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Contents

The investment development path: a new empirical approach and some theoretical issues

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Inward and outward foreign direct investment of countries follow a path related to their level of economic development. After reviewing the empirical evidence on the investment development path, some weak points are identified. To overcome these, an alternative method of assessing the investment development path is proposed. This method allows an enhanced knowledge of the nature of the investment development path, as well as a more in-depth analysis of the different stages. Factor analysis allows the inclusion of a greater number of structural variables in this analysis. One of the findings is that inward and outward foreign direct investment has a structural nature that is interrelated with the level of economic development. In addition, cluster analysis allows to group countries within the different stages of the investment development path. The empirical findings of the analysis support a proposal for redefining a fourth stage in the investment development path.

Introduction

The investment development path (IDP) (Dunning, 1981, 1986, 1988b, 1993; Narula, 1996; Dunning and Narula, 1994) is based on two premises: economic development implicitly involves a succession of structural changes; and these changes entail a dynamic relationship between their nature and the type and volume of foreign direct investment (FDI) that a country sends and receives (Lall, 1996b). The IDP model consists of five stages. Countries that receive virtually no FDI belong to the first stage, while those that do receive FDI flows are in the second stage. In the third stage, countries are beginning to

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make investment abroad, but still remain net receivers of FDI. In the fourth stage, outward investment is higher than inward investment. Finally, in the more advanced countries, in the fifth stage, on average, FDI outflows are neutralized by incoming investment. These countries tend to reach an unstable equilibrium around zero. The trend of this latter stage is consistent with the international integration of the industrialized economies (Dunning, 1993; Dunning and Narula, 1996, p. 7).

Upon analyzing the empirical evidence, some weak points in the IDP have been identified (Narula, 1996). To overcome these, an alternative method of assessment that allows for a more in-depth analysis of the different stages of IDP is proposed. In the first section, the new method of empirical assessment is discussed. A description of the relationship between the economic structure of countries and inward and outward FDI stock is presented in the second section. The results obtained from applying multivariate analysis techniques to a group of 85 countries, separately for developed and developing countries, are presented in the subsequent section. The results also yield a new definition of the fourth stage of IDP.

The need for a new approach

Evidence for the existence of IDP attempts to measure the functional relationship between a country's level of inward and outward FDI and the degree of economic development using cross-sectional data (Dunning, 1981, 1986; Dunning and Narula, 1996; Narula, 1996). Cross-sectional analyses pose a methodological problem that is difficult to solve: they are a static tool that describes an existing relationship between variables at a specific point in time, while the IDP is essentially a dynamic concept. Another group of studies analyzes the peculiarities of IDP for individual countries[1] and is of a longitudinal nature. The analysis presented here focuses on the first type of empirical testing and proposes a new methodological approach, namely, to test a given number of hypotheses on IDP. It also analyzes individual relations between the economic structure of

[1] An example of specific studies on certain countries can be found in Dunning and Narula (1996), in which the following authors have collaborated: Clegg (United Kingdom), Graham (United States), Zander and Zander (Sweden), Ozawa (Japan), Akoorie (New Zealand), Campa and Guillen (Spain), Calderón, Mortimore and Peres (Mexico), Van Hoesel (Taiwan Province of China), Lecraw (Indonesia), Kumar (India), Zhang and Van den Bulcke (China). A more recent publication is that of Buckley and Castro (1998) on the Portuguese economy.

countries and their inward and outward FDI stocks. In this way, three major methodological problems are identified by reviewing the literature on the IDP:

- The econometric models used to date are not an adequate tool for testing IDP (Dunning and Narula, 1996).
- The net outward investment FDI stock per capita (NOI = Outward FDI stock – Inward FDI stock) is an incomplete indicator for analyzing the effect of structural changes on inward and outward FDI.
- Gross domestic product (GDP) per capita alone is an insufficient indicator of the level of economic development of a country (Dunning and Narula, 1996).

The equation used to assess IDP empirically for a set of countries was a quadratic equation suggested by John H. Dunning (1981):

$$NOI_i = \alpha GDP_i + \beta GDP_i^2$$

where both variables are standardized for their corresponding populations (Dunning, 1997; Dunning and Narula, 1996; Narula, 1996; Tolentino, 1993). However, there are statistical inconsistencies in this model (Narula, 1996):

- The quadratic equations appear in different forms if the sample of countries varies.[2]
- The models have shown problems of heteroskedasticity.[3]

Using the net position of FDI has two significant disadvantages. First, any increase on the net position of FDI could be interpreted as an indicator of increased competitiveness of the economy, but it could be, to a certain extent, due to a divestment process in response to a

[2] Dunning and Narula (1996) show a J form of their quadratic equations, in which the relationship between GDP per capita and net outward inward stock of FDI per capita (NOI) is positive, while Tolentino (1993) obtains an inverted J form, that is the relationship between the variable and NOI has a negative sign.

[3] Dunning (1981, p. 53) tackles the problem of heteroskedasticity. In Narula (1996, p. 43), developing countries showed a grater variance of errors. The small size of the sample does not allow division into two groups. Also, it is not possible to identify a functional relationship between the errors and the net investment position that will facilitate the use of the generalized linear regression model.

deterioration of a country's investment environment.[4] Secondly, the fifth stage of IDP suggests that the most developed countries will show an unstable equilibrium of their net FDI position around zero.[5] At the same time, the poorest countries that receive very little FDI also show a net FDI position of zero. Consequently, a net FDI position around zero is a characteristic of countries in both the first and fifth stages of IDP. This could prove inconvenient from a statistical point of view. These two problems can be overcome by using inward and outward FDI stocks separately, in addition to the net position of the FDI stock.[6]

It is to be expected that the higher the level of development of an economy, the higher the level of inward and outward FDI stocks. Therefore, the net investment position will be omitted and instead the FDI stock will be used. If both variables in absolute terms are used, due to size differences among countries, the economies that have proven to be more dynamic in receiving and undertaking FDI, such as Switzerland, Hong Kong (China) and Singapore, will be eclipsed. In order to address this bias, relative measurements regarding population or gross domestic product (GDP) have been designed;[7] but the opposite effect may also occur, with large countries of the size of China, Brazil or the United States risking to be eclipsed. So as not to lose the information provided by the measurements in both relative and absolute terms, both types of variables should be used in the statistical analysis.

The use of GDP per capita as an explanatory and discriminatory variable implies the relinquishment of the diversity inherent in each of the economic structures. In order to solve this

[4] An article by Buckley and Castro (1998), analyzing the Portuguese case, proposes a new function: $NOI_t = aGDP_t^3 + b\,GDP_t^5$, which obtains better results than the traditional models. These results are a good example of how using the net investment position (NOI) could lead to erroneous interpretations. In the case of Portugal, after 1993, the NOI increased substantially, and this could be interpreted as increased competitiveness resulting in an outward FDI flow. However, this was not the case; the NOI increased due to a significant decrease in FDI inflows, probably as a result of the end of the privatization process in the country.

[5] The fifth phase has been incorporated into IDP as a result of the globalization process (Dunning, 1993; Dunning and Narula, 1994, 1996).

[6] Narula (1996, p. 54) analyzes the relationship between inward and outward FDI stock per capita and a set of variables intended to reflect both the degree of development and the incidence of structural heterogeneity.

[7] There is a close correlation between both measurements, which adds superfluous information to the model. Therefore, inward and outward FDI stock per capita was used, because it is the variable used by Dunning (1981, 1986, 1988b), Dunning and Narula (1994, 1996), Narula (1996, p. 44) and Tolentino (1993).

deficiency, the proposal was to incorporate a set of variables which, on the one hand, reflects the degree of transformation or transition of an economy and, on the other hand, helps to reflect the diversity of the development models applied by countries.[8]

A new approach to the IDP

Once inward and outward FDI stocks are incorporated in the analysis, it is necessary to include variables associated with the structural dimension of countries. To do so, given the limitation of the econometric model, multivariate analysis[9] is used because it allows (figure 1) to test whether or not there is a relationship between the degree of economic development and inward and outward FDI stocks; to make explicit the specificity of countries and its effect on the level of inward and outward FDI stocks[10] (Dunning, 1988b; Narula, 1996, pp. 23-25); and to classify countries within the different stages of IDP based on their structural similarities.

We use factor analysis (main component) to discover the relations between the variables that explain the degree of structural transformation in an economy and the inward and outward FDI stocks. The nature of this relationship is the essence of IDP. The use of factor analysis allows the identification of the singularities of countries and their impact on inward and outward FDI stocks. It also allows the identification of variables that can be used to group countries according to their stage in the IDP using cluster analysis. Finally, a non-parametric test is used[11] to show statistically that the differences

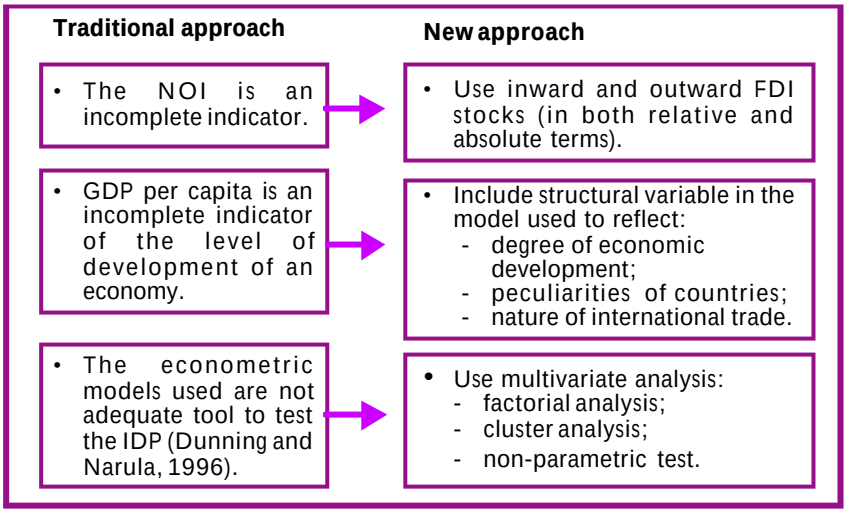
[8] When examining empirical studies related to IDP, a method frequently used is the econometric study of the existing relationship between a series of macroeconomic variables and the behaviour of these countries' inward and outward FDI (Dunning, 1981, p. 54; Dunning, 1986, p. 69; Dunning, 1988b; Narula, 1996, p. 62). One of the limitations is the correlation between the explanatory variables (Dunning, 1986, 1988b).

[9] Dunning (1981, p. 53), in view of the econometric problems involved, uses multivariate analysis, by which he succeeds in showing that the factor warranting the greatest variance was the one that grouped NOI per capita and the GDP per capita. He then makes a cluster analysis once the variables and countries providing no information on the model have been eliminated.

[10] Empirical evidence by Dunning (1981, 1986, 1988b) used data on FDI flows published by the International Monetary Fund. Thus, Dunning (1981, p. 37) used the mean of the FDI flows as a proxy, and Tolentino (1993, p. 92) used the sum of the flows. Although both variables are closely related, Narula (1996, p. 41) pointed out the significant bias involved in these approaches, showing the need to use FDI stock variables.

[11] It was not possible to use ANOVA analysis since the Levene test showed that there was no homogeneity in the variance of the groups, which is a *sine qua non* for this type of analysis.

Figure 1. A new methodological approach of IDP



in the volume of inward, outward and net outward FDI stocks at different stages are consistent with the theory.

To this end, the following hypotheses underlying the IDP are tested:

- *Hypothesis 1*: Inward and outward FDI stocks are positively correlated with the level of economic development.

The empirical evidence shows that this relationship will not hold if there is no distinction between developed and developing countries (Narula, 1996, p. 55; Ohmae, 1986; Rugman, 2000). Therefore, three different samples are used: all countries, developed countries and developing economies.

The most developed economies tend to reach an unstable equilibrium around a net position of zero FDI. In order to test this, it is necessary to use longitudinal analysis. Using cross-sectional analysis allows only finding out the correlation between inward and outward FDI, and this does not necessarily imply an unstable equilibrium around zero. If an attempt is made to explain the differences that exist among developed economies as regards their inward and outward FDI stocks, it is to be expected that the structural variables

will lose explicative power for two reasons. First, the processes of economic convergence (Abramovitz, 1986, 1990; Alam and Nasser, 1992) imply a greater structural similarity among developed economies. Secondly, the variables related to a firm's specific advantages acquire a greater explanatory power of the inward and outward FDI stocks than the structural variables of an economy (Dunning, 1993; Dunning and Narula, 1994; Narula, 1996, p. 65).

- *Hypothesis 2*: For the developed countries, the inward FDI stock and the outward FDI stock are positively correlated.

- *Hypothesis 3*: The structural variables lose explanatory power over the stock of both inward and outward FDI in the case of developed countries.

Developing economies are net receivers of FDI and their locational advantages are related to their degree of economic development (Dunning, 1993; Dunning and Narula, 1996; Narula, 1996, p. 62). However, the outward FDI of these countries shows strong heterogeneity. This fact suggests that the outward FDI stock of developing economies depends to a greater degree on the activity carried out by national governments, and to a lesser degree on the level of economic development and inward FDI (Dunning, 1988a, 1993; Dunning and Narula, 1996; Dunning, van Hoesel and Narula, 1998, p. 266).

- *Hypothesis 4*: The inward FDI stock of developing economies is positively correlated to the level of economic development.[12]

- *Hypothesis 5*: The outward FDI stock of developing economies is related to both the degree of economic development and to the inward FDI stocks.[13]

The hypotheses made about the behaviour of inward and outward FDI stocks suggest the presence of a relationship with the degree of economic development. Therefore, there is a need to identify the information that should be incorporated in the

[12] The best results in Narula's work (1996, p. 62) are obtained by analysing the inward FDI stock for the least developed group of countries.

[13] The results obtained by Narula (1996, p. 62) show that when the outward FDI stock is analyzed for the developing economies, the structural variables experience a loss of explanatory power.

development vector. The IDP has its core in a theory of economic development that is essentially structuralist (Lall, 1996b, p. 423). Economic development is conceived as a succession of forms of production and economic behaviours that involve implicitly the economic and social modernization of a country. The economic and social transformations have some influences over the generation of strategic (created) assets, influencing the temporal behaviour of inward and outward FDI. Certain uniformity has been observed in the transformation that accompanies development, but considerable divergences between countries also exist. The justification for the divergences helps to understand the existence of economic structures that are significantly different at the same level of GDP per capita (Dunning and Narula, 1996).

As mentioned above, information provided by GDP[14] can be supplemented by a set of indicators intended to measure the degree of evolution of a country in the process of structural change, provided that they reflect the following (see annex tables 1 and 3):

- Quantitative and qualitative changes in demand reflecting an increase in the purchasing power of the population (GDP per capita).
- Accumulation and improvement of physical and human capital, with corresponding increases in per capita productivity (gross domestic fixed investment per capita, decrease in agricultural population, gross enrolment ratio in secondary schools and universities, adult illiteracy rate).
- Greater access to technology, trade and international capital (scientists and engineers involved in research and development (R&D), receipt of royalty and licence fees, number of patents held by residents, R&D expenditures).

[14] The GDP transformation proposed for the IDP is more complex. According to Ozawa's terminology (Ozawa, 1996), it begins with a labour-intensive manufacturing industry (Heckscher-Ohlin) (textile, footwear, or other types of light industry) as an export-oriented sector, passes through a non-differentiated Smithian industry based on economies of scale (chemical and heavy industries) and ends up with a differentiated, subcontract-dependent Smithian industry based on assembly (automobile and electric and electronic equipment industries). This supposition of industrial transformation reflects the switch from the first to the second stage and from the second to the third (Dunning, van Hoesel and Narula, 1996).

