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Contents

This issue of the journal is primarily devoted to articles on TNCs from a number of developing and transition economies. It is a measure of how rapidly the world is changing that such TNCs are now accepted as almost 'commonplace', although there is considerable debate about their nature and characteristics, drivers and motives, and impact on both source and host countries (especially in a South-South context). We intend to develop this debate in future issues of this Journal, examining the rise of TNCs from emerging economies and specific aspects of this phenomenon. The preparation of this issue benefited from the help and contribution of Douglas van den Berghe and is duly acknowledged.

Emerging TNCs: trends, patterns and determinants of outward FDI by Indian enterprises

Nagesh Kumar*

This article analyses the trends, patterns and determinants of outward foreign direct investment (OFDI) by Indian enterprises, which has increased markedly since the onset of reforms. It finds that the sharp rise in OFDI since 1991 has been accompanied by a shift in the geographical and sectoral focus of Indian investments. It develops an analytical framework for explaining the probability of an Indian enterprise investing abroad and undertakes empirical analysis using a large exclusive dataset of Indian enterprises. The findings suggest that Indian enterprises draw ownership advantages from accumulated production experience, cost effectiveness of their production processes and adaptations to imported technologies made with technological effort, and sometimes with the ability to differentiate the product. Firm size exerts a positive but non-linear effect. Enterprises that are already engaged in exporting are more likely to be outward investors. Finally, policy liberalization of the 1990s has encouraged Indian enterprises to venture abroad.

Key words: Outward investment; emerging transnational corporations, India
JEL classification: F21; F23

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1. Introduction

Growing outward foreign direct investment (OFDI) from some developing countries, especially in Asia, over the past decade represents another and perhaps more dynamic aspect of their growing economic integration with the world economy, in addition to their deepening trade linkages and FDI inflows. UNCTAD's *World Investment Report 2004* noted that India stood out among Asian developing countries, not only because of the recent significant increase in the OFDI flows but also because of "its potential to be a large outward investor" with annual outflows averaging $1 billion during the period 2001-2003 (UNCTAD 2004, p. 27). A growing number of Indian enterprises are beginning to see OFDI as an important aspect of their corporate strategies and are emerging as transnational corporations (TNCs) in their own right.

Although a few Indian enterprises were investing abroad in the mid-1960s (Lall, 1983, 1986), OFDI activity has became significant only since the onset of economic reforms in 1991. OFDI underwent a considerable change in the 1990s in terms not only of magnitude, but also the geographical focus and sectoral composition of the flows (Kumar, 2004). It has been argued that this change in the geographical and sectoral composition of OFDI has been in line with the change in their motives from essentially market-seeking to more asset-seeking ones to support exporting with a local presence (Kumar, 1996, 1998).

The theory of international operation of the firm – which evolved over the years with the contributions from Hymer (1976), Caves (1971) and Dunning (1979), among many others, posits that the ownership of some unique advantages having a revenue generating potential abroad combined with the presence of internalization and locational advantages leads to OFDI. Enterprises based in the industrialized countries have emerged as TNCs on the strength of ownership advantages derived from innovatory activity that is largely concentrated in these countries. Very little is known about the sources of the strength of enterprises based in developing countries, such as India, that enables overseas investment. It is of potential analytical and

policy interest to examine the determinants of the OFDI activity of Indian enterprises. However, the lack of corporate statistics giving information on OFDI from India has prevented such analysis. This article quantitatively analyses the patterns and determinants of OFDI activity of Indian enterprises using an exclusive panel dataset covering 4,271 Indian enterprises in manufacturing for the period 1989/90 to 2000/01. The rest of the article is organized as follows. Section two briefly discusses government policy towards OFDI and broad trends and patterns of Indian OFDI. Section three develops a framework for analyzing the determinants of Indian OFDI. Section four presents the results of the quantitative analysis and draws some inferences. Section five concludes the article with a few remarks on policy implications.

2. Liberalization and patterns of OFDI by Indian enterprises

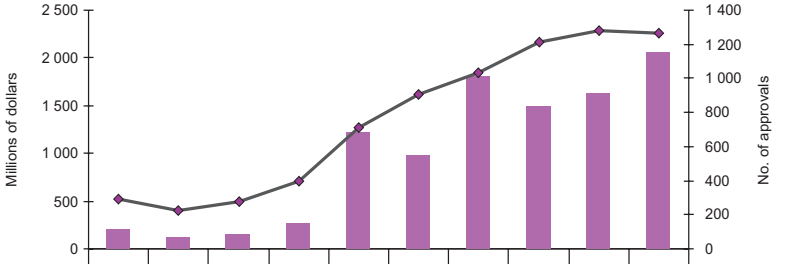
Alongside the liberalization of policy dealing with inward FDI, the policy governing OFDI has also been liberalized since 1991. The Guidelines for Indian Joint Ventures and Wholly Owned Subsidiaries Abroad, as amended in October 1992, May 1999 and July 2002, provided for automatic approval of OFDI proposals up to a certain limit that was expanded progressively from $2 million in 1992 to $100 million in July 2002. In January 2004, the limit was removed altogether and Indian enterprises are now permitted to invest abroad up to 100% of their net worth on an automatic basis.

The magnitudes of OFDI flows as well as their numbers have risen considerably over the past few years as shown in figure 1. In 2005/06, the latest year for which the data are available, India's OFDI flows crossed the $2 billion mark. A more detailed examination of the patterns of OFDI has been carried out with the help of the RIS database compiled from published and unpublished sources.[1] As is apparent from table 1, the pattern of OFDI activity has also undergone a considerable change in the post-liberalization period in terms of the geographical focus as well as the sectoral composition. In the

[1] See annex 1 for details.

pre-1991 period, as much as 86% of Indian OFDI was concentrated in other developing countries. However, in the 1990s, an overwhelming (nearly 60%) proportion of these investments was directed to developed countries.

Figure 1. Indian outward FDI, 1996/1997 to 2005/2006
(Millions of dollars, number)



	1996/1997	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Actual ODI ($ million)	205	121	143	271	1 212	982	1 799	1 497	1 634	2 062
Approvals	290	228	275	395	714	908	1 034	1 214	1 281	1 265

Source: India, Ministry of Finance.
* Up to February 2006

Table 1. Geographical distribution of approvals of outward FDI from India, 1975-2001
(Millions of dollars)

Region	1975-19990				1991-March 2001			
	No	Equity	No (% of total)	Equity (% of total)	No	Equity	No (% of total)	Equity (% of total)
South-East and East Asia	67	80.79	29.26	36.32	379	399.35	14.79	9.37
South Asia	30	20.91	13.10	9.40	197	157.39	7.69	3.69
Africa	29	37.83	12.66	17.01	254	513.94	9.91	12.06
West Asia	19	21.54	8.30	9.68	185	376.5	7.22	8.83
Central Asia	4	23.2	1.75	10.43	49	50.99	1.91	1.20
Latin America & the Caribbean	2	0.58	0.87	0.26	36	180.6	1.41	4.24
Developing Countries	**165**	**191.52**	**72.05**	**86.09**	**1176**	**1719.82**	**45.90**	**40.35**
Western Europe	40	17.29	17.47	7.77	565	1450.2	22.05	34.02
North America	23	13.51	10.04	6.07	749	1029.52	29.23	24.15
Developed Countries	**64**	**30.89**	**27.95**	**13.89**	**1386**	**2542.6**	**54.10**	**59.65**
Total	**229**	**222.46**	**100**	**100**	**2562**	**4262.52**	**100**	**100**

Source: RIS database.

Similarly, table 2 shows that Indian OFDI before 1990 was largely concentrated in manufacturing, which accounted for over 65% of the flows. Since 1991, however, nearly 60% of these flows have gone to services. Within these broad groups, OFDI is concentrated in industries like drugs and pharmaceuticals in the manufacturing sector, and IT, communication and software and media, broadcasting and publishing services in the services sector, viz. areas where Indian enterprises have a competitive advantage.

Table 2. Sectoral composition of outward FDI flows from India, 1975- 2001
(Millions of dollars)

Sector	1975-19990				1991-March 2001			
	No	Equity	No (% of total)	Equity (% of total)	No	Equity	No (% of total)	Equity (% of total)
Exploration & refining of oil	1	0.02	0.43	0.01	5	61.10	0.20	1.43
Exploration of minerals & precious stones	2	4.02	0.87	1.81	2	0.04	0.08	0.00
Extractive	**3**	**4.04**	**1.30**	**1.82**	**7**	**61.14**	**0.27**	**1.43**
Oilseeds, food products & processing	10	9.06	4.35	4.07	91	69.34	3.55	1.63
Textiles and garments	12	9	5.22	4.05	158	112.56	6.17	2.64
Wood, pulp and paper	3	11.51	1.30	5.17	11	17.72	0.43	0.42
Leather, shoes & carpets	4	20.55	1.74	9.24	63	28.41	2.46	0.67
Chemicals, petro-chemicals & paints	18	7.82	7.83	3.52	94	92.13	3.67	2.16
Drugs & pharmaceuticals	8	4.72	3.48	2.12	163	270.24	6.36	6.34
Rubber, plastic & tyres	6	2.32	2.61	1.04	45	85.80	1.76	2.01
Cement, glass & building material	2	4.19	0.87	1.88	58	79.78	2.26	1.87
Iron and steel	10	16.17	4.35	7.27	47	50.65	1.84	1.19
Electrical & electronic equipment	6	2.11	2.61	0.95	63	90.86	2.46	2.13
Automobiles and parts thereof	6	3.21	2.61	1.44	26	24.00	1.02	0.56
Gems & jewellery	1	0	0.43	0.00	56	17.85	2.19	0.42
Electronic goods & consumer durables	2	0.27	0.87	0.12	29	20.75	1.13	0.49
Beverages & tobacco	7	3.24	3.04	1.46	37	142.05	1.44	3.33
Engineering goods & metallurgical items	18	8.53	7.83	3.83	84	66.24	3.28	1.55
Fertilizers, pesticides & seeds	5	39.93	2.17	17.95	27	326.96	1.05	7.67
Miscellaneous	10	2.59	4.35	1.16	184	183.58	7.18	4.31
Manufacturing	**128**	**145.22**	**55.65**	**65.28**	**1236**	**1678.92**	**48.26**	**39.39**
IT, communication & software	6	5.64	2.61	2.54	761	1354.49	29.71	31.78
Hotels, restaurants, tourism	24	24.96	10.43	11.22	53	112.45	2.07	2.64
Civil Contracting & engineering services	6	1.8	2.61	0.81	44	16.57	1.72	0.39
Consultancy	7	0.43	3.04	0.19	31	8.07	1.21	0.19
Trading & marketing	27	12.47	11.74	5.61	146	96.45	5.70	2.26
Media broadcasting & publishing	2	0.01	0.87	0.00	61	739.64	2.38	17.35
Financial services & leasing	17	26.32	7.39	11.83	96	95.49	3.75	2.24
Transport services	3	0.55	1.30	0.25	44	48.33	1.72	1.13
Other professional services	7	1.05	3.04	0.47	82	50.69	3.20	1.19
Services	**99**	**73.2**	**43.04**	**32.91**	**1318**	**2522.17**	**51.46**	**59.17**
Total	**230**	**222.45**	**100.00**	**100.00**	**2561**	**4262.23**	**100**	**100**

Source: RIS database.

It has been argued that the OFDI activity in the pre-1991 period was of the market-seeking type where Indian enterprises established a presence in developing countries on the basis of their intermediate technologies in relatively low technology industries such as light engineering (Lall, 1983, 1986; Kumar, 1996). Since the 1990s, however, OFDI has been undertaken by Indian enterprises to improve their global competitiveness with a local presence in major markets, acquiring strategic assets and access to markets in emerging trading blocs in the context of the increased emphasis on outward orientation as part of the reforms (Kumar 1996, 1998). Therefore, it is concentrated in countries that are key destinations for Indian exports (viz. EU and North America) and in sectors in which they are trying to develop their competitive advantages.

A number of Indian enterprises are establishing growing webs of overseas operations. They include pharmaceutical companies such as Ajanta Pharma (with 18 overseas investment approvals by 2001), Ranbaxy Laboratories (14 approvals) and Dr Reddy's Laboratories (9 approvals); IT software development enterprises such as NIIT Ltd. (15 approvals), Aptech (12 approvals), Infosys Technologies (10 approvals), Mastek (9 approvals); engineering companies like L&T, Voltas and Usha Beltron (11 approvals each); Asian Paints (13 approvals); and Essel Packaging (12 approvals), among others. Of late, Indian enterprises have also started using overseas acquisition as a mode of establishing a foreign presence. The motives of the acquisitions are often similar to those of greenfield entries (viz. building marketing networks in foreign markets), but they are sometimes strategic with a view to filling gaps in their capabilities or obtaining access to technologies, brands, natural resources and other assets. Hence, these are also generally concentrated in the areas of the competitive advantages of Indian companies. For instance, Ranbaxy acquired RPG Aventis in France, Dr Reddy's Labs acquired Beetapharm in Germany; Cadila acquired the generics business of Alpharma in France; Asian Paints acquired Berger International, thus obtaining a foothold in 22 countries across the world; Tata Steel set up an affiliate in South Africa and acquired NatSteel in Singapore;

Tata Tea acquired Tetley of the United Kingdom, one of the world's biggest tea companies for $430 million, thus gaining the control of a full value chain in tea processing; and Titan Industries has set up a network of foreign affiliates in Europe and Asia to conduct its overseas business and build its brand internationally. Indian companies are also acquiring stakes abroad to strengthen their access to resources. These include ONGC Videsh Ltd.'s investments in/acquisitions of oil-related equity abroad; the Aditya Birla Group's acquisition of two copper mines in Australia; and, Reliance Group's acquisition of Flag International.

3. Determinants of OFDI: analytical framework and hypotheses

According to the ownership, location and internalization (OLI) theory, a prerequisite for a firm to become international is the ownership of unique advantages that outweigh the disadvantages of being "foreign" in overseas markets. Therefore, a key question in identifying the determinants of overseas investment is the nature of the ownership advantages or unique assets of Indian enterprises that allow their outward expansion. It has been argued that the main source of the advantage enjoyed by Indian enterprises was their ability to absorb, adapt and build upon the technologies imported from abroad rather than produce completely novel technologies. Indian enterprises have accumulated considerable learning and technological capabilities as well as managerial and technical expertise, during the first four decades of independence, when the Government pursued a strategy of import substitution industrialization (Lall, 1986; Kumar, 1996). Sometimes, these included adaptation of imported designs to make them appropriate for local conditions and more cost-effective, given their experience of dealing with highly price conscious and demanding customers in India. A number of Indian pharmaceutical and chemical enterprises developed cost-effective processes of known chemical entities, helped by the absence of product patents in India. With this capability, they began to enter the generics market in the United States and other developed countries after the expiry of product

patents. Therefore, the strengths of Indian enterprises are likely to be concentrated in relatively standardized and mature technologies in industries characterized by competition based on price. They are not likely to move abroad primarily on the strength of innovative proprietary technologies or globally recognized brand names, as with established developed country TNCs. In what follows, we develop a model for explaining the probability of an Indian enterprise investing abroad in the light of these observations.

To explain the OFDI decision of Indian manufacturing firms, we have formulated a simple qualitative response model where the dependent variable takes the value one if the enterprise has invested abroad and zero otherwise. Denoting X_{it} as a vector of k (k=1...k) elements capturing ownership advantages and other factors explaining the ith firm's overseas investment decision in the tth time period. These factors are expected to provide the outward investing Indian enterprise some edge over local rivals in order to overcome the cost of "foreignness" in the host location. Thus, our empirical model is as follows:

$$L_i = X_{it}\beta + u_{it} \qquad [1]$$

where β is the vector of logit coefficients and u_{it} is a normally distributed error term. L_i is the log of odds ratio, viz. the probability of an Indian enterprise undertaking OFDI. L_i viz., logit is linear in X and in the parameters.

We now identify different factors in X_{it} that are the sources of the ownership advantages for Indian enterprises investing abroad. We have specified X_{it} to include three sets of factors: firm-specific intangibles, industry-specific characteristics and policies. The firm-specific intangibles, in turn, are assumed to be dependent upon a host of firm-specific characteristics such as age, technology, product differentiation, managerial skill, firm size, export orientation and ownership. The theoretical basis for including these variables in the model is provided in the following discussion.

3.1 Ownership advantages of enterprises

Here, we identify certain variables that can be measured objectively to capture the possible sources of the ownership advantages of Indian enterprises.

Accumulated learning and managerial skills

Accumulated production experience is a source of considerable learning and absorption of know-how. This learning is a source of incremental innovations on the shop floor that are not captured by indicators of more formal innovatory activity. Accumulated experience also helps an enterprise acquire managerial skills, knowledge of the market and reputation, among other advantages. These advantages can be valuable for overseas investments especially in relatively mature and standardized industries, if not in more skill- or knowledge-intensive ones. Hence, other things being equal, we expect accumulated learning (*LEARNING*) measured in terms of the years the enterprise has been in production to affect favourably its probability of undertaking OFDI.

Technological effort

Further technological effort at the enterprise level is often required for absorption and adaptation of knowledge imported from abroad before it can lend an advantage to the firm, except possibly in very mature and low technology industries. Technological effort is also likely to capture the ability of the enterprises to replicate processes and methods at a foreign location. It is also a source of the cost effective process development that Indian firms have been engaged in, in the chemicals and pharmaceuticals industries. Hence, technological effort (*TECHEFFORT)* of the enterprises, measured in terms of R&D intensity is posited to increase their probability of being outward investors.

Product differentiation

Developing country firms are not likely to be strong in terms of the ability to differentiate their products with brand/

trade names having good reputations worldwide. However, enterprises that are able to differentiate their product and build their brand names in domestic markets would be better placed to tap the opportunities abroad than others. This ability of branding (*BRANDS)* or differentiating the product, measured in terms of advertising intensity, may be valuable, at least in certain knowledge-intensive industries where quality enjoys a relatively high premium. Hence, it may favourably affect the probability of OFDI being undertaken by the enterprises.

Cost effectiveness of processes

As argued earlier, one of the unique advantages enjoyed by Indian enterprises could be their ability to bring about adaptations and incremental changes to production processes to make them more cost effective, in view of their experience of operating in a highly price competitive environment. Hence, we expect the ownership of cost effective processes or methods of production (*COSTEFFECT)* measured in terms of profitability to be positively associated with the probability of investing abroad.

Firm size

Larger firms are more likely to venture abroad than smaller firms, because they often have better access to market information and possess financial strength, allowing them to bear greater risks. A number of studies have found that firm size is an important determinant of overseas operations for developed as well as developing country enterprises (Caves, 1996). Hence, firm size (*SIZE)* is posited to have a favourable effect on the probability of the enterprise crossing the border. The effect of size, however, is generally observed to be non-linear in many firm level studies of R&D activity and export performance. To check the possible non-linearity of the effect, a quadratic term of *SIZE* will be used in the estimation.

Export-orientation

In the product cycle theory of Vernon (1966), overseas investment is postulated to follow the initial exploration of overseas markets through exporting. It has been argued that the recent boom of overseas investment by developing country enterprises has been motivated by the need to support exporting with a local presence (i.e. developing marketing networks, providing after-sales services etc.) (Kumar, 1998). Exporting activity enhances the international competitiveness of the enterprise and may also provide valuable information on emerging opportunities in other countries. Hence, the export-intensity (*EXPORT)* of Indian enterprises is posited to be positively linked to the probability of establishing overseas operations. One may argue that there could be a simultaneity bias in the export intensity and overseas operations as the network of overseas operations may also generate exports for the firm. Studies for developed countries find exports and OFDI to be related.[2] Indian enterprises, however, appear to be at a rather early stage of evolution on the international scene with overseas operations following exports. In any case, a verification of simultaneity bias in the present context is constrained by the limited availability of methodological tools.

Technological dependence

OFDI activity is posited to be based on firms' own "created" assets, which may be adapted from knowledge imported in the past. They are unlikely to have an edge over other enterprises in foreign markets on the basis of imported know-how and imported equipment. Therefore, the dependence of enterprises on imported technology (*TECHIM)* and capital goods *(MACHIM)* is likely to be negatively related to the probability of being outward investors.

Local ownership

The overseas expansion of operations from India is likely to be limited to domestic enterprises, as foreign owned

[2] See, for instance, Lipsey and Weiss (1984) and Liu and Graham (1998).

enterprises in India come to India primarily to explore the Indian market. Any overseas expansion of foreign affiliates in India would be subject to corporate decisions at headquarters. Hence, a dummy identifying foreign owned firms (*FOREIGN)* is likely to be negatively related to overseas expansion.

3.2 Liberalization of outward investment policy

In the pre-1991 phase, government policy towards OFDI was rather restrictive and required overseas investments to be only through the capitalization of exported machinery and know-how fees. Outflows of liquid investment were generally restricted. As noted above however, the policy has been progressively liberalized since 1991 along with the policy governing inward investment. Hence, a dummy identifying the 1991 liberalization (*LIBERAL)* is expected to have a positive effect on the probability of undertaking OFDI.

3.3 Industry effects

The incidence of overseas activity is expected to vary across industries because of industry-specific comparative advantages and the specialization of the country. In particular, Indian enterprises are likely to be active abroad in industries that require adaptations, large inputs of skilled manpower or managerial resources. The inter-industry differences in the intensity of outward orientation are controlled in the estimation with the help of a set of industry dummies ($INDDUM_n$).

Having identified various components of vector X_i, we may now expand equation [1] as follows:

$$\log\left(\frac{P_i}{1-P_i}\right) = \beta + \beta_1 LEARNING + \beta_2 SIZE + \beta_3 SIZE^2 + \beta_4 TECHEFFORT + \beta_5 TECHIM + \beta_6 MACHIM + \beta_7 BRANDS + \beta_8 COSTEFFECT + \beta_9 EXPORT + \beta_{10} FOREIGN + \beta_{11} LIBERAL + \sum_n \delta_n INDDUM_n + u_{it} \quad [2]$$

4. Empirical estimations

The model as expressed in equation [2] is estimated using an exclusive RIS dataset described earlier, compiled by pooling company annual report statistics for 4,271 Indian manufacturing firms listed on stock exchanges from the Centre for Monitoring Indian Economy (CMIE)'s Prowess database and linking it with the OFDI information gathered from various published and unpublished sources for 1988/89 to 2000/01. (See annex for more details and measurements of variables.)

The logit model has been estimated using the maximum likelihood method with robust standard errors. The statistical package STATA provides the robust standard errors using the Huber-White sandwich estimators that can effectively deal with problems of not meeting some assumptions like normality, homoscedasticity, or some observations that exhibit large residuals, leverage or influence. Standardized logit coefficients, which are free of scale and hence are useful in assessing the relative strength of the independent variables in addition to marginal effects, are estimated.

Full-sample estimations

Table 3 presents estimation results for model [2] for the full sample. The overall fitted model in terms of Wald Chi-squares is statistically highly significant. The explanatory power in the case of total manufacturing is about 16%. The performance of individual variables is discussed below.

The variable, *LEARNING*, capturing accumulated learning by the firm comes up with a strong positive effect on the probability of Indian enterprises undertaking OFDI. Therefore, accumulated learning from production experience is an important source of ownership advantages for Indian enterprises. It is likely to give them an edge, especially in other developing countries and in relatively low technology and mature industries.

Table 3. Determinants of probability of outward investments of Indian enterprises

Independent Variables	Coefficients	Robust Z-Statistics
LEARNING	0.01404869***	14.87
TECHEFFORT	0.04872711***	2.74
BRANDS	0.02689367*	1.66
COSTEFFECT	0.00017099	1.51
SIZE	0.00287626***	22.74
SIZE2	-0.00000034***	10.6
EXPORTS	0.01977054***	25.28
FOREIGN	-1.35730201***	9.29
TECHIM	-0.00010668	0.39
MACHIM	-0.00161704***	3
LIBERAL	0.46447587***	6.77
DTEXTIL&LEATHER	0.41846904***	4.73
DWOOD&PAPER	0.15081544	0.96
DRUBBER&PLASTICS	0.59830256***	5.27
DNONMETALICMINERAL	-1.49406861***	3.19
DCEMENT&GLASS	0.56007601***	4.22
DBASICMETAL	0.35157936***	3.28
DCHEMICALS	0.29241594***	2.73
DELECTRICALS	0.51836462***	4.24
DMACHINERY	0.28631712**	2.08
DAUTOMOTIVE	-0.09043282	0.57
DPHARMACEUTICALS	0.97833303***	9.34
DELECTRONICS	0.40439671***	2.9
Constant	-4.28644974***	39.96
Pseudo R-square	0.1564	
Wald chi2	1723.8	
Log likelihood	-6688.3925	
Number of obs.	29051	

Source: Estimations as explained in the text.
Note: * Significant at 10%; ** Significant at 5%; *** Significant at 1%. Food & beverages products has been treated as the base industry.

The variable capturing the technological effort of enterprises, *TECHEFFORT*, turns out to have a significant positive effect on the probability of OFDI by Indian enterprises as expected. Enterprise level technological effort, as represented by in-house R&D activity, leads to adaptations and innovations in the products and processes that could often lend Indian enterprises an advantage abroad. Similarly, *BRANDS*, capturing the ability of Indian enterprises to differentiate their products, certainly increases the likelihood of undertaking OFDI.

As expected, *SIZE* and $SIZE^2$ have statistically significant positive and negative impacts respectively, suggesting a favourable but a non-linear effect of firm size on the probability of undertaking OFDI. Size increases the probability of undertaking OFDI up to a limit beyond which it turns negative.

As expected, *EXPORTS*, a variable capturing the export intensity of enterprises, has a positive effect on the probability of OFDI being undertaken. It appears that a part of Indian OFDI is undertaken by exporters to support their exporting activity with a local presence.

The two variables capturing technological dependence, viz. *TECHIM* and *MACHIM*, have expected negative signs and the latter also reaches statistical significance. Obviously, OFDI activity is not possible on the basis of borrowed knowledge and capital goods alone. An enterprise needs to develop a base of created assets to be able to move abroad. Similarly, *FOREIGN*, a variable capturing the foreign ownership of Indian enterprises, also comes up with a statistically significant negative effect indicating that foreign TNCs come to India for exploring the Indian market and not to go abroad from India. Outward investment activity is undertaken by Indian enterprises on the strength of their own created assets.

LIBERAL, the variable capturing the effect of the 1991 liberalization of the Government's policy towards investment – inward as well as outward – is robustly positive. Liberalization has removed the policy constraints on OFDI in addition to promoting the external orientation of enterprises.

The sectoral dummy variables are generally significant with a positive sign but, being intercept coefficients, they only indicate that compared to the food and beverages industries, these industries have a better probability of OFDI. A more direct analysis of inter-industry patterns of OFDI is carried out with sectoral estimations, which are reported later.

Technology intensity and determinants of OFDI: sub-sample estimations

The full sample estimations were followed up with separate estimations for four sub-samples of Indian manufacturing, grouped by the technology-intensity of the industry following the revised OECD technological classification (see annex), viz. high technology, medium-high technology, medium-low technology and low technology. We also estimate the determinants of the probability of OFDI being undertaken for each of the 13 broad industry groups that are summarized in annex table 1. These sub-sample estimations may provide additional insights into the relative importance of the ownership advantages across industries. The estimations summarized in table 4 and annex table 1 are broadly similar to the full sample estimation except for some variations across technology classes and industries in terms of the relative importance of individual variables. Hence, we confine ourselves to a discussion of the major differences from the general pattern.

LEARNING continues to have a positive and statistically significant effect on the probability of OFDI in all technology classes except for high technology industries where it has actually a significant negative effect. Apparently, because of rapidly changing technology, accumulated experience is not an advantage in high technology industries. Younger firms are perhaps more dynamic and flexible in responding to the challenges of fast changing technologies in these industries. At the industry level, 8 out of the 13 industries (viz. textiles and leather, rubber and plastics, cement and glass, metals, chemicals, electrical machinery, non-electrical machinery, and transport equipment) follow the general pattern of having a significant positive effect on OFDI. In the remaining industries (food and

beverages, pharmaceuticals, electronics, wood and paper, and non-metallic mineral products), it has a negative effect.

Table 4. Determinants of probability of outward investments of Indian enterprises: sub-samples by technology-intensity

Independent Variables	High Technology	Medium-high Technology	Medium-low Technology	Low Technology
LEARNING	-0.01225145**	0.01983054***	0.02839336***	0.00601868***
	(2.55)	(9.35)	(12.94)	(4.28)
TECHEFFORT	0.03825016	0.03738665*	0.14036360**	-0.04089900
	(1.60)	(1.92)	(2.51)	(0.34)
BRANDS	0.00070178	0.17323670***	0.01918220	0.01431513
	(0.09)	(9.81)	(0.67)	(1.32)
COSTEFFECT	0.00035855	0.00002231	0.00004253	0.00031543**
	(1.07)	(0.34)	(0.38)	(2.48)
SIZE	0.00721355***	0.00220079***	0.00218862***	0.00524463***
	(9.05)	(11.30)	(13.66)	(16.23)
SIZE2	-0.00000220***	-0.00000025***	-0.00000026***	-0.00000054***
	(3.78)	(5.41)	(9.81)	(13.60)
EXPORT	0.01846809***	0.02167980***	0.02491160***	0.01883140***
	(8.23)	(12.08)	(13.09)	(16.37)
FOREIGN	-1.79946462***	-1.79051006***	-3.31540517***	-1.25973224***
	(4.61)	(7.54)	(3.38)	(3.11)
TECHIM	0.00089860	-0.01566338	-0.00502218	-0.07882066
	(1.30)	(1.33)	(1.11)	(0.49)
MACHIM	-0.00169882**	-0.00110926	-0.00028239	-0.00134145
	(2.12)	(1.51)	(0.95)	(1.14)
LIBERAL	0.75100189***	0.32023588***	0.49989376***	0.32389356***
	(3.27)	(2.59)	(3.71)	(2.75)
Constant	-4.16541252***	-4.01165425***	-4.02677182***	-4.21724622***
	(15.93)	(26.94)	0	(29.53)
Pseudo R-square	0.2318	0.1608	628.5500	0.1747
Wald chi2	345.29	526.93	-1649.18	567.08
Log likelihood	-812.3679	-1776.4646	7227.0000	-2243.1509
Number of obs	3 198	8 282		10 344

Source: Estimations as explained in the text.
Note: Robust z-statistics in parentheses; * Significant at 10%; ** Significant at 5%; *** Significant at 1%. Relevant industry dummies have been included in the estimations but suppressed here.

