introduced to the subject for the first time, and lecturers and researchers who wish to have an overview of the subject and its development. I will certainly recommend this book to my students and colleagues.

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Legal Framework for the Admission of FDI

Thomas Pollan
(Utrecht, Eleven International Publishing, 2006), 321 pages

In this gap-filling book, Thomas Pollan seeks to provide a comprehensive analysis of the legal provisions governing the admission and establishment of foreign direct investment (FDI), to categorize a Host State's available policy options into six admission models arranged according to their degree of openness towards foreign investment, and to assess the pros and cons of each model with due regard to the functional peculiarities of the various types of investment instruments at the national, regional and international levels. The goal of the author is to describe general trends towards greater liberalization on each of the regulatory levels, to evaluate how policy decisions regarding the entry of FDI may impact the overall attractiveness of a Host State's investment climate, and ultimately to recommend legal and policy options in the context of today's increasingly interdependent world economy in which foreign investment remains, nevertheless, a scarce and unevenly distributed resource.

The issue of admission of foreign investment is at the core of FDI law, which is one of the fastest changing fields of international law and is equally dynamic at the national level. The clear ongoing trend towards greater liberalization of admission rules and procedures is particularly well demonstrated by the fact that between 1991 and 2000, 1,121 of approximately 1,185 changes in national investment laws created a more liberal FDI climate, with a strong tendency towards more open admission rules and more efficient and transparent admission procedures. At the international level, this trend can be illustrated by the significant increase since the mid-1980s of bilateral investment treaties (BITs) that extend the national treatment to the pre-establishment period thereby granting the concerned foreign investors not only a post-establishment protection but also a right of admission.

The regulatory dynamism of FDI law is connected in part to the increasing importance and rapid growth of global FDI flows since the 1980s. According to the data of UNCTAD, global FDI flows amounted to $897 billion in 2005, which was more than three times the flows of $240 billion in 1990 and more than ten times the flows of $55 billion in 1980. It can also be linked with the progressive geographic expansion of FDI since the 1960s from a phenomenon that almost exclusively concerned the developed world into a truly worldwide economic activity. However, most international investment continues to take place within developed countries (approximately two thirds of the total FDI flows in 2004). Moreover, notwithstanding significant increases of FDI flows to developing countries since the 1990s, such international investment remains highly concentrated (with China, Brazil, Mexico and Singapore as the main recipients).

The relative scarcity and the geographically uneven distribution of today's FDI flows are the premises of one of the key arguments upon which the author bases his conclusions and recommendations: States increasingly compete for the available FDI! A Host economy can increase its attractiveness for foreign investment by adopting a more open and transparent admission regime, whereas FDI restrictive measures, such as entry conditions, sectoral exclusions, burdensome admission procedures or regulatory non-transparency, send negative signals about its investment climate and adversely impact the inflows of FDI. The investor's expectation of additional transaction costs due to less liberal entry rules may indeed influence his investment location decision and may ultimately result in the diversion of investment flows to other countries, even though they are less attractive from an economic perspective. Hence the author cautions: "admission and admission procedures serve as a county's business card" (p. 17).

Another assumption is that the potential adverse effects of FDI on a country's development and overall prosperity are generally outweighed by its beneficial effects, such as the transfer of technology, know-how, management skills, the

creation of new local jobs and tax revenues, opening up access to export markets, intensifying domestic competition, and increasing international competitiveness. Therefore, countries have more often than not a strong incentive to adopt liberal admission rules and procedures. The author recognizes, however, that the overall impact of FDI depends on many factors and therefore stresses that each country needs to have appropriate policies in place in order to enable it to absorb the positive effects, and cautions that liberalization does not suit all countries and all sectors at all times (p. 10).

The book is admirably systematic and lucid. It dissects the topic of FDI admission in nine chapters that are skilfully arranged together in an original but logical manner. The first two chapters introduce the topic. While short and concise, the first chapter ("Determinants of admission policies") provides a solid overview of the main determinants that shape FDI policies: history, economics, culture and politics. The author compares the needs of the foreign investor with those of a Host State and reminds us of the somewhat antagonistic interests of the latter: keeping sovereignty and control over its economy but at the same time attracting a larger share of valuable FDI by adopting more liberal entry rules and procedures. While the neo-classicist argues for the total liberalization of FDI, the more recent but less dominant *developmental state perspective* emphasizes the virtues of leaving at least a certain amount of regulatory flexibility with the State, which should enable it to drive its economic growth by measures such as the protection of its infant industries. This comparative methodology enables the author to support the conclusion that increasing competition for FDI has a liberalizing effect by functioning as a regulatory mechanism that balances the interests of each party in their investment relations. Chapter two ("The scope of admission provisions") provides the necessary conceptual background by clarifying key concepts and major issues associated with the definition of "investment" and "investor". It is observed that most modern investment instruments incorporate a broad definition of FDI, thereby increasing the liberalizing effect of open admission clauses.