The transformation and accumulation processes that are inherent in economic development, together with government actions, generate changes in the competitive advantage of firms within a country, the country's location advantages and the internalization advantages of firms. In short, they converge into a profound transformation of the configuration of the afore-mentioned variables that make up the eclectic paradigm (Dunning, 1988a). This influences the degree of internationalization of an economy as regards foreign trade and FDI. Economic development implies the internationalization of a firm in two dimensions: exporting and FDI. Exporting, under certain circumstances, could be a precursor to investment abroad, and the transnationalization of a firm itself often generates foreign commerce. Consequently, it could be said that export activity, measured by the degree of openness, is related to inward and outward FDI stocks (Narula and Wakelin, 1998). The percentage of exports of high technology products is used as an indicator of the composition of trade that is positively correlated with economic development (Lall, 1998, 1999, 2000).

Idiosyncratic elements of countries are also taken into account. In this respect, the speed and direction of movements along the various phases of IDP depend on a set of factors that influence both the economic structure of a country and the type of investment it makes and receives (Dunning, 1988b). These factors can be classified as follows (see annex tables 2 and 4):

- Presence of natural resources (percentage of primary commodity exports).
- Geographical and cultural distances from home economies (Veugelers, 1991); this type of relationship is excluded from the analysis.
- Size of a country, which is an important location-specific advantage as a proxy for a country's actual or potential market (private consumption market, number of patents of non-residents, annual GDP growth rate).
- Economic system or development model. A distinction must be made between a development model focused on import substitution and one that is oriented towards the promotion of exports. It is assumed that this will be reflected in the intensity of its commercial relations (degree of openness).
- Type of action taken by governments as measured by fiscal policy (total debt service, taxes on international trade, including import duties, tax revenue as a percentage of GDP, total health expenditures).

The natural resource heritage of a country can be a source of income and a locational advantage for FDI (Narula, 1996, p. 62). However, the endowment of a country's natural resources does not depend on its level of development. Therefore, it can be considered as an exogenous variable. Countries that are rich in natural resources would be expected to receive more FDI than those with a similar level of development, mostly at the initial phases of IDP. Moreover, countries with natural resources can develop an industry related to these resources with their own technology, which could be used competitively abroad through outward FDI (Dunning, 1988a; Cantwell and Tolentino, 1990; Narula, 1996).

Market size is a variable of a hybrid nature. It is exogenous in the sense that it is related to the number of inhabitants, which has nothing to do with a country's level of economic development. At the same time, this variable has a clearly endogenous dimension since it is related to the purchasing power of the population, which is associated with the level of development. In the case of developed countries, Narula (1996, p. 62) showed that the size of the market does not have explanatory power over inward and outward FDI stocks per capita. However, it is suggested here that inward and outward FDI stocks, in absolute terms, have a positive relationship with market size (Dunning, 1981; Veugelers, 1991). In the case of developing countries, market size is not directly related to outward FDI (Dunning, 1988b). However, it is a locational factor for inward FDI (Narula 1996, p. 62).

Analysis for the sample of countries

The data, especially for the variables that were used here, are provided in annex tables 1 and 2. A sequential process is used in order to obtain a general model of principal components, which is shown in annex table 5. The final model includes 85 countries that account for 89.5 per cent of global outward FDI stock and 85.5 per cent of global inward FDI stock. The model encompasses three factors that explain 75.7 per cent of the information contained in the variables used.

Factor 1 (table 1) includes inward and outward FDI stock per capita with a positive sign. It also includes the variables related to economic development. The results confirm the principal hypothesis of IDP (hypothesis 1).

Table 1. Principal component analysis for all countries in 1997 (Model 3)

Variable[a]	1	2	3	Communality
Gross domestic fix investment per capita	0.824	0.246	-0.193	0.776
R&D/GNP	0.784	0.347	-0.114	0.748
Inward of FDI	0.834	1.218E-02	8.904E-02	0.704
Outward of FDI per capita	0.778	0.166	-3.225E-02	0.634
GDP per capita	0.891	0.286	-0.178	0.907
Agricultural population	-0.729	-1.189E-02	6.301E-03	0.531
Secondary schooling	0.903	2.413E-02	-6.701E-02	0.820
University	0.860	0.239	3.397E-02	0.798
Private consumption	0.234	0.919	-0.129	0.915
Inward FDI	0.283	0.872	-4.511E-02	0.842
Outward FDI	0.355	0.882	-8.454E-02	0.910
Export of primary commodities	-6.854E-02	-3.484E-02	.981	.969
Degree of openness	9.487E-02	-0.524	-8.094E-02	0.290
Cumulative percentage variance	*51.833*	*67.939*	*75.727*	

Kaiser-Mayer-Ohlin test: 0.798

[a] See annex tables 1 and 2 for the explanation of the variables.

Factor 2 (table 1) shows a positive correlation between market size and inward and outward FDI stocks in absolute terms. Market size appears to be a hybrid variable. It is exogenous to economic development, and it is positively correlated with inward and outward FDI stocks since the market itself is a location factor that can enhances the potential generation of created assets. Thus market size is endogenous to economic development.

Factor 3 (table 1) incorporated the natural resource endowments of countries, showing not only their independence from the level of development, but also the absence of any relationship between natural resource endowments and inward and outward FDI. This result explains the loss of explanatory capacity of natural resource endowments as regards the behaviour of inward and outward FDI stocks compared with the endowment of created assets involved in the development factor (factor 1).

Finally, the findings show no relationship between the degree of trade of a country and its inward and outward FDI stocks. With a cluster analysis, it was only possible to establish two groups of countries: developed and developing ones.

Analysis for developed countries

A cluster analysis allows identifying 21 developed countries.[15] Using a sequential process, one can solve two typical problems of the application of the factorial analysis to the study of countries. On the one hand, some variables show great homogeneity among the group of economies with no differentiating power.[16] On the other hand, economies with highly different and unique characteristics produce factors (relations between variables) that cannot be generalized. Annex table 5 shows and justifies the reasons why certain structural variables and countries have been excluded.

The model shows a good level of sampling adequacy (table 2). Two factors that include the same information (both in absolute and relative terms) have been obtained. Technological capacity is not only the main differentiating element among developed economies, but it also determines the outward FDI stock and the technological components of exports. The result obtained is consistent with the proposal in the international business literature stressing the increasing importance of created assets as a determinant of FDI (Dunning and Narula, 1994; Narula, 1996, p. 3), as well as the contributions to economic development in which technology plays a decisive part (Dosi, Pavitt and Soete, 1990; Cantwell, 1989; Barro and Sala-i-Martin, 1992). Table 2 also shows that the variable that explains outward investment is technological capacity for both big and small countries.

The behaviour of the inward FDI stock in the more developed countries requires more analysis:

- Inward FDI stock per capita is correlated only with outward FDI stock, thus confirming hypothesis 2. Nevertheless, it does not allow the confirmation of a trend towards an unstable equilibrium proposed in the fifth stage of IDP.

[15] The grouping of countries into "developed" and "developing" was obtained through a cluster analysis. For this reason, this grouping is different from the classifications established by the World Bank or the United Nations. In addition, Malta and Israel were excluded from the analysis of "developed" countries.

[16] A sample adequacy ratio was used to detect this type of variable. Its exclusion is recommended if the sample adequacy ratio is less than 0.7.

Table 2. Principal component analysis for developed countries in 1997 (Model 5)

Variable[a]	1	2	*Communality*
Patent of resident	0.885	0.103	0.794
Patent of non-resident	0.825	2.239E-02	0.681
Private consumption	0.944	-8.754E-02	0.899
Outward FDI	0.901	0.286	0.893
High technology exports (in current dollars)	0.952	0.238	0.962
Scientist and engineers in R&D	-0.280	0.764	0.662
R&D/GNP	0.246	0.819	0.731
Outward FDI per capita	0.117	0.804	0.660
High-technology exports (in percentage of manufactured exports)	0.265	0.832	0.763
Cumulative percentage variance	*510.606*	*780.292*	

Kaiser-Meyer-Ohlin test: 0.693

[a] See annex tables 1 and 2 for the explanation of the variables.

- The negligible relationship between inward FDI stock[17] and the structural and technological variables suggests that the location-specific advantages within the Triad (United States, European Union, Japan) are mainly conditioned by the complementary relationship between created assets offered by an economy and the network of international assets of companies. Therefore, variables of a managerial nature will have precedence over the structural variables (Dunning and Narula, 1996, p. 6; Narula, 1996, p. 66).

- As a result of economic integration, inward FDI stock per capita shows a marked homogeneity among developed countries. This fact, together with the relationship between outward FDI per capita and the endowment of created assets shown in the factorial analysis, allows to make the proposition that the differentiation between the fourth and fifth stages of IDP is based on the stock of outward FDI per capita.

The presence of a structural gap has been evidenced in certain economies, such as Singapore, Hong Kong (China), Republic of Korea,

[17] The convergence of the developed economies is one of the reasons given by Narula (1996, p. 63) explaining the worst results obtained for developed countries compared with developing countries when he analyzes the behaviour of inward FDI stock.

Ireland, Austria, New Zealand, Italy and Spain[18] (annex table 5). These economies belong to the fourth stage of IDP. Thus, using a non-parametric analysis, this stage is defined based on the inward and outward FDI stocks per capita and its net position (NOI).

The IDP for developing economies

Fifty-four countries have been classified for the developing IDP.[19] Three groups of countries belonging to the first three stages of IDP have been identified. The model shows four factors that explain 78.6 per cent of the variance. This allows testing the previous hypotheses (hypotheses 4 and 5) to a greater extent (table 3).

Factor 1 groups all variables associated with labour qualifications. However, it does not include any of the variables directly related to economic development (shown under factor 4). At first sight, this may seem to be contradictory to established theory (Borensztein, Gregorio and Lee, 1998; Benhabib and Spiegel, 1994; Barro and Lee; 1993). This differentiation has nevertheless proved to be indispensable due to the fact that some economies in transition (and the Philippines; see table 4) have shown unusually high labour qualifications for their general level of development (factor 4).

Inward FDI stock per capita is included in the development factor with a positive sign (factor 4). This implies that the degree of development is associated with FDI; that is to say that the stage of economic development can explain the level of inward FDI stock per capita (Narula, 1996, p. 62). The inward FDI stock in absolute terms is included in factor 3, together with market size and income from royalties. According to the findings, while market size is an important location-specific advantage, at the same time there must also be a certain technological level in the economy.

The high heterogeneity among transnational corporations (TNCs) based in developing countries leads to the generation of factor 2, which groups outward FDI stock in both relative and absolute terms

[18] The factor coordinates of Austria, New Zealand, Italy and Spain were very low, showing that the structural gap of these economies is essentially technological.

[19] Countries for which data are not available have been excluded. Panama, Mauritius and Croatia have also been excluded because of their singular peculiarities (e.g. tax heavens and civil wars).

Table 3. Principal component analysis for less developed countries in 1997 (Model 5)

Variable[a]	1	2	3	4	*Communality*
Adult illiteracy	-0.824	-0.112	9.719E-03	-0.226	0.743
Agricultural population	-0.698	0.132	-0.167	-0.348	0.654
Secondary schooling	0.828	0.352	3.530E-02	0.186	0.845
University	0.839	0.234	6.238E-02	0.229	0.815
Royalty and license fees receipts per capita	0.184	0.856	7.322E-02	0.183	0.805
Outward FDI per capita	90.665E-02	0.871	-3.674E-02	0.400	0.930
Outward FDI	70.897E-02	0.755	0.373	80.681E-02	0.722
Royalty and license fees receipts	0.294	0.494	0.600	-0.246	0.751
Private consumption	0.329	0.144	0.865	-40.580E-02	0.880
Degree of openness	0.269	-10.235E-02	-0.663	-70.131E-02	0.517
Inward FDI	0.113	0.103	0.788	0.276	0.721
Inward FDI per capita	0.236	90.683E-02	5.860E-02	0.848	0.787
Gross domestic fixed investment per capita	0.444	0.392	8.608E-02	0.701	0.850
GDP per capita	0.480	0.426	0.178	0.706	0.942
R&D/GNP	0.530	0.522	0.108	-3.959E-02	0.566
Cumulative percentage variance	*430.686*	*580.319*	*680.836*	*760.849*	

Meyer-Kaiser-Ohlin test: 0.731

[a] See annex tables 1 and 2 for the explanation of the variables.

and includes a technological indicator (income from royalties per capita). This could be due to one of the characteristics of the second wave of TNCs based in developing countries, namely, the fact that their competitive advantages include technology[20] (Dunning, van Hoesel and Narula, 1998).

The findings confirm that none of the technological indicators are included in the development factor. This is explained by the combination of two situations. In the first place, it is difficult to measure the technological capacity of developing countries. A large part of it is not codified because many of these countries lack an

[20] Narula (1996, p. 65) states that both patents and gross domestic fixed investment per capita are positively coreelated with outward FDI stocks in developing countries.

institutional framework to provide legal protection for such technology.[21] In the second place, Governments of developing countries have played a key role in the generation of technology, a fact that is evidenced by the greater importance of institutional variables in this analysis compared with those of a structural type.

A redefinition of the stages of IDP

After assembling the main components, economies can be grouped together using the cluster technique according to IDP theory (table 4). Based on the economy grouping, the stages of IDP can be represented graphically. For each stage of IDP, the mean of outward FDI stock per capita is measured vertically, and the mean of inward FDI stock per capita is measured horizontally. The economies that are above the bisecting line have a positive net position, while those under the line have a negative net position. The graph allows the

Table 4. Economy groupings by cluster techniques

Stage 1	*Stage 2*	*Stage 3*	*Stage 4*	*Stage 5*
Bangladesh	Algeria	Argentina	Austria	Australia
Cameroon	China	Brazil	Hong Kong (China)	Canada
Egypt	Colombia	Chile	Ireland	Denmark
El Salvador	Congo, Republic of	Greece	Italy	Finland
Ethiopia	Costa Rica	Hungary	Republic of Korea	France
Guatemala	Dominican Republic	Kuwait	New Zealand	Germany
Honduras	Ecuador	Malaysia	Singapore	Iceland
Kenya	India	Mexico	Spain	Japan
Malawi	Indonesia (2/3)	Portugal		The Netherlands
Morocco	Nicaragua	Saudi Arabia		Norway
Mozambique	Paraguay	Slovenia		Sweden
Nepal	Peru	South Africa		United Kingdom
Senegal	Syrian Arab Republic	Trinidad and Tobago		United States
Yemen	Thailand (2/3)	Latvia*		
Zambia	Tunisia	Lithuania*		
Zimbabwe	Turkey	Moldova, Republic*		
	Uruguay	Poland*		
	Venezuela (2/3)	Romania*		
		Russian Federation*		
		Philippines*		

Notes * Economies that show high labour qualifications for their general level of development.

(2/3) Countries that are between stages 2 and 3.