Enterprise level technological effort (*TECHEFFORT)* has a statistically significant positive effect in the case of the medium-high technology and medium-low technology groups. However, it has a coefficient that is not significantly different from zero in statistical terms in the case of the low technology

group. Apparently, in these industries, because of mature and standardized technology, the ownership advantage based on accumulated production experience is generally adequate. In the high technology group, *TECHEFFORT* just misses the statistical significance, suggesting that in these industries, local technological effort alone may not be adequate and firms would need other advantages to be able to operate abroad. In the estimations at the level of individual industries, *TECHEFFORT* has a significant positive effect in the case of food and beverages, non-metallic metal products, chemicals, non-electrical machinery and pharmaceuticals; and a positive and nearly significant effect in rubber and plastics, cement and glass, automotive, electrical machinery and electronics. Its effect is not significantly different from zero only in those industries that are highly mature like textiles, leather and metals. It is therefore clear that the enterprise level technological effort of the firms is an important source of their unique ownership advantages.

BRANDS also has a positive impact on OFDI in a significant positive manner only in the case of the medium-high technology group. In other groups, its coefficient is not significantly different from zero. Evidently, the ability of Indian enterprises to differentiate their products as a source of the advantage has been effective only in selected industries that are characterized by moderate technology intensity. Industry level estimations suggest that product differentiation or branding is a source of the advantages for Indian enterprises in food and beverages, textiles and clothing (nearly significant), cement and glass, chemicals, electrical machinery, non-electrical machinery, and pharmaceuticals. It is clear that enterprises that develop their brand identities and pay attention to their quality do better in international markets.

Finally, *COSTEFFECT* is relevant only in the case of the low technology group. At the industry level, the cost advantage has a strong positive effect in the case of textiles and leather, cement and glass, chemicals and electronics. Therefore, the experience of Indian enterprises in developing cost effective processes and products could be a source of the advantages in their overseas forays, at least in certain industries.

The technology dependence variables follow the general pattern of having either a negative or not significantly different from zero effect except in the pharmaceuticals industry, for which *TECHIM* has a significant positive effect. The Indian pharmaceuticals industry has a long tradition of building on knowledge imported from abroad and absorbing other spillovers with its own technological effort. Hence, it could be interpreted as indicating that a source of the unique ownership advantages of Indian enterprises in this industry is in the adaptation of imported know-how as reflected by the significant positive effect of both their own technological efforts as well as imported knowledge variables.

A striking finding is the consistent performance of *SIZE*, *FOREIGN*, *EXPORT* and *LIBERAL* across different technology classes and across most of the industries. Apparently, economic reforms and policy liberalization have had an important effect on the outward orientation of Indian enterprises. Export-orientation exposes Indian enterprises to the opportunities available in foreign markets and hence facilitates OFDI.

5. Concluding remarks

This article has analysed the trends, patterns and determinants of OFDI by Indian enterprises. OFDI from India has increased notably over the past decade following the reforms and liberalization of policies undertaken by the Government since 1991. OFDI has emerged as an important mechanism through which the Indian economy is integrated with the global economy, along with growing trade and inward FDI.

The sharp rise in OFDI since 1991 has been accompanied by a shift in the geographical and sectoral focus. Indian OFDI is now more evenly distributed across the world compared to the pre-1990 period when it was heavily concentrated in poorer developing countries. Indian companies have also diversified sectorally to focus on areas of the country's emerging comparative advantages such as in pharmaceuticals and IT software. Indian enterprises have also started to acquire

companies abroad to obtain access to marketing networks, brands, natural resources, technology and other strategic assets.

This article developed a framework for explaining the probability of an Indian enterprise investing abroad. This analytical framework was applied to assess the probability of OFDI being undertaken by Indian enterprises with an exclusive panel dataset covering over 4,270 manufacturing companies for the 1989-2001 period. The empirical estimations suggest that in line with hypotheses, Indian enterprises draw their ownership advantages from their accumulated production experience, the cost effectiveness of their production processes and other adaptations to imported technologies made with their technological effort, and sometimes with their ability to differentiate the product. Firm size exerts a positive but a non-linear effect. Enterprises that are already engaged in exporting are more likely to be outward investors. Outward orientation, however, is unlikely to arise if the enterprise is heavily dependent on foreign technology, machinery or under foreign ownership. Finally, the policy liberalization of the 1990s is shown to have pushed Indian enterprises abroad.

The sub-sample estimations highlighted some variations across industries in terms of the relative importance of explanatory variables. In the low technology industries, accumulated production experience and cost effectiveness are sufficient, and enterprise level technological effort does not appear to be crucial for OFDI. In high-technology industries, younger enterprises rather than those with longer production experience appear more dynamic, given their technological dynamism and flexibility in responding to the rapidly changing technological frontier in these industries.

The key lesson emerging from the above analysis is the importance of enterprises' own technological efforts and the focus on absorption and adaptation of knowledge that gives them the confidence to move beyond the confines of the domestic market. Enterprises also need to pay attention to building brand identities and position themselves as providers of qualitatively

superior products or services. Firm size is certainly an advantage in international markets at least up to a level. Hence, a degree of consolidation of fragmented capacity in some industries may be useful. Finally, an enabling policy framework and macroeconomic environment, such as those that are developing with the progressive liberalization of policy, do seem to foster an increased external orientation of Indian enterprises. ■

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Annex

Dataset and Measurements of Variables

The study uses the exclusive RIS database on Outward Investments of Indian Enterprises. The RIS database has been compiled mainly from the published data of the India Investment Centre (IIC), supplemented by unpublished data from the Ministry of Commerce and the Ministry of Finance, Government of India. The dataset contains information on Indian enterprises investing abroad, the sectors of investment, the amount and share of Indian ownership, year of approval of projects and the status of implementation of the projects. The constructed database on Indian investment abroad over the period 1975 to March 2001 was then merged with the firm-level financial data obtained from the Prowess Data Base (2002) of the Centre for Monitoring Indian Economy (CMIE). The outcome is a panel dataset covering 4,271 Indian enterprises in manufacturing for the period 1989/90 to 2000/01.

Variable Measurements

OFDI : A dummy variable for Indian firms taking value 1 for firms undertaking O-FDI and 0 otherwise.

$LEARNING_{it}$: The age of *i*th firm in number of years.

$SIZE_{it}$: Total sales of *i*th firm in *t*th year.

$SIZE^2_{it}$: The squared term of the sales of *i*th firm in *t*th year.

$TECHEFFORT_{it}$: Total R&D expenditure as a percentage of total sales of *i*th firm in *t*th year.

$TECHIM_{it}$: Royalties, technical and other professional fees remitted abroad by *i*th firm as a percentage of sales in the year t.

$MACHIM_{it}$: Imports of capital goods by *i*th firm as a percentage of sales in *t*th year.

$BRANDS_{it}$: Advertising expenditure of the *i*th firm as a percentage of sales in the year t.

$COSTEFFECT_{it}$: The ratio of profit before tax (PBT) of the *i*th firm to net worth (%) in *t*th year.

$EXPORT_{it}$: Exports of *i*th firm as a percentage of sales in the year *t*.

FOREIGN: Dummy variable for majority foreign owned firm taking value 1 for firms with 25 % or more foreign equity participation and 0 otherwise.
LIBERAL: Liberalization dummy taking 1 for post-reform period 1993-94 to 2000-01 and 0 for the pre-reform period 1989-90 to 1992-93.
$INDDUM_j$ denotes sectoral dummies included in the estimation.

Technological Classification of Indian Manufacturing Industries

Technology category	*Industry*
Low technology	1. Food, beverages & tobacco products
	2. Textile, leather & footwear
	3. Wood, paper & paper products
Medium-low technology	4. Rubber & plastic products
	5. Other non-metallic mineral products
	6. Cement & glass
	7. Basic metal & metal products
Medium-high technology	8. Chemicals excluding pharmaceuticals
	9. Electrical machinery
	10. Non-electrical machinery
	11. Automotives
High technology	12. Pharmaceuticals
	13. Electronics

Note: The above technological classification is based on OECD Science, Technology and Industry Scoreboard, 2001.

Annex table 1. Determinants of Probability of Outward Investments of Indian Enterprises: Industry Estimations

Industry Independent Variables	Food, bev. & tobacco	Textiles & leather	Wood & paper	Rubber & plastics	Other non- metallic mineral products	Cement & glass	Metals
LEARNING	-0.00747009**	0.01005395***	-0.00623802	0.02406590***	-0.90597974***	0.03698831***	0.02823189***
	(2.39)	(5.98)	(0.93)	(6.65)	(3.07)	(6.28)	(9.39)
TECHEFFORT	0.10175822**	-0.07647313	-7.35617829**	0.07046386	6.66783085***	0.44935156	-0.00368027
	(2.13)	(1.04)	(2.32)	(1.55)	(2.91)	(1.38)	(0.02)
BRANDS	0.02134473	0.01685106	-0.07653573	-0.02291589	-5.25637265**	0.26485907***	-1.91587103***
	(1.61)	(1.48)	(0.78)	(0.44)	(2.04)	(2.74)	(2.77)
COSTEFFECT	0.00012532	0.00126456**	0.00194693	-0.00052320**	-0.00687360*	0.00066816*	0.00016222
	(1.39)	(2.25)	(1.44)	(2.03)	(1.82)	(1.74)	(0.30)
SIZE	0.00555460***	0.00892902***	0.00430171***	0.00249933***	0.68481605	0.00409309***	0.00180214***
	(10.37)	(12.18)	(2.64)	(7.69)	(1.29)	(6.82)	(9.05)
SIZE2	-0.00000054***	-0.00000474***	0.00000165	-0.00000033***	-0.02590137	-0.00000104***	-0.00000021***
	(8.95)	(5.42)	(1.12)	(4.65)	(0.99)	(4.42)	(7.08)
EXPORTS	0.01029237***	0.02310179***	0.03808611***	0.02187285***	0.05081438*	0.02795647***	0.02733743***
	(4.52)	(15.00)	(4.42)	(7.84)	(1.87)	(4.07)	(9.11)
FOREIGN	-2.02568237**	-0.50660449		-2.76729307***			
	(2.33)	(1.16)		(2.82)			
TECHIM	-0.71152894	-0.01886787	-0.02065755	-0.04656017		-0.00376338*	0.01053096
	(1.42)	(0.17)	(0.39)	(0.80)		(1.69)	(0.60)
MACHIM	-0.00298487	-0.00115727	-0.01403288	-0.00024432	0.00011892	-0.00008515	-0.00100808
	(1.52)	(0.97)	(0.69)	(0.28)	(0.06)	(1.15)	(0.67)
LIBERAL	0.11459941	0.41448666***	0.28905317	0.38381885		0.76956380*	0.45745358**
	(0.53)	(2.65)	(0.76)	(1.64)		(1.93)	(2.42)
Constant	-3.48877965***	-4.38465087***	-3.63931168***	-3.78051629***	-5.24456562**	-5.20789075***	-4.10096000***
	(16.02)	(26.53)	(9.47)	(15.20)	(2.31)	(11.93)	(20.10)
Pseudo R-square	0.1892	0.1911	0.2124	0.1521	0.5842	0.2698	0.1879
Wald chi2	162.21	561.1	87.99	199.84	26.96	161.6	331.72
Log likelihood	- 690.1580	-1 302.3585	- 178.9644	- 573.3642	- 9.4755	- 261.4862	- 764.0534
Number of obs	3 890	5 249	1 158	2 343	178	1 197	3 317

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Annex table 1. Determinants of Probability of Outward Investments of Indian Enterprises: Industry Estimations (concluded)

Industry Independent Variables	Chemicals	Electrical Machinery	Non-electrical Machinery	Transport equipment	Pharmaceuticals	Electronics
LEARNING	0.01855550***	0.02306959***	0.01981240***	0.01061348***	-0.02737287***	-0.04630854***
	-4.85	-4.79	-4.32	-2.64	-3.15	-4.52
TECHEFFORT	0.09014240**	0.15454497	0.02738876*	0.1145422	0.03469031*	0.0493323
	-2.07	-1.57	-1.75	-1.36	-1.8	-1.56
BRANDS	0.18287934***	0.17951839***	0.21412778***	0.019236	0.10029626***	-0.16750628*
	-7.91	-2.75	-3.51	-0.12	-3.02	-1.96
COSTEFFECT	0.00075075**	-0.00041418	0.00003403	-2.435E-05	0.00008224	0.00159732*
	-2.55	-0.89	-0.37	-0.34	-0.11	-1.65
SIZE	0.00336443***	0.00467657***	0.00793652***	0.00149688***	0.01719057***	0.00423678***
	-12.08	-5.77	-7.47	-7.74	-11.37	-6.07
SIZE2	-0.00000054***	-0.00000187***	-0.00000436***	-0.00000012***	-0.00000828***	-0.00000060*
	-5.5	-3	-4	-5.06	-7.29	-1.68
EXPORTS	0.01934662***	0.02309955***	0.01840023***	0.03972878***	0.01749393***	0.01486872***
	-7.79	-5.43	-2.99	-6.22	-5.05	-4.07
FOREIGN	-2.42700671***		-1.48559935***	-0.9090368	-3.31551633***	-1.57986211***
	-5.62	-0.021247	-3.66	-1.3	-5.3	-2.63
TECHIM	0.0109369	-0.43	-0.01617508*	-0.89579637**	0.18339891*	-0.04626719
	-0.49	-0.00210436	-1.85	-2.56	-1.87	-0.59
MACHIM	-0.00018232	-0.65	-0.00036276	-0.0062457	-0.01022129*	-0.00088192
	-0.72	0.74848122**	-0.08	-0.67	-1.92	-0.55
LIBERAL	0.20719872	-2.41	0.62088083**	-0.49205187**	0.09137886	1.45054567***
	-1.04	-4.60694798***	-1.97	-2.11	-0.36	-3.41
Constant	-4.11667846***	-12.69	-4.69081972***	-3.14900133***	-3.34818376***	-3.67815205***
	-18.9	0.1764	-13.81	-11.98	-11.72	-8.32
Pseudo R-square	0.2334	163.96	0.1799	0.1838	0.3583	0.2093
Wald chi2	319.84	-357.47414	153.34	140.54	219.81	150.15
Log likelihood	-646.543	1489	-332.59283	-338.31366	-433.84898	-294.91317
Number of obs	3148		1842	1613	1829	1369

Source: Estimations as explained in the text.

Note: Robust z-statistics in parentheses; * Significant at 10%; ** Significant at 5%; *** Significant at 1%. In many industries, FOREIGN is found to predict failure perfectly and hence has been dropped from the estimation. In the case of other non-metallic mineral products *TECHIM* and *LIBERAL* has been dropped for the same reason.

Foreign direct investment from Latin America and the Caribbean*

John D. Daniels, Jeffrey A. Krug and Len Trevino**

This article examines patterns of outward foreign direct investment (FDI) from Latin America between 1980 and 2004. Despite rising levels of FDI worldwide, little research has been undertaken to study FDI from Latin America. We used data on 910 Latin American firms to conduct both macro and micro-analyses. Latin America's share of outward FDI declined steadily after 1980 to less than 2 per cent of the world's total in 2002. Few Latin American firms operate foreign affiliates outside Latin America. Most Latin American transnational corporations have invested in geographically close markets through acquisition rather than greenfield investment, primarily to serve the market when exporting is not feasible. We also found that inward FDI often stimulates outward FDI. Using Dunning's investment-development path framework, we conclude that Latin American countries straddle stages two and three of the model. From a policy perspective, countries may gain advantages by encouraging firms to develop capabilities to operate internationally, particularly through regional expansion.

Key words: Investment development path, internalization theory, foreign acquisitions, Latin America.

1. Introduction

The ongoing debate over the positive and negative effects of foreign direct investment (FDI) on host and home economies

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has continued to generate interest in FDI as a topic of research among academics, government policy makers and practitioners alike. Despite rising levels of FDI during the past 25 years, we still know relatively little about FDI from developing countries or the relationship between FDI flows and transnational corporations (TNCs) from developing countries. The historical dependence of developing countries on incoming FDI flows may partially explain the lack of attention given to FDI outflows from these countries. In this article, we examine patterns of outward FDI from Latin America and the relevance of traditional theories of FDI to explaining them. Furthermore, we suggest how Latin America could benefit more from current globalization trends.

We also examine and compare the phenomena of regional and global FDI flows. Over the past several decades, Latin American countries have pursued FDI policies with a view to assisting both the regionalization and globalization of their firms. On the one hand, one of the objectives of regional economic integration has been to promote intra-regional FDI. On the other hand, Latin American economies have increasingly promoted strategies that improve their TNCs' ability to participate in global markets (Trevino, 1998). However, research suggests that Latin American governments have recently shifted policies towards stimulating greater global inflows of FDI, even though regional Latin American FDI flows during the 1990s increased significantly (Garay and Vera, 1998; Rugman and Verbeke, 2004).

2. Historical overview

Although the economies of most Latin American countries grew rapidly from the post-Second World War era through to the early 1980s, the lack of international competition set the stage for the eventual and abrupt decline in economic growth. By limiting imports and placing severe restrictions on inward FDI, governments in many Latin American countries created an economic environment that did not promote innovation. Domestic and foreign manufacturers within Latin America had few incentives to create internationally competitive

products when they faced little international competition in Latin America. As a result, many export products became uncompetitive. Thus, few Latin American companies possessed or were in a position to develop the core competencies necessary to vertically or horizontally extend their operations internationally. In addition, foreign exchange shortages became critical in the region during the 1980s, further inhibiting outward investment by Latin American companies.

The 1980s in Latin America were characterized by debt accumulation, external debt servicing problems and debt restructuring. High levels of inflation and low rates of real growth discouraged investors in developed countries from investing in production facilities in Latin America. High inflation and currency devaluation resulted in capital flight as individuals invested in hard currency assets. Debt accumulation also motivated Latin American banks to establish foreign affiliates, particularly in the United States, as a means of soliciting funds for debt servicing. Lacking sufficient hard currency, many Latin American governments began to open their markets and to transform their roles in the world economy. In particular, many government agencies began delegating economic decision making to the private sector and allowing market forces to drive competition.

By the late 1990s, the largest countries in Latin America, such as Mexico and Brazil, had stabilized their economies by implementing policies that brought inflation and foreign exchange fluctuations largely under control. Increased economic stability attracted larger FDI inflows from the United States, Europe and Asia. Inward FDI, as we discuss later, may have provided an important stimulus for outward FDI and the development of TNCs in Latin America. Some Latin American companies responded to these new competitive conditions by clinging to "traditional" strategies such as cost-plus pricing which, while successful under the previous operating environment, were fatally flawed in the new environment. Other firms, however, did respond by restructuring their businesses to increase competitiveness. Some of these firms developed into fully integrated TNCs.

Policy makers were interested in patterns of Latin American FDI during the 1980s because of their effect on short-term debt repayments, trade balances, growth rates and foreign exchange earnings. The initial examination of FDI from Latin America into the United States during the 1980s indicated that flows were not entirely consistent with standard business motives that explained FDI (Krug and Daniels, 1994). Few investments appeared to have been initiated by Latin American TNCs to exploit firm-specific advantages. Of the 579 Latin American investment cases in the United States between 1980 and 1988, 373 (64%) were in real estate. Of these, almost 79% were in the State of Florida, while 50% of the non-real estate investments were in either Florida or New York. In addition, one-third of the non-real estate investments were in banking. Finally, more than 70% of all investments between 1980 and 1988 were made before 1984.

Krug and Daniels (1994) suggested that the lower rate of investment from Latin America after 1983 had two primary causes. First, many Latin American governments reacted to the large outflows of capital during the early 1980s by implementing a variety of new restrictions on outward capital flows to preserve scarce foreign exchange. These restrictions heavily influenced the decline in capital flows from Latin America to the United States during the mid- to late-1980s. Second, the accumulation of debt in many Latin American countries prompted most United States banks to slow lending activities in the region by 1984. This partially explains the complete absence of new banking offices opened in the United States after 1983, since United States-based banking offices were no longer able to raise funds effectively from United States banks for businesses and government agencies in Latin America.

3. Data and methodology

We utilized both macro- and micro-economic data in our study. We first searched for macro data on global FDI flows rather than data that were specific to Latin America. Second, we searched for firm-specific data that would provide information on individual foreign transactions, in order to gain

insight into the motivations of Latin American TNCs as they evolved from local to global investors. The use of United States Department of Commerce data enabled Krug and Daniels (1994) to identify specific Latin American foreign investment transactions within the United States. These data, however, did not allow analysis of FDI patterns or motivations beyond the United States (United States Department of Commerce, 1985, 1985-1990). In the present study, we could not follow specific transactions in the United States because the United States Department of Commerce no longer reports them. Nevertheless, we were able to examine outward Latin American FDI data for a wider range of recipient countries.

For global FDI flows, we used data from the United Nations Conference on Trade and Development (UNCTAD, 2003). These data provided a country-by-country breakdown of FDI flows from Latin America between 1980 and 2002. We believe these data are fairly complete and allow us to analyse general FDI flows without being restricted to particular investment destinations. However, there were measurement and reporting issues that needed to be considered. The fact that the data had been compiled using country reports presented a variety of problems that complicated comparisons among countries. In particular, countries use different data collection techniques and definitions of FDI. Therefore, the accuracy and consistency of data can be problematic.

Another problem is that investment made through intermediate countries may obscure the source of ultimate national ownership, e.g. when a German company establishes a Panamanian company that subsequently invests in the United States. Teléfonos de Mexico, for example, although headquartered in Mexico, estimates that close to 90% of its trading activity takes place in the United States through American Depository Receipts (ADRs) (Shearer, 2001). Another potential problem is that most Latin American countries have fairly small amounts of outward FDI on an annual basis. As a result, a large investment or divestment in any one year will create lumpiness in the time series data of FDI stock and flows. Further, some investment may be short-lived. For example,

Grupo Mexico's 1998 acquisition of Asarco in the United States for a reported $1.2 billion caused Mexican FDI figures for that year to jump substantially. In the following year, however, Grupo Mexico divested Asarco's American Limestone division for $250 million as well as the specialist chemicals division for $503 million, in order to reduce debt that it had incurred from the original acquisition (Shearer, 2004; Tellechea, Gonzalez and Cooper, 1999). Since our approach was to examine broader patterns over longer periods to identify trends, our analysis was less affected by these data problems.

The second step in the data collection process was to construct a list of Latin American TNCs. We first identified a list of large Latin American firms using the *Thomson ONE Banker* database, which includes companies from Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. We then used the *LexisNexis* database to identify which of these companies had established foreign affiliates outside their home countries. The *LexisNexis* database enabled us to access corporate information on each firm from a variety of sources, such as *Hoover's Company Records*, *The Major Companies Database*, *Nelson's Public Company Profiles*, *International Institutional Database*, *Thomson Extel Cards Database*, *Foreign Companies in Emerging Markets Yearbook*, *Worldscope* and *United States Institutional Database*. Using these sources, we identified companies with foreign affiliates, examined each firm's business profile and determined the location of foreign affiliates. Of the 910 firms we examined, we identified 79 firms (9%) with foreign affiliates. Although the *Thomson ONE Banker* database included more Brazilian companies (332) than companies from any other country, only about 4% of these had foreign affiliates. Mexico (21%) and Chile (11%) had the greatest share of firms with foreign affiliates. We identified three or fewer firms with affiliates in the cases of Colombia, Peru and Venezuela.

4. World and Latin American FDI stocks

Table 1 shows the ownership of FDI stock by region from 1980 to 2002. Most striking is the increased importance of

outward FDI from Europe. Outward FDI from the United States and Canada also increased significantly during this period, but their share of global FDI ownership decreased substantially. In aggregate, the stock of FDI owned by developing country TNCs increased at an average annual rate of 12.4% compared to an annual increase of 12.0% for developed country TNCs. However, the Middle East and Asia regions, especially Hong Kong (China) between 1993 and its transfer from the United Kingdom to China in 1997, accounted for a large part of this growth. In table 1, we excluded Bermuda, the British Virgin Islands, the Cayman Islands, Panama and the Netherlands Antilles from the Latin American region because these countries serve largely as registration havens for investors located elsewhere. Although the remaining Latin American countries more than doubled the value of FDI stock between 1980 and 2002, their share in global FDI stock fell from 8.9% to 1.7%.

Table 1. Foreign direct investment stock by region of the world, 1980-2002
(Millions of dollars)

Region of Ownership	1980	%Total	1990	%Total	2002	%Total	Annual Growth Rate (%)
Europe	237 694	42.1	874 369	49.6	3 771 452	54.9	13.4
United States	215 375	38.2	430 521	24.4	1 501 415	21.9	9.2
Canada	23 783	4.2	84 837	4.8	273 719	4.0	11.7
Australia & New Zealand	2 788	0.5	36 905	2.1	98 781	1.4	17.6
Japan	19 610	3.5	201 440	11.4	331 596	4.8	13.7
Israel	141	0.0	1 189	0.1	10 783	0.2	21.8
Developed Countries	499 391	88.5	1 629 259	92.4	5 987 746	87.2	12.0
Africa	6 871	1.2	20 777	1.2	43 574	0.6	8.8
Latin America	49 976	8.9	56 905	3.2	113 948	1.7	3.8
Middle East & Asia	6 193	1.1	48 868	2.8	632 114	9.2	23.4
Oceania	13	0.0	85	0.0	588	0.0	19.0
Other [a]	1 553	0.3	6 453	0.4	59 240	0.9	18.0
Developing Countries	64 606	11.5	133 088	7.5	849 464	12.4	12.4
Eastern Europe	0.0	0.0	616	0.0	29 152	0.4	n/a
World	563 997	100.0	1 762 963	100.0	6 866 362	100.0	12.0

Source: UNCTAD, Division on Investment, Technology and Enterprise Development, Geneva.

[a] Includes Bermuda, British Virgin Islands, Cayman Islands, Panama and Netherlands Antilles.

5. Patterns of outward FDI from Latin America

Tables 2 and 3 summarize the outward FDI flows and stock of Latin America between 1980 and 2002. Historically, a substantial portion of outflows from Latin America have come from tax-haven countries. For instance, in 2002, 39.1% came from the Cayman Islands and Panama. Anecdotal evidence suggests that a large portion of this FDI originates from countries outside Latin America and is re-routed through these countries, which serve merely as investment-entrepôts (Bjorvatn, 1999). Table 4 supports this view, showing that FDI outflows are particularly large in comparison with these countries' GDPs; for instance, FDI outflows from the Cayman Islands are almost twenty times the size of its GDP. In the following sections, we describe the outward FDI from the four countries for which we found a significant number of TNCs – Chile, Brazil, Argentina and Mexico.

Table 2. Foreign Investment Outflows from Latin America 1980-2002
(Millions of dollars)

Region	1980-1990	%Total	1991-2002	%Total	1980-2002	%Total
Argentina	-2	0.0	13 440	22.7	13 439	20.7
Brazil	2 866	49.2	11 127	18.8	13 992	21.5
Chile	134	2.3	15 139	25.6	15 273	23.5
Colombia	453	7.8	3 771	6.4	4 224	6.5
Jamaica	37	0.6	830	1.4	867	1.3
Mexico	1 040	17.8	8 285	14.0	9 325	14.3
Peru	2	0.0	626	1.1	628	1.0
Venezuela	1 156	19.8	4 568	7.7	5 724	8.8
Other	141	2.5	1 414	2.3	1 559	2.4
Subtotal	5 831	100.0	59 200	100.0	65 031	100.0
Cayman Islands	694		19 332		20 026	
Panama	3 378		12 668		16 046	
Subtotal	4 072		32 000		36 072	
TOTAL	9 903		91 200		101 103	

Source: UNCTAD, Division on Investment, Technology and Enterprise Development, Geneva.

Table 3. Foreign Investment Stock from Latin America, 1980-2002
(Millions of dollars)

Region	1980	%Total	1990	%Total	2002	%Total
Argentina	5 997	12.0	6 106	10.7	19 407	17.0
Brazil	39 601	79.2	42 101	74.0	53 227	46.7
Chile	42	0.1	178	0.3	13 439	11.8
Colombia	136	0.3	402	0.7	3 830	3.4
Jamaica	5	0.0	42	0.1	872	0.8
Mexico	3 589	7.2	4 628	8.1	12 425	10.9
Peru	3	0.0	122	0.2	730	0.6
Venezuela	23	0.0	2 239	3.9	6 807	6.0
Other	590	1.2	1 108	2.0	3 223	2.8
SUBTOTAL	49 986	100.0	56 926	100.0	113 960	100.0
Cayman Islands	5		694		20 026	
Panama	811		4 188		7 768	
SUBTOTAL	816		4 882		27 794	
TOTAL	50 802		61 808		141 754	

Source: UNCTAD, Division on Investment, Technology and Enterprise Development, Geneva.

Table 4. Foreign Investment FDI Stock % of Gross Domestic Product in Latin America, 1980-2002

Region of Ownership	1980	1985	1990	1995	2002
Cayman Islands	5.6	39.0	140.3	258.4	1,967.4
Panama	21.3	40.8	78.8	62.5	69.1
Bahamas	21.3	6.6	19.8	37.2	27.6
Chile	0.2	0.6	0.6	3.7	20.2
Argentina	7.8	6.7	4.3	4.2	19.0
Brazil	16.9	18.2	9.1	6.5	11.8
Jamaica	0.2	0.2	1.0	6.4	11.2
Belize	-	-	-	2.0	7.7
Venezuela	0.0	0.3	4.6	5.1	7.2
Trinidad and Tobago	-	0.2	0.4	0.5	6.6
Colombia	0.4	0.9	1.0	1.1	4.7
Paraguay	2.5	4.0	2.6	2.0	3.0
Uruguay	1.7	3.8	2.0	1.0	2.3
Mexico	1.6	2.2	1.8	2.1	2.0

Source: UNCTAD, Division on Investment, Technology and Enterprise Development, Geneva.

Chile

If we exclude FDI from the Cayman Islands and Panama, Chile accounted for the largest share of outward FDI from Latin America (more than 24% of Latin America's total) during the 1990s and early 2000s. Interestingly, Chile was also Latin America's most successful attractor of FDI between 1988 and 1999 (Trevino *et al.*, 2002). Of the 21 Chilean firms we identified as having foreign affiliates, 19 have affiliates in either Peru or Argentina and eleven have affiliates in both (see table 5). About half of them have affiliates in South American countries other than Peru or Argentina. Few firms have foreign affiliates outside South America: two in the United States, two in Europe and three in Latin American investment-entrepôt countries. Our findings closely parallel those from UNCTAD data, which indicate that more than 90% of Chilean FDI is directed to Argentina. Thus, geographic proximity appears to be a leading factor in determining where Chilean firms invest.