The main purpose of chapter three ("Admission and sources of FDI law") is to provide a complete overview and description of the different sources of FDI law. It is recalled that according to international customary law, FDI admission is subject to state sovereignty, meaning that a county's total discretion to grant a right of admission, to admit conditionally or to deny admission to an investment is only limited by its treaty-based obligations. The author successively analyses different types of investment instruments at each of the regulatory levels. The admission provisions at the national level, which are often contained in national investment codes, are the first source analysed, and then follows the examination of the international sources, i.e. general international law, BITs, free trade agreements (FTAs), regional agreements and finally, multilateral instruments and soft law. In regard to BITs, the comparison of the limited liberalizing effect of traditional BITs, which provide only for post-establishment protection, with United States-Canadian style BITs, which grant a right of admission by extending the national treatment standard to the pre-establishment period, is of particular interest. Although still minor, the latter has been regarded with progressively greater favour over the past 25 years. The chapter also observes a general trend towards further liberalization in respect to bilateral FTAs and regional agreements. In relation to the latter, the author also concisely discusses the advantages of regional economic integration from the perspective of its effect on a Host State's ability to attract FDI, and subsequently highlights how inter-regional FDI competition has the potential to accelerate liberalization processes. This is followed by a relatively extensive discussion of the FDI admission regimes of the 15 most important regional integration agreements, including well-known groupings such as the Common Market of the Southern Cone (MERCOSUR), the North American Free Trade Agreement (NAFTA) and the European Union, as well as more recently established ones such as the Common Market for Eastern and Southern Africa (COMESA) and the Economic Community of West African States (ECOWAS). At the multilateral level, the author briefly discusses the unsuccessful attempts at negotiating a comprehensive multilateral FDI agreement, the relevant

provisions of GATS and those of the OECD Codes of Liberalization, and ultimately the most relevant international soft laws, in particular the 1992 World Bank Guidelines on the Treatment of Foreign Direct Investment.

In chapter four ("Models of FDI admission"), the author distinguishes and characterizes six FDI admission approaches, arranging them on a continuum by the extent of openness towards FDI. The author's admission models can be considered as a further development of a similar categorization developed in UNCTAD (1999). The least liberal policy approach is the *investment-control-model*, which preserves full state control over admission (e.g. traditional BITs). The *open-admission-model* is the most liberal approach but can only be found at the national level (e.g. the national investment codes of Albania and Cameroon); the right of entry is restricted only by general public policy exceptions. It is a rarely encountered approach because even the most liberal states generally preserve at least a few sectors of their economy for their own nationals (or the state itself) on economic rather than public policy grounds. The four intermediate models identified are respectively:

- the *positive-list-model*, which grants a right of entry for those sectors expressly enumerated in a list (e.g. GATS);
- the *regional-TNC-model*, which accords a right of entry to regional transnational corporations in order to promote intra-regional investment (e.g. Agreement for the Establishment of a Regime for CARICOM Enterprises);
- the *mutual-national-treatment-model*, meaning absolute liberalization of intra-regional FDI flows, but not extended to FDI from third countries (e.g. the European Union);
- the *negative-list-model*, which is internationally the most liberal approach to admission: this policy option grants open admission except in those sectors expressly exempted from free entry and establishment (e.g. United States-Canadian style BITs, NAFTA, and increasingly used in national investment codes).

Each of the six models is analysed in the same systematic manner: description of its main characteristics, the general form of its expression in investment instruments, the contexts or situations in which the model is most often used or generally considered most appropriate, and most importantly the pros and cons of each admission model in connection with the diversity of investment instruments at the distinct regulatory levels.