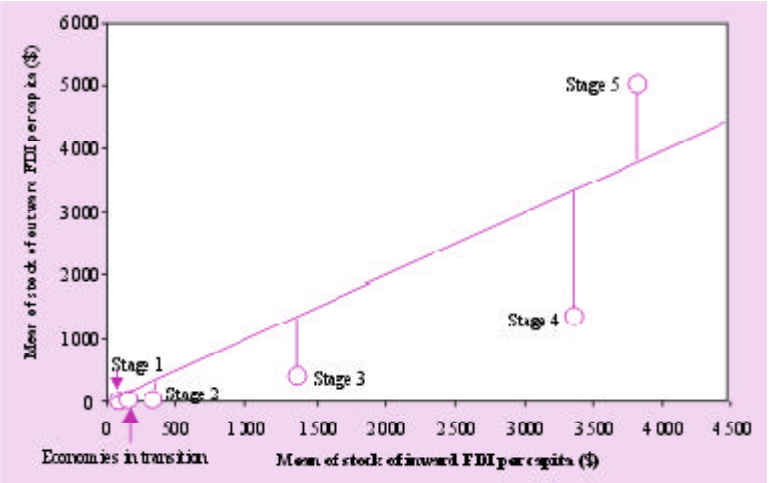
[21] This would explain the scant amount of information provided on expenditures for research and development.

collection of information implicit in the three variables. This information is used to check that the definition of the stages proposed by the IDP matches the groupings of structurally homogeneous economies (figure 2 and table 5).

Using the non-parametric U Mann-White test,[22] the validity of the new graphical representation of IDP is statistically tested. The traditional definition of the first, second and third stages of IDP are confirmed (table 5). However, it is necessary to highlight the behaviour of the economies in transition and to define the fourth stage.

Figure 2. A new representation of IDP: mean of inward and outward FDI stock for the different stages of IDP

(Dollars)



Note: Hong Kong (China) and Singapore are excluded.

[22] Because we have observed the variance instability of groups, we have not used ANOVA analysis. Non-parametric tests do not require that the sample should meet a series of prior requisites. The U Mann-White test can be used in the absence of variance equality between two populations to check that two samples are significantly different. This type of test is a calculation of the "classification disorder" between two groups, that is, it shows how many times the data of a certain group are preceded by the data of another group, for which purpose different statistics have been designed. Table 5 shows the degree of significance of the U Mann-White test for each pair of stages as regards the variables: inward and outward FDI stock and net position. The null hypothesis proposes that the samples correspond to two different populations, that is, there are statistically significant differences in the behaviour of the countries in the stages compared with regard to the variable analyzed. Therefore, for the 5 per cent confidence level, we accept that the two groups of countries are different as regards the variable analyzed.

Table 5. Non-parametric U-Mann Whitney test

Inward FDI per capita			*U-Mann Whitney Test*				
	N	**Mean** *(millions of dollar)*	*Stage 2*	*Stage 3*	*Stage 3**	*Stage 4*	*Stage 5*
Stage 1	16	82.1038	*46.000**	*0.000**	*36.000*	*13.000**	*0.000**
Stage 2	18	322.1770		*26.000**	*36.000*	*18.000**	*12.000**
Stage 3	13	1 379.7194			*5.000**	*21.000**	*38.000**
*Stage 3**	7	151.6313				*7.000**	*2.000**
Stage 4 [a]	6	3 286.8163					*33.000*
Stage 5	13	3 811.7493					
Total	73	1 306.6337					
Levene test	22.061						
Outward FDI per capita			*U-Mann Whitney Test*				
	N	**Mean** *(millions of dollar)*	*Stage 2*	*Stage 3*	*Stage 3**	*Stage 4*	*Stage 5*
Stage 1	16	3.2976	*83.000**	*0.000**	*15.000**	*0.000**	*0.000**
Stage 2	18	19.0563		*13.000**	*46.000*	*0.000**	*0.000**
Stage 3	13	486.0521			*3.000**	*9.000**	*6.000**
*Stage 3**	7	17.9326				*0.000**	*0.000**
Stage 4 [a]	6	1 499.2859					*5.000**
Stage 5	13	5 156.2793					
Total	73	1 133.1689					
Levene test	10.898						
Net outward and inward FDI stock			*U-Mann Whitney Test*				
	N	**Mean** *(millions of dollar)*	*Stage 2*	*Stage 3*	*Stage 3**	*Stage 4*	*Stage 5*
Stage 1	16	-78.8062	*46.00**	*24.000**	*39.000*	*32.000*	*56.000**
Stage 2	18	-303.1207		*44.000**	*33.000*	*36.000*	*55.000**
Stage 3	13	-893.6674			*12.000**	*36.000*	*35.000**
*Stage 3**	7	-133.6986				*14.000*	*23.000**
Stage 4 [a]	6	-1 787.5304					*12.000**
Stage 5	13	1 344.5300					
Total	73	-171.4648					
Levene test	10.313						

Note: *Stage 3** represents economies that show high labour qualifications for their general level of development.

* The stages are different at the 5 per cent level.

[a] Excluded Hong Kong (China) and Singapore.

Although the economic structure of the economies in transition is similar to that of second stage countries (including the behaviour shown by inward FDI), their high labour qualifications are characteristic of the third stage. Therefore, the decision was made to include them in the latter.

On considering the analysis made of the structural similarities of developed countries, the conclusion was reached that the fourth IDP stage would have to be redefined. Thus, the countries that meet the following characteristics would have to be included in the fourth stage of IDP:

- Developed countries that have a structural gap due to fewer endowments of created assets (footnote 18 and annex table 5). These countries can be referred to as "late investors" as suggested by Sanjaya Lall (1996b).

- Countries for which there are no significant differences in the inward FDI stock per capita compared with countries at the fifth stage of IDP, but for which there are differences in the outward FDI stock, showing a lower level than that achieved by the countries in the last stage of IDP (a consequence of fewer endowments of created assets for countries at the fifth stage of IDP).

- Countries in the fourth stage can have either positive or negative NOI. What matters is that the NOI of the fifth stage is greater than that of the fourth stage. This proposal is based on the coherence found in the non-parametric test.

These developments have been closely linked to the process of strong economic integration (Austria, Italy, Spain and Ireland in the European Union, Republic of Korea with Japan and South-East Asia and New Zealand with Australia).

Conclusions

This article proposes a new approach to IDP which increases the amount of information and analytical possibilities. The selection of representative variables of a country's economic structure and level of development enriches the analysis.

Factor analysis has made it possible to work with a greater number of structural variables, thus overcoming the limitations of using only GDP per capita. At the same time, the hypothesis that inward and outward FDI stocks per capita have a structural nature interrelating with the level of economic development has been tested (hypothesis 1).

For developed countries, the structural variables lose explanatory power (hypothesis 3). This confirms the existence of a process of economic convergence among the more developed countries. In these countries we also found a positive correlation between inward and outward FDI (hypothesis 2). Nevertheless, this does not confirm the tendency towards the position of unstable equilibrium proposed in the fifth stage. The outward FDI stock is associated with the created-assets endowment of these economies. Governments not only have to facilitate business activity through and adequate functioning of markets but also to stimulate the generation of created assets.

For developing countries we found that the structural variables explained inward FDI (hypothesis 4). Consequently, we can propose that the structural transformation (improvement) of developing economies will be a factor of FDI location. Thus, it is possible to stress the positive relationship between inward FDI, economic growth and accumulated human capital of host economies (Borensztein, de Gregorio and Lee, 1998). Governments of these economies have differentiated strategies. They have to facilitate human capital creation, infrastructure as well as the creation of an adequate institutional framework. There is no clear relationship between the level of development and outward FDI (hypothesis 5). Thus, outward FDI stock is more related to governments' development strategies.

The inclusion of variables of a technological nature expressed in both relative and absolute terms enabled us to obtain two factors revealing exactly the same reality: the level of outward FDI stocks in developed countries depends on their technological endowment, while the actual size of countries is of lesser importance as a differentiating factor. Yet, when we examine the effect of size in the case of the developing countries, this becomes a localization-specific advantage.

Using cluster analysis, we have been able not only to group countries within the different stages of IDP, but we have also tested the definition of the stages proposed by the IDP theory. As a result of this, we propose a redefinition of the fourth stage. We think that this could be used as a tool for future research, which will allow proposals to be made about the sectoral and geographic behaviour of countries' inward and outward FDI.

The IDP is a dynamic process, as it indicates the evolution that a country can be expected to follow. The use of cross-section analysis over time, although allowing us to work with the characteristics of a set of countries, does not help us to make a suitable evaluation of evolution over time. A possible solution would be to use different time cross-sections and to analyse a country's behaviour and evolution during each sequence.

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Annex table 1: Variables used to reflect the degree of the economic development of countries

Inward FDI: Inward FDI stock in dollars (UNCTAD, 1998).
Inward FDI per capita: Inward FDI stock per capita in dollars (UNCTAD, 1998).
Outward FDI: Outward FDI stock in dollars (UNCTAD, 1998).
Outward FDI per capita: Outward de FDI stock per capita in dollars (UNCTAD, 1998).
GDP per capita: Gross domestic product per capita, based on purchasing power parity (PPP). Gross domestic development is gross domestic product converted to international dollars using purchasing power parity rates (World Bank, 1999).
Agricultural population: is the midyear population of areas defined as urban in each country and reported to the United Nations. It is measured here as a percentage of the total population (World Bank, 1999).
Gross domestic fixed investment per capita: includes land improvements; plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including commercial and industrial buildings, offices, schools, hospitals, and private residential dwellings. Data are in current dollars (World Bank, 1999).
Secondary schooling: Gross enrolment ratio in secondary is the ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to the level of education shown (World Bank, 1999).
University: Gross enrolment ratio in university is the ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to the level of education shown (World Bank, 1999).
Adult illiteracy: is the proportion of adults aged 15 and above who cannot, with understanding, read and write a short, simple statement on their everyday life (World Bank, 1999).
Scientists and engineers in R&D: people trained to work in any field of science who are engaged in professional R&D activity (including administrators) (World Bank, 1999).
Taxes on international trade: include import duties, export duties, profits of export or import monopolies, exchange profits, and exchange taxes (percentage of current revenue) (World Bank, 1999).
Tax revenue: comprises compulsory, unrequited, non-repayable receipts for public purposes collected by central governments (per cent of GDP) (World Bank, 1999).
Health expenditure: is the sum of public and private health expenditures as a ratio of total population. Data are in current dollars (World Bank, 1999).
Royalty and license fees receipts per capita: Data are in current dollars (World Bank, 1999).
Royalty and license fees receipts: Data are in current dollars (World Bank, 1999).
Number of patents of residents (World Bank, 1999).
R&D/GNP: Research and development expenditure (per cent of gross national product) (World Bank, 1999).

Annex table 2. Variables used to reflect the peculiarities of countries

Export of primary commodities: Percentage of export of primary commodities (World Bank, 1999).
Private consumption: Private consumption normalized by ideal market (private consumption of Germany) (World Bank, 1999).
Patents of non-resident: Number of patents of non-residents (World Bank, 1999).
Growth of GDP: Annual percentage growth rate of GDP at market prices based on constant local currency (World Bank, 1999).
Debt service: Percentage of exports of goods and services (World Bank, 1999).
Degree of openness: Sum of exports and imports divided by population (World Bank, 1999).
High-technology exports (in current dollars): High-technology goods are goods produced by industries (based on United States industries) that rank in the top 10, according to R&D expenditures (World Bank, 1999).
High-technology exports (per cent of manufactured exports): High-technology goods are goods produced by industries (based on United States industries) that rank in the top 10, according to R&D expenditures (World Bank, 1999).

Annex table 3. Theoretical relationship (+,-) between the variables of development

Variable		All countries	Developed countries	Developing countries
IDP	Inward FDI per capita	+ Dunning (1981, 1986, 1988b, 1993, 1996), Dunning and Narula (1996), Narula(1996)	+ Dunning (1981, 1986, 1988b, 1993, 1996), Dunning and Narula (1996), Narula(1996)	+ Dunning (1981, 1986, 1988b, 1993, 1996), Dunning and Narula (1996), Narula(1996)
	Outward per capita	+ Dunning (1981, 1986, 1988b, 1993, 1996), Dunning and Narula (1996), Narula(1996)	+ Dunning (1981, 1986, 1988b, 1993, 1996), Dunning and Narula (1996), Narula(1996)	No relation Dunning, Hoesel and Narula (1998)
Market transformation	GDP per capita	+	+	+
	Agricultural population	- Dunning (1981, 1986, 1988b), Narula (1996)	Convergence	- Dunning (1981, 1986, 1988b), Narula (1996)
Infrastructure	Gross domestic fixed investment per capita	+ Narula (1996), Veugelers (1991)	+ Narula (1996), Veugelers (1991)	+ Narula (1996), Veugelers (1991)
Human capital	Secondary schooling	+ Dunning, (1981, 1986, 1988b), Barro (1997), Barro and Lee (1994), Veugelers (1991), Borensztein, De Gregorio and Lee (1998)	Convergence	+ Dunning, (1981, 1986, 1988b), Barro (1997), Barro and Lee (1994), Veugelers (1991), Borensztein, De Gregorio and Lee (1998)
	University	+ Barro (1997), Narula (1996)	Convergence	+ Barro (1997), Narula (1996)
	Adult illiteracy	-	Convergence	-
	Scientists and engineers in R&D	n.a.	+ Papanastassiou and Pearce (1990)	n.a.
Government	Taxes on international trade	-	?	-
	Tax revenue	+ Dunning (1981)	?	+ Dunning (1981)
	Health expenditures	n.a.	+	n.a.

/...

Annex table 3. Theoretical relationship (+,-) between the variables of development (concluded)

Variable		All countries	Developed countries	Developing countries
Technological capacities	Royalty and license fees receipts per capita	n.a.	+	+
	Royalty and license fees receipts	n.a.	+	+
	Number of patents of residents	n.a.	+ Cantwell (1989), Clegg (1996)	n.a.
	R&D/GDP	+ Dunning (1981, 1986, 1988b), Narula (1996)	+	+ Dunning (1981, 1986, 1988b), Narula (1996)

Annex table 4. Theoretical relationship (+,-) between the idiosyncratic variables and inward and outward FDI stocks

Variable		All countries	Developed countries	Developing countries
Natural resources	Export of primary commodities	+ Inward FDI Dunning (1981), Narula (1996), Rugman (1987), Lecraw (1991) + Outward FDI Dunning (1988), Cantwell and Tolentino (1988), Narula (1996)		+ Inward FDI Dunning (1981), Narula (1996), Rugman (1987), Lecraw (1991) + Outward FDI Dunning (1988), Cantwell and Tolentino (1988), Narula (1996)
Market size	Private consumption	+ Inward and Outward FDI	+ Inward and outward FDI	+ Inward FDI Narula (1996) Veugelers (1991)
	Patents of non-resident	n.a.	+ Inward and outward FDI	n.a.
	Growth of GDP	+ Inward FDI Culem (1988)	+ Inward and outward FDI Culem (1988)	+ Inward FDI Culem (1988)
Insta-bility	Debt service	n.a.	Convergence	- Inward FDI
Foreign trade	Degree of openness	+ Inward FDI Veugelers (1991), Narula and Wakelin (1998)		+ Inward FDI Narula (1996) + Outward FDI Dunning (1986,1988b)
	High-technology exports	n.a.	+ Technological capabilities Lall (1998,1999,2000)	n.a.
	High-technology exports per capita	n.a.	+ Technological capabilities Lall (1998,1999,2000)	n.a.

n.a.: not available.