No single industry dominates Chile's FDI activities. Rather, firms from a variety of industries have made foreign investments, including the machinery, metals, gypsum products, furniture and fixtures, metal containers, bottles, food, chemicals, cosmetics, animal feed, iron, steel, construction and fishing industries. We now describe some of these investors and their FDI activities.

The Corporacion Nacional del Cobre de Chile (Codelco) is Chile's largest corporation and the world's leading producer of copper. It controls 17% of the world's copper reserves and accounts for almost 20% of Chile's exports. It has joint development partners in Canada, Mexico and the United States and owns large trading offices in Germany and the United Kingdom. However, the role of its trading offices is primarily to support export sales rather than to undertake foreign production. Smaller firms, such as Madeco, with fewer than 3,000 employees, have made greater inroads with outward FDI in manufacturing. Madeco produces copper wire and cable (building wire and fibre-optic telecommunications cable) abroad for the construction and telecommunications industries in

Table 5. Major Latin American Transnational Corporations

Country	Company	Employees	Firm	Business Description	Foreign Affiliates
Argentina	Acindar	4,000	Mfg	Steel pipe, tubing	Brazil, Uruguay.
Argentina	Aluar Aluminio	1,790	Mfg	Aluminium products	United States, Europe, Asia
Argentina	Atanor	768	Mfg	Chemicals	Brazil, Uruguay
Argentina	Grupo financiero Galicia	6,035	Serv	Banking	United States, Brazil, Caymans, Uruguay
Argentina	Repsol	9,750	Mfg	Oil and gas exploration	Chile, Peru
Brazil	Aco Altona	600	Mfg	Metal products	Venezuela
Brazil	Banco Bradesco	75,000	Serv	Banking	United States, Argentina, Bermuda, Luxembourg
Brazil	Banco do Brasil	80,000	Serv	Banking	30 offices in 25 foreign countries
Brazil	Bicicletas	310	Mfg	Bicycles, fitness products	United States, Bolivia, Paraguay, Uruguay
Brazil Netherlands	Duratex	5,815	Mfg	Furniture, fixtures	United States, Argentina,
Brazil	Embraer	5,931	Mfg	Aircraft	United States, Australia, France
Brazil	Gerdau	20,160	Mfg	Long-rolled steel	United States, Canada, Chile, Uruguay
Brazil	Metodo Engenharia	490	Mfg	Building construction	Uruguay
Brazil	Petrobras	48,798	Mfg	Petroleum producer	United States, Argentina, Bolivia, Colombia, Angola, Nigeria
Brazil	Petroflex	594	Mfg	Chemicals, rubber	Uruguay, Virgin Islands
Brazil	Potobello	1,658	Mfg	Ceramic tiles	United States, Argentina, Chile
Brazil	Suzano		Mfg	Paper and pulp	United States, Portugal,Caymans
Brazil	Tupy	3,965	Mfg	Iron and steel foundries	United States, Germany
Brazil	Unibanco	27,625	Serv	Consumer banking	Caymans, Paraguay, Luxembourg
Brazil	Votorantim	4,500	Mfg	Paper and pulp	United States, Belgium, Germany, Singapore
Chile	AES Gener	446	Serv	Electricity generation	Argentina, Caymans, Colombia
Chile	Agricola Nacional	553	Mfg	Machinery	Peru
Chile	Besalco	3,270	Mfg	Highway construction	Argentina, Peru
Chile	Chilectra	1,659	Serv	Electricity generation	Argentina, Brazil, Colombia, Panama, Peru
Chile	CINTAC	520	Mfg	Metal processing	Argentina, Peru
Chile	Volcan	335	Mfg	Gypsum, plaster board	Brazil
Chile	Companias CIC	1,030	Mfg	Furniture	United States, France, Spain, Argentina, Peru, Uruguay
Chile	CORESA	773	Mfg	Metal containers	Argentina, Peru
Chile	Embotelladora Andina	4,124	Mfg	Bottles	Argentina, Brazil, Uruguay
Chile	Empresas Iansa	2,277	Mfg.	Sugar, food, animal feed	France, Brazil
Chile	Enaex	804	Mfg	Explosives, chemicals	Peru
Chile	Enersis	11,156	Serv	Electricity generation	Argentina, Brazil, Chile, Colombia, Peru
Chile	Farmacias Ahumada	2,685	Mfg	Cosmetics, drugstores	Brazil, Chile, Mexico, Peru
Chile	Forestal Terranova	3,608	Mfg	Lumber, wood products	United States, 10 Latin American countries
Chile	Iansagro	2,180	Mfg	Feedstuffs, fertilizers	Peru
Chile	Industria Nac. de Alimentos	958	Mfg	Noodles, dry pasta, oils	Argentina, Chile, Peru
Chile	Invercap	606	Mfg	Iron, steel	Argentina, Bahamas, Peru
Chile	Inversiones Campos	2,159	Serv	Insurance	Peru
Chile	Madeco	2,788	Mfg	Copper wire, cable, brass	Argentina, Brazil, Chile, Peru
Chile	Parque Arauco	212	Mfg	Construction	Argentina
Chile	Sipsa	8	Mfg	Fishing, shipping	Argentina

Table 5 (concluded)

Country	Company	Employees	Firm	Business Description	Foreign Affiliates
Colombia	Banco de Bogota	7,400	Serv	Commercial banking	United States, Bahamas, Caymans, Panama
Colombia	Interconexion Electrica	927	Serv	Distribution of electricity	Ecuador, Peru, Venezuela
Mexico	Alfa	37,895	Mfg	Steel, auto parts	United States, Europe, Japan, Mexico, South America
Mexico	América Móvil	24,860	Serv	Wireless phone service	Subscribers in 8 Latin American countries
Mexico	America Telecom		Investor	Wireless phone service	United States, Spain, 6 Latin American countries
Mexico	CEMEX	25,965	Mfg	Cement, concrete	United States, Egypt, Mexico, Philippines, Spain, L.A.
Mexico	Cia Cementos Mexicanos		Mfg	Stone, clay, concrete	United States
Mexico	Coca Cola Femsa	56,841	Mfg	Soft drinks, beverages	Argentina. Brazil, Colombia, Mexico, Venezuela
Mexico	Controladora Milano	2,776	Serv	Retail clothing stores	United States
Mexico	Copamex	6,800	Mfg	Facial tissue, paper	United States, Costa Rica, Nicaragua
Mexico	Corporacion Durango	7,587	Mfg	Wood, paper, packaging	United States
Mexico	Corp. Interamericana	10,891	Serv	Event producer	Argentina, Brazil, Spain
Mexico	Cosorcio Comex		Mfg	Chemicals	United States
Mexico	DESC	16,324	Mfg	Auto parts, chemicals	United States
Mexico	Editorial Diana	171	Mfg	Publishing	Spain, Argentina, Chile, Colombia, Venezuela
Mexico	Edoardos Martin	1,140	Mfg	Garments, clothes, fabrics	Colombia, Cost Rica, El Salvador, Guatemala
Mexico	Empresas ICA	9,604	Mfg	Bridge construction	Portugal, Spain, Argentina, Guatemala, Venezuela
Mexico	Fomento Economico	86,136	Mfg	Beer brewer	9 Latin American countries
Mexico	Grupo Bimbo	70,000	Mfg	Bread, tortillas, snacks	United States, Czech Republic, 6 L. American countries
Mexico	Grupo Carso	67,849	Serv	Department stores	United States
Mexico	Cementos de Chihuahua	1,478	Mfg	Cement, concrete	United States
Mexico	Grupo Comercial Chedraui	7,500	Serv	Grocery, clothing stores	United States
Mexico	Grupo Elektra	20,012	Serv	Retail stores	Guatemala, Honduras, Peru
Mexico	BBVA Bancomer	30,090	Serv	Banking	United States
Mexico	Grupo Gigante	36,000	Serv	Food, apparel	United States
Mexico	Grupo La Moderna	3,800	Mfg	Pasta, soups, biscuits	United States, Central America, Caribbean
Mexico	Grupo Mexico	20,817	Mining	Copper, silver, zinc, lead	United States, Peru
Mexico	Grupo Minsa	1,143	Mfg	Flour, baking mixes	United States
Mexico	Grupo Posadas	6,561	Retail	Hotel operator	United States
Mexico	Jugos del Valle	4,198	Mfg	Juice, nectar.	United States
Mexico	Mexichem	1,330	Mfg	Chemicals	United States
Mexico	Multivalores Financiero	293	Serv	Security Brokers	United States
Mexico	Nacional Financiera	1,180	Serv	Bank	United States, United Kingdom, Caymans
Mexico	US Commercial Corp.	14,220	Serv	Computer, software stores	United States
Peru	Credicorp	7,530	Serv	Bank	Bolivia, Chile, Colombia, Peru, Switzerland, United States
Venezuela	Corimon	1,244	Mfg	Paints, coatings, resins	United States, Argentina, Colombia, Caribbean
Venezuela	Petroleos de Venezuela	45,683	Mfg	Petroleum refining	United States, Belgium, Germany, Sweden, United Kingdom, Caribbean
Venezuela	Siderurgica Venezolana	2,388	Mfg	Steel, wire products	Colombia

Argentina, Brazil and Peru. It also makes brass products (pipes, bars and sheets) and flexible packaging (aluminium foil) in Argentina.

The Terranova Group produces and markets lumber, mouldings, doors, particleboard and other solid wood products. It has a highly integrated operation with forest resources, sawmills, board and moulding plants and sales offices in Argentina, Brazil and Venezuela. It produces doors in Venezuela and mouldings in the United States. It operates foreign affiliates in ten Latin American countries and sells in 45 locations in Asia, Africa, Europe and Latin America. Another firm with wide ranging activities is Embotelladora Andina, which produces and bottles a range of soft drinks and mineral water. Its Brazilian operations distribute Coca-Cola products and branded beer products such as Bavaria, Kaiser, Heineken and Santa Cerva. Its Argentine operations distribute Coca-Cola products and ready-to-drink fruit juices such as Kapo and Hi-C. It controls more than 50% of the soft drink market in Argentina and Brazil.

Few Chilean firms have developed affiliates outside the Americas. An exception is Compañias CIC, the country's largest furniture manufacturer. It sells office and home furniture and operates affiliates in Argentina, France, Peru, Spain, the United States and Uruguay. Another example is Empresas Iansa, a producer of agricultural goods and processed foods. It has production facilities in Brazil and Peru that serve as suppliers to food processing firms in Europe, Japan and the United States. It has also developed strategic alliances with numerous foreign firms to manufacture products in Chile for exporting back to the foreign partner's home market. Examples include alliances with United States firms (McCauley's, horse feed; Cargill, fruit juice concentrate), a Dutch firm (Skal, tomato paste) and a French firm, (Bonduelle, processed vegetables). It also distributes the Heinz brand in Brazil. In summary, firms in a wide range of industries are developing the capabilities to operate as TNCs. In many cases, these TNCs' international activities are combined with alliances with foreign firms to develop markets within Chile. Therefore, inward and outward FDI flows are often associated with the same firms.

Brazil

Brazil's outward FDI stock represents slightly less than 50% of the total FDI stock held by Latin American TNCs (table 3). Most of this was in place before 1980. Of the 15 Brazilian TNCs we identified, 11 have FDI in neighbouring countries, especially Argentina and Uruguay, and 11 have affiliates in the United States. Brazil has also established strong FDI positions outside the Americas, particularly in Europe. The countries outside Latin America host a greater portion of Brazilian outward FDI than those countries within. Important locations are Canada, Portugal and the United States. Brazilian companies have also successfully developed strong positions in industry segments outside agriculture, including banking (Banco Bradesco, Banco do Brasil and Unibanco), petroleum refining (Petrobras), steel products (Gerdau and Tupy) and aircraft (Embraer).

Petrobras is Brazil's largest company and the twelfth largest oil company in the world. Petrobras has oil and natural gas exploration operations in Angola, Argentina, Bolivia, Colombia, Nigeria and the United States. In most of these markets, it has developed vertically integrated positions in four business segments: (1) oil exploration and production; (2) oil refining, transportation and trading; (3) gas distribution through service stations; and (4) natural gas distribution. In Argentina, it has made a series of acquisitions of oil drilling blocks, pipelines, fractioning plants, natural gas separating plants, tank storage, dispatch facilities for export and gasoline service stations. In Bolivia, it operates a lubricant plant that markets the Bolivian brand leader (YPFB) and exports Lubrax brand products to Brazil. In the United States, it extracts and distributes oil to refining companies located along the Gulf of Mexico. It also distributes oil to thermoelectricity plants that generate power for the New York, Miami and Puerto Rican markets and to gasoline distributors. An important objective has been to develop a strong market position in each local market as well as to develop products for exporting back to Brazil.

Brazil has also established strong positions in the steel and aircraft industries. Gerdau, for example, is Brazil's largest

producer of long-rolled and laminated steel products with a 50% share of the Brazilian market. It operates integrated steel mills, rebar fabrication facilities and scrap collection and processing plants in Argentina, Canada, Chile, the United States and Uruguay. Another firm, Tupy, manufactures smelted iron and steel parts for the automobile industry in Germany and the United States. Embraer, the world's fourth largest aircraft company, produces jet and turboprop aircraft for the military and passenger airline markets. It has affiliates in Australia, Canada, China, France, Portugal, Singapore and the United States.

Brazil's outward FDI stock has, however, recently grown at a slower rate compared to Argentina and Chile. Brazil's slower pace in developing outward FDI may partially be explained by its large domestic market. Like the United States, its large domestic market has provided greater opportunities for local firms to expand domestically before moving abroad. It also provides economies of scale benefits, which enables them to export competitively. Larger domestic markets may, therefore, have the effect of slowing internationalization by domestic firms.[1] With the possible exception of banking, those Brazilian companies that have widely established foreign affiliates are in industries requiring international expansion to remain competitive. Vertical integration in the oil and steel industries, for example, is an important determinant of competitiveness. In the aircraft manufacturing industry, high development costs and local content requirements also make FDI an important strategic decision.

Argentina

Between 1986 and 2002, FDI outflows from Argentina represented 20.7% of all outflows from countries in Latin America (table 2). Our search of the *Thomson ONE Banker*

[1] Brazil's large market has also been an important factor in attracting a large amount of inward FDI in industries like automobiles, earthmoving equipment, farm machinery and processed foods, since foreign firms can serve both the large Brazilian market as well as other parts of South America from a Brazilian base.

database revealed only five firms with foreign affiliates. It is possible that Argentina's strong outward FDI position is accounted for by investment from a larger number of smaller firms that are not reported in this database. The UNCTAD data indicate that Argentina's outward FDI stock was roughly equally distributed among Brazil, Chile, the United States and Venezuela. Data for Uruguay are missing, but it is known that the country hosts a large amount of Argentine investment. Of the 30 largest foreign affiliates of Argentinean TNCs, 20 are in Brazil or Uruguay. Examples of the affiliates in Brazil are Arcor do Brasil (food), CCA Tecnologia em Componentes Automotivos (motor vehicles), Firenze Acabamentos em Couro (leather and leather products) and Enterpa Ambiental (recycling). Examples of affiliates based in Uruguay are Enicor (food), Establecimientos Colonia (food), Roemmer (pharmaceuticals) and Coasin Uruguaya (trade). Argentine TNCs, therefore, appear to have a much stronger dependence on Latin America than we find for Brazilian TNCs. In particular, it is noted that there is little Argentinean FDI in Europe.

Mexico

Excluding Panama and the Cayman Islands, Mexico has accounted for 14% of all FDI outflows from Latin America since 1980 (table 2). Table 5 shows 32 Mexican firms with foreign affiliates. Of these, 23 (72%) have affiliates in the United States. Interestingly, 16 of the 32 firms have established foreign affiliates only in the United States. The industries represented are varied and include firms in manufacturing (e.g. cement, concrete, paper products, chemicals, auto parts and food processing), services (e.g. banking, retailing of computers and clothing, department stores, groceries, hotel operations and securities firms) and mining (e.g. copper, zinc and stone). These findings are consistent with the UNCTAD data, which indicate that almost 98% of Mexico's outward FDI stock is in the United States. In addition, 26 of the 30 largest foreign affiliates of Mexican TNCs are in the United States. Three factors largely explain the tendency of Mexican firms to expand into the United States: geographic proximity, the large United States market and the North American Free Trade Agreement (NAFTA), which

has eliminated trade barriers between Canada, Mexico and the United States since 1994.

After the United States, Mexican firms have the greatest tendency to expand south into Central America, followed by expansion into South America. For example, América Móvil, an earlier spin-off from Teléfonos de México, is the largest mobile phone company in Latin America. It has holdings in Argentina, Brazil, Colombia, Ecuador, El Salvador, Guatemala and Nicaragua. Copamex is one of Mexico's largest consumer paper companies. Its primary foreign operations are in Costa Rica, Nicaragua and the United States. Edoardos Martin produces clothing and textile products, which it sells in 235 company-owned and franchised stores in Colombia, Costa Rica, El Salvador and Guatemala.

Several Mexican TNCs have established a strong worldwide presence. The most notable is CEMEX, which produces cement, concrete and aggregates. It has foreign affiliates in 30 countries and sells in more than 60 markets. Through a series of acquisitions, CEMEX has leading market positions both inside Latin America (Colombia, Costa Rica, the Dominican Republic, Mexico, Panama and Venezuela) and outside (Egypt, Indonesia, the Philippines, Spain and the United Kingdom). Another example is Empresas ICA, Mexico's leading construction firm. It builds bridges, highways and tunnels, operates toll roads and water supply systems and, develops real estate. It has foreign operations in Argentina, Guatemala, Panama, Portugal, Puerto Rico, Spain and Venezuela, among others.

6. Outward flows related to theories of FDI

In this section, we discuss our findings in relation to the theories of investment-development paths, the internationalization process (especially relative to regional trading agreements) and FDI motivation and stimulation from inward FDI. In each sub-section, our analysis is based on the secondary data we examined.

Investment development paths

Dunning (1993) proposed a four-stage investment development path to describe how countries' inward and outward FDI positions evolve as local firms develop TNC capabilities. In stage one, there is little movement toward undertaking FDI, except to support trade in products that incorporate few firm-specific capabilities or competencies. In stage two, there is still little movement toward outward investment. The outward investment that does occur is also most likely to support trade, but it is increasingly designed to support products that require larger scale production and more capital. In stage three, as the economy matures, companies seek to benefit from their distinctive capabilities and competencies. Outward investment may be driven by either resource- or market-seeking motives. Finally, in stage four, the post-industrial or services stage, outward FDI depends more on capabilities through knowledge creation and the blurring of the distinction between products and services.

We must be careful how we place countries within this framework. It is safe to assume that no Latin American country has reached stage four.[2] Most Latin American economies, however, have strong elements of dual development in that they have both pools of unskilled labour that attract inward FDI and pockets of skilled technicians that are capable of turning out competitive research-intensive products and services that help stimulate outward FDI.

We found a significant number of TNCs only in the largest economies (Argentina, Brazil, Chile and Mexico). The fact that these economies have a significant number of TNCs with FDI, especially in manufacturing rather than simply in sales offices, indicates that they have passed stage one. It is, however, uncertain whether they are currently in stage two or have moved to stage three. We can point to TNCs like América Móvil,

[2] In fact, only a few countries – those that spend heavily on technology creation and diffusion – have reached this stage.

Embraer and Chilectra, which compete abroad on the basis of a high degree of technical competence. These examples however, seem to be the exception rather than the norm. Thus, Latin American economies are most likely to be between stages two and three. We must be even more careful when examining smaller Latin American economies, since our analysis of the published data revealed so few examples of TNCs. That should not, however, imply that these countries have no TNCs. For example, driving between the capitals of El Salvador and Guatemala shows that the Guatemalan-based supermarket chain, Paiz and the Salvadoran-based department store chain, Simon, are in both countries. In spite of these information voids, it is probably safe to say that the remaining Latin American countries are in either stage one or two.

Internationalization theory and regional trading agreements

According to the internationalization theory, managers are risk averse and they perceive that operations abroad are riskier than those within their home markets. Therefore, when expanding abroad, firms take steps to minimize risks. Firms could reduce risk by investing in markets that are close in terms of geography or culture and by entering foreign markets through acquisition rather than greenfield investment. Evidence suggests that this is the case for Latin American TNCs. As noted above, TNCs from Argentina, Brazil, Chile and Mexico have more foreign affiliates in neighbouring countries than in any other parts of Latin America or the world. This relationship is most pronounced for Chilean investments in Argentina and Mexican investment in the United States. With the exception of Chile, this link with neighbouring countries has been strengthened through trading blocs such as Mercosur and NAFTA. Since these trade agreements increase incentives to trade with other member countries, they result in increased trade flows that, in effect, create conditions suggested by international investment theory (e.g., testing markets before investing in them, rationalizing production to reduce costs within a larger market area and displacing competitors in a member country). As member countries of a trading bloc usually share borders and are often

culturally similar, the formation of a trading bloc tends to work in tandem with the geographical and cultural factors postulated by internationalization theory (Buckley *et al.*, 2003).

The only country with TNCs having significant investment outside the Americas is Brazil. In some ways, Brazil may be viewed as an exception because it is the only Portuguese-speaking country in the region. It is not surprising, therefore, that a significant portion of Brazilian FDI is in Portugal and the Portuguese-speaking countries in Africa. The role cultural affinity plays can also be inferred from the fact that Brazil is the largest location for Portuguese FDI (Castro, 2004). The large amount of Latin American FDI in the United States at first seems like an anomaly. On closer examination, however, this may be explained by the rapid growth of the Hispanic population in the United States during the past ten years. Many Latin American firms are undoubtedly making investments in the United States to serve the Latin American communities in the United States. Thus, cultural distance may also explain the many instances of investment in the United States by Latin American firms.

Outward FDI from Latin America in the manufacturing sector has been overwhelmingly via acquisition, a method that reduces the short-term risk of failure. Latin American companies have made several intra-regional acquisitions valued at over $100 million. Examples include Petrobras's (Brazil) acquisition of PeCom Energía (Argentina), Cervecería Bavaria's (Colombia) acquisition of Backus Johnston (Peru) and América Móvil's (Mexico) acquisition of Telecom Américas (Brazil). Of the 100 largest foreign affiliates in Latin America, however, Latin American companies own only two. Both are from Mexico: Grupo Minero Mexíco's Southern Peru Copper and CEMEX's Cemex Venezuela (United Nations, CEPAL/ECLAC, 2003). On a global basis, only two Latin American companies (CEMEX from Mexico and Petroven from Venezuela) are among the top 100 foreign direct investors in terms of foreign assets (UNCTAD, 2002, 2003). Both companies have expanded internationally, largely through acquisition.

Investment Motivation

FDI decisions are primarily driven by market- or resource-seeking motives. A large portion of outward FDI from Latin America during the past two decades can be explained by market-seeking behaviour, especially when exporting is impractical. Some investments have clearly been designed to establish vertically integrated operations, in order to create internal sales outlets for raw materials the firm produces (e.g. gasoline distribution, copper wire production). We also found examples of FDI that were designed to secure resources, such as petroleum. However, we found no examples of investments to secure either knowledge or cheap labour.

Stimulation from Inward FDI

One of the many controversies surrounding FDI is whether inward investment by foreign TNCs enhances or weakens host-country companies (Aitken and Harrison, 1999; Keng and Lee, 1997). On the one hand, TNCs may take away local business opportunities that otherwise would have been performed by domestic firms. In addition, it is often alleged that FDI by larger foreign TNCs destroys local cottage industries, thereby eliminating local entrepreneurship that is vital for development. On the other hand, TNCs may serve as role models to local firms, transfer technology to local partners, and purchase inputs from local suppliers. Furthermore, when companies from developing countries compete successfully against foreign TNCs in their home markets, they develop capabilities, experience and confidence that enable them to compete against the same foreign TNCs abroad.[3] In other cases, inward FDI may improve the productivity of local suppliers. Unfortunately, the limited availability of information on individual investments in Latin America makes it difficult to determine whether Latin American companies that serve as collaborators or competitors to foreign TNCs in their home

[3] This may help explain why Chile has been the most successful country in attracting both inward FDI and undertaking FDI abroad.

markets are any more likely to make subsequent foreign investment.[4]

The establishment of affiliates by foreign TNCs may also operate as a springboard for additional operations in other Latin American countries. For example, PepsiCo (United States) established an Argentine affiliate, which in turn established PepsiCo Snacks Uruguay, one of Uruguay's largest companies. Whirlpool (United States) established a foreign affiliate in Brazil, which in turn established Whirlpool Pontana, one of Argentina's largest industrial companies. Whirlpool's Brazilian operation began as a partnership with the Brazilian company, Brasmotor S.A., which has production facilities in Brazil, China, Italy and Slovakia. Since Brasmotor remains locally owned and managed, the joint venture's investments in the Southern Cone are both Brazilian and United States owned. These examples indicate that the benefits of inward investment may be far more extensive than previously thought. Not only are there potential benefits to the local economy in terms of technology transfer and learning but FDI may also help local affiliates develop TNC capabilities that can subsequently be used to make investments in other developing countries.

7. Possible future scenarios

Inward FDI will continue to be an important source of capital and technology needed for Latin America's development. Outward FDI, however, will also be important because it strengthens Latin American companies by enabling them to acquire and develop operating advantages commonly attributed

[4] Although further investigation is necessary before definitive conclusions can be drawn, there is some evidence that inward FDI by foreign TNCs has assisted the development of Latin American TNCs. For example, the joint venture between the Mexican supermarket chain Grupo Gigante and the French chain, Carrefour, enabled Grupo Gigante's management to learn significant managerial expertise from Carrefour's management, which it leveraged to successfully compete, at least initially, with Wal-Mart in Mexico. Grupo Gigante's management also became confident that it could compete with Wal-Mart outside Mexico and subsequently expanded its supermarket operations into the United States (Millman, 2002).

to international operations. In addition, it enables them to develop learning capabilities abroad (Svetlicic, Rojec and Trtnik, 2000). With the rise of globalization and the demise of import substitution policies, there has also been some fear that developing countries will receive less technology transfer than in the past. Thus, there are reasons to be concerned about Latin American development if its companies' participation in global FDI continues to diminish in relation to FDI growth by TNCs from other regions (Daniels, 2000). The emergence of regional trading blocs has been motivated in part by the assumption that member countries will gain from the dynamic effects that FDI may produce. Consider, for example, the dynamic effects of efficiency from new competition. Trade produces such effects, but only for tradable goods. For non-tradable goods, foreign production may be necessary. Similarly, cost savings through the rationalization of production may require the type of tight control that is more characteristic of FDI than in contractual arrangements.

In the absence of programmes designed to stimulate outward FDI, we expect recent FDI trends to continue. Given that only 9% of the companies we studied have foreign affiliates, there are certainly ample opportunities to expand abroad. FDI by Latin American companies should continue to grow, albeit at a slower rate than FDI for the world as a whole. In the short run, this may enable companies to invest more heavily at home, thereby contributing to domestic growth. In the long run, however, limited development of international operations by Latin American companies may put them at a disadvantage relative to TNCs from outside the region. Experienced TNCs with worldwide investments can gain cost advantages through increased scale, scope and rationalized value chains. They also gain efficiency from tight ownership and control of a network of vertically and horizontally connected affiliates in different countries. In fact, TNCs headquartered outside Latin America appear to be integrating supply chains across Latin America to a significantly greater degree than Latin American TNCs. Examples include those of retailing arrangements within NAFTA and manufacturing integration within Mercosur.

Recent trends are not necessarily indicative of the future. Some conditions may signal an even slower future growth rate for Latin American TNCs. At the macro level, these conditions include economic and political problems that create difficulty for arranging finance for foreign expansion, such as large currency depreciations and/or the imposition of capital controls. They also include inward looking policies introduced as a result of a backlash against globalization. At the micro level, almost all Latin American companies are small compared with their counterparts in industrial countries and the newly industrialized countries of Asia. Most companies lack the resources needed to promote successful international expansion. During the 1980s and early 1990s, most Latin American companies grew under import protection policies. It is only in recent years that they have been forced to develop the types of capabilities necessary to compete with foreign TNCs (Trevino, 1998). Many of the larger Latin American companies are commodity producers, which may gain few advantages from international horizontal expansion and have little expertise for international vertical expansion. Finally, a large share of Latin American companies are family-owned and managed, which may, in the long run, restrain growth in foreign markets.

Several conditions favour the future growth of TNCs from Latin America. First, although the difficulties encountered by regional groupings, such as the Central American Common Market and the Latin American Free Trade Association, have naturally made Latin American managers cautious about making investments to integrate their operations with those in trade-group countries (Echandi, 2001), economic integration, whether regional or bilateral, now appears to be a reality. We see evidence of this with the recent growth of Mexican investment in the United States and Costa Rican investment in El Salvador. For instance, Grupo Dina from Mexico has acquired operations in the United States and Canada to integrate bus-building operations (DePalma, 1993). Second, current literature in business strategy suggests that companies should limit unrelated product diversification and concentrate on their core competencies. Thus, the divestment of these unrelated businesses

by large TNCs from outside Latin America gives Latin American companies more alternatives to expand abroad through acquisition. For example, the Mexican company, Savia, bought Asgrow Seed after the United States firm, Upjohn, divested it. Savia is now the world's largest producer of vegetable seeds and has investments in India, the Republic of Korea and the United States (*Mergers & Acquisitions*, 1995). Lastly, the United States now has the world's second largest native Spanish-speaking population. This has created a significant opportunity for Latin American companies to serve these market niches. Among the many examples are Pollo Campero from Guatemala and Churromania from Venezuela, which have invested in a combination of wholly owned and franchised units to prepare foods for the United States Hispanic population (Bennett, 2004; Frumkin, 2002). Each of these opportunities should help Latin American companies to develop transnational capabilities over time.■

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Outward foreign direct investment by enterprises from Slovenia

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The article evaluates the experience of a small new EU member state as an outward investor. Slovenia's early experience of foreign direct investment (FDI) was in "reverse order", in the sense that it first invested abroad and later allowed inward FDI. Its early start in internationalization and the advantage of knowing "how to do business" in the former republics of Yugoslavia, major destinations of Slovenian outward FDI, made it possible for Slovenia to become a net investor abroad at an early stage in its development. This article also assesses the motives and drivers of Slovenian outward FDI as well as the policies of the Government, which fluctuated from early tolerance of outward FDI ("system escape investment") to restriction and then finally to providing support. The timing and type of reforms were similar to those of some other emerging economies. Outward FDI proved to be instrumental in the development of firms. Outward investors performed better than non-outward investors. Outward FDI also seems to have strengthened the competitiveness of outward investors, large and small, as well as that of the Slovenian economy.