The following three chapters are a necessary complement to the other chapters, as they examine in more detail certain major issues referred to in the former chapters. Chapter five ("Exceptions to admission") analyses the two common forms of FDI exemptions in regimes characterized by a certain extent of openness towards FDI. The first form analysed is the sectoral exceptions, which are motivated on economic grounds. It is noted that the number of sectors closed for FDI can vary greatly from one system to another. The second form is the generally applicable exception for public policy reasons, such as national security, public order, national health or public morals. Although similar concepts are used in most systems, the interpretation of public policy exceptions can vary significantly. An assessment of the effects and dangers of exceptions to admission, from the perspective of a state's attractiveness and openness towards foreign investment follows. The purpose of chapter six ("Conditions and incentives") is to analyse the rationales and the impact of two other methods that serve a state's need for regulatory flexibility: applying entry conditions and granting investment incentives. Inserting these two topics in the same chapter makes sense, as both methods pursue, to a certain extent, a common goal: attracting the most valuable FDI. A pertinent analogy with the sticks and carrots scenario is made: "the use of incentives as carrots is preferable to the use of conditions as sticks" (p. 234). Chapter seven ("Procedure") focuses on the rules governing admission procedures. In contrast with notification procedures, which simply require the registration of entering investment for statistical and tax purposes, screening procedures subject the entry of investment to approval by the Host State. The latter type of entry procedures is characteristic of the strictest form of admission (the *investment-control-model*)

but can also be used in more liberal regimes with regard to areas exempted from free FDI admission for economic or public policy reasons (e.g. the United States Exon-Florio provision establishing a mechanism to review and, if necessary, to restrict FDI that threatens national security). The hurdles of screening procedures can dissuade foreign investors and divert FDI flows to other locations. Therefore, countries have generally a clear incentive to avoid non-transparent, burdensome and time-consuming or corrupt procedural rules.

Chapter eight summarily refers to three issues that are related with FDI transactions: *a)* the existence of multiple competition and merger control regimes causing higher transaction costs and therefore having the potential of distorting investment flows; *b)* the main environmental concerns arising from the competition for FDI and *c)* the increasing importance of corporate social responsibility for transnational corporations.

In the concluding chapter, Pollan wraps up with a number of sound recommendations for legal and policy options at the micro and macro levels. At the micro level, the author argues that the most reasonable policy options are the *'Infant Industry Model Revisited'* and the *'Open Admission Option'*. Whereas the first option is recommended when a country is not yet able to compete internationally but nevertheless is in a position to enhance its infant industries on its own; the latter option is the best alternative for two groups of states: those economically mature enough to compete internationally and, on the other side of the spectrum, those that are economically too weak to initiate industrialization on their own. With regard to the macro level, the author first recapitulates the different legal expressions of the ongoing trend towards more open admission systems in most investment instruments, and subsequently evaluates the potential benefits of a liberal global investment agreement. He asserts, however, that in any event, due to the intense competition for FDI, liberalization is likely to keep advancing rather quickly even if no such global investment agreement would ever see the daylight.

Overall, this easily readable, though rigorous book offers a wealth of quantitative and qualitative information on every legal aspect of FDI admission. One of its main contributions to the literature is that the legal issues and the different policy options are systematically and thoroughly analysed and evaluated at each regulatory level (national law, BITs, free trade agreements, regional agreements, multilateral instruments and soft law). Furthermore, the author succeeds in converging theory and practice by abundantly illustrating the different components of FDI admission by well-selected and geographically diverse provisions from these different types of investment instruments. If there are any shortcomings, it might have been helpful for the less familiar reader if the author had concisely addressed in the introduction the other legal issues that impact investors' location decisions, in particular the subsequent treatment of FDI. I also believe that the book would have benefited from a less descriptive and more extensive chapter six regarding conditions and incentives.

My overall impression is that this book will be highly valuable, both as a research tool and as a complementary reading, to a relatively wide readership ranging from policy makers, foreign investors, lawyers and academics, to postgraduate students and others interested in FDI law.

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Corporate and Institutional Transparency for Economic Growth in Europe

Lars Oxelheim
(Amsterdam, Elsevier, 2006), xxii+444 pages

The past decade has seen an upsurge of interest in the subject of transparency. Corporate scandals and severe cases of fraudulent mismanagement (such as those of Enron, Parmalat, WorldCom, etc.) as well as a series of financial crises in emerging market economies have drawn the attention of the wider public to the issue. The importance of "transparency' has also been underlined in the recent macroeconomic policy debate about the transparency of economic policies, in particular stabilization policies. Furthermore, the emergence of e-commerce and the strengthening of the EU single market have raised concerns about the transparency of the markets for goods and services. However, the concept of transparency is not new. It has long been an important aspect of many microeconomic theories. "Any theory that incorporates the idea of asymmetrically distributed information between different economic agents makes an assumption about transparency, and is potentially affected by altered assumptions about it" (p. 3).