Annex table 5. Justification of exclusion of variables and countries

All economies		
Model 1	*Variables excluded*	**Taxes on foreign trade, tax revenue over GDP**: showed that the institutional development was positive as regards the degree of development. However, the tax variables were excluded in order to increase the sample.
Model 2	*Economies excluded*	**Singapore and Hong Kong (China)**: both generated a unique factor, which showed a relationship between the degree of openness (international economic relationship) and the inward and outward FDI per capita, regardless of the level of development.
Developed economies		
	Variables excluded	**Exports of natural resources**: generated a factor regardless of the economic development and the inward and outward FDI, thus allowing countries such as Australia, Canada, Ireland, New Zealand and Norway to be classified as rich in natural resources. (sampling adequacy of 0.277) **Tax on foreign trade** (sampling adequacy: 0.302), **taxation over GDP** (sampling adequacy: 0.370): these two tax variables constitute a factor that is not dependent on the level of development and only shows some structural gap in the Republic of Korea.
Model 1	*Economies excluded*	**Singapore and Hong Kong (China)**: small and open economies; these two economies have quickly passed through the first three stages of IDP (Dunning 1988). Currently they are at stage four. These economies show a significant gap in human resource qualification. **United States**: generates a factor that includes size, institutional development, technological capacity and inward and outward FDI. The latter two variables are expressed in absolutes terms. **Japan**: generates a factor that is positively related to the technological indicators (i.e. number of scientist and number of patents) and capital formation. However, there is no relationship with the international activity of firms. **Ireland**: is an atypical exponent of a factor where the growth of GDP and high-technology export are correlated. **Republic of Korea**: shows a factor that includes the technology indicator, though it has a low

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Annex table 5. Justification of exclusion of variables and countries (continued)

Developed economies (continued)		
		institutional development and a low inward and outward FDI stock. Both the Republic of Korea and Ireland show low levels of relative development, therefore classified in the fourth stage.
Model 2	*Variables excluded*	**Growth of GDP** (sampling adequacy: 0.159) : Growth rates are not stable over time across countries (Veugelers,1991). **Degree of openness**: (sampling adequacy: 0.140)
Model 3	*Variables excluded*	**Stock of inward investment per capita** (sampling adequacy of the sample 0,168): is only correlated with outward FDI stock per capita.
Model 4	*Variables excluded*	**GDP per capita, health expenditure, gross domestic fixed investment**: generate a factor not dependent on the technological endowment or inward and outward FDI. **Inward FDI stock:** is included in the factor that measures the technological endowment of a country in absolute terms and the outward FDI, but it does not allow the structure of large-sized IDP fourth stage countries to be differentiated. It was therefore excluded from the analysis of the inward FDI variable.
Developing economies		
Model 1	*Variables excluded*	**Taxes on foreign trade, tax revenue over GDP**: tax variables are associated to institutional development and we found that only 35 countries qualified for inclusion; therefore, they were excluded.
Model 2	*Variables excluded*	**Debt service**: generated a factor unrelated either to the level of development or to inward and outward FDI. Also, this variable showed an inadequate sample measure. For these reasons, the variable was excluded them from the model. However, we observed that Argentina and Brazil were two economies with a greater debt interest.
Model 3	*Economies excluded*	**China**: generated a particular factor that shows its idiosyncrasy: it is a big country, receptor and issuer of FDI. Based upon its characteristics, it was placed between the second and the third phases of IDP.

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Annex table 5. Justification of exclusion of variables and countries (concluded)

Developing economies (continued)		
		Brazil: is included in the same factor as China since it is a large-sized country. Based upon the level of both inward and outward FDI, it was included it in the third stage of IDP. **Kuwait**: generated a particular factor. Its natural resources endowment is correlated with the relative outward FDI. **Malaysia:** generated a particular factor that included two variables (i.e. export of technological products and gross inward FDI), allowing us to include it in the third stage of IDP. **Hungary**: generated a factor that included a high-technological level. Its factor included royalties and R&D, allowing us to include it in the third stage of IDP.
Model 4	*Variables excluded*	**Growth of GDP**: sampling adequacy ratio is 0.648. **Exportation of natural resources**: sampling adequacy is 0.320.

Uneven competitiveness of industries in the wake of foreign penetration of advanced economies in transition

Gábor Hunya*

Becoming members of the European Union will be a big challenge for Estonia, the Czech Republic, Hungary, Poland and Slovenia. Their ability to withstand competitive pressures is a key development issue, and also one of the official accession conditions. This article contributes to the discussion on competitiveness by going through a number of industry competitiveness indicators: attracting foreign direct investment, foreign penetration and productivity levels of industries, and market shares in the European Union. The performance of industries for foreign affiliates is measured in comparison with domestic enterprises. While foreign direct investment helps accession countries to catch up with the European Union through the transfer of technology, its impact on the home economies is limited by the lack of spillovers to the domestic sector.

Introduction

Industry-level competitiveness can be described as the performance of industries and firms in world markets according to concepts by Harald Trabold (1995), Michael E. Porter (1990) and Jan Fagerberg (1996). The general debate on the competitiveness of countries (Krugman, 1996) is not addressed here. Competitiveness can be related to foreign direct investment (FDI) as discussed by John H. Dunning (1993). The aim of this article is to find out how FDI inflows and the performance of foreign affiliates influence the international competitiveness of industries in European Union (EU)-accession countries in central Europe.

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This article follows the components of competitiveness outlined in the next section based on Trabold (1995). Country competitiveness is discussed by looking at the ability of countries to attract FDI. Reference is made to FDI policy as an element of attractiveness. A comparison of foreign and domestic industries in manufacturing is made to show the intensity of foreign penetration and structural change in that sector. International competitiveness is discussed by looking at market shares in the EU. The contribution of FDI to earnings is shown by the different profit rates in the foreign and domestic sectors. The final section provides some policy conclusions.

The analysis focuses on the five "Luxembourg-group" countries that started EU-accession negotiations ahead of others: Estonia, the Czech Republic, Hungary, Poland and Slovenia (CEEC-5). These are the most advanced among economies in transition in terms of per capita gross domestic product (GDP), FDI penetration and economic transformation. They have association agreements with the EU, which means virtually free trade for non-food manufactured goods and the possibility of joining the EU.

These countries have better economic growth performances than other economies in transition. Hungary, Poland and Slovenia, the three countries with stable economic growth rates over the years and good economic prospects, show very different attractiveness to FDI. In Hungary, growth can be attributed primarily to the success of export-oriented FDI projects. In Slovenia, growth is related to a high degree of integration into European networks, but mainly not through FDI. The growth in Poland is mainly domestic demand-led, generating increasing imports but less exports, the trade gap being financed by both FDI and loans. The Czech Republic is emerging from the second transition-related recession to a large extent due to its improved attractiveness to FDI. Estonia suffered from a strong transformational recession in the early 1990s due to its separation from the Soviet economic system. While it showed a strong performance during 1995-1998, the Russian crisis triggered a recession in 1999. Recovery is presently under way with lower trade dependence on Russia. Economic growth in 2000 was positive for all five countries, and prospects are favourable. Growth efforts require further inflow of technology financed by FDI.

Competitiveness of industries and countries: the role of FDI

Competitiveness of countries as defined by Trabold (1995, p. 182) includes the ability to sell, the ability to attract and the ability to adjust – all these leading to the ability to earn. These components can be measured by specific economic indicators and can be related to FDI and the performance of foreign affiliates in a country.

- The ability to sell in terms of international competitiveness means the ability to export. Market shares on the main export markets and changes over time can be taken as the basic indicators of international competitiveness.

- The ability to attract refers to the ability to attract activities attributed to investments from abroad. Attractiveness for FDI is expressed by the size of annual FDI inflows and accumulated FDI stocks. In addition, the share of the foreign sector in the economy shows the degree of foreign penetration as a result of FDI. Here, foreign penetration will be measured by various indicators, such as assets, employment, sales, exports and investment.

- The ability to adjust can be measured by the speed of structural change. Through structural change a country adjusts its product and export specialization in order to increase its capacity to earn. Structural upgrading means a shift to higher value added, higher technology products that generally allow for higher earnings.

- The ability to earn is shown in general by the per capita level and increase of GDP. GDP growth compared with other countries expresses whether a country is catching up or falling behind. At the industry or company level, value added does not function as a real success indicator, but rather the profit rate. In a longer time perspective, both country GDP and industry- or firm-level profits can be increased by innovation, adaptation and learning. These skills can also be imported, most rapidly by technology transfer through FDI.

The link between firm-level and country-level competitiveness has been established by Porter (1990). He argues that industries and companies can be competitive if the national environment and government policy supports companies' profit-earning and innovative

efforts. Firm-level competitiveness depends on production factor costs, demand conditions, firm strategy and firm networking (clusters). Cross-country comparisons of competitiveness usually rely on factor cost, as well as price and quality data also influenced by the prevailing exchange rate (Havlik, 2000). The approach here considers the macroeconomic environment as given and looks at firm behaviour. This behaviour is also shaped by government policies, opportunities and the international business environment. The internationalization of markets opens up new opportunities for firms and leads to alliances and FDI. It demands from governments to set policy targets and use policy tools in an internationally competitive environment partially regulated by multilateral agreements.

FDI can be understood as a competitiveness factor, both as an indicator and as a factor of competitiveness. The approach of Trabold (1995) is limited to the indicator function: the level of FDI in a country expresses its competitiveness as a business location. In the approach of Porter (1990) and Dunning (1993), international production itself appears as a primary factor of international competitiveness. Countries at a higher stage of development are homes to transnational corporations (TNCs) which signal the country's competitiveness for headquarter functions, while the country appears as a net capital exporter. In their case, the ability to earn profits abroad is an additional competitiveness indicator. For medium-developed CEECs, it is the benefit through inward FDI that matters. Foreign investors bring knowledge, technology, capital and access to new markets, thus upgrading the competitive advantage of companies and industries.

Foreign-based TNCs integrate host country firms into international networks, in which companies join efforts to support their competitive positions and increase the ability to sell. The specialization of foreign affiliates can be different from those of domestic firms, and can thus shift a country's production structure. Through technology inflows and market access, FDI increases the ability to adjust to market developments and technological change. FDI can increase the allocative efficiency in a country by improving the distribution of production and investment among industries. It can be of a comparative advantage-augmenting type, underlining that cost advantage-seeking FDI goes into manufacturing industries in which the target country has superior factor endowments, thus upgrading the host country's comparative advantage (Ozawa, 1992; Meyer, 1995). At the microeconomic level, the industrial efficiency

impact of FDI can be shown. The targeted firm gets access to the technological, organizational and managerial skills concentrated in TNCs. Future economic growth will be influenced by the pace and scope of technology transfer by foreign investors and by spillover effects to domestic firms in the target country. Both depend to a large extent on the capabilities of the host country. Countries with little foreign penetration may fall back in economic development if domestic firms are too weak. The speed and intensity of spillovers can be increased by networking and other forms of learning.

Competitiveness of the CEEC-5 in terms of attracting FDI

Main characteristics of FDI inflows

The CEEC-5 have been net direct capital importers like other medium-income developing countries. They have been the most important FDI targets among all economies in transition. Their benefits from FDI inflows are envisaged to be technology and skills as vehicles of structural upgrading, company restructuring and privatization. The volume of FDI in a transition economy can be viewed as an expression of a country's advances and transformation into a market economy. Foreign firms reinforce economic behaviour patterns in conformity with international, most notably European Union, standards. TNCs have integrated CEE economies into EU at the microeconomic level in varying degrees. The process of ownership-based integration is most advanced in Hungary, followed by Estonia and the Czech Republic, with Poland catching up. Slovenian companies are less integrated in terms of capital ownership, but have close links through company networks. The competitive position of accession countries will be influenced by further FDI flows during the accession negotiations.

FDI inflows to CEEC-5 were $13 billion in 1998, a substantial $4 billion increase over the previous two years. They increased further to $16 billion in 1999, with high inflows received by the Czech Republic (tables 1 and 2). A further increase to $17 billion took place in the year 2000, mainly in Poland. The per capita or per gross fixed capital formation amounts of FDI in most of these countries are similar to those for large FDI recipient emerging markets in Latin America and South-East Asia. FDI stocks were in the range of 30-40 per cent of GDP in Hungary, Estonia and the Czech Republic, shares that are high by international standards.

Table 1. FDI flows into CEEC-5, 1992-1999

(As recorded in the balance of payments, millions of dollars and percentage)

Country	1992	1993	1994	1995	1996	1997	1998	1999	1999 inflow per gross fixed capital formation (per cent)	1999 inflow per capita (dollars)
Czech Republic	1 004	654	869	2 562	1 428	1 300	3 720	6 324	41.5	615
Estonia	82	162	215	202	151	267	581	305	..	212
Hungary	1 471	2 339	1 147	4 453	2 275	2 173	2 036	1 970	17.2	196
Poland	678	1 715	1 875	3 659	4 498	4 908	6 365	7 270	18.4	188
Slovenia	111	113	128	177	194	375	248	181	3.3	91

Sources: National banks of respective countries; WIIW database.

Notes:

Estonia: Equity capital cash + reinvested earnings + loans.

Czech Republic: Equity capital cash + in kind + reinvested earnings from 1998.

Hungary: Equity capital cash + loans from 1996.

Poland: Equity capital cash + in kind + reinvested earnings + loans - on a transaction basis.

Slovenia: Equity capital cash + in kind from 1997.

Table 2. FDI stock in CEEC-5, 1992-1999 (year-end)

(As recorded in the balance of payments, millions of dollars and percentage)

Country	1992	1993	1994	1995	1996	1997	1998	1999	1999 stock/GDP (per cent)	1999 stock per capita (dollars)
Czech Republic	2 889	3 423	4 547	7 350	8 572	9 234	14 375	17 552	33.0	1 707
Estonia	90	239	495	737	838	1 148	1 822	2 467	48.1	1 711
Hungary	3 424	5 576	7 087	11 926	14 958	16 086	18 517	19 299	40.0	1 922
Poland	1 370	2 307	3 789	7 843	11 463	14 587	22 479	26 475	17.2	675
Slovenia	842	954	1 326	1 759	2 069	2 297	2 907	2 684	13.4	1 352

Sources: National banks of respective countries; WIIW database.

Notes:

Estonia: Equity capital + reinvested earnings + loans.

Czech Republic: Equity capital cash + in kind + reinvested earnings from 1997 + loans from 1997; excluding privatization revenues.

Hungary: Equity capital cash + loans from 1996.

Poland: Equity capital cash + in kind + reinvested earnings + loans - on a transaction basis.

Slovenia: Equity capital + reinvested earnings + loans.

In the first half of the 1990s, Hungary was the most important FDI recipient, the outcome of early liberalization and privatization-induced FDI. In recent years, more and more FDI has gone into countries that began to involve foreign investors at a later stage, like the Czech Republic and Poland. Hungary came third, with most FDI entering through greenfield investment and the expansion of existing projects. The FDI environment in Slovenia has not changed for the better, despite a government programme to attract FDI.[1] Greenfield projects have located mainly in Hungary, Poland and the Czech Republic, close to EU borders. These countries can be considered as competitive European production sites, and there is increasing competition among them for new projects, especially in high-technology industries.

Government policies influencing FDI inflows

According to Dunning's theory (1993), FDI flows are shaped by three sets of factors: ownership advantages, locational advantages and internalization advantages. Ownership and internalization advantages are those related to investing firms and their strategy. It is the locational advantages provided by a country, however, which allow countries to make use of the ownership and internalization advantages provided by investors.

Locational advantages are those that make production in a given place more profitable or otherwise advantageous from the point of view of the investor than exporting there the product from a foreign production unit, or locating new production capacity in a third country. The economic policy of an FDI-recipient country can influence its locational advantages. In return, foreign firms in a country have a distinctive impact on a host country's economy in sourcing, competition, ownership relations and economic policy.