Key words: Slovenia, outward FDI, transnational corporations, competitiveness, development effects, policy

1. Introduction

Enterprise internationalization through outward foreign direct investment (FDI) is not new to Slovenian firms. Slovenian outward FDI dates back to the late 1950s when Slovenia was still part of the former Yugoslavia. This early development shaped contemporary Slovenian enterprise internationalization

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and it is therefore not surprising that some Slovenian companies have become global companies and others have become regional transnational corporations (TNCs). Slovenian enterprises, large and small, invest abroad for various reasons. They do so to improve competitiveness and to expand their market reach. The lion's share of Slovenian outward FDI is directed to neighbouring countries. Geographical proximity and cultural affinity influenced these outward FDI location decisions. The liberal policy environment and institutional support introduced in recent years have also encouraged outward FDI by Slovenian enterprises.

Despite the early start, Slovenia still lags behind many small developed countries in terms of participation in globalization,[1] specifically in enterprise internationalization, as reflected in UNCTAD's outward FDI performance index. Only in the period 2001-2003, did its position climb substantially to 42nd place as compared to 80th place in the period 1997-1999. Slovenia performed better than the average Central and Eastern European countries (CEECs) in terms of outward FDI stock as a percentage of GDP, but lags behind developed countries (UNCTAD, 2004). It also lags behind industrialized countries and the CEECs in terms of the share of services in outward FDI stock (Burger and Svetlicic, 2005, p. 8).

By 2004, 2,402 firms had invested abroad compared to 1,610 in 1995 (Bank of Slovenia, 2005b, p. 41). An average internationalized Slovenian enterprise has affiliates in four different host countries, but few have affiliates in more than ten countries (Jaklic and Svetlicic, 2003, p. 68). The internationalization index suggests that leading Slovenian firms are comparable to those of the world's most transnationalized enterprises (table 1). Slovenian firms lag behind in the transnationality index of the largest TNCs in the world but are more transnationalized compared to other firms in the region. In terms of assets and employees abroad, however, Slovenian

[1] Its position was a little better compared to new EU members in terms of foreign trade and innovation potential but not in terms of the FDI component of the globalization index (Korez, 2005, p. 130).

firms lag behind. In general, Slovenian firms are more globally oriented than those from developing countries. Compared to other transition economies, Slovenia has relatively more home-grown TNCs. This is because the country adopted an open economy policy before the transition period and had a strong export orientation, while its enterprises started investing abroad at an earlier stage. In fact, they started investing abroad before a significant amount of inward FDI began to flow in (Jaklic and Svetlicic, 2003).

This article examines the trends and development in Slovenian outward FDI, before analyzing its drivers and motivations. The article also looks at the impact of outward FDI on investing companies, especially with regard to firm competitiveness and performance. It concludes by assessing obstacles to outward FDI before making policy recommendations.

Table 1. Internationalization of Slovenian firms, 2003

	Transna-tionality Index[a]	Internatio-nalization index[b]	Assets abroad/ total assets	Foreign sales/local sales	Foreign employment/ total employment	Sales/ assets	Sales/ employed
Slovene TNCs[c]	36	60	22	59	23	n.a.	n.a.
The largest 100 TNC in the world	55.8[v]	66	49.8	54.1	49.5	69.3	$0.38 mil.
The largest 10 TNCs from South and Eastern Europe[d]	36.6	n.a.	24.6	56.5	8.5	n.a.	n.a.
The largest 50 TNCs from LDCs 2003	49	48	35	39.9	34.8	72	$0.16 mil.

Source: UNCTAD (2005, pp.17-19) and author's own calculations for Slovenia.

a Average of foreign/domestic assets, foreign/domestic sales and employed abroad/employed at home.

b Number of affiliates abroad/all affiliates.

c The following firms were included: Gorenje, Interevropa, Iskraemeco, Kolektor, Krka, Mercator, Merkur, Petrol and Prevent.

d Eight firms from Russia and two from Croatia were included. See UNCTAD (2005, p. 272).

e It is much higher in the case of small European states, for which the figure is 72.2.

2. Slovenian outward FDI: trends and development

Historical development

In the historical development of outward FDI from the former Yugoslavia, four stages can be distinguished:

(i) *Infant stage* (1950s-1964);
(ii) *Liberal stage* (1965-1972);
(iii) *Stringent regulation stage* (1973-1988);
(iv) *Political transition stage* (1989-1991).

In the 1950s, outward FDI was mainly a "by-product" of developments in the Yugoslav economic system and a reflection of foreign trade trends. Outward FDI was mostly regulated and reactive to the development of firms' international activities - a characteristic of the system up until the late 1990s when a more active strategy was initiated. Outward FDI was initially regarded as a mechanism for enterprises to escape from the socialist system to overseas market economies and to operate more freely.

Up until the late 1990s, the motives for investing abroad stemmed from systemic factors, such as the sanctions imposed on Yugoslavia in 1948 and the market-oriented reforms in the 1960s. The establishment of representative offices, branches and affiliates abroad became a way of facilitating imports to Yugoslavia and, later, of promoting exports. Foreign trade was subsequently seen as a desirable activity to bolster the country's foreign exchange position. These reasons became the primary motives for internationalization. By establishing companies abroad, Slovenian enterprises increased their competitive edge by gaining regular access to foreign exchange without losing the margin between the market and the official exchange rates (Svetlicic, Rojec and Lebar, 1994, p. 365).

The transition stage saw accelerated outward internationalization in spite of many attitudinal barriers. Macroeconomic considerations and the introduction of the market economy played a decisive role in influencing Slovenian attitudes towards outward FDI, particularly in the early 1990s.

Slovenian enterprises acquired new markets abroad to compensate for the loss of the Yugoslav market after Slovenia became independent.

There were at least five reasons for the first (transition) internationalization wave. These reasons include:

(i) the emergence of a free pioneering entrepreneurial spirit;
(ii) the transformation of commercial entities in other parts of former Yugoslavia into companies ("inherited investment");
(iii) the need to continue business cooperation with Serbia, which introduced a formal ban on economic cooperation with Slovenia ("post-box companies");
(iv) political and market uncertainty (e.g. over the recognition of the new state), as a result of which companies abroad were seen as a mechanism to increase the stability of business operations;
(v) the need to transfer financial resources and certain profitable parts of business activities abroad before privatization ("by-pass companies").

Current outward FDI trends

Slovenian outward FDI in the early 1990s passed through three stages. They were:

(i) *the first wave of internationalization* (1990-1993), which saw an increase in outward FDI flows and divestments at the same time;
(ii) *the consolidation phase* (1994-1998);
(iii) *the new wave of internationalization* (from 1999 onwards) (Jaklic and Svetlicic, 2003, p. 46).

Outward FDI took off significantly after 1999 (table 2). The outward FDI stock increased from €0.3 billion in 1994 to €2.2 billion in 2004 (annex table 1).

The main reason for the substantial increase in outward FDI flows in 2003 and 2004 was the improved policy environment. The general climate for outward FDI was much

friendlier than before. Slovenian enterprises realized that without internationalization, they would not be able to maintain their competitive positions. Investment opportunities from privatization in some major destination countries also encouraged Slovenian outward FDI to these countries. Globalization pressures intensified competition on cost, which forced firms in labour-intensive activities to relocate production to lower cost countries abroad. The accumulated experiences with outward FDI by Slovenian managers further encouraged enterprise internationalization, while new firms, including many small- and medium-sized enterprises (SMEs), joined the bandwagon to invest abroad.

Table 2. Slovenia: annual outward FDI flows, 1996-2004[a]
(Millions of Euro[b])

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Outward FDI	5.6	27.7	4.9	44.7	71.7	161.2	162.1	421.3	441.0	503.4
Inward FDI	138.2	294.9	194.3	99.2	149.1	412.4	1700.2	270.5	665.2	449.9

Source: Bank of Slovenia (2005a, p. 41) and Bank of Slovenia (2006, p.45).

[a] Annual outward FDI transactions registered in the balance of payments are not directly comparable to the change in book value of stock since this also includes exchange rates and other changes.

[b] In 2004 and 2005, the average €/$ exchange rate was 1.24. For other rates, see Bank of Slovenia (2006, p. 34).

The major destinations of Slovenian outward FDI are nearby lower-income countries, primarily newly independent constituents of the former Yugoslavia. These hosted as much as 56% of Slovenian outward FDI stock in 2004 (annex table 1). The fact that Slovenian firms are also investing elsewhere invalidates the frequently made assertion that they have competitive advantages only in investing in countries of the former Yugoslavia and not elsewhere in the world (Jaklic and Svetlicic, 2001). The EU-15 absorbed 22% [2] of Slovenian outward FDI stock, other CEECs received 13% and other

[2] The relatively low share of outward FDI in the EU is mainly explained by the fact that system-escape and "tariff factories" types of investment have ceased to be attractive. EU's share is expected to increase in the future due to the enlargement and outward FDI to the new member countries.

countries (such as the United States and Liberia) accounted for the remaining 9%.

The largest host country is Croatia, accounting for 30% of Slovenian outward FDI in 2004, followed by Serbia and Montenegro. The third-most important destination was the Netherlands. Despite the rising value of outward FDI to Croatia, the share is declining. Slovenian outward FDI to Serbia and Montenegro has increased substantially since the downfall of the Milosevic regime and because of the progress made in privatization. Exports usually serve as a forerunner to investment, although the two main export markets (Germany and Italy) have not been the main destinations for outward FDI.

Although Slovenian outward FDI in emerging economies is concentrated in the former Yugoslavia (table 3), Brazil and China have been rising as locations for Slovenian outward FDI, even by smaller firms.[3]

Table 3. Regional allocation of outward FDI, by number of affiliates, 2001-2004

Region/country	2001	2002	2003	2004
Former Yugoslavia total	3	12	30	25
Of which				
Croatia	1	-	14	7
Serbia and Montenegro	-	5	12	13
Bosnia and Herzegovina	1	6	4	4
TFYR Macedonia	1	1	-	1
EU-15	2	1	-	1
CEECs	1	3	4	4
Other countries	1	1	2	4
Total	7	17	36	34

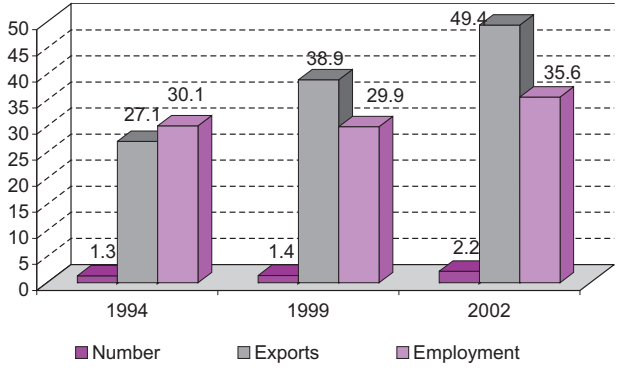
Source: author's eassessment from media reports.[4]

[3] For instance, Le Tehnika, a family owned SME manufacturing electronic and mechanical components, has activities in five countries. It was the first Slovene company to establish a production affiliate in China in May 2002 (Sinoslo Technology Sip Co., Ltd. in Suzhou Industrial park near Shanghai). Esotech is another example of a firm that has established asn affiliate in China.

[4] Major newspapers reporting on business issues have been systematically reviewed for the respective period. This also applies to other media reports in this article. In case of conflicting data, additional data were collected for the relevant firms for clarification.

Slovenian companies that have invested abroad – whose number has almost doubled in the last seven years – represent a very modest share of the total business sector in terms of numbers but a significant influence on the total business sector (figure 1). At the end of 2004, there were 2,143 affiliates abroad, which belonged to 959 Slovenian companies (Bank of Slovenia, 2005b, p.26). There was a growing interest in Serbia and Montenegro in 2004 (27 new investors with 44 new affiliates) and the Netherlands (14 new investors with the same number of units). The main reason for investing in the Netherlands seems to be the tax advantages it offers. Some financial intermediary firms have moved their headquarters to the Netherlands.

Figure 1. The importance of Slovenian outward FDI
(Percentage)[a]



Source: Jaklic *et al.* (2005).
[a] Percentage share of total number of firms, exports and employment.

Chemicals, the retail trade and other business activities dominated Slovenian manufacturing outward FDI over the period 2001-2004 (43% of total outward FDI stock in 2004).[5] In 1994, these three industries accounted for just 10% of outward FDI stock. Up until 1999, financial intermediation, excluding insurance, dominated Slovenian outward FDI. Retail firms started to invest abroad substantially only in 2000, while firms in other business activities did so from 2002. Textile firms were among those very late in grasping global changes in this industry

[5] Manufacturing outward FDI contributed 53% to the total outward FDI flows in 2004.

and started to invest abroad substantially from 2001, primarily in lower cost locations. Rising investment in other business activities, such as advertising, marketing and accounting demonstrates the increased competitiveness of Slovenian firms in the main destination countries. Outward FDI in banking is dominated by Nova Ljubljanska banka (NLB)[6] and in insurance by Triglav.[7]

A survey-based study by Ruzier (2005) showed that among the top 25 non-financial TNCs from the CEECs, seven were Slovenian TNCs (UNCTAD 2004, p. 317). Medium- and large-sized Slovenian firms account for a large part of outward FDI in terms of volume, while SMEs dominate in terms of the number of outward investors. Only 16 out of 257 small-sized Slovenian firms (10-250 employees) interviewed invested abroad (Ruzier, 2005).

The internationalization of SMEs in Slovenia is at an early stage, although there are SMEs that are well established as international firms.[8] Some SMEs have used FDI as their first entry to the international market instead of entering through exporting.[9] Most SMEs in the study by Ruzzier (2005) started internationalizing at an early stage of their existence. It took,

[6] NLB has 14 banks abroad (i.e. Bosnia and Herzegovina, TFYR Macedonia, Serbia and Montenegro, and outside former Yugoslavia, Austria, Bulgaria, Germany and Italy). Together they employ 2,835 employees, most of them in the former Yugoslavia. Market shares range from 1% in markets outside the former Yugoslavia to 17.2% in Montenegro, 11.8% in TFYR Macedonia and over 25% in Bosnia and Herzegovina (NLB Annual Report 2004, p. 42-45).

[7] Triglav presently operates in four countries (the Czech Republic, Croatia, Bosnia and Herzegovina and Montenegro).

[8] Two examples are Ultra and Akrapovic. Once an R&D start-up, Ultra is today the leading technology and service provider in Slovenia. Its operations cover the globe with a network of affiliates and partnerships. Akrapovic was founded in 1990 with just six employees, based on the experience gained by the owner in the field of motorcycle tuning. Today, the company employs over 300 highly qualified staff and is now one of the world's leading makers of high-end exhaust systems.

[9] Out of 919 Slovene firms having outward FDI in 2002, 76% engaged in exporting before they undertook their first outward FDI (Jaklic et al., 2005, p. 33).

on average, 3.3 years for their share of international sales to reach 20%; 57% of them had affiliates in more than three countries; and on average they had about 40% of their sales abroad. They also employed as many as 46% of their workers abroad. Their outward FDI motives included gaining new customers overseas, e.g. through a focus on key foreign market niches, and cost reduction. Good management was considered a very important source of competitive advantages together with the quality of products and services provided by these firms.[10] A number of managers also had previous international experience and possessed good knowledge of foreign languages (Ruzzier, 2005).

Large firms dominate outward FDI in most industries, including the financial and chemical industries.[11] The largest projects in 2003 and 2004 were in the pharmaceutical industry (in Poland, Croatia and Russia); in hotels (in Bosnia and Herzegovina and Montenegro); in trading (in Croatia, Bosnia and Herzegovina and TFYR Macedonia); in banking (in Bosnia and Herzegovina and Serbia and Montenegro); and in transport (in Croatia). Large firms received most of the state aid for outward FDI (36% allocated to 20 projects) in 2003.[12] It is encouraging that 18 SMEs applied for and received 18% of the funds for supporting internationalization.

A study by Jaklic (2004) showed that the difference in the average value of outward FDI between larger (medium and big) and smaller (micro and small) Slovenian companies was not statistically significant. They did not differ significantly in their choice of entry mode. Therefore, the propensity for outward FDI does not seem to be completely tied to the company size, nor does it significantly influence the pattern of internationalization in terms of market choice or product selection. According to the same study, only a minor proportion of sample enterprises were likely to become international,

[10] Human capital seems to have the strongest impact on internationalization (defined broadly to include exports). See Ruzzier (2005, pp. 155 and 163).

[11] Major exceptions are other business activities where there are many medium and even small firms investing abroad.

[12] See Institute for Civilization and Culture (2004).

suggesting the need for steps to enhance relevant firm capabilities (Jaklic, 2004, p. 23).

The average age of companies investing abroad was 35 years (Svetlicic and Rojec, 2006), meaning that companies established in the pre-transition period dominate. This is in line with theoretical predictions that older (i.e. more experienced) firms have a greater propensity to internationalize through outward FDI.

Unlike other transition states where outward internationalization tends to be driven by foreign-owned companies, in Slovenia it is mostly driven by indigenous, locally-owned companies without the participation of foreign capital (Svetlicic and Rojec, 2003). One explanation is the kind of autonomous status that firms received in socialist times. Only 11% of companies that invested abroad were foreign-owned (Jaklic and Svetlicic, 2003, p. 59).[13] Consequently, the idea of Slovenia as a springboard for investing in other countries has not taken root.

The type of market entry has changed rapidly. Of the total number of outward FDI deals in 2003, 45.6% were investments in newly established companies (greenfield investments). They accounted for 33.5% of equity invested abroad. Investments in existing companies accounted for 21.6% of the total number of investments, but for 53.7% by equity value. Of the other investments, 80.5% were made in real estate, mostly in Croatia (Bank of Slovenia 2004, p. 26).[14] According to media reports, acquisitions, which used to be rare, are at least as important today as greenfield investment (table 4). The number of acquisitions has been growing, from four to at least

[13] The only substantial exceptions were Kolektor (but it became Slovenian-owned in 2003) and Lek, which after its acquisition by Novartis in November 2002 became foreign-owned.

[14] New investments refer to cases where a resident is the founder or co-founder of a company. Existing investments are those made by residents in existing companies that they did not establish. Other investments refer to investments made in institutions, branches, foundations, real estate etc.

15 annually in the past two years.[15] This partly reflects the enhanced consolidation process (domestic mergers and acquisitions) in the Slovenian economy since it became an EU member since larger firms tend to use acquisition more than smaller ones (Burger and Svetlicic, 2004, p. 7).

Table 4. Types of market entry, 2001-2004[a]
(Number of investments)

	2001	2002	2003	2004
Greenfield outward FDI	2 (2)[b]	2	13	15 (3)
Acquisitions[c]	3 (6)	6	17	12 (7)
Joint ventures	-	2	1	1 (2)

Source: author's assessment based on companies and media reports.
[a] The numbers do not correspond to those in table 3 since the type of market entry was not known for all projects.
[b] Planned ventures are in brackets.
[c] Defined as more than 50% equity ownership.

Various reasons explain the growth of M&As by Slovenian firms. Recent privatizations in major destination countries, such as Serbia and Montenegro, is an explanatory factor. Another is the accumulated knowledge of Slovenian firms in mastering this form of entering overseas markets.[16] A third reason is the strategic choice to exploit first-mover advantages and take advantage of low prices of firms in less advanced transition economies.

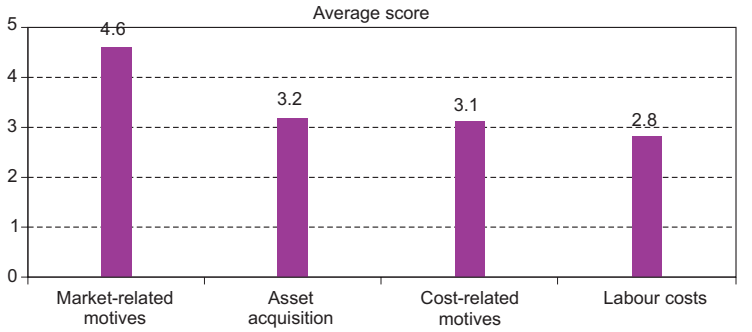
3. Drivers and motivations

During the early stages of enterprise internationalization, Slovenian firms invested abroad to facilitate trade (strengthening imports or exports) and to escape from the socialist system. The main motives were market-seeking, followed by strategic asset-seeking, efficiency-seeking and resource-seeking (Jaklic and Svetlicic, 2003, p. 114). While cost considerations were not an

[15] Larger acquisitions were notable in the financial, pharmaceuticals, retail trade, electrical appliances and food industries.
[16] Mercator, for instance, has made 23 acquisitions, and all of them have been successful.

overwhelming reason for outward FDI, it is now gaining in importance (table 5).

Figure 2. Motives of Slovenian firms for investing abroad



Source: Jaklic (2003, p. 214).
Note: Average score, 1 = not important, 5 = very important. Valid number of answers: 36.

Table 5. Selected outward FDI by activities and motives, 2002-2004
(Numbers; Millions of Euro)

	2002		2003		2004	
	No.	Value	No.	Value	No.	Value
Other services	3	14	14	93	7	72
Production:	8	43	16	46	35	316
Market-seeking [b]	4	36	6	23	7	147
Third-market-seeking	n.a.	n.a.	1	n.a.	5	34
Efficiency-seeking	4	7	7	14	19	126
Strategic investment [c]	n.a.	n.a.	2	9	4	9
Trade and retail	1	34	8	54	5	23[a]
Total	12	91	38	193	47	411

Source: author's evaluation of media reports.
Note: This table is constructed based on information collected from media and company reports.

[a] These firms revealed that they plan to invest approximately €124 millions in the trade industry, mostly in shopping centres.

[b] Motives overlap; therefore, when one motive was not clearly dominant, these investments were included in both activity groups.

[c] Strategic investments are defined as those aiming to acquire local capabilities, complementary to those of the investor.

The small domestic market and relatively high labour costs in Slovenia are key drivers of outward FDI. Maintaining and expanding foreign market shares have been priorities for Slovenian enterprises. Excess production capacity, which was previously utilized to service the large Yugoslav market, has been another factor. The need to operate close to customers has also encouraged outward FDI. However, internationalization still has a relatively low priority in firms' general strategies (Cater and Pucko 2005, p. 11).

A significant proportion of Slovenian outward FDI in the trading industry relates to the establishment of shopping centres in the region. Large Slovenian trading houses (e.g. Mercator) and smaller ones (e.g. Era) are involved. Slovenian outward FDI in services (e.g. banking, insurance, tourism, trade-related services) has been increasing in order to access local customers. Although labour costs are high and the cost competitiveness of Slovenia is low compared to other transition economies, until recently the relocation of production was rare (Jaklic and Svetlicic, 2003, p. 122). This is surprising given that Slovenia has large textile and footwear industries, which are typically labour-intensive. However, efficiency-seeking (reduction of labour costs) and market-seeking motives are gradually becoming important for the textile, footwear and food industries. Many firms have already started moving their production to South-East Europe, while others are planning to do so. Resource-seeking motives were less important until 2003. Strategic investment in the wider sense (assets-augmenting or the desire to become major players in local markets) is also picking up.[17] There has been an increase in the number of M&A purchases, particularly in service industries, such as banking, trading, tourism, telecommunications and energy.

Foreign affiliates at this stage of internationalization primarily serve to promote exports rather than to engage in international production. As competition in host markets

[17] Many firms declared their outward FDI as "strategic", e.g. seeking third-country markets and even reducing labour costs, but not many would qualify as strategic according to standard definitions.

increases, Slovenian companies have started to follow their competitors and customers abroad. By doing so, they try and exploit the first-mover advantage in those markets where their trademarks are well established. The move overseas is all the more important because of the country's small domestic market. With liberalization and global competition, Slovenian firms will face increasing pressure to internationalize through outward FDI to improve their competitiveness.

The key determinants of outward FDI performance relate to ownership-specific advantages, e.g. the quality of products, knowledge about foreign markets, personal contacts, international experience, skilled personnel and management. Skills and knowledge were the most important preconditions for the success of outward FDI, and the lack of them was the reason for failures (Jaklic and Svetlicic, 2003, pp. 94 and 163). The second most important factor for successful outward FDI was the acquisition of strategic assets leading to an improved international image, higher quality, increased product variety and efficiency.

4. Outward FDI and competitiveness

Analysis of available information shows that investing abroad, in general, has contributed to increasing the competitiveness of Slovenian firms. Outward investing firms performed better than non-outward investing firms. For instance, profit as a percentage of sales is higher compared with non-outward investing firms (table 6). Although the average size of outward investors is significantly bigger than non-investors, only 15% of them were large firms. Firms with direct investment abroad were also more capital-intensive than non-outward investing firms (Jaklic and Svetlicic, 2003, pp.100-103). The major outward investors were among the 100 largest and most efficient Slovenian firms according to sales in 2004 (Finance, 2005). Improved exports, sales and efficiency were the main reasons accounting for the better performance of outward investing firms compared to non-outward investing ones.

Table 6. Selected performance indicators of Slovenian outward investors abroad and non-outward investors, 1994-1998

	Outward investors		No-outward investors	
	1994	1998	1994	1998
Operating profit as a share of net sales (%)	3.3	3.9	3.2	3.1
Net profits per equity (%)	1.5	2.4	1.3	1.1
Value added per employee (Sit billions)	2.22	3.85	3.46	3.21
Return on equity (%)	3.1	4.1	5.9	5.8

Source: Jaklic and Svetlicic (2003, p. 103).

There are risks involved in outward FDI, and not all overseas ventures have been successful (table 7). Outward FDI by chemical firms recorded the largest profits in 2004, followed by those in wholesale, financial intermediation and retail. With the exception of two loss-making activities, all major industries improved their performance in the last four years. Dividends have been constantly rising since 2000. The largest net profits were recorded in Liberia (€13.9 million) and Poland (€9.2 million), while Croatia, which has the largest stock of Slovenian outward FDI, recorded the largest loss amounting to €9.4 million (Bank of Slovenia, 2005b, pp. 29, 74, 75).

Table 7. Earnings/losses of selected Slovenia direct investors abroad, by activity, 2001-2004
(Millions of Euro)

Activity	2001	2002	2003	2004
24. Mfr. Chemicals &chemical products	3.1	2.4	8.5	17.1
51. Wholesale commission, not motors	-1.4	3.8	7.0	11.4
65. Financial intermediation, not insurance	3.8	1.7	5.5	6.7
52. Retail trade, not motor repair	-4.8	-9.9	-1.1	6.0
63.Support; transport; travel agencies	2.6	3.1	4.1	4.3
50. Sale repair etc.	5.5	4.9	5.5	4.3
17. Mfr. of textiles	-0.7	2.1	3.7	4.2
34. Mfr. of motor vehicles, trailers etc	-5.1	-0.6	-0.2	-12.6
15. Mfr. of food products & beverages	0.4	-1.6	-6.9	-15.4
Total	6.3	- 6.1	15.3	46.9

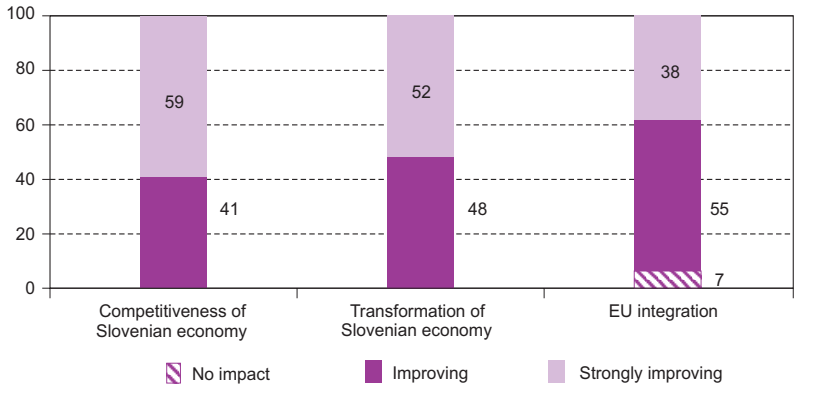
Source: Bank of Slovenia (2005, p.73).

Slovenian managers believe that internationalization through outward FDI strongly influences the domestic economy, improving national competitiveness, supporting transformation

and restructuring the economy (figure 3). The effects of outward FDI on enterprise competitiveness were far more important than other effects. Market-seeking investments resulted in increased market shares, growth of exports and domestic production. Outward FDI helped to enhance efficiency and corporate restructuring, although they were not necessarily the initial motives. Some Slovenian enterprises had introduced new and more differentiated products. Having a presence in a foreign market has helped Slovenian enterprises respond to customers' needs more rapidly.

In an econometric study (Jaklic *et al.*, 2005), investing abroad is also shown to have enhanced enterprise competitiveness. Investing firms' "premiums", defined as the average difference (in percentage) in various variables between outward investing firms and the control group in the same industry, are much higher compared to non-outward investors. Such premiums go up to over 100% in terms of employment and sales but not in terms of productivity. Premiums differ in terms of firms' size and other aspects. The largest are in employment in the case of micro and large firms, and sales in the case of small and large firms.

Figure 3. Impact of outward FDI on the Slovenian economy (managers' opinions)
(Percentage)



Source: Jaklic and Svetlicic (2003, p. 174).

In the period 1994-2002, premiums (in sales, profits, productivity) were the highest in the case of outward investors that started to establish affiliates abroad between 1998 and 2000, indicating that at least a two-year time lag is needed for assessing the results of such investment. An analysis of 634 new outward investors revealed that firms had significantly increased their sales in the second year (all firms including SMEs) after investing abroad.[18] They also increased profits (only small firms in the second year) and employment for medium size firms (negative for large firms) (Jaklic *et al.*, 2005, pp. 38 and 67).[19]

An evaluation of all state aid programmes promoting competitiveness and internationalization for the period 2001-2003 provides an even more positive picture of outward FDI performance (Deloitte and the Ljubliana Faculty of Economics, 2004). Most applicants assessed outward FDI projects as very successful. For instance, 76% of the 560 firms that responded to the survey undertaken for this evaluation[20] claimed that their competitiveness had increased; 60% had developed key technologies, 79% indicated that the value-added of their products had increased, and investment in knowledge and the development of human capital had been enhanced. According to the results of the evaluation, the levels of R&D expenditure and skilled labour intensity of Slovenian firms abroad were above the Slovenian domestic average and, their growth rate was above the average rate of Slovenian firms at home during the period 1997-2000 (Jaklic, 2004, p.13).