Transparency is a multidimensional concept which is often used with little specification about what dimension is used and without linking the different dimensions from a global perspective. Accordingly, the causal link between transparency and economic growth can well be compared to a "long and winding road that (…) has never been mapped out in a coherent way" (p. xv). Although transparency is an issue of highest concern and despite numerous works which have been published on transparency, no comprehensive analysis of the causal link between transparency and economic growth has been available. This volume bridges this gap in the literature by providing a suite of well-structured articles on transparency "in three main areas: in economic policy, in the corporate sector, and in the institutional and regulatory structures surrounding the markets" (p. xvii).

This book is written by a network of renowned contributors from various professional backgrounds, who believe in the importance of exploring the issue of transparency in Europe. The publication marks the completion of a process similar to that of peer-reviewed journals. Drafts were discussed at two successive workshops and the resulting version was edited by Lars Oxelheim. The authors present their personal, well-researched perspectives, which provide the reader with interesting insights. The strength of this volume lies in its interdisciplinary approach taken by contributors trained in finance, law, political science and economics. Coming from diverse intellectual backgrounds, the authors address the issue from various angles, incorporating different research areas and methods.

The basic hypothesis put forward is that transparency reduces the risk premium and thus the cost of capital which, in turn, leads to an increase of real investment and, consequently, to economic growth. The arguments to support and develop this hypothesis cover the effects of transparency on the allocation of resources in three interdependent areas: economic policy, the corporate sector and market regulation. The fourteen articles of this book address a wide array of domains where transparency is crucial, ranging from bankruptcy laws to lobbying; from the activities of the European Central Bank to competition and environmental policies.

In the first contribution, Jens Forssboeck and Lars Oxelheim outline "a conceptual framework for the multidimensional analysis of transparency" (p. xvii). They discuss the different dimensions of transparency and they go on to model the causal link between transparency and economic growth. The following articles are discussions of specific topics concerning transparency and are linked together by the lead article in chapter one. In chapter two, Iain Begg analyses the effects of central bank transparency, in particular on the formation of expectations and the transmission mechanism. Philippe Gugler focuses in chapter three on the issue of transparency in competition policies. Competition is generally

considered a main driver of economic growth; accordingly, the effectiveness of competition agencies, the EU competition regime and the international dimension of competition policy are vital dimensions of transparency. Chapter four investigates the impact of the EU's environmental policy on firms according to the political level (supranational, national, and local levels). Emphasizing the importance of human capital for economic growth, in chapter five Erik Mellander and Christina Håkansons document the formulation and implementation of human capital policy by individual member states. Bankruptcy codes, the costs of bankruptcy procedures and the effects of these costs on the cost of capital are the topic of chapter six.

In chapter seven, Jean-Pierre Casey discusses the effect of transparency on the governance of the financial industry of the EU. Chapter eight also focuses on the financial dimension. Apanard Angkinand and Clas Wihlborg discuss the consequences of predictable procedures for distress resolution in the banking industry on the market discipline of financial industry firms. Davide Lombardo and Marco Pagano, in chapter nine, investigate how legal institutions influence the functioning of equity markets and thus, the cost of capital. Chapter ten documents the effects of the adoption of International Financial Reporting Standards (IFRSs) on corporate transparency in Europe. The impact of the Sarbanes-Oxley Act (SOX) on statutory risk disclosure is the issue of chapter eleven. In chapter twelve, the impact of disclosure standards on the financial structure of firms is analysed using data from fourteen European countries. The effects of transparency on the lobbying activities of transnational corporations are discussed by Amjad Hadjikhani and Pervez Ghauri in chapter thirteen. Finally, chapter fourteen discusses the issue of corruption as a form of lack of transparency.

The book raises important questions and offers a clear-cut and compelling analysis of the effects of transparency on economic growth in Europe. However, there is undoubtedly a need for additional analysis on how to generalize the findings to a non-European setting. The analysis would also have gained

from more emphasis on formal modelling and empirical testing. It would furthermore have been interesting if the authors had further developed the practical (political) implications of their findings. Nevertheless, Lars Oxelheim has produced a book that can rightly claim to be the most interdisciplinary collection of articles on the impact of transparency on economic growth. The wealth of insights provided, as well as the lucid and accessible argumentation, ensure that this book will be of great use to a wide spectrum of audiences. The book is a must read for all scholars and researchers on transparency and for those who are interested in understanding the impact of transparency on economic growth.

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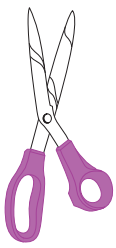

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