Locational characteristics are of a general nature and FDI specific. General characteristics involve macroeconomic characteristics, the overall stability and development of an economy, the skills of the labour force, as well as the general regulatory framework, such as the tax system (Dunning, 2000). As to specific investment-related incentives, national treatment and almost no direct FDI incentive is the basic rule of law in CEEC-5. OECD membership

[1] The low level of FDI inflows into Slovenia is partly due to the fact that the data include only equity investments, while higher volumes come in the form of reinvested profits and loans.

and EU law harmonization further limit the scope of measures that may distort competition.

Beyond the basic similarity in terms of policy neutrality, CEEC-5 differ widely in terms of their Governments' attitude towards foreign investors, the general level of corporate income tax, the system of tax and customs allowances, as well as in terms of FDI promotion. Corporate tax has been low in Hungary, was lowered lately in the Czech Republic and Poland, and is completely abolished in Estonia. A major stimulus for the introduction of lower taxes and of investment incentives is the international competition for FDI. Labour market and regional policies offer further investment incentives. Economic policy in several Central and Eastern European countries (CEECs) has recently shifted from stabilization to growth promotion, including through investment incentives. Hungary has the most complex incentive schemes, ranging from tax and customs allowances to research and development (R&D) and infrastructure-related subsidies. Countries with low FDI levels, such as the Czech Republic, have introduced attractive investment incentive schemes lately. Slovenia has also envisaged an FDI-friendly policy framework, but without many incentives (Rojec, 2000).

Even if the incentive system in these countries is generally the same for domestic and foreign investors, there is a difference in the capacity of these two groups of firms to make use of incentives. Small and medium-sized domestic firms often cannot meet the minimum investment and employment requirements to become eligible for tax breaks, or to receive investment incentives. The result can be illustrated by indicators for the Hungarian manufacturing sector: foreign affiliates produce 86 per cent of the pre-tax profit, but pay only 59 per cent of the corporate tax. This is partly the result of preferential policies towards large investors and partly the result of tax holidays provided to foreign investors before 1996 (Pitti, 2000).

The most specific and also one of the most important fields of investment policies are related to the speed and method applied in the privatization of state-owned enterprises. (For a detailed discussion of the relationship between FDI and privatization in CEECs see Kalotay and Hunya, 2000.) Privatization is one of the most fundamental changes contributing to the transformation of the former centrally planned economies (table 3). There is a marked difference between fast privatizers – the Czech Republic, Estonia and Hungary – and slow privatizers – Poland and Slovenia. In the Czech Republic,

a period of intensive privatization and FDI (1991-1995) was followed by two less intensive years. FDI and privatization picked up again in 1998 and 1999. While privatization is nearing its end now, foreign acquisitions in the private sector have become more important. In Hungary, FDI and privatization went hand in hand until 1997, but since then FDI has been almost exclusively unrelated to privatization. The example of Hungary indicates that FDI inflows can continue even after privatization is over. In Poland, privatization was slow until 1996, and so was FDI. After 1996, FDI inflows accelerated, and the share of FDI revenues in privatization also grew significantly (table 4).

Table 3. Share of the private sector[a] in value added, 1990 and 1999

(Percentage)

	Czech Republic		Estonia		Hungary		Poland		Slovenia	
Item	**1990**	**1999**	**1990**	**1999**	**1990**	**1999**	**1990**	**1999**	**1990**	**1999**
GDP total	12	77	10	70	25	85	31	72	15	50
Industry	..	83	..	..	..	88	18	70	..	..

Sources: National statistics and EBRD.

[a] "Private sector" is defined as majority private ownership.

Table 4. Privatization and FDI, 1990-1999

(Percentage)

	1990-1996		1997-1999	
Country	Foreign exchange revenue in total privatization revenue	Foreign exchange privatization revenue in FDI	Foreign exchange revenue in total privatization revenue	Foreign privatization revenue in FDI
Czech Republic	15	80	80	50
Estonia	60	33	60	70
Hungary	63	47	40	20
Poland	Low	20	Medium	40
Slovenia	Low	Low	Low	Low

Sources: Own calculation and estimations based on data from Zemplínerová and Jarolim, 2000 (for the Czech Republic); Estonian National Bank (for Estonia); APVRT – Hungarian Privatization and State Holding Company (for Hungary); Durka, 1999 (for Poland).

Notes: Estonia, first period: 1993-1996. The share of foreign exchange revenues in total privatization revenue could not be calculated for Poland for the first period as the value of non-cash privatization could not be measured. Based on the relative role of various modes of privatization, a very rough estimation could be made: "low" means less than one quarter, "medium" means between one quarter and one half, and "high" means above one half. In Slovenia, the method of privatization (distribution of shares to insiders and domestic funds) does not permit the calculation of foreign shares.

The economic aspects of privatization became increasingly important in the second half of the 1990s. This followed from the realization of the drawbacks of slow privatization and voucher schemes. Also, privatization by sales was discovered as an important source of budget revenues, foreign currency inflows, as well as an essential stimulus to corporate restructuring. Current account deficits became a significant problem, which led the Czech Republic and Poland opt for revenue-generating modes of privatization and FDI-friendly policies in the late 1990s. Generally, sales to foreign strategic investors have also proved to be the most efficient way of privatization because of the benefits usually associated with FDI.

The success of privatization can be determined by the development prospects of the former state-owned enterprises. Companies turned into affiliates may prosper, provided they are assigned a proper position in the international corporate network of TNCs and given access to new technology and capital. Their success depends on three important conditions:

- The affiliate's initial position in the network of TNCs. This is determined by the privatization contract and the intention of the investor. The scope of decision-making in an affiliate, brand name and product specialization are determined at this initial point.

- Own efforts of the affiliate to upgrade its position and acquire new technologies and skills. The affiliate must improve its competitive position on a restricted, but very competitive market within the TNC network.

- The long-term attractiveness of a business location. The target country must maintain economic stability and growth, as well as adhere to investor-friendly economic policies in order to retain investors even when labour costs increase.

Beyond signing a privatization contract that may provide a favourable starting point for an affiliate, government policies can play a role in maintaining the locational advantages of a country. Promoting networking between domestic and foreign companies, supporting R&D, attracting headquarter functions and supporting education and learning are the most important features of an FDI policy in countries, in which not the volume, but the quality and performance of FDI matter (i.e. Hungary and Poland). Such policies can affect the type of activities assigned to affiliates (i.e. technology-based or assembly-

based). Assembly-type affiliates predominate especially among greenfield investments. Affiliates originating from privatization acquisitions are usually different because they retain some local suppliers and market shares. However, they may stay at lower technology levels than new greenfield investments. In addition, locally integrated affiliates are less footloose than globally integrated ones, and can have a more secure future. The difference between the two types of firms may diminish over time. Both of them have to become more technology-based to compensate for diminishing labour cost advantages.

The future increase of FDI in mature economies in transition will not depend of privatization, as this is almost completed, especially in manufacturing. Also, the domestic and regional markets have already been captured, or at least creamed. The real issue is how to attract export oriented greenfield investment. As the overall locational environments tend to become more and more similar, targeted policies at the regional and local level gain in importance.

Characteristics of FDI penetration in the manufacturing sector of the CEEC-5

Manufacturing is the most important target of foreign investors, except in the case of Estonia where it accounts for only third of the country's FDI stocks (table 5). In Poland and Slovenia, manufacturing attracted 45-50 per cent of FDI stocks. The Czech Republic also belonged to the latter group until 1998; more recently, telecommunication and other service investments lowered the share of manufacturing to below 40 per cent. Hungary stands out with high FDI in electricity and gas distribution, as well as in real estate and business services; thus the share of manufacturing has been below 40 per cent. The more even spread of FDI in Hungary is mainly due to advances in privatization. In the case of Estonia, the low share of manufacturing FDI reflects both the weakness of this sector and the strength of the country as a regional transport and financial centre. The following analysis focuses on the manufacturing sector, which is by no means representative of the foreign sector as a whole. But manufacturing FDI takes a prominent role as a means of technology transfer and as a producer of export goods.

The size of foreign penetration can be described by the share of foreign affiliates in nominal capital, assets, value added, employment, sales, export sales, investment outlays and profits derived

Table 5. FDI stock, by economic activity (NACE-1 digit), end-year of 1999

(Percentage)

Economic activity	Estonia	Czech Republic	Hungary	Poland	Slovenia
Agriculture, forestry, fishing	1.2	0.1	1.1	0.1	0.1
Mining and quarrying	0.3	0.5	0.4	0.2	0.0
Manufacturing	22.8	38.7	37.4	49.2	47.4
Electricity, gas, water supply	1.8	7.7	11.1	1.3	0.9
Construction	1.0	1.0	1.5	5.5	0.3
Trade, repair of motor vehicles etc.	15.7	15.8	12.1	9.7	16.8
Hotels and restaurants	1.0	1.0	1.9	1.2	0.6
Transport, storage, communications	26.6	12.2	8.2	5.4	1.5
Financial intermediation	23.5	15.1	10.4	22.4	18.2
Real estate, renting and business activity	5.0	7.4	13.5	0.5	13.2
Education	0.0	0.0	0,0	0.0	0.0
Health and social work	0.0	0.1	0,1	0.0	0.0
Other community, social and personal services	0.6	0.5	2.3	4.5	1.0
Not classified	0.5	—	—	—	—
Total	100.0	100.0	100.0	100.0	100.0

Source: WIIW database relying on national statistics.

from the income statements / tax declarations of companies.[2] The indicators – equity capital, sales or output, employment and investment outlays – are available for all countries (table 6). The

[2] Companies with any foreign shares in their equity capital – defined here as foreign affiliates – were sorted out from national databases containing data on companies' financial statements. The remaining companies were classified as domestic enterprises. Estonia is a special case where only majority-owned foreign affiliates could be included in the database. Data sources are the national statistical offices of the given countries. They are based on the financial reports of companies. Data were specially collected and processed for the Phare-ACE project P97-8112-R by Urmas Varblane in Estonia,, Alena Zemplínerová in the Czech Republic, Andrea Éltetö in Hungary, Bohdan Wyznikiewicz in Poland and Matija Rojec in Slovenia. In most countries, the data in this database differ from the statistics found in statistical yearbooks for the total manufacturing sector due to methodological differences between national statistics and company bookkeeping. In the case of Hungary in 1997-1999 and Slovenia, the coverage could be limited to companies with at least 10 per cent foreign ownership, which corresponds to the internationally accepted definition of FDI. For the Czech Republic and Poland, companies with even lower foreign shares had to be included. The database is biased towards large companies which reflects the data collection policy of national statistical offices. In Hungary and Slovenia, only very small ventures, in Poland those with less than 5 employees. The data for the Czech Republic cover only companies with 100 or more employees. The data for Estonia cover companies with more than 20 employees for 1996-1999, for 1995 the limit is 50 employees.

Table 6. Share of foreign affiliates in main indicators of manufacturing companies, 1996 and 1998

(Percentage)

	Equity capital			Employment			Investment			Sales			Export sales		
Country	**1996**	**1998**	**1999**	**1996**	**1998**	**1999**	**1996**	**1998**	**1999**	**1996**	**1998**	**1999**	**1996**	**1998**	**1999**
Czech Republic	21.5[a]	27.9	41.8	13.1	19.6	26.9	33.5	41.6	52.7	22.6	31.5	42.4	15.9	47.0	60.5
Estonia	43.5[a]	40.1[a]	43.2[a]	16.8	20.8	25.0	41.8	32.9	..	26.6	28.2	32.7	32.5	35.2	43.3
Hungary	67.4[b]	72.7[b]	72.9[b]	36.1	44.9	46.5	82.5	78.7	82.2	61.4	70.0	73.0	77.5	85.9	88.8
Poland	29.3	43.2	50.5	12.0	26.0	29.4	30.6	51.0	63.1	17.4	40.6	49.0	26.3	52.4	59.8
Slovenia	15.6	21.6	21.8	10.1	13.1	13.0	20.3	24.3	22.3	19.6	24.4	23.3	25.8	32.9	30.3

Source: Hunya 2001; see also footnote 2.

[a] Own capital.
[b] Nominal capital in cash.

importance of foreign affiliates has increased for all five countries and for almost all indicators over the period 1996-1999. As capital indicators are not unified, the most widespread common indicators, sales and employment, are discussed in more detail below. A comparison of the development of foreign penetration over time can be made for the period 1994-1999, keeping in mind the distortions caused by shifts from domestic to foreign sectors.

The highest share of foreign affiliates by all indicators was reached by Hungary in each year since 1994. Seventy-three per cent of the country's manufacturing sales come from foreign affiliates (table 7), which employ 46 per cent of the manufacturing sector's labour force in 1999. The second place is occupied by Poland with 49 per cent of sales and 29 per cent of employment. The Czech Republic comes next, with 42 per cent and 27 per cent of sales and employment, respectively. The difference between Hungary, on the one hand, and the Czech Republic and Poland on the other was threefold in 1994 and narrowed to less than two times in 1999. The most dynamic increase has been recorded in the Czech Republic. In Slovenia and Estonia, foreign penetration is lower and has increased more slowly than in the other countries.

Table 7. Sales share of foreign affiliates in manufacturing, 1994-1999

(Percentage)

Country	1994	1995	1996	1997	1998	1999	*1999/1994*
Czech Republic	12.5	16.8	22.6	27.2	32.1	42.2	337
Estonia	..	20.1	26.6	27.1	28.2	32.7	163[a]
Hungary	55.4	56.1	61.4	66.1	70.0	73.0	132
Poland	17.4	23.6	31.9	36.0	40.6	49.0	281
Slovenia	16.9	17.6	19.6	21.1	24.4	23.3	137

Source: Hunya, 2001.
[a] 1999/1995.

Countries show different development paths in terms of foreign penetration in manufacturing. Foreign penetration in the Czech Republic almost doubled between 1994 and 1996, and again in the subsequent three years. The foreign sector showed a rapid

expansion not only in terms of capital and sales, but also in terms of employment. In Estonia, the rate of penetration by 1996 was the second highest among all the countries under discussion. This was mainly the result of the fast opening and privatization after the introduction of the currency board in 1993. But the increase in the performance of foreign affiliates after 1996 was slow. The country remained behind Poland and was overtaken by the Czech Republic. In Hungary, foreign penetration in manufacturing had already reached 50 per cent before 1994. Sales, especially export sales, were the indicators for which the share of foreign affiliates increased the fastest between 1994 and 1998 as a result of the intensive investment activity during the first half of the 1990s. Poland had a later start, but a fast expansion of foreign penetration in the late 1990s due to the upswing of privatization which stimulated foreign takeovers. The rapidly growing domestic market attracted also greenfield investment. While economic growth on the whole was strong, its main driving force changed from newly established domestic small and medium-sized enterprises (SMEs) to foreign affiliates. At the same time, Slovenia has had the lowest foreign penetration by all indicators among the CEEC-5. Although the share of foreign affiliates in sales had increased, the gap in comparison to the other four countries grew between 1996 and 1999. The Slovenian economy has maintained a strong international competitive position mainly by successful domestic-owned companies.

Foreign – domestic productivity gaps and the evidence for spillovers

Labour productivity in foreign affiliates is on average as much as two times higher than in domestic enterprises. In this respect, there has been little difference among the CEEC-5 in the 1990s. The exceptions (with lower gaps) were Poland before 1998 and Estonia after 1996. Countries diverged in terms of productivity dynamics during the 1994-1999 period (table 8). The gap between foreign affiliates and domestic enterprises increased fast in Hungary until 1996, then it stabilized for two years and increased again in 1999. In 1999, foreign affiliates were 3.1 times more productive than domestic enterprises, which is by far the largest gap among CEEC-5. This is due to the impact of especially productive new foreign owned greenfield assembly lines. In Poland, the productivity gap increased from 1.5 to 2.3 during the 1994-1999 period, while a stable 1.9 times gap was characteristic of the Czech Republic through 1995-1998.