Outward FDI appears to be complementary to exports. As shown in table 8, the impacts of outward FDI were substantial increases in market shares, exports and production. Internationalization has boosted the development of outward investors, but less so in terms of employment. Our analysis indicates, however, that even in terms of jobs, either the situation

[18] The average effect of investment abroad was assessed by comparing investing firms with control firms.

[19] This may indicate that large firms are increasingly locating labour-intensive production abroad and consequently reducing the number of employees at home.

[20] The details of the sample are available in Deloitte and Faculty of Economics (2004).

has not changed or the outward FDI has created more new jobs overall than displaced existing ones. Furthermore, it does not appear to have reduced domestic investment (Jaklic and Svetlicic, 2003, p. 175).[21] Similarly, the survey of state aid programmes indicated that out of 442 new jobs created by outward FDI projects, only 32 would not have been created if no state aid had been provided. In addition, applicants' assessments indicated that some other jobs, which would otherwise have been lost had outward FDI not occurred, were retained (Deloitte and Faculty of Economics, 2004).

Table 8. Effects of foreign affiliates on the parent company
(Percentage of outward investors)

Effects on:	Strong increase	Increase	Unchanged	Decrease	Strong decrease
Market share	26	53	18	3	0
No. of employees	0	24	59	12	6
Exports	9	74	18	0	0
Imports	0	29	53	6	12
Production volume	9	68	24	0	0

Source: Jaklic and Svetlicic (2003, p. 165).

Slovenian transnational companies' competitive advantages lie in their superior marketing, technology and management skills (table 9). Technological superiority is a result of the much larger R&D expenditure of firms investing abroad compared to the average Slovenian company. Slovenian outward investors increased their R&D expenditures from 3.6% to 4% as well as the percentage of university-educated employees' in the period 1997-2000 (Jaklic and Svetlicic, 2003). The major managerial advantage is their experience of business in the familiar environment of the Western Balkans. Although managers claim that their competitive advantages are long-term and sustainable, a close analysis reveals that some of these advantages are temporary.[22] Therefore, they have to be exploited rapidly before other competitors enter the market. If their only

[21] The correlation coefficient of 0.2 between domestic and overseas investments was statistically significant and positive.

[22] For instance, many products are known to the older generation living in the former Yugoslavia, but not to the younger generation.

competitive advantages were business and marketing knowledge, these advantages would evaporate as soon as other foreign firms become familiar with the host country market. To sustain their advantageous positions, Slovenian firms need to upgrade their capability through technology advancement and new products/brands, among other measures.

Table 9. Competitive advantages of Slovenian investors abroad

Types of competitive advantages	No.	Min.	Max.	Mean	Std. Dev.	Skewness	Kurtosis
Technological know-how	38	1	5	3.9	0.96	-0.79	1.16
Organizational know-how	38	1	5	3.8	1.05	-0.78	0.36
Marketing know-how	39	1	5	4.2	0.97	-1.28	2.10

Source: Jaklic and Svetlicic (2003 p. 125).
Note: 1 = not important, 5 = very important

A number of case studies have shown that the management of companies played a crucial role in outward FDI decisions (Jaklic and Svetlicic, 2003, pp. 181-276).[23] Without the clear and ambitious visions of managers, successful internationalization would have been impossible. A realistic internationalization strategy, management with excellent training, adapted technology and their own R&D efforts[24] have proved to be the key success factors in most cases. Some managers have developed a very specific management style based on personal contacts and are highly assimilated in the cultures of the host countries.

5. Obstacles to outward FDI

Slovenian enterprises face many barriers in their internationalization. In terms of *home country barriers*, the available evidence suggests that enterprises consider the lack of government support as the most challenging factor.

[23] Seven in-depth case studies were prepared and others were evaluated in less detail.

[24] The largest Slovene investors invested from 2.5% to 10% of net sales in R&D. The average for all investors in the sample was 4.1% in 2001. (Jaklic and Svetlicic, 2003, p. 136).

Legislation and the general climate at home and in the host country are considered to play a role in deterring outward FDI. The slow privatization process that held back the internationalization of companies, especially during the early years of transition, was another impediment. Among *host-country barriers,* political instability, high economic risk, the lack of legal frameworks and slow administrative procedures are regarded as major obstacles.

During the transition, many large Slovenian outward investors underwent a disintegration process or found themselves in crisis, which forced them to close down their foreign operations. For affiliates abroad that had been established as 'system-escape' operations, the reasons for their existence simply disappeared. Unfriendly political and public opinion regarding outward FDI also discouraged managers from embarking on developing long-term international investment plans. The legislation itself prevented firms from investing abroad before their privatization was completed.

Following this, after the general business climate changed, firms' internal barriers were seen as being more important than external barriers. The biggest internal barrier to internationalization was the lack of experience, the capacity to manage risks and knowledge, including information on how to invest and operate abroad (table 10). The lack of financial resources was not considered a major barrier, partly because major outward investors are large firms. Therefore, it is not surprising that outward investors financed most of their investments from their own funds and reinvested earnings.[25] However, recently, this has become a more pronounced barrier, especially as SMEs seek to enter the outward FDI arena. They have much more limited access to financing at home.

Slovenian firms also face additional barriers compared with some other international investors. Public opinion initially considered investing abroad as unpatriotic. The relatively high

[25] Reinvested earnings constituted only about 1% of total flows in 2003, although almost all earnings abroad were reinvested.

quality of life in Slovenia makes it difficult to find experienced experts/managers who would be willing to go abroad. The high rate of employment among women, as a consequence of which many of them would be unwilling to discontinue their professional careers to accompany their husbands abroad (or vice versa), adds to this limitation. In short, in the long run, lack of human capital seems to be one of the biggest barrier to internationalization. Another one is the lack of cross-cultural management knowledge required for expanding business outside Europe.

Table 10. Selected micro barriers to outward FDI
(Percentage)

	Very important	Important	Not important
Lack of personnel	51.6	45.2	3.2
High risk	48.4	41.9	9.7
Lack of knowledge	32.3	41.9	25.8
Lack of own funds	30.0	36.7	33.3
Lack of government help	25.0	46.9	28.1

Source: Jaklic and Svetlicic (2003, p.153).

6. Outward FDI policy

Slovenia's policy framework for outward FDI has evolved over time, from the initial restrictive policy to the current generally encouraging regime. The country's legal framework for outward FDI has been adjusted in line with the European Union's regulations, and is regulated by the Foreign Exchange Act of 2 October 2003. The Act on Attracting FDI and Internationalization of Companies, which entered into force in August 2004, further demonstrated the shift of policy towards promoting such a form of international cooperation.

Three key outward FDI policy stages can be discerned in the 1990s:

(i) The inherited Yugoslav liberal regime – the absence of almost any specific regulations related to capital exports (1991-1993).

(ii) The "monitoring" stage – mostly as a response to certain negative aspects of outward FDI in the privatization process (end 1993-1994).

(iii) The gradual application of international standards in the field of outward FDI with full liberalization (Foreign Exchange Law, 1999).

Initially, only legal entities were allowed to establish companies abroad, and a permit to do so was required. In 1993, the Slovenian Parliament passed a more liberal Foreign Trade Law (subsequently amended in 1994 and 1995). After initiating negotiations with the EU by signing the Association Agreement (1996), the process of harmonizing financial and foreign trade legislation started. Liberalization was then driven by the Association Agreement, rather than any specific industrial policy.

In April 1999, Slovenia adopted a new Foreign Exchange Law which was a major step towards the full liberalization of capital flows – adopting a domicile approach and phasing out all restrictions on outward FDI. Outward FDI became to be seen as a restructuring instrument and was to be promoted. In 1999, the then Ministry of Economic Affairs introduced a new concept of industrial policy – enterprise and competitiveness development. The newly created Ministry of the Economy (ME) sought to expand exports and to enhance the internationalization of SMEs' businesses through attracting strategic foreign investment and promoting outward FDI by Slovenian companies. In 2002, a special promotional programme for outward FDI was launched[26] as part of the promotion of entrepreneurship development and competitiveness.[27] The programme attracted

[26] Firms could receive support for (i) the preparation of projects up to the registration of an affiliate abroad (feasibility studies, training); and (ii) starting-up operations abroad and the strengthening of development work in the parent company (financing of mentors, production start-up costs, material investments etc.).

[27] Altogether 17 programmes were included; of which two were for stimulating exports by SMEs and one was for stimulating inward FDI.

a large number of projects and all the designated funds were allocated.

Table 11. Evaluation of the outward FDI programme

	2003	2004
Number of applications	100	79
Number of projects approved	48	63
Number of SMEs receiving state aid (share in value)	28 (36%)	38 (42%)
Approved state aid (millions of Euro)	1.7	2.1
Total value of projects (millions of Euro)	19.79	10.33
Share of state aid in total project costs (%)	0.68	2.03
Share of this programme in all state aid programmes (value; %)	6.3	11.4

Source: Andric (2003, pp. 8-9; 2004, pp. 7-8).

The Act on Attracting FDI and the Internationalization of Companies (August 2004) can be considered as a first sign of a new policy of actively promoting outward FDI. This received further momentum when the government acknowledged the deteriorating competitive position of Slovenia[28] and increasingly recognized the important role of outward FDI in improving competitiveness. The policy of the government since December 2004 has been to provide specific support for outward FDI, which includes (i) a programme for the internationalization of firms 2005-2009 and (ii) a programme on the establishment of new business representative offices abroad.

The Government has also signed bilateral investment treaties so far with 47 countries, covering all major destination countries for outward FDI, including India and China.[29] Conventions on the elimination of double taxation with 35 countries are also in force.

7. Conclusion

The systemic factors explaining the early internationalization of Slovenian firms also explain the reverse

[28] Of these, 12 are in countries where economic counsellors are already located while four will be those of the PAEFI.

[29] There is no such treaty with Brazil, however.

sequence of Slovenian internationalization (outward FDI started before inward FDI). Slovenian firms are investing abroad through greenfield investment as well as through acquisition, particularly that of privatized assets. The major Slovenian outward investors are large and medium-sized firms, although smaller ones, following a niche strategy, are catching up in terms of number. At first glance, some of these firms, including SMEs, appear to be "born global" although their level of internationalization is still very limited. Such companies may be "born multinational", but that does not apply to their management, which comes mostly from large (previously socialist) companies where they acquired their basic knowledge of internationalization. Most of the firms investing abroad are "leapfrogging globals", i.e. they become global in a very short time by jumping over some stages predicted by evolutionary models.

The strongest advantages of Slovenian firms, particularly in countries of the former Yugoslavia, are partly inherited from earlier periods and partly developed later by faster transition. Their "leapfrogging" internationalization is strongly motivated by the desire to attain a first-mover advantage, since the firms' competitive advantages in these markets are in knowing how to do business and having networks in neighbouring countries. Some advantages are temporary in nature and must be enhanced with firm-specific marketing, organizational and technological advantages.

The search for markets has been a major motive for outward FDI. Efficiency-seeking FDI has only begun to pick up over the past few years, indicating that firms are perhaps slow in responding to rapid changes in the global economy. After harmonizing the outward FDI regime with the EU's regulations, firms' internal factors are becoming the main barriers to outward FDI. Even for larger firms, the lack of experienced managers who are willing to go abroad has become a major impediment. However, for SMEs, particularly newcomers, the lack of capital is an additional problem.

Most of the accumulated stock of FDI has been in countries of the former Yugoslavia. Although it is still too early to evaluate many of the relatively young outward FDI projects, the high satisfaction of outward investors suggests that they are on their way to achieving their objectives. There have been very few outright failures. Outward FDI has enhanced firms' competitiveness, helped develop new products and services, increased exports and generated employment at home and abroad. The most successful Slovenian outward investors (e.g. Gorenje, Kolektor, Krka and NLB) are now competing in the world market with TNCs from developed economies. Outward FDI is therefore instrumental for the growth of Slovenian firms and for the growth of the country's economy. ■

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Annex

Annex table 1. Slovenia: outward FDI stock, by destination, 1994-2004 (Millions of Euro)

	1994	1997	1998	1999	2000	2001	2002	2003	2004
Total stock year-end	289.0	416.0	543.0	625.0	825.0	1,139.0	1,470.0	1,889.0	2,231.0
Former Yugoslavia	205.0	282.0	366.0	408.0	530.0	664.0	855.0	1101.0	1,269.2
Croatia	157.3	219.8	292.9	307.7	380.2	452.2	530	617.3	679.1
Bosnia and Herzegovina	12.0	17.7	21.6	32.4	67.9	109.5	170.0	208.6	217.0
Serbia and Montenegro	22.7	26.7	29.9	28.2	31.9	49.0	95.0	205.7	291.6
TFYR Macedonia	13.0	17.5	21.4	39.2	50.1	53.3	60.0	75.7	81.5
CEECs	25.1	55.9	61.1	87.2	120.1	179.4	227.0	272.2	300.1
Poland	10.8	29.4	33.3	48.3	60.7	89.0	101.0	117.0	132.8
Russian Federation	3.9	8.4	7.9	10.3	19.6	39.2	56.0	67.0	76.3
Romania	0.3	2.2	3.8	4.6	5.9	14.2	22.0	21.6	25.2
Bulgaria	0.1	0.4	0.5	0.7	1.2	2.1	9.0	20.3	4.5
Czech Republic	2.0	8.1	3.8	4.5	13.0	13.9	14.4	19.3	25.5
EU	33.2	43.2	77.9	96.0	117.5	210.6	303.7	359.6	484.0
Netherlands	3.0	-0.2	0.8	0.4	-0.6	19.3	103.5	146.3	252.8
Germany	24.9	31.1	37.1	43.6	44.1	99.6	108.8	105.9	104.4
Austria	7.8	14.6	28.5	26.2	41,0	57.6	62.5	65.9	81.5
Others	25.3	35.6	38.1	34.0	57.6	85.2	76.7	115.7	156.0
United States	11.3	20.5	15.6	21.4	27,9	41.0	23.2	80.3	54.9
Liberia	13.5	26.0	15.5	22.6	25.9	27.0	20.0	19.7	32.6

Source: Bank of Slovenia (2004, p. 57) and Bank of Slovenia (2005b, p.57) for 2004.

Note: These figures do not include real estate owned by Slovenian households abroad (mainly real estate in Croatia); claims on other countries within the territory of former SFRY that are the subject of negotiations on succession; expropriated assets within these territories; and other assets transferred to the Government of Slovenia during the privatization process.

Annex table 2. Slovenia companies with direct investment abroad, by main destinations, 1996-2004
(Cumulative number)

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total	503	508	553	567	627	779	929	943	959
Former Yugoslavia									
Croatia	323	344	386	397	428	519	615	626	621
Serbia and Montenegro	72	76	77	73	80	128	207	244	287
Bosnia and Herzegovina	65	78	89	109	139	176	201	204	203
TFYR Macedonia	66	68	63	61	63	69	80	83	81
EU-15									
Germany	85	77	73	65	70	65	78	74	78
Austria	92	62	59	52	59	54	55	53	60
Italy	49	48	43	39	43	49	47	40	44
United Kingdom	8	8	7	8	11	12	15	18	19
Netherlands	5	5	6	4	5	7	8	23	35
CEECs									
Hungary	34	26	24	23	27	31	32	28	30
Czech Republic	28	28	30	26	28	34	33	31	32
Russian Federation	21	20	23	24	27	30	33	34	45
Poland	11	13	15	15	20	27	27	28	27
Others									
United States	25	24	22	27	31	39	40	34	30

Source: Bank of Slovenia (2005b, p. 65).

Annex table 3. Slovenia: outward FDI stock, by industry, 1994-2004
(Millions of Euro)

	1994	1997	1998	1999	2000	2001	2002	2003	2004
Mfr. chemicals and chemical products	35.2	51.9	74.2	104.9	143.2	195.5	244.9	337.8	349.4
Other business activities	16.1	23.7	43.2	59.7	60.6	99.3	243.8	291.8	362.0
Retail trade, excl. motors; repairs	8.2	-12.7	7.6	13.0	68.4	125.1	152.1	212.5	238.7
Mfr. of machinery and equipment nec.	11.6	45.2	57.6	65.5	87.3	105.4	115.0	125.8	141.2
Mfr. of food products and beverages	24.8	29.1	31.6	39.4	68.7	86.9	101.7	113.5	108.2
Financial intermediation, excl. insurance	33.5	72.2	68.7	73.9	83.0	106.0	91.5	99.9	166.1
Manufacture of textiles	-2.5	6.2	-2.9	0.5	6.7	54.5	63.2	84.3	69.6
Wholesale, commission, excl. motors	47.4	43.2	35.0	33.3	25.5	37.6	52.9	61.4	113.6
Mfr. of motor vehicles, trailers etc.	-10.9	5.8	28.2	17.1	17.7	36.9	39.3	52.3	52.4
Support transport; travel agencies	4.6	7.5	8.3	16.6	21.5	34.0	42.7	46.3	50.3
Sale, repair etc. motors; fuel	-22.6	-35.3	-6.8	-15.6	-19.1	-3.1	-4.2	44.0	90.3
Total above activities	145.4	236.8	344.7	408.3	563.5	878.1	1142.9	1469.6	1,211.2
Total outward FDI	288,6	416,2	542,8	624,7	825,3	1.139,2	1,461,5	1.848,9	2,200.3

Source: Bank of Slovenia (2004, p. 68).

Annex table 4. Level of internationalization of Slovenian firms included in the list of the top 25 non-financial TNCs from Central and Eastern Europe, plus Kolektor and Prevent, 2004

	Internationalization index*	Network spread index**	Transnationality index***
Interevropa	75 (with branch off. 117)	5.1	40
Iskraemeco	90 (with ass.comp. 100)	8.2	38
Kolektor	42	4.1	48
Krka	93	6.2	55 (without assets)
Gorenje	67	11.2	50 (53 after acquisitions in 2005)
Mercator	24	1.5	16
Merkur	80	4.1	15
Prevent	30 (with branch off. 117)	4.1	54
Petrol	42 (45 without parent comp.)	2.6	11
Average	60	5.2	36
Memorandum: average for 100 largest non-financial TNCs	65.46	17.93	n.a.

* Internationalization index; number of foreign affiliates/number of all affiliates x 100

** Network spread index = number of host economies/number of potential host economies (those having inward FDI stock; for 2003 this is 195); see UNCTAD 2004, p. 280

*** Transnationality index = is average of 3 ratios: foreign assets to total assets; foreign sales to total sales; and foreign employment to total employment*100; see UNCTAD 2004, p. 317

Annex table 5. Level of internationalization of Slovenian firms included in the list of the top 25 non-financial TNCs from Central and Eastern Europe, plus Kolektor and Prevent. 2004

	Foreign employment/ total employment	Foreign assets/ total assets	Foreign sales/ total sales
Interevropa	0.40	0.20	0.59
Iskraemeco	0.15	0.08	0.91
Kolektor	0.28	0.32	0.85
Krka	0.30	n.a. for assets	0.79
Gorenje	0.09 (0.18 after acq. in 2005)	0.48	0.94
Mercator	0.15	0.21	0.13
Merkur	0.11	0.06	0.15
Prevent	0.49	0.31	0.82
Petrol	0.11	0.12	0.09
Average	0.23	0.22	0.59

Note: Data for 2004 based on annual reports, data available on the Internet and direct communications with firms. Data for groups refer to consolidated balances.

Outward foreign direct investment by enterprises from Thailand*

Kee Hwee Wee**

This article examines the development of Thai enterprise internationalization through outward FDI. It analyses the main drivers, the impact on enterprise competitiveness, the policy framework, the institutional measures supporting and the obstacles limiting Thai outward FDI. The article concludes by offering policy suggestions to enhance outward FDI by Thai enterprises.

Key words: Outward foreign direct investment, Thailand, Thai enterprises, regional integration, enterprise competitiveness, enterprise internationalization, South-South cooperation

1. Introduction

Foreign direct investment (FDI) by indigenous Thai firms has received little attention to date, although the notable rise in the level of Thai enterprise internationalization since the late 1980s is now beginning to interest scholars (Pananond, 2001, 2004; Somkiat and Suthiphand, 1997) and private sector organizations (e.g. Federation of Thai Industries) interested in the development of Thai firms' overseas activities.

Thai enterprises are internationalizing for different reasons, depending on the industries they operate in; the years of experience in internationalization; the extent of overseas

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business networks; and the purpose of undertaking FDI. In general, the main motive is market-seeking, which includes extending market reach, supporting distribution and expanding trade channels. Efficiency-seeking outward FDI is not a significant feature of Thai enterprise internationalization but it may develop in the future and is an area worth monitoring. Resource-seeking FDI by Thai enterprises is limited. In terms of geographical spread, most Thai outward FDI is in Asia. Thus, Thai transnational corporations (TNCs) are mostly regional entities and they play a role in strengthening regional integration and South-South cooperation. The prospect for Thai outward FDI is promising given the encouragement of the Government, the maturing of more Thai firms with interest in venturing abroad, improvement in corporate financial situations and regionalization factors pulling Thai firms to invest overseas.

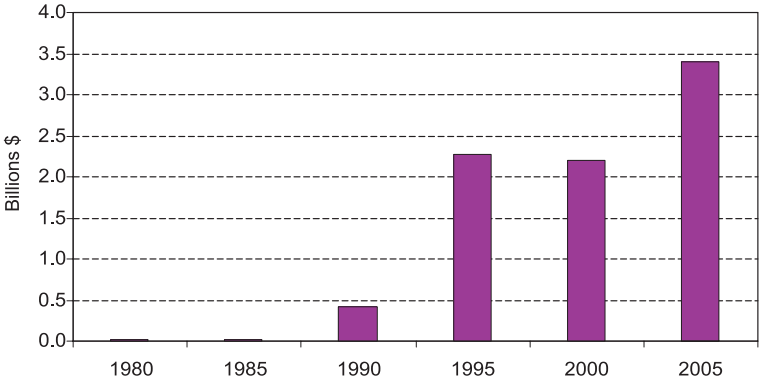
This article examines the development of Thai enterprise internationalization through outward FDI. It analyses the main drivers, the impact on enterprise competitiveness, the policy framework, institutional measures supporting and obstacles limiting Thai outward FDI. The article concludes by offering policy suggestions to enhance outward FDI by Thai enterprises.

2. Thai outward FDI: trends and development

Thailand is not yet a significant outward investor compared with economies such as Brazil, China, Hong Kong (China), Republic of Korea and Malaysia. But its outward FDI is growing and it is certainly an economy with a significant outward FDI potential. The outward FDI stock held by Thai firms rose from $12.9 million in 1980 to $3.9 billion in 2005, making it the 26th most active emerging economy investor (figure 1, table 1). Most Thai outward FDI has been undertaken by large enterprises, often publicly listed companies.[1]

[1] Such enterprises include, for instance, *Amata, Baiyoke, CP, Bangkok Bank, Bangkok Airways, Thai President Foods, Banpu, Loxley, Jasmine, Saha Union, S&P, Coca Restaurants, MK Restaurants, Pranda Jewelry, Thai Union and Siam Cement*.

Figure 1. Thailand: OFDI stock, 1980, 1985, 1990, 1995, 2000 and 2005
(Billions of dollars)



Source: UNCTAD (2006).

The lack of data hampers analysis of outward FDI by Thai small and medium enterprises (SMEs), but this does not mean that they do not invest overseas. Their affiliates are likely to be found in a few selected industries (e.g. the restaurant business) and tend to invest in neighbouring countries because of geographical proximity and cultural affinity.

Enterprise internationalization through outward FDI is not new for Thailand. Thai outward FDI dates back to at least as far as the 1950s (e.g. Bangkok Bank), but remained limited during the first three decades. A lack of understanding in conducting international business, a restrictive outward FDI regulatory framework (foreign exchange control) and the limited number of Thai enterprises with the capability to internationalize, including the lack of ownership advantages, accounted for the low level of overseas investment in the early period. Outward FDI from Thailand became more prominent only after the late 1980s (figure 2). Four distinctive phases of Thai outward FDI can be discerned[2]:

[2] This paper acknowledges that studies by Pananond (2001, 2004) were useful in understanding the trends of earlier Thai outward FDI.

- The first phase (***early stage***) before the first half of the 1980s saw a limited amount of Thai investment abroad. Much of the overseas investment during this phase went to a few key destinations such as the United States, Hong Kong (China), Singapore and Japan in that order (table 2). These four economies accounted for over 85% of the net Thai equity capital investment abroad. Thai outward FDI to Europe was negligible. Most Thai outward FDI at this stage was undertaken by financial institutions in response to the Government's strict capital control in place at that time, which drove Thai banks to establish overseas branches in key trading partner countries and financial centres, such as Hong Kong (China) and Singapore (table 3; Viraphong 1992; Pavida 2004). Manufacturing and resource-seeking outward FDI was negligible. The limited pool of Thai enterprises with capacity to invest abroad and the focus of Thai enterprises to build a strong foundation at home constrained Thai outward FDI during this period.

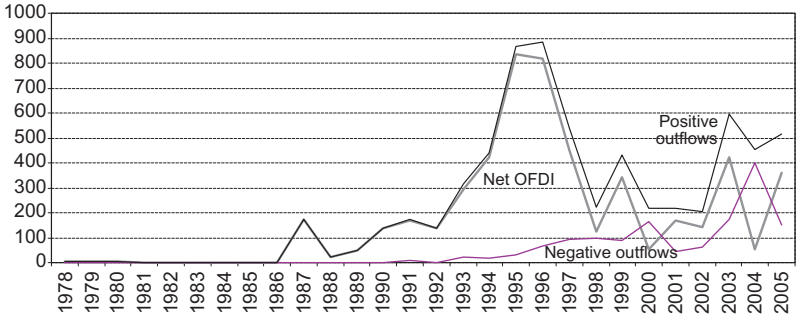
Table 1. Top 30 OFDI emerging economies, 2005
(Billions of dollars)

Rank	Economy	2005
1	Hong Kong, China	470.5
2	British Virgin Islands	123.2
3	Russian Federation	120.4
4	Singapore	110.9
5	Taiwan Province of China	97.3
6	Brazil	71.6
7	China	46.3
8	Malaysia	44.5
9	South Africa	38.5
10	Korea, Republic of	36.5
11	Cayman Islands	33.7
12	Mexico	28.0
13	Argentina	22.6
14	Chile	21.3
15	Indonesia	13.7
16	Panama	12.9
17	Venezuela	10.7
18	United Arab Emirates	10.1
19	India	9.6
20	Colombia	8.9
21	Turkey	8.1
22	Bermuda	6.0
23	Kuwait	5.4
24	Bahrain	5.1
25	Nigeria	5.0
26	Thailand	3.9
27	Saudi Arabia	3.7
28	Azerbaijan	3.7
29	Lebanon	2.7
30	Croatia	2.1

Source: UNCTAD (2006).

- The second phase (***take-off stage***) took place between 1986 and 1996 when Thai outward FDI increased rapidly, both in terms of volume and the range of host countries. Thai companies ventured further afield to such locations as

Figure 2. Thailand: Net outward FDI flows, 1978-2005
(Millions of dollars)



Source: Bank of Thailand.
Notes: Figures for 2004 and 2005 are preliminary.
Positive outflows refer to equity flows and intra-company loans of outward FDI by Thai firms.
Negative outflows refer to the repatriation of equity capital and intra-company loans by Thai firms abroad.

Australia, Canada and the Maldives, as well as European countries and offshore financial centres (Cayman Islands and British Virgin Islands). While the United States and Hong Kong (China) continued to be the principal host economies, other Asian countries, particularly ASEAN countries, have emerged as significant destinations.

Although the ASEAN region as a whole was the primary destination for Thai outward FDI, the interest of Thai enterprises in investing in China grew rapidly. Geographical proximity and cultural affinity, along with regional integration (i.e. the creation of AFTA) and the aspiration of Thai firms to be more regionally present, played a role in influencing the geographical concentration of Thai FDI. The cost advantage and large market size, including investment and business opportunities in China and other ASEAN countries, contributed to the growing interest of Thai firms to invest or to be present in these host countries. In particular, low cost ASEAN countries (Cambodia, Lao PDR, Myanmar and Viet Nam) attracted a significant

Table 2. Top destinations of Thai OFDI, 1978-1985, 1986-1996, 1997-2002, 2003-2005
(Millions of dollars)

1978-1985		1986-1996		1997-2002		2003-2005	
Total	18	Total	2951	Total	1123	Total	753
United States	8	ASEAN	854	ASEAN	539	ASEAN	366
Hong Kong, China	6	Philippines	277	Singapore	359	Singapore	197
Singapore	1	Singapore	169	Viet Nam	90	Philippines	50
Japan	1	Indonesia	107	Indonesia	26	Viet Nam	42
		Viet Nam	93	Philippines	26	Indonesia	32
		Lao PDR	84	Cambodia	25	Malaysia	24
		Cambodia	66	Myanmar	17	Myanmar	10
		Myanmar	35	Malaysia	6	Cambodia	8
		Malaysia	23	Hong Kong, China	140	Lao PDR	4
		United States	571	China	101	China	139
		Hong Kong, China	540	Ireland	38	United States	29
		China	283	Luxembourg	10	Switzerland	23
		Germany	118	Belgium	3	Luxembourg	19
		United Kingdom	93	Austria	1	United Kingdom	16
		Italy	11	Denmark	1	Lithuania	9
		Netherlands	11	United Kingdom	1	Portugal	5
		Luxembourg	9	Taiwan Province of China	23	Netherlands	3
		France	7	United States	22	Belgium	2
		Denmark	5	Australia	9	Hong Kong, China	15
		Austria	3	Japan	7	Japan	10
		Australia	37	Republic of Korea	2	Australia	7
		Japan	10				
		Taiwan Province of China	8				
		Canada	6				

Source: Bank of Thailand.
In terms of cumulative net outflows of Thai equity investment abroad in each period.