Table 8. Sales per employee: foreign affiliates as a ratio to domestic enterprises in manufacturing, 1994-1999

(Percentage)

Country	1994	1995	1996	1997	1998	1999	*1999/1994*
Czech Republic	186	191	194	189	189	201	108
Estonia	.	241	188	160	150	146	61[a]
Hungary	209	260	282	279	287	311	149
Poland	155	157	185	185	194	231	150
Slovenia	241	228	218	198	197	203	84

Source: Hunya, 2001.

[a] 1999/1995.

The productivity gap is now very similar in the Czech Republic, Poland and Slovenia. The outlier is Estonia, where the rapidly decreasing productivity gap may be due to the dominance of low value-added industries, in which the technology and thus the productivity gap between firms is small.

The lead of foreign affiliates in terms of labour productivity is not specific to the CEEC-5, only its exceptionally large size. But in OECD countries, the productivity advantage of foreign affiliates compared with the average productivity of the manufacturing sector is only 30 per cent (OECD, 1996). The larger and the more specialized the foreign sector, the larger is its lead over the domestic owned sector. The higher productivity of foreign affiliates is due to lower labour inputs due to narrower specialization, as well as the absence of management and research functions. In addition, foreign affiliates usually possess advanced technology, management and marketing compared with domestic, especially state-owned, enterprises. The productivity advantage exists both in technical terms and in terms of higher output values due to higher sales prices. Higher prices for affiliate products can be obtained through better market position, western brand names etc., but revenues from such prices may be diverted through transfer pricing.

The learning process in domestically owned companies may, with time, lead to direct spillovers, i.e. to narrower gaps between foreign affiliates and domestic enterprises. Indirect spillovers may take

place through the income and knowledge transferred by individual employees. If the foreign sector is very different from the domestic one, the two segments of the economy may find it difficult to cooperate, and the foreign sector may function as an enclave. In that case, direct spillover effects do not take place.

Endowment with capital is higher in the foreign sector than for domestically owned enterprises. This may confirm the expectation that foreign investors use more recent, capital-intensive and labour-saving technology. It also reflects the concentration of FDI in manufacturing industries with high capital intensity. Capital productivity is higher in foreign affiliates than in domestic enterprises in the Czech Republic, Poland and Slovenia (sales per assets, table 9). In these countries the advantage of foreign affiliates in terms of total factor productivity is obvious. Capital productivity of foreign affiliates is lower than of domestic enterprises only in Estonia.

Productivity indicators reveal significant differences in CEEC-5 due to foreign penetration. The duality of performance in the manufacturing sector appears in two respects:

- The dichotomy between modern, foreign-dominated industries, on the one hand, and traditional industries with both domestic and foreign companies on the other. This duality appeared in all countries examined here and has grown over time. The

Table 9. Sales per assets: foreign affiliates as a ratio to domestic enterprises in manufacturing, 1994-1999

(Percentage)

Country	1994	1995	1996	1997	1998	1999	*1999/1994*
Czech Republic	124	116	121	124	133	133	107
Estonia	..	..	44	59	62	..	142[a]
Hungary	..	..	..	..	..	..	..
Poland	96	102	130	119	110	113	118
Slovenia	141	150	140	132	129	116	82

Source: Hunya, 2001.

[a] 1998/1996.

extreme case is Hungary, where 9 foreign-dominated industries represent 50 per cent of manufacturing sales.

- In the industries with both foreign and domestic companies, a comparison of indicators shows that the foreign sector is more efficient and more export-oriented than the domestic sector. This dichotomy of performance between foreign and the domestically owned companies in the same industry is the largest in Hungary and the smallest in Slovenia.

The above reasoning is weakened by the problem that the database is not able to control for the shift of companies from the domestic to the foreign sector. Using two unique panel data sets that cover almost all firms in Slovenia and Estonia between 1994 and 1998, Joz Damijan et al. (2001) made a test for intra-industry spillovers from FDI. After controlling for potential selection bias for foreign investment decisions, common economic policy influences and industry effects, it was shown that technology is transferred through the parent-affiliate relationship and arm's-length trade, but that the expected spillover benefits to purely domestic enterprises rarely materialize. Without these benefits, restructuring and the development of domestic enterprises may be inhibited, thereby reinforcing fears that an enclave economy might be emerging in both countries.

As to the Czech Republic, a nation-wide, firm-level panel data comprising 2,500 manufacturing firms analyzed by Alena Zemplínerová and Martin Jarolim (2000) showed that firms with foreign participation achieved higher productivity growth rates than domestically owned firms. Contrary to previous studies by Simeon D. Djankov and Bernard Hoekman (2000), who worked with much smaller sample sizes, the results of this dynamic empirical analysis suggests that foreign firms achieved significantly higher growth rates of total factor productivity than domestic firms. This fact confirms the important role that FDI plays in transferring technological, marketing and managerial knowledge to affiliates. The existence of positive or negative spillovers from foreign firms in an industry was not proved. Unlike Djankov and Hoekman, who found negative and statistically significant spillover effects of FDI, this article has shown that the presence of FDI has a positive, but statistically insignificant effect on the total factor productivity growth of domestic firms. (For a summary of recent research findings on spillovers in CEECs, see UNECE, 2001, chapter 5.)

Competitiveness of the manufacturing sector of the CEEC-5 in terms of structural change owing to FDI

Manufacturing industries in CEECs differ significantly in terms of foreign penetration. In general, some industries are primarily under foreign control, while there are other industries in which domestic firms dominate. The difference between industries in terms of foreign penetration[3] tends to grow over time (table 10).

The industry with the highest above-average foreign penetration in all CEEC-5 is the manufacturing of motor vehicles. Except for Estonia, this industry has over 80 per cent foreign penetration. The auto industry was attractive to FDI both because of unsatisfied domestic demand and because of favourable conditions for low-cost production. Also, tobacco manufacturing is usually foreign-owned as only big international companies can cope with brand name and promotion costs. Radio and TV set production has become increasingly foreign-owned with above average rates of foreign penetration in all five countries. Electrical machinery has a high rate of foreign presence in the Czech Republic and Hungary. In the other three countries, the paper industry, a major exporter, has become foreign-controlled. High foreign penetration in the chemical industry is specific to Hungary, due most probably to worldwide internationalization in the pharmaceutical industry. While foreign penetration takes place in a similar set of industries in four countries, Estonia shows a different pattern, with light industries having a higher degree of foreign domination.

The degree of foreign penetration in the CEEC-5 depends on industry-specific features and on the characteristics of the privatization policies. FDI in CEECs follows worldwide characteristics in terms of the corporate integration of industries, with technology-intensive electrical machinery and auto production being the main targets. Foreign capital has also penetrated industries with relatively stable domestic markets, e.g. beverages and tobacco industries. Privatization has attracted FDI to all industries in Hungary, but only to a few in other countries. Foreign presence has remained relatively small in industries with structural difficulties and oversized capacities, such as steel industries. Foreign penetration has thus shifted the industrial structure to more modern and higher value added industries amore capable to withstand competitive pressure.

Table 10. Foreign affiliates' share in net sales, by industry, 1999

(Percentage)

ISIC-Code	Industry	Czech Republic	Estonia	Hungary	Poland	Slovenia
15	Food products	23.7	23.6[a]	58.2	41.9	8.9
16	Beverages and tobacco	100.0	..	95.9	93.4	*
17	Textiles	29.1	62.2	53.7	15.4	11.2
18	Wearing apparel, dressing	20.0	33.2	55.4	44.2	0.2
19	Tanning and dressing of leather	10.9	57.8	63.1	22.9	4.9
20	Wood	46.2	22.7	44.8	51.3	3.5
21	Paper and paper products	71.4	83.0	64.9	73.3	47.5
22	Publishing, printing	39.2	12.6	39.2	58.6	6.2
23	Coke and petroleum	0.0	47.7[b]	99.9	57.9	0.0
24	Chemicals	27.2	..	84.3	37.3	21.4
25	Rubber and plastic	63.6	22.5	57.0	59.0	20.6
26	Other non-metallic minerals	54.5	64.3	71.1	53.8	26.5
27	Basic metals	10.5	11.4[c]	49.7	12.9	18.1
28	Fabricated metals	40.5	..	36.2	32.2	5.8
29	Machinery and equipment n.e.c.	25.1	27.8	55.0	27.4	25.9
30	Office machinery	94.2	55.8[d]	92.7	18.2	*
31	Electrical machinery and appliances	66.9	..	85.4	59.3	22.8
32	Radio, TV sets	67.0	..	94.2	82.3	47.0
33	Medical, precision, operational instruments	52.2	..	45.2	35.7	17.1
34	Motor vehicles, trailers	90.4	12.8[e]	96.0	90.7	82.0
35	Other transport equipment	4.9	..	40.6	9.1	1.7
36	Furniture, manufacturing n.e.c.	40.7	29.5[f]	36.5	56.1	0.4
37	Recycling	31.7	..	35.6	20.4	*
*	Industries with less than 3 foreign affiliates					31.2
	All manufacturing	42.4	32.7	73.0	49.0	23.3

Source: Hunya, 2001.

[a] ISIC 15 + 16.

[b] ISIC 23 + 24.

[c] ISIC 27 + 28.

[d] ISIC 30-33.

[e] ISIC 34 + 35.

[f] ISIC 36 + 37.

Competitiveness of the CEEC-5 in EU markets

Foreign affiliates have exhibited high and growing shares in terms of export sales.[3] Their outstanding export performance relative to sales indicates that these affiliates are more export-oriented than domestic firms (tables 11 and 12).

Table 11. Export sales: share of foreign affiliates in manufacturing exports, 1994-1999

(Percentage)

Country	1994	1995	1996	1997	1998	1999	*1999/1994*
Czech Republic	15.9	..	..	41.9	47.0	60.5	381
Estonia	..	25.4	32.5	32.1	35.2	43.3	170[a]
Hungary	65.5	68.3	73.9	83.3	85.9	88.8	136
Poland	26.3	33.9	40.5	45.1	52.4	59.8	227
Slovenia	21.1	23.2	25.8	28.0	32.9	30.3	144

Source: Hunya, 2001.
[a] 1999/1995.

Table 12. Exports per sales: foreign affiliates as a ratio to domestic enterprises in manufacturing, 1994-1999

(Percentage)

Country	1994	1995	1996	1997	1998	1999	*1999/1994*
Czech Republic	132	..	..	193	188	208	157
Estonia	..	135	133	128	138	140	104[a]
Hungary	153	169	178	256	260	293	192
Poland	168	167	146	147	162	155	92
Slovenia	132	142	143	146	152	143	109

Source: Hunya, 2001.
[a] 1999/1995.

[3] Data on foreign penetration are available for 23 industries, and a number of indicators among which most widely available indicator is revenues from sales. Industries with less than three foreign affiliates had to be merged with other similar industries for Estonia, or put together as residual (*) in case of Slovenia.

In this respect, Hungary stands out as having the most export-oriented foreign sector and the biggest share of foreign affiliates in exports (almost 90 per cent). Hungary is followed by the Czech Republic and Poland, in which foreign affiliates provide 60 per cent of exports (these shares have grown more rapidly in the former than in the latter country). Over time, the Czech Republic has increasingly become similar to Hungary. During the recession period of 1997-1999, Czech domestic companies scaled down sales, while foreign affiliates became more export oriented and more greenfield investment was attracted. Polish domestic enterprises and foreign affiliates are both more domestic market-oriented than in other countries. This has to do with the size of the country and the rapid increase in domestic demand in the mid-1990s. Estonia and Slovenia represent a distinct group with significantly less importance of foreign affiliates in terms of exports. Both countries are small and strongly export-oriented, with both domestic enterprises and foreign affiliates having a high proportion of exports in sales. While this is a stable feature of Slovenia, in Estonia foreign affiliates have seen their export shares grow in 1999.

The CEEC-5 export competitiveness in terms of penetrating EU markets can be measured by the share of each country in the EU's imports and the volume of exports into the EU imports from each of these countries (table 13). Hungary, Estonia and the Czech Republic have increased their export volumes to EU (EU-15 imports) both over time and in terms of market shares. Their exports to EU have increased due to reorientation and to overall export dynamics. Reorientation of trade took place mainly in the early 1990s; after 1995 it was significant only for Estonia. Low export dynamism and stagnating market shares characterize Poland. Slovenia's market share decreased.

The relationship between market share development and foreign penetration is most obvious in the case of Hungary and Slovenia, two opposite examples. The rapid market gains of Hungary were the result of the restructuring and market-conquering activity of foreign affiliates. Slovenia recorded low FDI, a low share of foreign affiliates in export sales and a loss of EU market shares. Estonian exports increased fast, Czech exports at medium speed, while Polish export shares stagnated. Next to Hungary, the Czech Republic and Poland have the strongest foreign share in terms of exports, but only the Czech Republic could improve its EU market share. The reason

Table 13. Market shares of CEECs in the EU-15' imports from non-member countries, 1995-1999

(Percentage)

Item	Czech Republic	Estonia	Hungary	Poland	Slovenia
Market share 1995	1.94	0.17	1.65	2.53	0.97
Market share 1999	2.54	0.26	2.65	2.57	0.83
Market share change, percentage point	0.60	0.08	1.00	0.04	-0.15
Market share change	131	145	160	102	85
Export volume change	64.4	93.8	96.3	32.9	22.7
Share of foreign affiliates in export sales, 1999	60.5	43.0	88.8	59.8	30.3
Foreign affiliates: export sales/sales, 1999	60.3	56.6	60.0	27.4	68.2

Sources: Eurostat Comext database and Hunya, 2001.

is that FDI in Poland is more for domestic market-oriented activities, as indicated by export sales as low as 27 per cent of total sales compared to about 60 per cent in the other countries.

Market share developments at the industry level show which industries have gained or lost competitiveness during 1995-1999 (table 14). In the case of the Czech Republic, two thirds of the 21 industries gained shares. The major winners were the motor vehicles, rubber and plastic, fabricated metals and printing and publishing. The main losers were leather, apparel and non-metallic minerals. The shift of exports was towards high value-added products. The industries with the highest gains were dominated by foreign capital, while losing industries have generally lower foreign penetration.

The trend for Hungary was similar to that in the Czech Republic, but the winning industries were more concentrated. Motor vehicles, electrical machinery and office machinery, the major industries gaining market shares were all totally foreign controlled. As to Poland, both gains and losses of market shares are of a small magnitude, showing that structural change is slow. Gaining industries, such as electrical machinery and radio and television sets are among the market share winners in other countries too and are almost completely foreign controlled. Motor vehicles have a relatively small

Table 14. Imports of EU-15 from selected CEECs, by industry: market share gains and market share losses in the top 3 industries, 1994-1999

(Percentage)

Czech Republic	*Gain,* percentage points 1995-1999	Market share 1999	Foreign affiliate share in exports 1999
34. Motor vehicles	4.2	7.0	94.8
25. Rubber and plastic	2.4	5.4	75.2
28. Fabricated metals	2.2	8.4	55.9
	Loss, percentage points		
19. Leather	-0.6	1.5	15.1
26. Non-metallic minerals	-0.3	10.1	62.8
18. Wearing apparel	0.3	1.3	30.8
Other high market share industries			
31. Electrical machinery	2.1	5.3	79.1
20. Wood	-0.0	5.0	62.2
22. Publishing, printing	2.1	4.4	29.0
Hungary	*Gain,* percentage points 1995-1999	Market share 1999	Foreign affiliate share in exports 1999
34. Motor vehicles	5.0	9.7	98.7
30. Office machinery	2.9	3.1	97.2
32. Radio and TV sets	2.4	3.4	91.9
	Loss, percentage points		
16. Tobacco	-0.8	0.1	100.0
27. Basic metals	-0.3	1.4	27.0
24. Chemicals	-0.3	1.0	37.8
Other high market share industries			
26. Non-metallic minerals	0.3	3.0	62.8
28. Fabricated metals	0.3	2.8	55.9
Poland	*Gain,* percentage points 1995-1999	Market share 1999	Foreign affiliate share in exports 1999
31. Electrical machinery	1.4	3.8	78.5
25. Rubber and plastic	1.3	3.4	84.6
21. Pulp, paper	1.3	3.5	95.0
	Loss, percentage points		
26. Non-metallic minerals	-1.3	6.8	62.4
18. Wearing apparel	-1.1	4.7	52.3
23. Coke and petroleum	-0.9	1.8	44.1
Other high market share industries			
20. Wood	0.6	9.0	60.7
28. Fabricated metals	0.5	6.8	50.5
36. Furniture, manuf. n.e.c.	0.8	5.8	70.3

Sources: Eurostat Comext database and Hunya, 2001.

share and little gain in terms of market shares, showing that the large FDI coming into that industry was mainly attracted by the big and expanding domestic market. Although Poland has the second highest (after Hungary) foreign penetration rate as measured by sales, this has not contributed much to its export performance.

As for Slovenia, loss in market shares has affected a wide range of industries, among them traditionally strong ones with previously high market shares, such as paper, apparel and non-metallic minerals. Market-share winners such as metal products, electrical machinery and printing and publishing are industries with low foreign penetration. Industries with the highest foreign penetration, such as motor vehicles, paper and radio and television sets, have, by and large, stagnating market shares in the EU-15.

In conclusion, Hungary has had a clear competitiveness gain due to FDI penetration. Estonia has shown a competitiveness gain as well, but less linked to FDI. The competitiveness gain of the Czech Republic is less than that of the former two countries, but it is mainly driven by FDI. Poland has had a strong foreign penetration, but with little effect on overall competitiveness. Slovenia has lost market shares in the EU, owing to relatively low foreign penetration and FDI in modern industries.

Ability to earn and impact on growth at the industry level

The rate of profit (profits per sales) is generally higher in foreign affiliates than in domestic enterprises (table 15). This indicates the generally difficult financial position of domestic enterprises. Hungarian and Slovenian firms are on the whole more profitable than firms in the other CEEC-5 countries, although different accounting systems make such cross-country comparisons unreliable. Until 1998 all types of firms in each country made some profits, but in 1999 domestic firms had aggregate losses in the Czech Republic, Estonia and Poland. Declining or stagnating domestic demand and a fall in Russian imports hit these countries more than the rest. The generally low rate of profit in the domestic sector can increase the foreign-domestic gap by curtailing investment and by delaying the restructuring of domestic companies.

Table 15. Profits per sales in foreign affiliates and domestic enterprises in manufacturing, 1994-1999

(Percentage)

Country	1994		1996		1998		1999	
	Foreign affiliates	Domestic enterprises	Foreign affiliates	Domestic enterprises	Foreign affiliates	Domestic enterprises	Foreign affiliates	Domestic enterprises
Czech Republic	0.1	13.0	5.0	0.1	6.4	0.2	5.8	-1.8
Estonia	..	..	4.8	-3.4	0.9	0.3	1.0	-1.9
Hungary	..	..	5.8	1.1	8.0	2.4	6.3	2.7
Poland	0.6	4.8	5.3	3.6	3.6	1.3	3.1	-1.0
Slovenia	3.1	3.0	3.3	2.8	3.8	3.7	5.0	3.9

Source: Hunya, 2001.

Notes: Operating profit for Czech Republic, Poland and Slovenia; profit after tax for Estonia and Hungary.

In Hungary, profits per sales were generally low in the mid-1990s at the time of the recession, but in the past two years profit rates reached high levels. (Net profits are biased towards foreign affiliates, as many of them enjoy tax exemptions.) Increasing profits in the domestic sector point to the positive results of restructuring. But high profits were achieved mainly in the foreign-controlled modern industries (e.g. motor vehicles and electric machinery). Foreign affiliates in basic metals, other transport equipment and recycling made losses on average. The risk of failure persists mainly in the case of privatized companies that dominate these industries. The difficult situation of Hungary's other transport equipment industry is not unique. Like in other CEECs, it received substantial FDI during the early stages of transformation, but problems arose in later years owing to low investment in public railways. In Slovenia, profit rates in the foreign sector have been moderate compared with the domestic sector. Both rose in 1999 which was not the case with other countries.

Foreign affiliates invest more per assets and per sales than domestic firms. This is a confirmation of the importance of FDI in economic growth and restructuring. Investment data (table 16) suggest that foreign investors restructure rapidly the acquired manufacturing firms and make further investments to expand their activities. As a result of stepped-up investment activities, the weight of foreign affiliates in CEE manufacturing will grow in the future even in the absence of new projects. The exception among the CEEC-5 is Slovenia, in which the investment propensities of the foreign and domestic sectors do not differ, a fact that is in line with the profitability and productivity trends.

Table 16. Investment outlays: share of foreign affiliates in manufacturing, 1994-1999

(Percentage)

Country	1994	1995	1996	1997	1998	1999
Czech Republic	26.9	27.4	33.5	31.9	41.6	52.7
Estonia	..	..	41.8	27.1	32.9	..
Hungary	79.0	79.9	82.5	78.3	78.7	82.2
Poland	30.6	41.0	45.6	49.9	51.0	63.1
Slovenia	..	14.0	20.3	23.3	24.3	22.3

Source: Hunya, 2001.

Conclusions and policy implications

The analysis presented above suggests the following conclusions and policy options derived therefrom:

- The positive link between foreign penetration and various components of international competitiveness has been demonstrated in the case of the five advanced EU accession countries. The advantageous impact of FDI on competitiveness is true both for the manufacturing sector and for individual industries. During 1994-1999, output and productivity growth, structural change and profit rates were higher in countries with a stronger presence of FDI.

- The deeper foreign penetration, the faster has been the speed of structural change. Hungary was first, followed by the Czech Republic and Poland. This is relevant both in terms of changes in the structure of output and for each country's exports to the EU. Slovenia, although the most advanced in terms of per capita GDP, has recorded low FDI, a low share of foreign affiliates in export sales and a loss of EU market shares.

- The size and industry distribution of foreign penetration depends on industry-specific features and on the characteristics of privatization policies. FDI in CEECs follows the worldwide characteristics of the corporate integration of industries: technology-intensive electrical machinery and automobile production are the main targets. FDI has helped CEECs to shift their product structures in line with those of the more developed EU countries. This may give further impetus to economic growth and narrow the development gap between the more advanced CEECs and the EU.

- Foreign capital has also penetrated industries with relatively stable domestic markets, such as beverages and tobacco. Profit rate differences suggest the abuse of monopoly positions, especially in the tobacco industry. This implies that competition policy is especially important in countries hosting large TNCs.

- Foreign presence has been relatively small in industries with structural difficulties and oversized capacities, such as the steel industry. Privatization is not enough to set the restructuring of these industries in motion. Sectoral policies and financial

restructuring are necessary to make companies attractive for foreign takeovers.

- A duality between foreign- and domestically-dominated industries appeared in all countries, and it has been growing over time. It appeared between modern, foreign-dominated industries on the one hand and traditional industries with both domestic and foreign companies on the other and as a foreign–domestic gap within the industries with both foreign and domestic companies.

- The dichotomy of productivity and profit rates between the foreign- and domestically-owned companies in one and the same industry is the largest in Hungary and the smallest in Slovenia. Hungary in the second half of the 1990s was the most rapidly growing CEEC, the one with the strongest upgrading of the industrial structure, had the most gain in market shares in the EU but is subject to the most sever duality and lack of spillover in the relationship of the foreign and the domestic sector. In Slovenia, the balanced relationship between the domestic and the foreign sector is coupled with a low average rate of foreign penetration and a relatively small presence of technology-intensive industries. The small gap between the foreign and the domestic sectors may indicate a slow rate of technological progress and absence of spillovers.

- Foreign affiliates can perform better, but not behave independently of the general conditions determining corporate income. Profit rates in the economy tend to deviate between foreign and domestically owned companies, but they usually progress in the same direction as a response to the country's overall economic conditions. The alarmingly low profit rate of domestic enterprises is a lasting problem in most countries. Reducing corporate taxes may be of little value in countries with poor profit expectations. Investments, both foreign and domestic, may be stimulated more by targeting the costs of investment: regional and employment policy measures, customs allowances, and industrial parks. As most of the general economic policy measures benefit large investors, SMEs, usually domestically-owned, may require special treatment. ■

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Does transition matter? FDI from the Czech Republic, Hungary and Slovenia

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This article contains an evaluation of outward foreign direct investment from the Czech Republic, Hungary and Slovenia during their transition to market economies. Outward foreign direct investment from these countries has been growing in recent years, primarily as a response to globalization pressures, the expected accession to the European Union and certain country-specific factors, such as keeping economic ties with countries with which they were previously unified or that had the same economic regimes. The internationalization of firms has proven to be more a spontaneous "bottom-up" activity than any other planned macroeconomic strategy pursued by these countries. Outward foreign direct investment is undertaken predominantly as an instrument of preserving market shares abroad (export facilitation) and manifests firm-specific advantages, mostly knowing how to do business in a specific market rather than innovative technological capabilities. Outward foreign direct investment from these economies in transition has experienced a motivation shift, and now follows a "new" investment development path model described by a sequential internationalization approach: the starting point was an unusual system-specific, reversed investment development path, since outward foreign direct investment started before inward foreign direct investment was even allowed.

Introduction

Writing about transition and foreign direct investment (FDI) usually means writing about inward FDI as the main driving factor underlying internationalization in a market economy. Yet, Slovenian firms recently became the biggest foreign investors in Bosnia and

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Herzegovina and are the major investors in the republics comprising the former Yugoslavia. Likewise, outward FDI by Czech and Hungarian firms has been increasing rapidly. Firms from these economies in transition are realizing that, in a globalizing world economy and amidst technological changes, the internationalization of firms has become the key to sustained growth. With the advancement of transition, firms from Central European countries have also been forced to start bolstering their mainly export-based ways of penetrating foreign markets by investing abroad.

It may be argued that outward FDI by economies in transition does not deserve much attention simply because it is modest in volume. But it has been growing fast in recent years. The stock of outward FDI made by the three economies in transition more than doubled during the past three years. Investors from some of these economies are important investors in other economies in transition. In addition, outward investors represent a significant share of the corporate sectors in their home countries. Theory also predicts that outward FDI will grow substantially in the future, parallel with the advancement of transition (push factors) and with the intensification of globalization and integration trends (pull factors).

FDI is also not only about the transfer of capital, but also about control, as was elaborated in the 1960s by Stephen Hymer (1976), who rejected the traditional explanation that interest rate differentials are the major driving force behind FDI. FDI is a package of technology, marketing, market access, management and capital. Recently, FDI has become increasingly about networking and different types of market entry strategies. Now is the right time to address the issue of outward FDI from economies in transition so that policy conclusions and knowledge gained can be used by those enterprises that are entering the first stage of their internationalization to learn from the experiences of others and the best practices of other firms and governments. Some managers are emphasizing that they need new markets that can no longer be penetrated by exports alone.

The issue is also relevant because theory – to be precise: the investment development path model – has recently revised its prediction that firms start to invest abroad after reaching a certain development level (Dunning and Narula, 1996). Firms now have to start investing abroad earlier than in the past, as there is frequently no time for gradual, sequential internationalization. We can also see,

at least in some industries, that some firms are "born" as transnational corporations (TNCs), in the sense that they have jumped over the early stages of internationalization and have begun investing abroad even before undertaking any significant exporting. It is also important to see to what extent outward FDI by economies in transition is different from that by TNCs based in developing countries (Wells, 1983; Kumar et al., 1981; Dunning, 1986; Khan, 1986). Are they following what K. Balahkrishnan (1975) called the fourth stage of the product cycle? And, finally, it is important to see to what extent different systemic backgrounds or history have affected the recent surge of outward FDI by economies in transition.

The objective of this article is to evaluate selected aspects of the growing outward FDI by firms from three economies in transition: the Czech Republic, Hungary and Slovenia.[1] Despite the fact that the internationalization of firms from selected countries is following an evolutionary way of internationalization (Johanson and Vahlne, 1977; Luostarinen, 1979, 1994; Welch and Wiedrsheim-Paul, 1975), starting with exports and other foreign market entry modes, the focus here is on outward FDI alone. Companies at an advanced stage of transition are facing the decision to invest abroad in order to retain or gain foreign markets, or risk losing them. TNCs from selected countries in Central Europe already play a vital role as investors in other economies in transition. Twelve out of the top 25 TNCs from Central Europe are based in the Czech Republic, Hungary and Slovenia (UNCTAD, 2000).

There are many theories that can explain outward FDI made by firms from these three economies in transition. Relying on the most relevant ones for the economies under consideration, the analysis of outward FDI is based on both the investment development path paradigm (Dunning and Narula, 1996) and the Scandinavian sequential internationalization approach (Welch and Luostarinen, 1988; Johanson and Vahlne, 1977). Historically, outward FDI started in the Czech Republic, Hungary and Slovenia even before the transition began, which is clearly unusual according to the traditional internationalization pattern. The second move came a few years after the fall of the Berlin wall. Today, the privatized old firms from these countries have restarted investing abroad, mainly in neighbouring and culturally close countries. This supports the Scandinavian sequential

[1] The second phase of the ACE project will also include Poland and Estonia, so that all first-round candidate countries for entry into the European Union will ultimately be analyzed.

development internationalization model, which can explain much of the outward FDI made by these economies. To fill the gap in explaining outward FDI by these countries, we also have to apply John H. Dunning's eclectic paradigm that combines firm-specific advantages with location- and internalization-based ones. These three theories provide the general theoretical framework for the analysis.

This article presents some of the results of the first in-depth study of outward FDI by firms from the Czech Republic, Hungary and Slovenia. It begins with the methodological framework, presenting the data sources, difficulties and other limitations that such a study faces. To understand recent outward FDI trends, it is also necessary to see the history of outward FDI, followed by a presentation of government policies on outward FDI, reviewing regulation and capital account liberalization and bilateral investment treaties. Finally, the article addresses some policy issues, such as how to promote outward FDI. Outward FDI is evaluated for the 1990-1999 period. Trends in FDI stocks and flows are examined, followed by an analysis of their geographical allocation. The shift from "unusual" to "usual" internationalization patterns is evaluated particularly in terms of changes in geographical concentration, motivation and in the general characteristics of the companies investing abroad.

Methodology

The analysis is based on selected theories of FDI that constitute a general theoretical framework; an analysis of secondary data on outward FDI;[2] an empirical analysis of primary data collected by a survey (through structured questionnaires) of firms investing abroad;[3] and interviews with managers of the investing firms.

An analysis of outward FDI from the three (and other) economies in transition is still seriously hampered by data difficulties. Countries have not historically collected data (McMillan, 1987) until recently, and even then on a very limited scale only. Moreoever, the

[2] The main source of outward FDI flows and stocks for all three countries was the balance-of-payments statistics collected by central banks. Such data are only available in aggregate form. Disaggregated data are not available. (Sometimes not even aggregate data are available if there are fewer than three firms investing abroad.)