Table 3. Thailand: net outflow of equity investment abroad, by industry, 1978-1985, 1986-1996, 1997-2002, 2003-2005
(Millions of dollars)

	1978-1985	1986-1996	1997-2002	2003-2005
Total	18	2951	1123	753
Industry	1	1018	396	346
Food & sugar	0	183	99	55
Textiles	1	65	3	8
Metal & non metallic	0	215	42	19
Electrical appliances	0	353	52	39
Machinery & transport equipment	0	42	20	34
Chemicals	0	42	107	36
Petroleum products	0	5	0	7
Construction materials	0	46	34	-2
Others	0	67	39	150
Financial institutions	13	402	43	56
Trade	2	124	163	77
Construction	0	49	-23	5
Mining & quarrying	0	19	3	19
Agriculture	0	29	20	12
Services	-1	585	64	73
Investment	0	392	405	147
Real estate	0	286	2	27
Others	3	48	52	-8

Source: Bank of Thailand.

amount of attention from Thai enterprises (table 2; NESDB and UN, 2004, p.55). Thailand is an important source of FDI for these neighbouring countries.

Thai outward FDI in manufacturing and service activities became visible at this stage. Strong economic growth during this period increased the pool of Thai enterprises with sufficient financial capability to venture abroad. The financial liberalization in the early 1990s, the removal of foreign exchange controls, the establishment of the Bangkok International Banking Facilities (BIBF) and easier access to financial markets contributed to the rapid growth of Thai outward FDI.[3]

[3] The BIBF was established in 1992. It permits both local and foreign commercial banks in Thailand to take deposits or borrow in foreign currencies from abroad, and make loans in Thailand and abroad.

- The third phase (***financial crisis impact stage***), which covers the period 1997 to 2002, saw a dramatic decline in Thai outward FDI due to the impact of the financial crisis, which significantly affected the ability of Thai enterprises to invest or maintain their investment abroad.[4] Thai outward FDI to China, Europe, Hong Kong (China) and United States fell considerably and flows to ASEAN during this period also fell by 36% in absolute terms, compared with the period before the financial crisis (1986-1996).

  Thai companies that borrowed heavily in foreign currencies to finance corporate expansion were severely affected by the crisis when the Baht was floated in 1997 and, subsequently, suffered an unprecedented depreciation against major foreign currencies. This situation significantly increased the debt obligation of Thai firms in local currency terms and some had to restructure their debts with creditors (e.g. Jasmine International Overseas)[5] and/or sell off their overseas assets.

  During this crisis period, corporate consolidation to improve financial positions and to ensure survival in the domestic market was essential for the parent companies. Consequently, many Thai enterprises reduced their outward FDI activities. The development of Thai outward FDI at this stage was characterized by a significant narrowing of the gap between outflows of funds (i.e. outflows of equity and disbursement of intra-company loans to Thai firms abroad) and inflows (i.e. repatriation of equity and repayment of intra-company loans by Thai firms abroad to parent company in Thailand) (figure 2).[6] This suggests that funds were more actively repatriated by Thai affiliates abroad because of the pressing financial position of the

[4] The financial crisis took place in the middle of 1997 and the impact of the crisis on Thai economy and enterprises was felt throughout the subsequent few years.

[5] Jasmine International PCL (http://www.jasmine.com/jasmineweb/html/milestones.html).

[6] Including repatriation of funds arising from complete or partial disinvestment in foreign affiliates.

parent companies at home. This period also witnessed a surge in the sales of Thai assets abroad (four times more than the pre-crisis period 1990-1996), reflecting the financial consolidation strategy pursued by Thai enterprises. Sales of overseas assets by Thai enterprises were 15 times the number of Thai M&A purchases in the same period. These extensive liquidations of Thai assets abroad, which took place mainly in developed countries (the United States and Japan) and were concerned with finance, telecommunication, utilities and manufacturing activities (table 4), contributed to the decline in Thai outward FDI stock in 2000 (figure 1).

Almost all industries experienced a sharp decline in outward FDI except for trade and investment activities (e.g. investment in holding companies, investment in associated companies abroad). Thai construction enterprises that started to invest abroad in the pre-crisis period repatriated

Table 4. M&A sales by Thai enterprises abroad, 1990-1996, 1997-2002, 2003-2005
(Number of deals)

	1990-1996	1997-2002	2003-2005
Total industry	60	247	104
Primary	3	6	3
Mining, quarrying and petroleum	2	6	2
Secondary	18	100	35
Food, beverages and tobacco	0	6	1
Textile, clothing and leather	0	6	3
Chemicals and Allied Products	5	12	2
Stone, Clay, Glass and Concrete Products	1	8	2
Metal and Metal Products	1	13	4
Electrical and electronic equipment	2	11	5
Motor vehicles and other transport equipment	3	16	3
Services	39	141	66
Electric, Gas, and Water Distribution	0	15	2
Construction	0	5	0
Trade	5	9	2
Transport, storage and communications	2	16	7
Finance	23	78	37
Investment & Commodity Firms, Dealers,Exchanges	18	57	31
Insurance	4	10	2
Business activities	6	14	15

Source: UNCTAD, M&As database.

a significant amount of funds back to Thailand during the crisis period. Despite the decline, Thai outward FDI at this stage was greater than in the earlier periods.

- The fourth phase ***(recovering stage)***, which started in 2003, saw a recovery in outward FDI. ASEAN and China were the main recipients. FDI to Europe and the United States began to pick up but remained at a low level. Manufacturing was the most active sector for Thai outward FDI. Stronger economic growth at home, improved corporate financial positions and the need to access new markets encouraged Thai companies to venture overseas.[7] The prospect for Thai outward FDI is encouraging given the number of recent policy announcements to support outward FDI, increased institutional support facilities, recovery from the financial crisis, improved Thai enterprises' capacity to venture abroad, and the conclusion of regional and bilateral free trade agreements.

While most Thai outward FDI is in the form of greenfield investment, Thai enterprises are also entering foreign markets through M&As (table 5).[8] Market entry through M&A remains limited compared with firms from other mature developing economies, but it shows the increasing financial capability of Thai firms to acquire foreign assets abroad. M&A purchases by Thai enterprises dropped considerably in the crisis impact stage, particularly in the period 1997-1998. Most M&A purchases before, during and after the financial crisis were in Asia, namely ASEAN, China and Hong Kong (China) and in the services sector (finance, investment, transport and communication) (table 6).

[7] "More Thai firms to expand abroad", *Bangkok Post*, 4 October 2004.

[8] To cite some examples between 2003 and 2006, the Landmark Group acquired the Regent Hotel (United Kingdom) for $115 million; Boon Rawd Brewery took a 30% stake in Wan Li Beer (China); Banpu acquired a 35% stake in Indominco Mandiri (Indonesia) for $10.5 million; PTT acquired a 50% stake in both Subic Energy Co. Ltd. and Subic Bay Distribution Inc. in the Philippines; and Bangkok Bank acquired a 10% share of People Insurance of China.

Table 5. Thailand: Cross-border M&A purchases by Thai companies, geographical distribution, 1990-1996, 1997-2002, 2003-2005, 1990-2005
(Number of deals)

	1990-1996	1997-2002	2003-2005	1990-2005
World	37	16	23	76
Developed countries and territories	14	4	3	21
France	2	0	0	2
United Kingdom	5	1	0	6
United States	2	1	0	3
Australia	1	0	1	2
Japan	1	1	0	2
Developing countries and territories	23	12	20	55
Asia and Oceania	21	12	19	52
China	2	3	3	8
Hong Kong, China	4	1	2	7
India	0	0	2	2
Indonesia	3	4	1	8
Philippines	5	1	2	8
Singapore	5	0	4	9

Source: UNCTAD, M&As database.

Table 6. Thailand: Cross-border M&A purchases by Thai companies, industry distribution, 1990-1996, 1997-2002, 2003-2005, 1990-2005
(Number of deals)

	1990-1996	1997-2002	2003-2005	1990-2005
Total industry	37	16	23	76
Primary	1	0	3	4
Secondary	12	6	7	25
Food, beverages and tobacco	1	1	3	5
Textile, clothing and leather	0	2	0	2
Printing, Publishing, and Allied Services	3	0	0	3
Oil and Gas; Petroleum Refining	1	1	0	2
Chemicals and chemical products	1	1	0	2
Electrical and electronic equipment	1	0	3	4
Motor vehicles and other transport equipment	1	0	1	2
Services	21	10	13	44
Construction	2	0	1	3
Hotels and restaurants	4	0	1	5
Trade	1	1	0	2
Transport, storage and communications	7	1	2	10
Finance	7	6	6	19
Unknown	3	0	0	3

Source: UNCTAD, M&As database.

3. Drivers and motivations

The motives driving outward FDI by Thai enterprises are a combination of inter-related reasons (table 7). They vary between firms, depending on the industry they operate in (e.g. textiles vs. restaurant business; manufacturing vs. resource base), the years of experience in internationalization (experienced internationalized firms have a higher tendency to locate further and to diversify their outward FDI activities than newer ones), the extent of overseas business networks (business contacts and networks facilitate outward expansion) and the purpose of outward FDI.

The desire to grow, expand markets and support trade and distribution channels were and still are the main drivers of Thai outward FDI. Hence, for both early and present Thai outward FDI, the market-seeking motive is significant. For instance, A&J Beauty Products Co. Ltd expanded overseas, through joint-venture arrangements, to market its cosmetics and hair-care products in the United States and France;[9] Siam Cement invested in the ASEAN region to strengthen its market presence and to be more effective in servicing the emerging markets in the region. Outward FDI by firms such as Amata, Loxley, S&P, Siam Cement, Saha Union and Thai Union was also driven by market-seeking motives (table 7). Efficiency-seeking outward FDI is a relatively recent development and has been due to the increasing cost of operating in Thailand in some industries (e.g. textiles, jewellery). The Thai firm, Pranda Jewelry, for instance, invested in China, Indonesia and Viet Nam, partly because of rising costs. However, cost in itself is not the major reason for Thai outward FDI.

In general, Thai firms invest abroad to increase competitiveness through extending their market reach, exploiting/strengthening their brand (S&P, Siam Cement) and ownership advantages such as business experience, skills or technological know-how (Amata, Thai President Foods, Pranda

[9] "Thailand retailer Jae Leng set to expand at home and overseas", *Bangkok Post*, 10 April 2004.

Table 7. Profiles of Selected Internationalizing Thai Enterprises

Name	Industry	Drivers/Motives	Overseas geographical spread	Activity abroad	International experience
Amata	Industrial estate developer	· Expansion of business abroad in light of opportunities · Build on experience of the company in industrial estate development · Growth prospects of host country	· Limited. Only in neighbouring country (Viet Nam).	Industrial estate developer	Fairly recent
Bangkok Bank	Banking	· Aspires to be a leading regional bank · Build banking network · Expansion to new markets · Grow customer base · Investment opportunities in host countries	· Have 21 overseas activities. Mainly in Asia. Have operations in United Kingdom and the United States.	Mainly banking	Dates back to 1950s.
Charoen Pokphand	Agro-business and food industry	· Market-seeking · Support trade and distribution channels · Vision to be a global agrifood company · Exploit long term internationalization experience · Investment opportunities in host countries · Business networks and connections abroad	· Extensive overseas investments in some 20 countries. Mainly in Asia.	Mainly agro-industry related activities. Have diversified into other activities abroad, such as in restaurants and shopping malls), particularly in China.	Since 1970s
S&P	Food and restaurant	· Market seeking · Better control of value chains · Expand market base · Increase brand awareness	Have 17 overseas branches. Mainly in the United Kingdom, Switzerland, Singapore and Taiwan Province of China.	Restaurant business.	Since 1990.
Saha Union	Conglomerate. Started as manufacturer of textiles and accessories	· Market-seeking (especially in energy and textiles activities) · Opportunistic investment (energy activities and international schools) · Cost reduction especially in textiles manufacturing in China · Access and secure raw material supplies · Strengthen marketing and distribution channels · Business networks connection	Extensive but with most overseas activities concentrated in China.	Expanded into other activities abroad such as in energy and international schools operation (particularly in China). Have overseas investments in textiles activities and distribution business.	Started since 1972.

/...

Table 7. Profiles of Selected Internationalizing Thai Enterprises (concluded)

Name	Industry	Drivers/Motives	Overseas geographical spread	Activity abroad	International experience
Siam Cement Group	Conglomerate	· Market seeking · Expand market base and the need to be present in key markets · Regional integration factors · Aspires to be a regional industry leader · Strengthen trade and distribution channels · Better control of value chains · Sourcing of raw materials	Extensive but mainly in Asia with greater concentration in ASEAN.	Cement production and distribution. Chemical production and distribution. Production of building materials.	Visibly since 1990.
Thai Union	Food	· Market-seeking · Expansion of market presence · Strengthen distribution channels · Strive for growth in revenues and profits · Aspire to be in leadership position in seafood industry	· Limited. Mainly in China and the United States.	Distribution of seafood products and holding company activities.	Since the 1990s.
Thai President Foods	Food	· Market-seeking · Strengthen sales and distribution channels · Exploit the skills and technological know-how in instant noodles making	Have several joint investments, mainly in Asia.	· Manufacturing and selling instant noodles through joint ventures. · Marketing and distribution activities.	Since 1991.
Loxley	Conglomerate	· Market-seeking · Expand business	Limited. Mainly in neighbouring countries.	· Joint venture in manufacturing of soft drinks. · Trading activities	..
PTT	Oil and gas	· Market-seeking · Access to natural resources · Strengthen distribution channels · Better control of value chains (e.g. control of petrol service stations).	Has significant investment overseas. In the area of natural gas and oil marketing, it has overseas investment in ASEAN countries and in China (Annex table 12). In the area of oil exploration and production, it has overseas activities in Asia and the Pacific, Middle East and Africa.	· Marketing and distribution · Exploration, development and production of oil and gas	More visibly in the early 2000s.

Sources: Author, compiled from the respective company's reports and websites.

Jewelry); to take advantage of emerging investment opportunities in host countries (Saha Union); and to relocate to a low-cost country.[10] Labour-intensive production (e.g. garments) is gradually being relocated to countries with abundant low-cost labour, such as Cambodia and Lao PDR (Ministry of Foreign Affairs of Thailand and the United Nations Country Team in Thailand 2005, p. 40). For instance, Saha Union's investment in textiles manufacturing in China was motivated by the cost factor as was Pranda Jewelry's investment in neighbouring countries.[11]

Resource-seeking FDI by Thai firms is still limited and dominated by large industrial conglomerates (e.g. Siam Cement, Saha Union) and government linked companies (e.g. PTT). Thai outward FDI in the primary sector is much smaller compared with the manufacturing and services sectors (table 3). Banpu and other Thai companies have invested in mining in Lao PDR. Saha Union has invested in China, and a few other countries in Asia, for the sourcing of supplies (including electricity generation). Siam Cement has invested in Iran and ASEAN countries to secure low-cost raw materials. PTT, a leading oil and gas company, invested abroad to secure access to natural resources and markets as well as to strengthen its distribution channels.

Other drivers of Thai outward FDI include newly emerging investment opportunities in certain host countries, particularly in speculative investment in real estate and industrial estates development (Pavida, 2004). For instance, the cumulative experience of the leading industrial estate developer Amata at home, and the emerging opportunities and industrial growth prospects in Viet Nam, contributed to the company's decision

[10] Some Thai garment factories invested in Lao PDR and several footwear factories were established in the neighbouring countries because of cost reasons (Brimble and Atchaka, 2005).

[11] See Saha Union Public Company Limited Annual Report 2005 and "Viet Nam, a 'Gold Mine' for Pranda Jewelry plc", Investment and Trade Promotion Centre (http:itpc.hochiminhcity.gov.vn/en/business_news/business-day/2004/03/Folder.2004-03-30.4815/News_Item.2004-03-30.0423.

to invest in that country.[12] Business networks and contacts in host countries (e.g. in the cases of Saha Union and the agro-industrial conglomerate CP) and the vision of top management to strengthen their market positions (e.g. in the cases of Thai Union, Bangkok Bank, CP, Siam Cement) were also the driving factors of Thai investment overseas. S&P's investment overseas is an example of Thai enterprises investing abroad to build brand awareness.

Government encouragement of Thai firms to invest abroad, for instance through the provision of financial facilities, certainly influenced the internationalization of Thai enterprises (see section 6). Regional integration in ASEAN and the desire of some Thai firms to raise their regional profiles also contributed to recent development in Thai outward FDI.

Another reason that has encouraged Thai outward FDI to neighbouring countries, such as Cambodia, Lao PDR and Viet Nam, is related to the impact of Thai Overseas Development Assistance on the improvement of infrastructure in these countries, which created new investment opportunities (Ministry of Foreign Affairs of Thailand and the United Nations Country Team in Thailand 2005, p. 38; table 8).

Table 8. Thailand: ODA qualified loans in 2002/2003
(Millions of dollars)

Ministry/Agency	Amount/Country
Ministry of Finance	$48.8 millions for GMS countries[a]
Export-Import Bank of Thailand	$60.0 millions for Lao PDR
Export-Import Bank of Thailand	$30.0 millions for Maldives
Export-Import Bank of Thailand	$8.4 millions for Cambodia

Source: Ministry of Foreign Affairs of Thailand and the United Nations Country Team in Thailand, 2005.

[a] GMS refers to the Greater Mekong Sub-region comprising Cambodia, Lao PDR, Myanmar, Viet Nam, Thailand and Yunnan Province of China.

[12] See "Amata industrial estate developer: company background and description", January 2006 (http://www.amata.com/corporate/background.aspx).

While the market-seeking motive accounts for a large part of Thai outward FDI for all industries, there are some distinctive sectoral differences. The need to access natural resources and to better control value chains are more closely associated with outward FDI in mining, including the oil and gas industries. In services, exploiting ownership advantages such as brand, business experience and business networks appears to be a more important reason. Speculative factors such as investment opportunities and the growth potential of the host country have also influenced investment decisions. In the manufacturing sector, a wide range of reasons motivate outward FDI. They include the sourcing of raw materials, exploiting ownership advantages, strengthening distribution channels, lowering costs and realizing the owners' vision. Regional factors, including economic integration and geographical proximity and cultural affinity, have influenced the location decision of Thai overseas investment in all three sectors.

4. Outward FDI and enterprise competitiveness

Success in operating abroad is not automatic and there is no guarantee that outward FDI will contribute to increasing the overall competitiveness of an internationalizing enterprise. Much would depend on the motive, corporate strategy, capacity of the firm (for managing international business activities involving complex cultural and legal issues) and the extent of synergy created by the outward FDI activities for the group as a whole.[13]

There are instances of successful Thai enterprise internationalization, as well as of failures. For example, outward FDI activities contributed about 32% to S&P's overall revenues from its restaurant business and 20% to the group's revenues in 2005. The share of revenues from overseas restaurant activities has also been increasing as has the average annual revenues generated by each overseas branch compared to branches in

[13] For more information on outward FDI and enterprise competitiveness, see UNCTAD (2007).

Thailand. Outward FDI activities contributed to the steady increase in the sales of Thai Union in the period 2002-2004. The share of overseas sales in the total sales of Thai Union rose from 39.5% in 2002 to 49% in 2004. In the case of Saha Union, its energy business in China is profitable and the firm has decided to expand its power plants' capacity. Internationalization has also contributed to the diversification and growth of the business activities and revenues of Saha Union. Internationalization has helped Siam Cement and CP to expand their market bases and to become industry leaders in the region. Pranda Jewelry is expanding its overseas activities because of increasing demand and growth potential for its products.

There are cases in which outward FDI has not contributed to increasing competitiveness, including Thai President Foods' troubled operations in China (Pavida, 2004). While corporate strategy on internationalization that was not well thought through contributed to the subsequent failure of some Thai outward FDI activities in the period 1997-2002, the financial crisis and excessive exposure to currency risks also undermined their overseas ventures and competitiveness. There is a need to differentiate financing decision from real investment decision when evaluating the cases that unfolded during the crisis period. If the failures of outward FDI activities were due to an inappropriate financing decision, then it does not necessarily follow that outward FDI did not lead to increasing competitiveness of Thai firms. The sales of assets abroad might have been due to an excessive debt obligation in the light of a significant depreciation of the home currency and a pressing need to relieve the precarious financial situation. In other words, cases that were largely influenced by the financial crisis have to be sieved out in assessing the impact of outward FDI on Thai enterprise competitiveness as they were not operating in normal circumstances.

5. Challenges and obstacles to Thai outward FDI

Thai enterprises face a number of challenges and obstacles when going abroad. The main challenges are capacity constraints and complacency on the part of Thai firms. The major

issues facing Thai enterprises' overseas investment include the following:[14]

- Difficulties in understanding complex policies and regulations in host countries,

- A lack of market information. Many Thai investors lack in-depth information on host country markets, which results in reluctance and delay in decision-making on outward FDI.

- A lack of coherent institutional support and government guidance also plays a role. Although the Government of Thailand has provided several measures to promote outward FDI, unclear policies and programmes and the lack of coordination among the various implementing agencies have confused Thai enterprises.

- Few significant Thai government incentives encouraging Thai firms to invest overseas. Other countries offer various incentives such as grants, subsidized loans or tax breaks to encourage their enterprises to go abroad.

- Limited access to finance has restricted Thai firms, especially SMEs, to venture abroad. The difficulties in raising funds from Thai financial institutions – as assets overseas cannot often be used as collateral – have restricted Thai enterprises' ability to raise finance.

- The absence of skilled human resources, especially in middle management, has constrained Thai outward FDI. The lack of language skills and the reluctance of qualified Thai managers to work abroad have also limited Thai enterprise capacity to internationalize.

- Aside from the above home country factors, host countries' constraints have also contributed to restricting Thai outward FDI. These include strict foreign exchange controls,

[14] For more details, see Brimble and Atchaka (2005), Atchaka (2004), NIDA (2005), Bangkok Bank (2005) and UTCC (2005a, 2005b).

restricted market access, inadequate infrastructure facilities, limits to the hiring of Thai expatriates, higher transaction costs and difficulty in finding suitable local joint venture partners. In some cases, the absence of bilateral investment agreements to protect investments contributes to insecurity and uncertainty about overseas investments by Thai enterprises.

6. Outward FDI policy and support measures

Thailand does not have a specific policy on outward FDI. However, the Government has been encouraging Thai enterprises to go abroad since the early 1990s through various measures and institutional support facilities. It had also signed 39 bilateral investment treaties and 56 double taxation treaties with partner economies by 1 January 2006,[15] and concluded various regional arrangements (ASEAN Free Trade Area, ASEAN Investment Area, ASEAN Framework Agreement on Services) and bilateral FTA agreements (with Australia, China, India, New Zealand), which contain investment provisions. The Thailand-Australia Free Trade Agreement is expected to open up Australia to Thai investment, including Thai restaurant businesses.[16]

The Government of Thailand also encourages Thai investment in infrastructure, such as the construction of roads and bridges, in various sub-regional economic cooperation areas of which Thailand is a member. These sub-regional areas include the Greater Mekong Sub-region (GMS), the Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation (BIMST-EC) and Ayeyawady-Chao Phraya, Mekong Economic Cooperation Strategy (ACMECS) (UTCC 2005a).

[15] "Agreement for the Avoidance of Double Taxation", 27 September 2005 (http//www.mfa.go.th/web/988.php) and "Agreement for the Promotion and Protection of Investments", 27 September 2005 (http://www.mfa.go.th/web/989.php).

[16] See Australia-Thailand Business Council Bulletin, "Thailand-Australia Free Trade Agreement", December 2004.

Institutions that provide outward FDI support include the Board of Investment (BOI), EXIM Bank of Thailand, the Federation of Thai Industries, the Thailand Board of Trade, the Ministry of Finance and the Ministry of Foreign Affairs.

BOI

The BOI has been supporting Thai outward FDI since 1991 (Atchaka, 2004) and organizes outward investment missions to neighbouring countries,[17] as well as outward FDI seminars in Thailand and target host countries. It also provides guidance to Thai firms regarding investing abroad, especially in neighbouring countries. Other services and support provided by the BOI include business matchmaking, and country desks managed by consultants with expertise and experience on the assigned country.

The BOI has targeted three clusters of industries for outward FDI promotion. The first cluster consists of industries that are deemed to promote Thailand as a regional centre and have a beneficial impact on Thailand's economic development, and include petrochemicals, natural gas/energy, auto parts, agribusiness and electrical parts. A second cluster includes industries that have encountered limitations in domestic market expansion, such as fisheries, textiles and garments, animal farming and jewellery. The final cluster covers industries that possess global potential, such as telecommunications, industrial estates, construction, animal feeds, sugar, plastic, leather products, tourism, and the restaurant and hotel business (Pavida, 2004; Brimble and Atchaka, 2005).

EXIM Bank

The EXIM bank provides various services and financing facilities to support the internationalization of Thai enterprises through outward FDI (Annex A). It has entered into partnership

[17] Including new emerging economies such as China, India, Pakistan and Bangladesh.

with leading academic institutions in the country and the Federation of Thai Industries to increase the capacity of Thai enterprises to invest abroad. The Bank and the Federation of Thai Industries jointly promote Thai investment and industrial relocation abroad by providing financial facilities and information on investment opportunities worldwide.

Ministry of Finance

The Ministry of Finance also provides support for outward FDI through double taxation treaties and tax relief. For instance, on 17 August 2004, the Government approved a new taxation package, which includes a provision that allows Thai companies that repatriate profits from abroad to have tax liability waived.[18]

Ministry of Foreign Affairs

The ministry provides overseas development assistance and technical cooperation to other countries, particularly neighbouring countries. Such assistance helps to raise the profile of Thailand in the recipient countries and creates investment opportunities for Thai enterprises (Ministry of Foreign Affairs of Thailand and United Nations Country Team in Thailand 2005).

Thai Business Associations

Finally, the Federation of Thai Industries and the Thailand Board of Trade support Thai outward FDI. This is done through organizing overseas business visits, business seminars and dialogue with business associations of other countries.

7. Conclusion

In a business environment where competition at home and abroad is intensifying, a strategy to operate only in the domestic market would increasingly be difficult for Thai firms to maintain. This is especially the case for those firms facing cost disadvantages and limited scope for growth (textiles and

[18] See http://www.boi.go.th/english/newsuse/newsuse.html

garments, jewellery). Similarly, Thai enterprises that possess certain advantages (product advantage and specific business experience) and brands (Thai restaurants) would be depriving themselves of an opportunity to realize their business potential if they did not internationalize. Thai firms have been investing abroad for a combination of these reasons.

Enterprise internationalization provides a channel for Thai firms to increase competitiveness by helping them to capture new markets, exercise better control of their value chains, secure raw materials, obtain access to foreign knowledge and technologies and to relocate production processes to lower cost countries in order to survive.

In this regard, Thai firms with the capacity to internationalize should be encouraged to do so to enable them to take advantage of the benefits of globalization, including the effect of regional integration in ASEAN. Raising awareness of enterprise internationalization among Thai firms, including SMEs, and increasing the capacity of more Thai managers to run international businesses are important strategic considerations in that respect.

A regular public-private sector dialogue to exchange ideas and experiences might be an avenue worth exploring. Specific facilities and programmes to strengthen the capacity of Thai firms to internationalize (similar to the ongoing programme to train Thai chefs to work for Thai restaurants abroad) would help. Such specific programmes could include the training of Thai executives in international business issues in cooperation with leading business schools in the country and international organizations. Institutional support facilities could be extended to cover the coaching of Thai firms to become better prepared for internationalization, e.g. offering advice on drawing up viable international expansion business plans, sensitizing them to the labour and cultural issues of host countries and offering more focused and strategic business advisory facilities.

Greater cooperation with investment promotion agencies in other countries (for instance in searching for joint venture

partners), as well as networking with Thai private sector organizations and firms in target host countries would also help encourage Thai outward FDI. ■

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Annex A
EXIM Bank of Thailand: Supporting OFDI by Thai Enterprises

The Export-Import (EXIM) Bank of Thailand plays an important role in supporting the internationalization of Thai enterprises. Aside from providing financial facilities and investment guarantees for Thai enterprises, its institutional support facilities have expanded to cover the provision of market information for its clients and the organizing of seminars and workshops to increase the skills of Thai managers in running international businesses. In 2006, the Bank planned to approve 5 billion baht overseas investment financing facilities with priority given to Thai restaurant projects and the relocation of industrial production to neighbouring countries.[1] In 2005, some 60% of the loan facilities were given to overseas construction projects, such as the construction of resort condominiums in the Middle East and dams in Lao PDR. The remaining loan facilities were given to projects for building hotels and spas in Asia and the United States, and sugar mills in Bangladesh and the Philippines.

The EXIM Bank is a financial institution owned by the Government of Thailand under the Ministry of Finance's supervision. Its objectives are to provide financial services to strengthen the competitive edge of Thai exporters and investors abroad. The Bank officially started its operations on 17 February 1994. The Export-Import Bank of Thailand Act (No.2) B.E. 2542 (1999) expanded the Bank's objectives and scope of operations with regard to investment promotion and support. The Act enabled the Bank to provide more comprehensive support to Thai outward investors as well as local investors in businesses relating to exporting or businesses that earned or saved foreign exchange.[2]

[1] See "EXIM Thailand earmarks 5 billion baht for offshore production base expansion", 10 May 2006 (http://www.exim.go.th/Doc/adn/48000001469.pdf).

[2] See Export Import Bank of Thailand: Background (http://www.exim.go.th/eng/about_exim/background.asp).

The Bank provides various services to support outward FDI. These services include:

- *Financial facilities for overseas investment***s** including long-term credit facilities to support Thai outward FDI projects.

- *Investment insurance* against political risk related to overseas investment.

- *Foreign investment advisory service***,** which provides information on foreign investment prospects abroad, particularly in such neighbouring countries as Cambodia, Lao PDR, Myanmar and Viet Nam, as well as Yunnan and Guangdong Provinces in China.

- *Capacity building***.** On 15 September 2005, the Bank, together with seven leading academic institutions in the country, agreed to collaborate to develop business education curricula to strengthen the capacity of Thai enterprises to internationalize and to develop a new generation of Thai professionals specialized in exporting and international business.[4]

[3] See "EXIM Thailand expands support to Thai restaurants worldwide", 11 July 2005 (http://www.exim.go.th/Doc/adn/48000001379.pdf).

[4] See "EXIM Thailand joins forces with 7 academic institutions to develop a new generation of Thai entrepreneurs", 15 September 2005 (http://www.exim.go.th/Doc/adn/48000001407.pdf).

RESEARCH NOTE

Foreign operations of Russia's largest industrial corporations – building a typology

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Russia's outward foreign direct investment (FDI) has grown rapidly during the past decade. This note discusses outward FDI from Russia through developing a typology of Russia's largest outward investing industrial corporations. We base the typology on two specific features of Russian companies' foreign operations, namely the relatively low level of transparency and disclosure and, the strong involvement of the Russian State. We have delineated four typological groups of Russia's foreign investing industrial corporations. *Non-transparent Patriots* refers to large state-controlled conglomerates with a low level of transparency often serving the interests of Russian economic policy overseas. The *Transparent Patriots* category consists of large and transparent state-controlled companies employing effective internationalization strategies but which conform to government policy due to their strategic importance. *Transparent Independents* consist of private corporations whose overseas activities are not unduly influenced by political considerations. They employ transparent and business-oriented internationalization strategies and have developed their managerial practices accordingly. The *Non-transparent Independents* category comprises privately-owned enterprises with a relatively low level of transparency.

Key words: Russia, outward FDI, transnational corporations, internationalization

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1. Introduction

Foreign direct investment (FDI) has proven to be one of the most effective means of integrating Russia into the world economy. While trade rapprochement via Russia's accession to the World Trade Organization is an utmost necessity for further integration, it is not sufficient on its own in this process. Hence, even more emphasis should be placed on improving the conditions for integrating the economy through FDI, and particularly outward FDI by Russian enterprises. The expansion of Russian firms outside their domestic market is perhaps one of the fastest means of improving the international competitiveness of Russian firms.

The outward foreign direct investment (FDI) stock from the Russian Federation increased significantly from a mere $3 billion in 1995 to nearly $140 billion in 2005. With this amount, Russia is the second largest outward direct investor among the emerging market economies after Hong Kong (China), and Russian companies are indisputably the leaders among the transnational corporations (TNCs) based in South-East Europe (SEE) and the Commonwealth of Independent States (CIS). Through FDI, Russian companies have enhanced their international competitiveness by gaining increased access to natural resources, acquiring strategic assets worldwide and obtaining segments of the global market. High oil and raw material prices have yielded increasing export revenues, which have, in turn, supported the international expansion of Russian enterprises.

The rapid increase in Russian FDI suggests that Russian companies often find overseas investment opportunities more attractive than domestic ones. Additionally, the shortcomings of the domestic business environment in the form of scarce investment opportunities and unclear government policies have sometimes motivated Russian companies to seek investment opportunities abroad. Furthermore, recent legislative developments regarding the ownership of natural resources and increasing state control over natural resource-based industries may have influenced the outward FDI behaviour of Russian companies. In some instances, FDI by Russian companies is

reminiscent of an exodus rather than true expansion. This was particularly the case in the earlier phase of the transition period when investing abroad was seen as a safeguard against the unfavourable treatment of assets by the Russian authorities.

In this article, we aim to add to the knowledge of Russian business expansion abroad by building a typology for the foreign operations of Russia's largest industrial corporations. While earlier research has identified some motivations behind Russian corporations' foreign expansion, the literature lacks a systematic classification of Russian companies' internationalization. We contribute to filling this gap in the literature by considering the specific features of Russian business expansion abroad and assisting policy makers and scholars in assessing the implications of this phenomenon.

We proceed with an overview of the development of Russian outward FDI in section two and a review of literature on Russian business activities abroad in section three. Section four provides a methodological basis of the study. We present brief descriptions of company cases of Russia's OFDI in the framework of the designed typology in section five. In the concluding section, policy implications are discussed.

2. The development of Russia's outward FDI

The origin of Russian outward FDI dates back to the late nineteenth century. At the time, capital was exported primarily to neighbouring China, Mongolia and Persia. During the period 1886-1914, Russian capital outflows amounted to about 2.3 billion roubles (equivalent to $33 billion at 1996 prices). Between the two World Wars, FDI by the Soviet Union diminished radically (Bulatov, 1998). Even after the Second World War, foreign operations of Soviet firms remained rare. Soviet firms had around 30 affiliates in developing countries and 116 foreign affiliates in the OECD countries at the end of 1983. Soviet companies were not particularly active overseas even within the Council for Mutual Economic Assistance (CMEA) area. In 1990, only 175 Soviet-owned joint ventures were registered in the European CMEA countries (Zaleski, 1986; McMillan, 1987; Matejka, 1988; Cheklina, 1991).

The overwhelming majority of Soviet foreign affiliates were engaged in the marketing of oil, raw materials and machinery. In addition to the intermediary activities, Soviet firms provided services to the foreign trade activities of the Soviet Union, as they operated in transportation, the insurance business and international banking (Hill, 1986). Despite the small number of Soviet foreign affiliates abroad, Sokolov (1991a, 1991b) argues that these affiliates sold around a half of Soviet commodities abroad. However, when evaluating the role of Soviet enterprises abroad, one should not forget that the foreign operations of these Soviet firms were not driven by business logic alone, but that Soviet firms abroad also served the goals of Soviet foreign policy (Hamilton, 1986).

On the eve of the disintegration of the Soviet Union, its outward FDI stock was modest, amounting to less than $1 billion in 1990. The transformation from a centrally planned system towards a market economy has resulted in a considerable increase in outward FDI. Recent statistical updates by the Central Bank of Russia confirm the previous estimates of the massive amount of Russian capital abroad. Unlike most economies in transition, the capital outflows from the Russian Federation have repeatedly exceeded capital inflows. The ratio between outward and inward FDI is considerably higher for the Russian Federation than for any other SEE and CIS countries or the new EU Member States (table 1).

Russian enterprises are now investing abroad for diverse strategic reasons, compared to the early 1990's when their foreign activities were mainly for supporting their exports. Rapidly expanding overseas activities of Russian enterprises have resulted in a considerable increase in outward FDI. Russia's outward FDI stock, which stood at $20 billion at the end of 2000, reached almost $140 billion at the end of 2005. With this amount, Russia ranks as the sixteenth largest investor country in the world, accounting for 1.3% of the world's outward FDI stock.

Although the estimates of the total amount of Russian capital invested abroad vary, it is widely acknowledged that the figures are considerably greater than the outward FDI stock (e.g.

Loungani and Mauro, 2000; Buiter and Szegvari 2002). According to the Central Bank of Russia, net capital outflows from Russia by non-financial enterprises and households between 1994 and 2004 amounted to $181 billion. If this total amount of Russian capital abroad is taken into account, the country ranks among the 10 largest capital exporting countries in the world (Central Bank of Russia, 2005; Kalotáy, 2005). This is still a conservative estimate and others have suggested much greater figures. For instance, according to the European Commission (2004), non-recorded capital outflows from Russia totalled $245 billion during the period 1992-2002.

Table 1. Outward and inward FDI stocks of selected CEE and CIS economies, as of 31.12.2005

	Outward FDI stock *$ mln*	Inward FDI stock *$ mln*	Outward/ inward FDI stock ratio, *%*
Hungary	6 604	61 221	11
Czech Republic	4 239	59 459	7
Poland	4 671	93 329	5
Slovenia	3 607	8 064	45
Estonia	1 968	12 274	16
Lithuania	708	6 461	11
Slovakia	538	15 324	4
Latvia	294	4 783	6
Romania	242	23 818	1
Bulgaria	127	9 173	1
Russia	*138 845*	*168 950*	*82*
Azerbaijan	3 686	13 876	27
Ukraine	466	17 209	3
Kyrgyzstan	60	522	11
Armenia	32	1 225	3

Source: UNCTAD (2006), Central Bank of Russia (2006).

The neighbouring regions, including the SEE and the CIS, are the main recipients of Russian outward FDI. However, in recent years, outward FDI to non-traditional locations, such as Africa, Latin America and the United States, has become increasingly visible, indicating the expanding geographical spread of Russian companies' FDI. About a half of Russian outward FDI stock is believed to be in the European Union, while the CIS and the United States accounted for about a fifth each (Kalotáy, 2003). However, due to the large amount of

round-tripping investment from Russia through a third country, the authors believe the actual share of the CIS to be considerably higher than what is indicated by the recorded FDI data. The majority of FDI by Russian enterprises has taken place during the past five years, which suggests a growing interest of Russian firms in internationalizing through outward FDI.

UNCTAD (2005) provides a list of the largest non-financial TNCs based in the SEE and the CIS in 2003. Eight out of the ten listed companies are of Russian origin, including Lukoil, Norilsk Nickel, Russian Aluminium (RusAl), Mechel, Alrosa and three shipping companies. Since the authors find the UNCTAD list incomplete in some parts, a slightly different list is provided in table 2, which is based on an extensive set of updated company data.

Table 2. Top 12 Russian companies ranked by foreign assets, as of 1.1.2005

Company	Industry	Assets		Sales	
		Total	*Foreign*	*Total*	*Foreign*
Gazprom	Oil and gas	104 982	...	36 422	16 149
Lukoil	Oil and gas	29 761	10 663	33 845	26 428
Norilsk Nickel	Non-ferrous metals	13 632	2 618	7 033	5 968
Russian Aluminium	Non-ferrous metals	11 500	2 665	5 450	4 440
Evraz Holding	Ferrous metals	4 253	813	5 933	2 645
Mobile TeleSystems (MTS)	Telecommunications	5 581	1 214	3 887	995
VimpelCom	Telecommunications	4 780	852	2 147	45
Severstal	Ferrous metals	5 919	666	6 648	3 954
OMZ	Heavy engineering	901	347	524	272
Rosneft	Oil and gas	25 987	319	5 275	3 438
United Energy Systems (UES)	Electrical energy	40 613	211	24 493	441
Alrosa	Precious stones	4 630	162	2 037	923

Source: Company information, authors' calculations.

As indicated in table 2, leading Russian industrial companies possess a substantial amount of foreign assets. The top two Russian foreign investors, Gazprom and Lukoil, control a variety of strategic assets in Russia's neighbouring region, whereas the Russian telecommunication companies are expanding rapidly in the CIS, controlling the mobile

communication industry in Belarus, Kazakhstan, Ukraine and Uzbekistan. Following a similar pattern, Russian metal and mining conglomerates are establishing a considerable presence around the world, strengthening their global market positions through foreign acquisitions.

As the leading Russian enterprises become increasingly engaged in foreign activities, the value of their outward FDI has soared in recent years. While the value of recent acquisitions by Russian companies in the SEE and the CIS is many times greater than that of the 1990s', the improved financial situations have also fuelled their acquisitions in established markets of the EU15 and the United States. During the period 2004-2006, the combined value of the ten largest foreign acquisitions by Russian companies totalled nearly $10 billion. Table 3 lists the largest foreign acquisitions by Russian companies in this period.

Table 3. The largest foreign acquisitions by Russian companies in 2004-2006
(planned and realized)

Acquiring company	Target company	Country	Nature of business	Share, %	Value, $ mln
Altimo	Turkcell	Turkey	Mobile telecommunication	13	3 200
Evraz Holding	Oregon Steel Mills	United States	Steel production	100	2 300
Lukoil	Nelson Resources	Kazakhstan/ Canada	Oil exploration & production	100	2 000
Norilsk Nickel	Gold Fields Ltd	South Africa	Gold mining	20	1 200
Evraz Holding	Highveld Steel	South Africa	Steel products	79	678
Evraz Holding	Palini & Bartoli	Italy	Steel products	75	650
Severstal	Lucchini Group	Italy	Steel products	62	574
RusAl	Queensland Alumina Ltd	Australia	Alumina refinery	20	460
VimpelCom	Kar-Tel	Kazakhstan	Mobile telecommunication	100	425
Evraz Holding	Vitkovice Steel	Czech Republic	Steel products	100	287
VimpelCom	Buztel and Unitel	Uzbekistan	Mobile telecommunication	100	275
Lukoil	Teboil and Suomen Petrooli	Finland	Petroleum marketing	100	270
Lukoil	-	United States	795 petroleum stations from ConocoPhillips	100	266
VimpelCom	Ukrainian Radio Systems	Ukraine	Mobile telecommunication	100	254
RusAl	Alscon	Nigeria	Aluminium production	78	250
MTS	Uzdunorbita	Uzbekistan	Mobile telecommunication	74	121
Evraz Holding	Strategic Minerals Corp.	United State	Steel production	73	110

Source: Company information; authors' calculations.

3. Literature review on Russian business expansion abroad

So far, a relatively limited number of studies have been conducted on Russian enterprises' strategies and motivations for investing abroad. Earlier research largely concentrated on describing the operations of Russian corporations in specific countries, such as Cyprus (Pelto *et al.*, 2003), Finland (Jumpponen, 2001; Vahtra and Lorentz, 2004; Johansson, 2005), Lithuania (Zashev, 2004), Poland (Liuhto, 2002) and the CIS (Vahtra, 2005). Some other studies deal with individual company cases (e.g. Heinrich, 2001b; Kobyzev, 2001; Liuhto, 2001a, 2001b; Peregudov 2001; Rybakov and Kapustin, 2001; Survillo and Sutyrin, 2001; Trofimenko, 2001). In addition, scholars have investigated why Russian companies go abroad. In particular, academic interest has focused on the foreign activities of Russia's energy and metal companies (e.g. Väätänen and Liuhto, 2000; Liuhto 2001a, 2001b; Peregudov, 2001; Trofimenko, 2001; Heinrich, 2003) and, more recently, on the expansion of Russian telecommunications companies (Sutyrin *et al.*, 2005). Apart from the case studies mentioned above, we only identified few studies that discuss the motivations and underlying settings of the Russian business expansion in a broad manner (Efimova *et al.*, 1996; Bulatov, 1998; Pchountelev, 2000; Vahtra and Liuhto, 2004; Vahtra, 2006).

Previous research on the outward expansion of Russian TNCs has stressed the limited applicability of existing internationalization theories to the understanding of foreign expansion by Russian companies (Efimova *et al.*, 1996; Bulatov, 1998; Pchountelev, 2000; Heinrich, 2001a). The main reason for this inapplicability arises from the institutional differences between Russia and mature market economies for which the existing theoretical framework in international business has largely been developed (e.g. Peng, 2000, 2004, 2005).

Previous research has identified several unique features of Russian organizational settings and the internationalization of Russia's enterprises in particular. Tikhomirov (1997), Loungani and Mauro (2000), Mulino (2002) and Kalotáy (2003,

2005), among others, have pointed to the vast amount of unregistered capital flows and trans-shipped investments from Russia. Consequently, Russian business presence abroad is believed to be considerably greater than what is indicated by outward FDI data. Even though Russian outward FDI is increasingly noticeable, the unregistered capital flows from the country remain far greater than officially recorded investment.[1] According to somewhat differing estimates by the European Commission (2004) and the World Bank, $250-350 billion of unregistered capital has fled from Russia since the beginning of the 1990s.

Capital flight can take various forms and the origins of capital can be perfectly legal, making the phenomena difficult to deal with. Illegal capital transferring schemes are highly diverse and include the misrepresentation of export earnings, the overstatement of import payments, fake deals and a variety of capital account transactions through non-resident banks and offshore locations. In particular, as the importance of the energy and raw materials industries in Russian exports increases, the problem of non-repatriation of export earnings has been highlighted (e.g. Tikhomirov, 1997; Loungani and Mauro, 2000). Hence, unregistered capital transfers from Russia include both illegal and unregistered economic parties as well as legal exporters and investors. The widespread non-repatriation of export proceeds, the overvaluation of imports and payments against fictitious transactions in securities together totalled almost $26 billion in the financial account of the Russian Federation in 2004. This is one of the primary source of unregistered capital outflows.

The lack of transparency in Russian companies' investment behaviour is exacerbated further by the poor transparency and disclosure record of Russian enterprises. According to Standard & Poor's (2005), the organizational transparency of Russian companies remains low in comparison

[1] Detrimental effects of such capital flights include the loss of production capacity, tax and budget revenues, missing control over monetary aggregates and access to international financing (e.g. Mulino, 2002).

to internationally accepted practice. In particular, Russian companies rank low in disclosing their ownership and affiliate structures. Although the aforementioned study shows an improvement in transparency and disclosure performance in 2005 over the previous years, most Russian companies constantly underperform in comparison to their Western counterparts.[2] Of Russia's top 12 foreign investors (see table 2), only the telecommunication companies, MTS and VimpelCom, achieved the international standard of transparency and disclosure, reaching a score of around 80%.

Apart from the non-transparency of foreign operations, the relationship between Russian TNCs and the Russian State has attracted much attention from researchers. Since the companies in the strategic oil and metal industries have been responsible for a large part of Russian outward FDI, scholars have found economic motives alone insufficient for explaining the international activities of Russian corporations. It has been pointed out by several researchers that companies in strategic industries may be operating abroad to serve the interests of Russia's foreign policy (e.g. Heinrich, 2003; Liuhto and Jumpponen, 2003a, 2003b; Vahtra and Liuhto, 2004; Vahtra, 2005). Therefore, the role of the Russian State should be taken into account when discussing the internationalization of Russian firms.

The majority of Russian exports and FDI are made by natural resource-based groups. Raw materials account for two thirds of Russian exports and Russian energy and metal companies have a strong leverage in many of their target markets. As the natural resource-based industries form the backbone of the Russian economy, the leading enterprises in the oil, gas and metal industries are the subject of national strategic interest and are often powerful bearers of Russia's political influence abroad (Liuhto and Vahtra, 2004; Vahtra, 2005). Russia's vast energy resources provide the country with

[2] In 2005, Standard & Poor's Transparency index among the largest Russian companies increased to 53% from 43% in 2004. The composite transparency score for United Kingdom companies for 2005 was 71%.

a substantial political leverage, not only in the CIS countries but also throughout Europe. Recently, Russian energy companies have been repeatedly drawn into political disputes between Russia and its neighbouring countries. As the key energy supplier to the CIS and the EU, Russia effectively uses its leading enterprises to manage its foreign policy interests. Further, the recent consolidation of state ownership in the country's energy industry enhances Russia's influence in her neighbouring countries.

To conclude, two features can be identified in the existing literature that separate Russian enterprises' foreign activities from those of companies based in mature market economies: the control and leverage of the State and the relatively poor transparency record of their foreign operations. These dimensions are used in the following sections to build a typology of Russia's largest TNCs.

4. Constructing a typology: the methodological basis

Organizational typology often provides an appropriate framework for describing organizational settings and explaining their outcomes (Doty and Click, 1994). It provides an effective data storage system and a means for theory development by classifying the complex field of organizations into discrete categories (Rich, 1992). A typology can serve as a useful classification of the complex organizational reality, combining information content with simplified information retrieval. Furthermore, it is argued that a typology provides a "general set of principles for scientifically classifying things or events" and serves as an analytical tool to stimulate understanding on the underlying phenomenon (Mills and Margulies, 1980). In developing a conceptual typology, the number of variables considered is limited to just a few so as to clarify the phenomenon under classification (Rich 1992).

In this study, the authors construct a typology by categorizing the Russian TNCs using two dimensions – the level of transparency and State control. These dimensions are selected in line with earlier research findings on distinctive features

related to the internationalization of Russian companies. No systematic classification that takes into account these distinctive features of the Russian business environment could be found in earlier literature, justifying the current research approach.

For the purposes of the current study, we have examined a large number of instances of FDI by Russian companies. We base our findings on an extensive set of secondary data, derived from company reports, the reports and databases of the central banks and statistical offices as well as numerous business reviews and Internet sources. The authors have observed in earlier research projects that the primary data are not always the most reliable source of information since Russian companies can provide, deliberately or otherwise, misleading information to researchers.[3]

We base the definition of four typological categories of the foreign operations of Russia's largest TNCs on the level of transparency and State control. As a measure of the transparency level, we use the ratings from Standard and Poor's Russian Transparency and Disclosure Survey.[4] The extent of State control is measured by direct and indirect state ownership of the company.[5] In what follows, the dominant characteristics of each group are discussed in relation to the two dimensions forming the basis of the classification.

The Non-transparent Patriots category refers to the companies that are controlled by the Russian State, comprising

[3] The reluctance to give information to outsiders may stem from the fear of data ending up in the hands of their competitors, tax authorities or even organized crime.

[4] The Standard & Poor's annual Transparency and Disclosure Survey analyses disclosure from the international investor's perspective. The checklist method of the survey consists of 89 items relating to ownership structure and investor relations, financial and operational information, and board and management structure and processes.

[5] We use state ownership as an indicator of state control and leverage over companies due to the absence of any other systematic measure. We recognize the resulting bias in estimating actual state leverage through indirect means of control, and elaborate on this issue in the following section.

mainly the industrial majors in the natural resource-based or strategic manufacturing industries. The companies in this category have a rather poor transparency record. The purpose of the international operations of these companies is to serve the interests of Russia's foreign policy, at least as much as to enhance their own economic performance. While Russian foreign policy interests are an inseparable part of the activities of these state-controlled companies, political intervention is not limited to this category only.

The Transparent Patriots category includes companies with a relatively good transparency record and a strong foreign presence in their overseas target markets. The companies are majority-owned by the Russian State, obliging them to balance business rationale on the one hand and governmental interests on the other. The level of political conformity is also highly dependent on the strategic significance of the industry. In particular, the companies in the strategic oil, gas and metal industries are often obliged to play according to the state's goals. As the size of the company largely defines its political leverage, companies in this category include the major natural resource-based corporations that have gained a strong foothold in international markets. Conformity to state policy often secures these companies unrivalled access to production assets, such as the exploration licences of natural resource sites and pipeline infrastructure.

The Non-transparent Independents category includes companies with little or no state control and a poor transparency record. The companies may be strong performers internationally, employing active internationalization strategies. However, the low level of operational transparency often makes their foreign expansion problematic. The companies with a low level of transparency may be regarded as a source of unregistered transfers of capital abroad. At the same time, the companies may face negative attitudes in host countries and hence, are often investing through offshore locations. Transferring capital abroad and then moving it back home through a third country used to be a common practice throughout the 1990s, but the recent

measures taken by the state indicate a radical change in the policy. The measures taken by Russian authorities in recent years to curb the influence of the country's leading business groups and oligarchs indicate tightening state policy in the matter.[6] In future, it is likely that the State will exert stronger control over these companies, which are often controlled by only a few industrial magnates and have roots in the controversial privatization schemes of the 1990s.

The Transparent Independents category comprises private companies whose overseas activities are not particularly influenced by political considerations. Often, these companies are operating either in less strategic industries or have retained relative independence from state authorities. The companies have a relatively good transparency record, often employing westernized business practices and seeking strategic growth through foreign expansion.

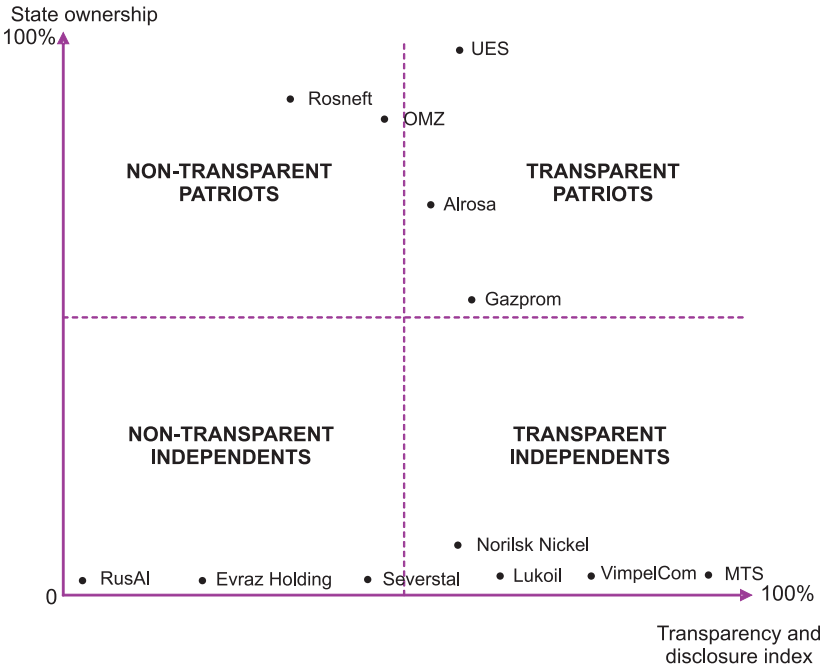
5. Placing Russia's largest TNCs in the proposed typology

Based on the level of state ownership and the transparency and disclosure rating, the largest Russian foreign investing companies (see table 2) are placed in four typological groups defined above. Figure 1 depicts the positioning of companies along the two axes. In the following, we provide a brief overview of selected companies' FDI activities followed by a consideration of the utility of the proposed typology.

Rosneft is a fully state-owned company and the second largest oil producer in the country, following its purchase of the main production affiliate of the embattled oil giant, Yukos. Rosneft's experience in international operations dates back to

[6] In 2003, the Russian authorities initiated a series of court proceedings against the oil company Yukos, leading to the imprisonment of its leading shareholder, re-nationalization of the company's assets and, eventually the bankruptcy of Yukos. While the Yukos case is the most extreme example of the tightening stance towards the oligarchs during the past years, nearly all the leading private industrial holdings in Russia have experienced tightening licensing policies, back tax claims or charges on environmental violations, among others.

Figure 1. Typology of Russia's largest foreign investing enterprises



Source: authors.

the Soviet era and to date, the company has been engaged in various foreign ventures based on inter-governmental agreements. Beside its extensive export activities, Rosneft participates in several foreign upstream ventures, including oil and gas production in Algeria, Colombia and Kazakhstan. In addition, the company controls upstream assets in Afghanistan.

In the past two years, Rosneft has become one of the most significant players in the Russian oil industry. As a powerful bearer of the Government's interests, Rosneft participates in several upstream joint ventures with foreign oil majors. At 34%, the transparency and disclosure level of Rosneft remains poor even in comparison with other Russian state-owned enterprises (SOEs). However, the initial public offering of 13%

of Rosneft's shares in July 2006 is likely to improve the company's corporate governance record in future.[7]

Gazprom is the largest Russian corporation and taxpayer as well as the world's largest natural gas producer and exporter. The company is the most transnational Russian corporation in terms of foreign assets, foreign sales and the spread of its international operations. Gazprom has operations in natural gas distribution and processing activities in 17 EU countries. In addition, Gazprom has operations in nearly all of the CIS countries. Foreign acquisitions by Gazprom largely follow its natural gas exports. In the Baltic States, Finland and several CIS countries, Gazprom is the sole provider of natural gas. The main motives behind Gazprom's outward FDI activities are to strengthen its market position in its traditional export markets, to tap new market opportunities and to internalize its value chain business activities. Outward FDI has helped the company to establish a strong international presence, which has provided Gazprom with a substantial leverage, both economically and politically, in several of its key markets and in the CIS countries in particular.

Gazprom is the leader in the transparency and disclosure standard among Russia's SOEs, scoring 63% in the Standard and Poor's index. Since 49% of Gazprom's shares were made available for public trading in 2005, along with the consolidation of state ownership of the remaining 51% share, Gazprom has become the third-largest publicly traded company in the world after ExxonMobil and General Electric. This development

[7] Raising $10.4 billion, the Rosneft IPO ranked among the largest public offerings in the world. Surrounded by controversy, as much of the Rosneft's value was based on the assets formerly belonging to the embattled Yukos oil company, the IPO resulted in British Petroleum, the China National Petroleum Company and Petronas acquiring 21% of the issued shares. Approximately half of the remaining shares were taken by undisclosed Russian investors and the remaining one third by international portfolio investors. The relatively low share of the latter was thought to be due to the high price and, the considerable premium of Rosneft shares compared to its industry peers, rather than ethical or political concerns.

should result in further improvement in Gazprom's corporate governance practices.

UES is Russia's state-owned electricity monopoly and a powerful bearer of Russian influence in its neighbouring countries. UES has undertaken several energy projects in the CIS, including the expansion of electricity exports and the operation of national energy companies. Export to the CIS is the priority in UES' foreign activities and one of the primary sources of funding for outward FDI.

In the former Soviet republics, UES has established a practically unified electricity supply system with operations and assets in nearly all the former Soviet Republics. The expansion of the Russian energy giant in the CIS has been controversial in many instances. On the one hand, being part of the UES's electricity supply network considerably increases the reliability of the electricity supply, maintaining a high quality of electricity based on the common technical standard. On the other hand, the arrangement gives UES unrestricted access to the country's electrical grid, making many of the countries in the region subject to Russia's energy policy interests. Since 2003, UES has expanded the activities of its foreign affiliates to switch from wholesale electricity sales to supplying electricity to end consumers directly. The foreign affiliates of UES are engaged both in the retail sales of Russian electricity and in the organizing of electricity supplies to third countries.

Among the SOEs, UES has a relatively high transparency and disclosure index score (59%). Along with the ongoing restructuring of UES's holdings structure, including the creation of smaller regional power generation companies, further improvements in its corporate governance can be expected.

Lukoil is the largest oil producer in Russia and the most transnational Russian corporation, measured by its foreign assets and sales in relation to the company's total assets and sales. Lukoil possesses substantial foreign assets around the world and nearly 85% of the company's revenues in 2005 were generated abroad. In the upstream activities, the company has a strong

presence in the resource-rich Middle East and the CIS countries, whereas the company's downstream assets are concentrated near its main export markets, i.e. the European Union and the United States. Lukoil operates extensive petroleum retail chains in several of the SEE and the CIS countries as well as in the United States. In addition, the company operates three modern oil refineries in Eastern Europe that supply key export markets in Europe. In upstream activities, Lukoil's foreign production ventures serve to extend the company's hydrocarbon resource base and to cover for the depletions of its domestic resources. The main motivations behind Lukoil's FDI are extending the resource base and internalizing the value chain internationally. Its international acquisitions have provided the company with a strong position in several of the Central and East European countries, and more recently in the United States, considerably advancing its global competitiveness.

In 2005, Lukoil became a solely privately owned company after the sale by the Government of Russia of its remaining 7.6% share in the company to United States oil major, ConocoPhillips. Lukoil's transparency and disclosure index score (68%) is the highest among Russian oil companies.

Severstal is one of the largest steel producers in Russia and pursues perhaps the most aggressive internationalization strategy among the Russian TNCs. In addition to several representative offices and marketing units abroad, Severstal acquired the United States steel producer, Rouge Industries, for $360 million in 2003. The acquisition provides Severstal with a means to circumvent the United States steel import restrictions and strengthens considerably the company's position in the world steel market. In other markets, Severstal has recently bid for several steel producers in the CIS, Europe and North America. At the beginning of 2005, Severstal acquired a 62% share in a major Italian steel producer, the Lucchini Group. This $574 million acquisition has given the Russian company a stronger foothold in the European market, allowing it to bypass the EU import quotas and to increase its output and sales of high value-added products.

Severstal is part of a privately owned financial-industrial holding comprising several manufacturing units, including one of the largest passenger car producers in Russia. Despite active internationalization, the company has a relatively poor transparency record (a transparency and disclosure index score of 47%) with a low disclosure level of managerial and holding structures in particular.

MTS is the largest non-natural resource-based company among the Russian TNCs ranked by foreign assets. Russia's largest mobile operator is also a front-runner in transparency and disclosure practices among Russian companies. MTS has successfully entered the CIS markets in recent years with substantial investments. MTS currently pursues an aggressive market-seeking strategy, having established operations in virtually all the CIS countries. The company's presence is strongest in Ukraine, where it owns a majority share in the largest mobile operator, Ukraine Mobile Communications and has a fast-growing subscriber base. In 2004, MTS acquired a 74% share in Uzbekistan's leading operator, Uzdunorbita, for $121 million. With its recent acquisitions in the CIS, MTS has successfully entered one of the fastest-growing and most unsaturated mobile markets in the world, strengthening the company's leading position among the Russian mobile operators. Furthermore, MTS controls a 49% share of the largest operator in Belarus. In addition to shares in local telecom operators, MTS has substantial infrastructure assets in the region. The growing and unsaturated CIS markets provide immense possibilities for Russian telecom operators and recent company statements project further acquisitions in the region.

MTS is a leader in the transparency and disclosure standard among the largest Russian enterprises. The transparency and disclosure index score of 84% exceeds the respective figures of many of its international peers. MTS, a wholly private company, is part of Sistema financial-industrial holding, which comprises mostly telecommunication enterprises.

Russian Aluminium (RusAl) is the country's largest non-ferrous metal producer and the third largest aluminium producer in the world. RusAl is the flagship company of Russia's largest financial-industrial holding, Basic Element. The company controls an extensive network of production outlets worldwide, from the neighbouring CIS countries to Australia to Africa. RusAl has expanded its raw material base by acquiring two bauxite mines in Guinea and a 20% stake in the world's largest alumina refinery, Queensland Alumina (QAL), in Australia for $460 million. In addition, RusAl possesses two giant alumina refineries in Ukraine. Beside the expansion of the raw material base, the foreign acquisitions have expanded the company's value-added aluminium production. In addition, the foreign operations of RusAl are targeted to incorporating key service functions and to expand the service network worldwide. FDI of RusAl has thus far been mainly resource seeking in nature, aimed at strengthening the company's position among the world's leading aluminium producers.

As a part of a large privately owned financial-industrial holding, RusAl is a closed joint-stock company and does not systematically disclose its operational or financial data. However, according to recent company statements, a restructuring process aimed at a public listing of RusAl shares is under way.

As described in section three, we base the above categorization of companies on two variables; State control and the transparency and disclosure index. Due to methodological constraints, we are obliged to use the share of State ownership as the best available measure of State control and leverage. The authors stress however, that a different outcome would have been achieved if indirect State control measures had been considered. For instance, as a wholly privately owned company, Lukoil falls in the category of Transparent Independents (see Figure 1). However, the company's operations largely conform to government interests. Oil export from Russia remains a State monopoly, giving the State authorities a strong leverage on the oil companies. Furthermore, the current licensing regime in the

oil industry leaves room for government interests in the process of licence distribution. As another example, the giant metal producers, RusAl and Norilsk Nickel, would be placed at the other end of the vertical axis, were State *ownership* replaced with actual State *leverage*, due to the strategic importance of the metals industry in Russia's economy and the size of the companies.

In addition, recent developments in Russia suggest that a considerable increase in State control vis-à-vis Russia's leading industrial enterprises is likely in the near future. In 2004, the Russian State was responsible for a mere 4% of the country's oil production; along with Rosneft's takeover of Yukos' main production affiliate in 2004 and Gazprom's acquisition of Sibneft in 2005, the State is currently in control of one third of Russia's oil output. In the same vein, Russia's largest producer of heavy machinery, OMZ, was merged in the Gazprom holding structure in late 2005. Furthermore, developments in 2006 include the creation of a State-controlled automotive holding, including Russia's largest carmaker AvtoVAZ and two other large manufacturers.

6. Discussion and policy recommendations

By developing a typology of Russia's TNCs, we aim to provide a simplifying schema of a complex phenomenon and facilitate the discussion among scholars and policy makers in Russia and in the host countries receiving Russian outward FDI. In many instances, rather negative attitudes prevail towards the outward expansion of Russian firms both in Russia and abroad. While the Russian State is troubled by the unwelcome massive capital outflows from Russia, in the host countries, Russian enterprises may still be regarded as Russia's foreign policy tools.

From the Russian perspective, the outward expansion of Russian firms is essential for both individual companies and the Russian economy as a whole. The companies must become more international in order to survive global competition, which will become increasingly fierce after Russia's WTO accession.

At the same time, the Russian economy requires structural reform and an improvement in its competitiveness to transform the country from a natural resource-based economy towards a modern service and innovation-oriented one. Outward expansion is perhaps the most effective way of forcing companies to change their old management practices. International experience through outward investment would provide an effective means of promoting management and technology transfers to Russia, since the domestic enterprises would have to improve their business practices more actively than when operating merely in home-based locations.

The policy of the Government of Russia towards Russian companies' internationalization is currently not supportive enough. In Russia, FDI by home-based companies is often regarded as unwanted capital outflows and government policies tend to discourage these investments. Thus, the situation inevitably calls for effective separation measures between non-legal capital transfers and, asset purchases to advance the global competitiveness of Russian firms. Future government policy towards outward FDI by Russian companies plays an essential role in the development of these investment flows, which are bound to increase further once a coherent FDI policy framework is established. In addition, the Government has few effective means to stop outflows of investment, and building a more supportive investment regime would not only add to the competitiveness of Russian companies but eventually also to the transparency of investment flows in general.

Apart from their home country policy issues, the attitudes of the host countries towards Russian FDI have created obstacles for Russian business expansion abroad. Especially, the Baltic States and the former socialist countries of Europe may prefer Western companies to Russian ones as the owners of their strategic assets in the energy industry. This controversy has sometimes led Russian companies to adopt questionable investment schemes. Several examples can be found in the aforementioned countries, where Russian investors have channelled funds via a third country. Here, the distinction

between the cause and effect often becomes complicated; i.e. the reluctance towards Russian FDI may have prompted Russian companies to resort to dubious investment schemes, while the questionable investment practices themselves have partially caused the reluctance on the part of the host countries.

By promoting transparent and business-oriented investments abroad, Russian firms could change the attitude in the host countries. Given the deep-rooted historical resistance towards Russia's political and economic dominance in the former socialist bloc, the ultimate goal behind the internationalization of Russian companies plays a significant role in how these companies are perceived in the host countries. However, more recent developments point to the emergence of companies in the newly emerging industries. These Russian manufacturing and telecommunication companies are rapidly catching up with the natural resource-based conglomerates in the global scene.

In the future development of the investment environment, further emphasis could be placed on investment capacity building measures. In cooperation with the private sector, it would be possible to develop, for instance, marketing and management expertise and put in place the structures necessary to facilitate outward FDI. Providing information by bringing together the potential investors and government and financial service providers would serve as an important facilitative measure for outward FDI. Increased expertise on cross-border transactions, international law and investment practices is an example of what efficient public-private cooperation in capacity building could achieve. In addition, it should be emphasized that outward FDI promotion leads to the transfer of best practice by linking investors directly to relevant information on investment opportunities and operating conditions abroad. Although supporting institutions have started to emerge in Russia, further initiatives are required from the public sector to facilitate the development of the internationalization potential of Russian small and medium size enterprises (SMEs) in particular.

From the host countries' point of view, Russian firms conducting transparent and non-politically-motivated businesses, i.e. the companies belonging to the Transparent Independents category, are the most welcomed ones. The host countries' attitudes towards the companies in the Transparent Patriots category depend on the extent to which they operate in the interests of Russia's foreign policy. On many occasions, companies in the Non-transparent Independents category may be regarded as unwanted due to their non-transparent business practices.

Companies in the Non-transparent Patriots category are particularly unwelcome in those host countries that have struggled against Russian dominance. However, it should be pointed out that faced with energy supply realities for instance, the host countries are often obliged to accommodate companies in the Transparent and Non-transparent Patriots categories as their sole energy suppliers. It should also be noted that Russian companies may have a Janus-face i.e. they may employ different strategies in different regions. While a company may act as a Patriot in nearby countries, it may employ a market-oriented business strategy in other target markets.

The outward expansion of Russian companies will be dominated by strategic industries for some time to come, and hence, a widespread foreign expansion of Russian SMEs and companies in non-natural resource-based sectors could remain marginal in the near future. However, in the longer run, we can expect increasing market-oriented expansion along with the development of the Russian SME sector. The outward investment potential of Russian SMEs cannot be neglected, but considerable policy improvements are necessary for the companies to develop more sophisticated internationalization practices. In the absence of proper policy measures, vast amounts of capital will continue to flee the country through unregistered channels instead of finding legitimate routes. If the Russian economy succeeds in reducing its dependency on the export of strategic natural resources, the Russian government policy towards internationalization may become less politically oriented. If this is to happen, it is likely that host country policies, particularly

in the ex-CMEA countries, towards Russian business entry will become more neutral. ■

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The transnationalization of Brazil's software industry

Raul Gouvea*

Transnational corporations from developing countries are now an important feature of the global business environment, as they compete with those from developed countries in several industries and markets. Over the past three decades, several Brazilian companies have developed transnationalization strategies, and the profile of Brazilian TNCs has changed significantly. Brazil is joining other developing countries, such as India, that are creating a new class of transnational corporations in the IT industry. This note analyses the Brazilian software industry and the transnationalization strategies of Brazilian software companies.

Key words: transnationals, Brazil, software

1. Introduction

Transnational corporations (TNCs) from developing countries are challenging the perception that they are mostly recipients – rather than creators – of technology. The development of indigenous technology has resulted in technology-based transnationalization by companies from developing economies, such as Brazil, India, Mexico, the Republic of Korea and Taiwan Province of China. The increasing technology outflows from developing countries and the emergence of developing country TNCs bear out this shift in the global economic landscape (Aggarwal and Agmon, 1990; Baer, 2002; Kuada and Sorensen, 2000; Rocha, 2003; UNCTAD, 2002; Vyas, 2003).

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The forces behind globalization (trade and investment liberalization, technological change, improvement in infrastructure) have led to an unprecedented increase in international knowledge transfer. These forces are also fostering and facilitating the expansion of emerging TNCs. Globalization is levelling the playing field, dismantling many traditional barriers to investment and making business environments more similar. The increasing flows of technology are also narrowing the technology gaps between developing and developed countries, at least as far as the more industrialized developing countries are concerned. The increased use of common platforms in software (Microsoft, Linux) around the globe is facilitating the expansion of software exports by developing countries (Albuquerque, 2000; Conceicao *et al*., 2002; Feiman and Knox, 2002). Thus, the traditional North-South paradigm in which innovative technologies are assumed to flow from the North to the South is being challenged by emerging developing country TNCs as they enter more technologically sophisticated activities. Many companies from developing countries are contributing to global technological development and creating competitive advantages in high-tech activities like software development (Bell, 1984; Dalhman and Sercovich, 1985; Katz, 2001; Lall, 1983, 1990).

There is a growing realization of the role of the software industry as an important driver of innovation (Correa, 2003; Keeble *et al.*, 1998; Polzin, 1998). The software industry can positively impact all sectors of the economy, becoming a key feature in a developing country's quest for economic growth and development (Feiman and Knox, 2002).

The expansion of emerging TNCs abroad reflects both firm and (domestic) economic factors. On the firm side, the main factors are indigenous technological competence and other intangible assets, the appropriateness of process and product technologies, firm strategy; and cultural and ethnic ties with foreign markets. On the economic side, the factors are the size and growth prospects of the domestic market, regional economic

integration and home country policies (Lecraw, 1999; Maitland and Nicholas, 2002; Mathews, 2002; 1994; Wells, 1983).

Over time, emerging Brazilian TNCs have diversified the activities they undertake abroad. One important new area is information technology (IT) based services. In the last decade, Brazil has boosted its production of indigenously developed software, and Brazilian software companies are becoming increasingly active on a global scale. This article analyses the Brazilian software industry and the transnationalization strategies of Brazilian software TNCs.

2. Brazilian TNCs

The profile of Brazilian TNCs has changed significantly in the past three decades. During the first transnationalization phase (1970-1980), Brazilian TNCs were mostly engaged in licensing, consulting and technical services (LCTS), industrial projects and retailing. In this phase, companies like Norberto Odebrecht (LCTS), Pao de Acucar (retailing) and Petrobras invested overseas. In the second phase (1981-1990), Brazilian TNCs expanded the range of their activities to banking, telecommunications, transport and oil exploration; companies like TV Globo and Banco Itau went overseas. The first and second phases were marked by the transnationalization of mature companies and market leaders. These companies were large in size and, by Brazilian standards, strong in technological innovation. Their technological capabilities underpinned their transnationalization process (Birchal, 2002; Brasil *et al*., 1996; Diaz-Alejandro, 1977; Gouvea, 1991). The third phase (1990 to the early 2000s) saw a much broader range of Brazilian companies of different sizes and from different industries (including services) going international. A number of industry leaders like Votorantin, Cutrale, Ambev, Amil and Localiza ventured overseas (Dias and Camargos, 2003; Pimenta, 2004). The 1990s also witnessed the emergence of TNCs in the IT industry, mostly software producers (Chudnovsky and Lopez, 1999; Gouvea, 1995; Hessel, 2004; Iglesias and Veiga, 2002).

The 1990s was a turning point in the transnationalization of Brazilian companies. As the domestic market, which had been protected from foreign competition, was opened up, Brazilian companies were forced to change their business strategies radically to respond to the growing presence of foreign companies in the domestic market (Martinez, Souza and Liu, 2003). In addition, the privatization of the infrastructure (e.g. telecommunications) facilitated the transnationalization of Brazil's services sector. It allowed small and medium-sized service companies to grow and later to penetrate international markets. The creation of trading blocks, like Mercosur in 1995, and the prospect of the Free Trade Agreement of the Americas (FTAA) encouraged many Brazilian companies to develop international strategies (Gouvea, 1998; Rocha, 2003).

3. Brazil's emerging software industry

Brazil is rapidly becoming an important producer of locally developed software. In 2002, the size of the Brazilian software market was valued at $7.7 billion, the seventh largest in the world (Albuquerque, 2003). This is comparable to the size of the markets in India and China valued at $8.2 billion and $7.9 billion respectively. Over the period 1991-2000, the Brazilian software industry grew by 490%, compared to 360% for the United States (MIT/Softex, 2003; Haberkorn, 2002; Albuquerque, 2003; West, Wasserman and Poroger, 2003). In 2002, the Brazilian software industry comprised around 3,500 companies employing some 180,000 people. Two-thirds of these companies were created in the 1990s. Some 80% of them were small firms, with annual revenues of less than $1.5 million; 65% had less than 25 employees. The industry is mostly domestic market oriented. It has six main areas of specialization: finance, electronics, government procurement, information security, telecommunications and management software (Conceicao *et al*., 2002; Coutinho, 2002; Humberto, 2002).

Table 1 compares the Brazilian software industry with its Indian and Chinese counterparts. Brazil and China have

developed inward-oriented software industries, whereas India has developed an export-oriented one.[1]

Table 1. The software industry in Brazil, China and India, 2001
(Billions of dollars)

Item	Brazil	China	India
Home market sales (products and services)	7.7	7.9	2.0
Products	3.6	3.6	..
Services	4.1	4.3	0.4
Exports (products and services)	0.1	0.4	6.2
Total	7.8	8.3	8.2

Source: Albuquerque (2003).

The Brazilian software industry has developed mostly in the past two decades. In the 1980s, its main products were in financial software, with the increasing needs of Brazilian banks to develop in-house software capability (Albuquerque, 2003; Correa, Erber, 2002; Hessel, 2004; Paduan, 2002, 2003a, 2003b; Nascimento and Marinho, 1999). The protectionist policies of the 1980s, however, discouraged the development of the indigenous software industry, reducing the exchange of technology with other countries (Alem, Mendonca and Gimabiagi, 2002; Tigre, 2002).

The liberalization of the 1990s changed the business mindset. As the market was opened up to foreign competition, research and development (R&D) became more important for

[1] In fact, increasing technological cooperation between the Governments of Brazil and India is taking place. The Brazilian Ministry of Science and Technology and the Indian Ministry of Information Technology have developed a number of agreements to set up a Brazil-India task force on information technology. At the firm level, Indian companies like the Tata Group are increasingly penetrating the Brazilian market; the Group has a joint venture with the Brazilian company TBA. The company has set up software development centers in Brazil employing more than one thousand people (Teixeira, 2004; Somayaji and Varma, 2007).

Brazilian companies (Gouvea, 2004). Liberalization also stimulated the growth of software companies, helped by several government programmes. For instance, in 1993, the Sub-committee of Software Quality and Productivity (SSQP) was created to introduce international standards and to promote quality and productivity with a view to making the Brazilian software industry globally competitive. The Secretariat of Information Technology (SEPIN), based in the Science and Technology Ministry, was later made responsible for designing and implementing software policy; it launched training programmes, proposed guidelines for government procurement and started investment funds to support the software industry (Weber and Amaral, 1999; United Nations, 2003).

During the same period, several Brazilian universities created software development centres. For instance, Brazilian universities such as Unicamp, Universidade do Estado de Sao Paulo (USP), Pontificia Universidade Catolica do Rio de Janeiro e Rio Grande do Sul, Universidade Federal de Pernambuco, Universidade Federal do Rio Grande do Sul, e Universidade Federal de Juiz de Fora became important centres of software development.

The creation of software development centres was a result of this close collaboration between the State, universities and the private sector. This "triple helix" effect led to the emergence of several software "research poles" in the country. The Council on Information Technology (CATI) oversaw these research poles, several of which are geared towards software production. Software poles such as Recife Technology Centre (CESAR), the Softex Science and Technology pole of São Paulo, the Softex pole of Petropolis, Campina Grande, Centro Tecnologico de Belo Horizonte and Rio Grande do Sul are leading (Balbio, 2004; Taquari, 2003; Weber *et al.*, 2000).

The need to diversify Brazilian exports led the Government to set up programmes to boost exports of knowledge-intensive products and services in the 1990s (e.g. Progex, PNPE, Apex). The National Development Economic and Social Bank (BNDES) established the Prosoft Programme to

support Brazilian software companies selling their products and services overseas (Tigre, 2002). The Brazilian Society for the Promotion of Software Export (SOFTEX), created in 1992, played an important role in changing the mindset of the industry from an inward to a more outward looking orientation and, in persuading the Government to support software export. By organizing exporting seminars and encouraging domestic companies to participate in international meetings like CEBIT and COMDEX, SOFTEX helped companies to sell their products overseas. It created a trademark "Brazilian Software". Thus, a partnership developed between the infant software industry and Brazilian policy-makers, fostering the development of the industry.

The further development of the industry, however, faces new challenges. Many Brazilian software companies still lack CMM (Capability and Maturity Model) and ISO certification, a precondition for further penetration of the world market. Most Brazilian software companies are still small and lack the resources to develop their brands overseas.

4. Transnationalization strategies

Brazil is Latin America's leading exporter of software with the value of its exports reaching $115 million in 2002, up from only $1 million in 1990 (Behrens, 2003; Correa, 1996; Paduan, 2003; Valoso, Botelho and Stefanuto, 2003; MIT/Softex, 2003; Behrens, 2003).

To assess the transnationalization strategy of the Brazilian software industry more closely, data on a sample of 21 Brazilian software TNCs were collected from company websites, business newspapers, magazines and five interviews. These companies covered different areas of software and different entry levels and modes.

The Brazilian software industry is still primarily oriented to the domestic market, with exports currently accounting for less than 10% of sales. In the early 2000s, however, the industry felt the need to globalize to reap economies of scale and to access

foreign technology. Brazilian software TNCs, founded in the 1980s and 1990s, launched overseas operations much faster than traditional Brazilian TNCs. Table 2 shows their areas of specialization. For instance, Microsiga offers software in the area of corporate management systems; it is the Brazilian leader for corporate management software, accounting for 62% of Brazil's low-end market. Light Infocon develops internet solutions for text retrieval and document management. Ever Systems is the leader in Latin America in e-finance (e.g. e-banking, e-investment, e-payments); it created the first wireless banking software in Brazil and the first cell payment system in Latin America.

Table 2. Brazilian software companies: main areas of operation

Company	Main areas of operation
Akwan	Search engines; systems for organizing information
Apyon	Productivity solutions for application development process
CMP	Business intelligence data warehouse
Cyclades	Out-of-band management platforms
Cyrnel	Solutions provider for financial institutions
Disoft	Management of credit operations via the internet
Easycae	Automation and optimization of the engineering design process
Epsoft	Developing software for information processing
EverSystems	Development of financial transactions solutions
Impactools	IT solutions for the insurance industry
Itautec	Software for information systems
Light Infocon	Web solutions related to document management
Microsiga	Corporate management systems (ERP/CRM)
OpenConcept	E-payment management; cards validation systems
Politec	Total enterprise security, document management, imaging
SoftwareDesign	Financial, telecommunications and database marketing
Stefanini	E-procurement systems, infrastructure and network administration
RMS	Retail systems
Teknisa	Enterprise resource planning, vertical solutions, palm top systems
Vesta	E-government, procurement portals

Source: Compiled by the author from interviews, company web sites, business newspapers and business magazines.

The main motive for transnationalization at the enterprise level was the exploitation of a unique technological advantage. Each Brazilian software TNC had developed proprietary software: Microsiga's AP6ERP/CRM Master, Teknisa's TecFood software, Ever-Systems e-finance solutions and the Cyclades Linux AlterPath line of products. The pattern of markets served (table 3) shows that cultural and ethnic ties have facilitated overseas investment. Most of these TNCs set up affiliates in Latin America. Within the European Union, most Brazilian companies targeted Portugal and/or Spain. Over time, however, more software companies aimed to enter the United States market. For instance, software companies such as Politec, EverSystems and Stefanini have set up operations in the United States. Increasingly, economic ties with India and China are leading software companies like LighInfocon to seek to penetrate these markets in addition to Latin America.

Table 3. Brazilian software companies: Markets served

Firm/market	Latin America	North America	Europe	Asia	Africa	Australia
Akwan	•		•			
Apyon		•				
CPM	•	•	•			
Cyclades	•	•	•	•	•	•
Cyrnel	•					
Disoft	•					
Easy Informatica	•					
EasyCae		•				
Epsoft			•			
Ever Systems	•	•		•		
Impactools	•	•	•			
Intautec			•			
Light Infocon			•			
Microsiga	•					
Open Concept	•	•	•	•		
Politec	•	*				
Software Design	•			•		
Stefanini	•	•	•			
RMS	•					
Teknisa	•					
Vesta	•					

Source: Compiled by the author from interviews, Brazilian business magazines, newspapers and company websites.

On the economic environment side, the main factors driving transnationalization were the limited size of the domestic market, the structure of demand and the weak growth potential of the Brazilian market. Most companies were leaders in their product segment, and the saturation of the domestic market led them to look to overseas for growth. Regional trade agreements like Mercosur facilitated rapid expansion in neighbouring countries. The prospect of the establishment of the FTAA in 2005 is leading several companies to consider expansion in North America. More recently, Brazil's trade agreements with India and closer economic ties with China are leading these companies to search for opportunities in these countries.

Brazilian software TNCs have used different modes of entry (table 4). Most started by exporting their software, then moved on to forging joint ventures and finally, to establishing wholly-owned affiliates. For instance, Light Infocon established a joint-venture, Online Productivity Solutions, with the Indian company, Goan, to produce software; Akwan formed a joint venture with the Spanish group, Prisa; Epsoft is building a strategic alliance with TGK of Japan to expand its operation in Japan; Cyrnel International has developed strategic alliances with the Mexican PIP and with the United States company, Financiometrics. Alliances with established TNCs have also been used by these companies. For instance, Vesta Technologies, specializing in e-government, has entered into an alliance with Unysis to market its products in Latin America. On the other hand, companies like Cyclades and Microsiga have set up wholly owned foreign affiliates. In 2003, Microsiga acquired the Mexican software company, Sipros, establishing a wholly owned operation in Mexico. Cyclades has wholly owned operations in several countries, including Australia, France, Singapore and the United States.

These foreign affiliates are actively engaged in developing new products for foreign markets, conducting business environment assessments, and adapting and customizing existing products. Politec's foreign affiliate in the United States provides localized solutions for United States

companies and the Government, and its technological strength has attracted a wide array of clients, including the Federal Bureau of Investigation and the Department of Defence. Stefanini has foreign affiliates in Argentina, Chile, Colombia, Mexico, Peru, Portugal, Spain and the United States. They design local solutions that are developed and produced in the company's factories in Argentina, Brazil and Mexico.

Table 4. Brazilian software companies: entry modes

Company	Exporting	Joint ventures	Wholly-owned foreign affiliates
Akwan	•	•	
Apyon	•		•
CPM	•		•
Cyclades	•		•
Cymel	•	•	
Disoft	•		•
EasyCae	•		
Epsoft	•	•	
EverSystems	•		•
Impactools	•		
Inatel	•		
Iautec	•		•
LightInfocon	•	•	
Microsiga	•		•
OpenConcept	•		
Politec	•		•
SoftwareDesign	•		
Stefanini	•		•
RMS	•		
Teknisa	•		
Vesta	•	•	

Source: Compiled by the author from interviews, company websites, business newspapers and business magazines.

5. Sources of competitiveness

In the past two decades, some Brazilian software TNCs have become competitive at the global level. Several attributes have shaped the environment in which these local companies

compete and have fostered the development of firm-specific competitive advantages (Veloso, Botelho, Tschang and Amsde, 2003).

The Brazilian software industry has seen substantial transformations in the past two decades. The pre-1990 period was characterized by high levels of market protection, economic instability, low domestic market penetration by international software companies and intense indigenous technology development in the software industry. The post-1990 period has been characterized by the globalization of the Brazilian software industry with increasing penetration of the local market by foreign software companies, such as Microsoft, Oracle and SAP, and by the increasing globalization of Brazilian software companies (Nascimento and Marinho, 1999; United Nations, 2003).

One important characteristic of the Brazilian software industry has been the significant level of domestic competition. Brazil's extensive and dynamic market has resulted in the creation of thousands of software companies. Brazilian software companies have been competing not only with other local companies, but also with foreign companies operating in the Brazilian market. Because of this competition, they have developed distinctive technology and know–how, mostly providing software to Brazil's leading industries. Throughout the course of this process, they developed unique solutions that were later used overseas (Veloso, Tschang, and Amsden, 2003).

Brazilian software TNCs have focused their business on supporting the leading industries of the Brazilian economy. This specialization has resulted in the development of industry-specific technology and expertise. Brazilian software TNCs are competitive in the areas of banking, telecommunications, e-government, business management, data and network security, and large-scale customer management systems for the Brazilian private sector and Brazilian government agencies.

Brazil's large domestic market has been characterized by local clients with extremely sophisticated software demands. Over the past two decades, industries such as banking and telecommunications as well as the Government of Brazil have demanded state-of-the-art software from local companies, providing incentives for innovation and the development of unique solutions.

Brazil has the most sophisticated financial system in Latin America. Decades of high inflation and economic instability experienced by the Brazilian banking industry resulted in these institutions demanding sophisticated banking and financial software. Local software companies were given the opportunity to respond to these needs. As a result, they acquired the skills to develop complex systems. For example, Everystems developed the first home-banking system for the Brazilian bank, Unibanco. The company also introduced the first e-mail banking service in Latin America. Currently, the banking industry accounts for approximately 30% of Brazil's investment in IT. The relatively large size of these industries also allowed domestic companies to benefit from economies of scale in creating and adopting new product and process technologies (Botelho, Stefanuto, and Veloso, 2005).

The Government of Brazil has also been a strong supporter of local software development. The buying power of the Government has been used to promote the development of local software companies. E-government initiatives have led to the creation of new capabilities, such as electronic voting and e-filing for tax returns. In Brazil's last election, 114 million votes were counted in less than 12 hours, and 95% of Brazil's tax filing is done on-line. Local companies, such as Vesta, have developed a number of e-solutions for the Government, which are now being sold overseas. In addition, government programmes like the Society for the Promotion of Excellence in Brazilian Software promote and foster local industry, while the implementation of State-sanctioned projects, such as the "Sectoral Project for the Export of Software", has assisted the transnationalization of the Brazilian software industry.

Brazilian software companies have also undergone a radical managerial transformation. Market-oriented reforms, such as the opening of the Brazilian market to foreign companies, and the increasing role of venture capitalists in the software industry, promoted dramatic changes in the way Brazilian software companies manage their operations. For example, a more competitive market forced domestic companies to improve their managerial capabilities. Venture capitalists prompted domestic software companies to define and implement business plans and models. In addition, venture capitalists introduced outside business professionals to reinforce further the application of business models. Companies that emerged in the 1990s were strongly influenced and shaped by these new market forces (Veloso, Botelho, and Stefanuto, 2003). Prior to 1990, most software companies were managed by technical professionals. Since then, these companies have learnt to become more efficient.

Brazil's economic environment had the appropriate pre-conditions for the software companies to develop into a competitive industry. It had a large domestic market that functioned as an incubator of software companies; a well developed telecommunications infrastructure; and a large pool of qualified IT professionals. In addition, Brazil's entrepreneurial environment, coupled with a strong research and technical IT base and a pro-active government, created the conditions for software companies to thrive. Brazilian software companies invested heavily in indigenous technology, accumulated in-house knowledge and became innovative in a number of niche markets. These software companies developed products and services for leading Brazilian industries. Managerial reforms also contributed to the competitiveness and efficiency of these companies. Leading industries helped to structure and improve the competence of these domestic software companies. Brazilian software companies learned to be creative and flexible as a result of their domestic operations, further enhancing their international competitiveness (Veloso, Tschang, and Amsden, 2003; Botelho, Stefanuto, and Veloso, 2005).

6. Concluding remarks

Brazil is becoming a force in the global software industry. Unlike their Indian counterparts, Brazilian software companies have primarily targeted the domestic rather than the export market. However, this orientation is changing. Several Brazilian companies have developed unique ownership advantages that allow them to expand operations overseas. Some of them have had a strong global orientation from the outset. Brazilian software TNCs have a strong Latin American orientation, but are increasingly targeting the United States as well as European and Asian markets. Many of them have used joint-ventures with foreign companies to establish their presence overseas. The expansion of software TNCs is a new phase of the globalization of Brazilian companies and is likely to continue in the foreseeable future. ■

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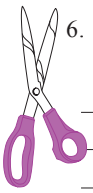

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