[3] A postal survey was carried out between June 1999 and October 1999. Managers of companies directly investing abroad were addressed, as were major exporters. In this article, unless otherwise stated, only the investing firms' survey is used.

statistical coverage of outward FDI by these three countries does not yet fully correspond to international standards, although it has improved substantially in the past few years. All three countries still confront common secondary data limitations, such as:

- Short time series, including differences in the length and comprehensiveness of outward FDI data. This makes a trend analysis and comparisons difficult, even impossible. It was not possible to monitor outward FDI flows and stocks in all three countries[4] for the whole 1990-1999 period.[5]
- Problems with data breakdowns and differences in data disaggregation. While breakdowns by country and by activity are based on stocks in the Czech Republic and Slovenia, in Hungary this aggregation is made on the basis of flows.
- Missing categories. While the number and volume of outward FDI are mostly recorded,[6] statistics usually lack several other categories important for interpretation, such as the number of companies investing abroad, and the number and activity, size, capital and performance of affiliates abroad.[7]

Primary data sources therefore remain a very important tool for researchers. Surveys combined with interviews and even media reports can provide additional information for analysis, although they suffer from other problems. The first is the reluctance of firms to reply to surveys. Due to low response rates, the survey samples for all three countries were quite small and of different size.[8] They cannot

[4] Inherited investments from socialist times are not always included.

[5] Although we are analyzing the whole transition period, the evaluation concentrates on the period after 1993 because the Czech Republic was established at that time and because stocks and flows have been consistently monitored in Slovenia only since 1993.

[6] Because outward FDI is a relatively new phenomenon and most companies treat these data as confidential and are reluctant to report them, it cannot be claimed that all outward FDI is recorded. Differences between various sources are therefore likely to occur.

[7] The fact that two of the three economies in transition were previously part of larger countries (Czech Republic and Slovenia) also complicates the analysis. However, the operations of Czech firms in Slovakia are not considered as outward FDI as in the case of Slovenia. Assets were typically divided on the basis of a geographical principle. Accordingly, units in the Slovak territory became Slovak enterprises. After the disintegration of the former Yugoslavia, Slovenian companies became TNCs overnight by having affiliates in other republics of the former Yugoslavia – they had unintentionally become investors abroad. Such outward FDI is called "inherited investment" (Svetlicic et al., 1994a).

[8] In Slovenia, 32 investors responded, 21 in the Czech Republic and only 12 in Hungary, for a total of 65.

be taken as being fully representative.[9] Therefore, many of the results are basically of a qualitative nature; it was not always possible to have them verified quantitatively. Nevertheless, these surveys constitute the only significantly comprehensive database on such investment by these countries. Due to data limitations, it was impossible to utilize more sophisticated statistical analysis.

History

Real internationalization through outward FDI has a very short history in Central European countries compared to other smaller European countries like Portugal (Buckley and Castro, 1998a, 1998b, 1999; Simoes, 2000), Finland (Luostarinen, 1979, 1994) or the Scandinavian countries. During the past decade, the processes of liberalization, deregulation and privatization, together with democratization and pressures from the global economy, have been pushing firms from Central European countries not only to export, but also to invest abroad.

The only comprehensive data source for earlier outward FDI by countries that were member of the Council for Mutual Economic Assistance is the East-West Project conducted by Carl McMillan. According to his data, the former Czechoslovakia[10] had a total of 75 companies abroad in 1989, while Hungary had 134. The biggest concentration of such entities abroad was in Western countries. These commercial companies in the West were an important component of the international distribution networks of the state monopolies that handled most of the foreign trade in the Eastern countries. In developing countries, where Eastern exports have often been linked to development projects, engineering and construction companies have played a major role (Artisien et al., 1992, pp. 11, 13).

The former Yugoslavia was not a member of the Council for Mutual Economic Assistance and was therefore not included in this data bank. The number of companies established abroad by Yugoslav

[9] Lack of data at the aggregate level prevents an assessment of how representative the sample of surveyed companies is. In 1997, the Slovenian sample represented 5 per cent of all companies investing abroad and 16 per cent of the total capital invested abroad.

[10] Exact industry data for the Czech Republic and Slovenia are not available. Assuming that the Czech Republic was the more developed part of the former Czechoslovakia and constituted a larger part of its gross domestic product, it can be hypothesized that the larger part of these investments was undertaken by firms located in the Czech part of the country.

firms (noting Slovenian firms were the most active) was much higher, but their geographical and industrial distribution was not very different. By the end of 1988, the total number of Yugoslav TNCs was 308. Their main destination was Germany, followed by Italy, Switzerland and France. Over 60 per cent of them were involved in trading. The share of manufacturing was relatively more important than it was for the Council for Mutual Economic Assistance member countries. However, only 15 per cent of the total number of investments by Council for Mutual Economic Assistance countries in the West and 5 per cent in developing countries, as recorded in 1983, date from before 1965.[11] Outward FDI gained momentum in the second half of the 1960s, but the rate of investment only accelerated in the 1970s. By the early 1980s, these investments had spread on a global scale across a broad spectrum of countries and activities (McMillan, 1987, p. 29 and pp. 161-163). With a few exceptions,[12] their scale of operation was however relatively limited. The typical Council for Mutual Economic Assistance firm established abroad had 10-50 employees (only 8 per cent had over 100).

Where such outward FDI was undertaken by state-owned firms, it could be argued that it was not a regular private firm activity, and there was a different rationale for undertaking outward FDI.[13] A

[11] Some rare cases of outward FDI may be found in Czechoslovak history even before World War II. When Czechoslovakia was, during the two decades prior to World War II, one of the ten leading industrial powers, its enterprises also invested abroad. The first registered post World War II investment abroad from Czechoslovakia can be traced to 1947 (Omnitrade Ltd. in Canada). Then an affiliate of Zivnostenska Banka was set up in London. Under central planning, water transport development using the Vltava River led to the establishment of an affiliate in Germany. Krivoj Rog's combine in the former Soviet Union is another case (Bohata, 2000, p. 17). Similarly, the first Slovenian outward FDI after World War II that we traced took place back in 1951: the Slovenian electronics conglomerate Iskra set up a subsidiary (Cefra) in Munich, and Intertrade set up a trading and marketing subsidiary in India called Intraco in 1959 (Artisien et al., 1992, p. 30). The Hungarian firm Medimpex set up the Imarsel Chemical Co. Ltd. in Nigeria in 1968, while, for instance, Ibusz established WATA Commercial Society Inc. in Texas in 1970 (McMillan 1987, pp. 125-147).

[12] Slovenia's Bois, a tropical wood exploitation and processing joint ventures established in the Central African Republic, was one of the largest projects in that country and its major source of FDI. DAWA, Krka's pharmaceutical firm in Kenya, was (according to *The Standard*, Nairobi, 18 January 1984) the largest pharmaceutical factory in sub-Saharan Africa, contributing 5 per cent to Kenya's gross domestic product and employing approximately 3 per cent of its workforce (Svetlicic and Rojec, 1988, pp. 91, 107, 137; Artisien et al., 1992, p. 43).

[13] Their major motive was to gain foreign currency and to achieve a certain independence in sourcing which was otherwise frequently interrupted by changes in foreign trade and foreign exchange legislation (see below). Apart from the export expansion motive, some firms also had political motives.

partial exception to this may be Slovenian firms (and Yugoslav ones for that matter), which in the 1960s were already considered quasi-private firms.[14] Therefore, such investment abroad by Council for Mutual Economic Assistance and Slovenian firms could be regarded as an exception to the normal sequence offered by the predictions of the investment development path. Systemic factors, which may largely explain the main part of such operations, at least in industrial countries, again could be an argument that challenges the "reverse investment development path" model, meaning that outward FDI started before the inward type. Specifically, the system-escape dimension may explain such departure from the paradigm.[15] With the introduction of a market economy after Slovenia's independence, system-escape investment lost its importance, while other motives gained in significance. "Normal" (in terms of theory) outward FDI began to emerge. The reverse sequence was so strongly system-based that the predictions of the theory were applicable, particularly since recent outward FDI developments in all three countries analyzed here support the investment development path. Although a cumulative learning process started with the early beginning of outward FDI, the "real" outward FDI by private firms basically started with the transition process.

In the Czech Republic, there was some "premature" outward FDI by some larger companies during the early period of transition. Due to the lack of capital, experience, underestimated preparations and only poor knowledge of the business environment, there were several failures.[16] The firms in question were not strong enough, lacked the minimum critical mass of all the necessary factors or were too ambitious (Bohata, 2000, p. 17).

[14] With the major economic reform of 1965 in the former Yugoslavia, state ownership was abolished, a self-management system was inaugurated (informally, already earlier) and companies got a certain degree of autonomy in the newly established so-called "market socialism". Due to these changes, the International Finance Corporation started to grant loans to Yugoslav enterprises implicitly, considering them as having the characteristics of private firms. The World Bank, in its report on Slovenia, wrote: "the specific ownership structure meant that most enterprises were *de-facto but not de-jure owned by employees*" (World Bank, 1999, p. 85).

[15] By investing abroad, firms got a free hand of operating in market economies and gained some privileges regarding imports. Changes in foreign exchange legislation did not affect their operations. Firms were freer to import from their affiliates abroad in spite of newly established restrictions.

The first Hungarian investment abroad (after the change in regime in 1989) was made by agencies of former state-owned foreign trading companies that had transformed themselves into independent ventures. A few of them set up operations in the former Soviet Union and other Council for Mutual Economic Assistance countries following their previous foreign trade orientations, but most were established in Western Europe. By value, the most important investor was the National Bank of Hungary, which established commercial banks in the most important Western European financial locations (Vienna, London, Frankfurt) to help finance trade with Western partners (Oszlay, 2000, p. 10).

Because of its early start and experience in investing abroad, high FDI outflows were expected from Slovenia after its independence in 1991. However, such investment almost ceased. Uncertainties regarding the formal recognition of the new State of Slovenia and how the rights and obligations, financial and other succession matters would be resolved posed a serious barrier to strengthening and upgrading the international economic expansion of Slovenian firms. Wars in Croatia, Bosnia and Herzegovina and, finally, the Kosovo crisis also played a role in deterring outward FDI from Slovenia. Another factor preventing bolder steps in developing new strategies was Slovenian managers' initial preoccupation with the privatization process. Legislation itself prevented firms from investing abroad before their privatization had been completed, or at least before they had permission to invest abroad by the privatization agency. Unfavourable public opinion of FDI abroad also discouraged managers from embarking on developing long-term international investment plans.[17] The transition was also accompanied by a disintegration of many large and already internationalized companies into numerous small companies that were unable to internationalize fast due to a lack of knowledge and capital. Due to limited resources, recession and uncertain economic circumstances, many companies were forced to stop expanding their international operations, or to even do close their affiliates abroad.

[16] For example, heavy and engineering industries in China, the Republic of Korea and South America.

[17] Such capital outflows were regarded as anti-patriotic in a situation in which the priority was to attract foreign capital to assist in restructuring. Managers were frequently accused of privatizing the public assets of companies by establishing so-called by-pass firms abroad, in which the good, profit-making parts of companies became owned by such managers.

Government policy on outward FDI

Regulation of outward FDI

All three countries examined here adopted relatively liberal foreign exchange legislation in the second half of the 1990s (More et al., 2000). The liberalization of capital movements and foreign exchange regimes in transactions between residents and non-residents was an important part of the transition process, also spurred by agreements that all three countries concluded with the European Union on their way to accession. These agreements generally required the immediate liberalization of FDI as one of the long-term and most important capital transactions for development and international cooperation and integration. For the Czech Republic and Hungary, the liberalization of capital movements and adoption of the rules set out by the Organisation for Economic Co-operation and Development (OECD) Code of Liberalisation of Capital Movements was also a precondition for accession to that Organisation.

The Czech Republic and Hungary embarked on the road to liberalization of capital movements somewhat earlier than Slovenia, and adopted new foreign exchange legislation as early as in 1995. Hungary continued by omitting more restrictions in subsequent amendments. Slovenia was more prudent in its way of opening the country up to free capital mobility, and adopted new legislation only in 1999. Besides, a prudent approach in macroeconomic policies – one of the reasons for the relatively late adoption of the legislation, and the thus lagged liberalization of capital movements – was the fact that Slovenia signed the European Agreement later than the other two countries. It came into force only at the beginning of 1999. Furthermore, Slovenia is not a member of the OECD.

All three countries, following the requirements of European agreements, the OECD's Code and the European Union's *acquis*, adopted a very liberal regime regarding outward FDI and removed all restrictions. While Slovenia and the Czech Republic had already fully liberalized outward FDI in the second half of the 1990s (retaining for their foreign exchange authorities only powers to monitor transactions), Hungary had kept some restrictions, whereby in certain cases residents had to get a licence for outward FDI from a foreign exchange authority. After June 2001, all remaining restrictions were abolished.

Bilateral investment treaties

An important institutional facilitator for outward FDI is the conclusion of bilateral investment treaties with potential host countries. They are more important during the initial phases and when the investment climate is not very favourable. The purposes of concluding such treaties between economies in transition and potential host countries are diverse. The main goal of concluding such treaties for industrial countries is to protect outward investment while, in the case of developing or capital importing countries, the main goal is to attract inward investment. Since economies in transition are net FDI receivers, bilateral investment treaties have been more stimulated by the protection of inward FDI. Later on, with the increasing importance of outward FDI, bilateral investment treaties have also been oriented towards major destinations of such investment. The signing of a bilateral investment treaty usually follows investment and not *vice versa.* Therefore, it is hard to assert that these investment treaties have played a significant role in firms' initial decisions to invest abroad. This can be seen also in the evaluation of host country determinants that influence an investment location decision, where the policy framework and business facilitation programmes are assessed as being less important, although firms do complain if such agreements are not in place, but only in cases of highly risky destinations. The importance of bilateral investment treaties increases after the investment decision is made when insurance or dispute settlement issues arise.

The Czech Republic has been concluding bilateral investment treaties since 1989, the first being signed with Belgium and Luxembourg. At the beginning, such treaties were concluded with developed countries. Treaties have been concluded with the majority of European Union[18] and other Western European countries (these being the most important inward investors), as well as Canada, since 1991. Bilateral investment treaties with Central and Eastern European countries and other developing countries have followed suit. Until 2001, the Czech Republic had concluded 65 bilateral investment treaties (9 have not been ratified yet), including treaties with countries that are the major destinations of its outward investment.

[18] Among European Union countries, the exception is Ireland, which does not conclude such treaties.

Hungary started to conclude bilateral investment treaties in 1987.[19] The first treaties were concluded with developed, particularly European Union, countries, and with some Asian and Central and Eastern European countries. By 2001, Hungary had concluded 45 such treaties, including all top receivers of Hungarian investment.

Slovenia has been concluding bilateral investment treaties since 1992, when a general model (on the basis of the OECD's draft convention on the protection of foreign assets) for such treaties was prepared by the Government, together with a list of countries to be given priority in entering into such treaties. By June 2001, Slovenia had signed 33 bilateral investment treaties, 14 of which are with member countries of the European Union and the rest with almost all of the present European Union candidate countries, the countries comprising the former Yugoslavia and other countries, such as Russia and China.[20] Most of the treaties signed have been ratified by the Slovenian Parliament, and 29 of them have entered into force. Still, at the end of the 1990s, the bulk of investment made by Slovenian companies went to countries with no bilateral investment treaties or for which agreements had not entered into force. This is especially true in the area of the countries comprising the former Yugoslavia.

Promotional measures

Promotional measures have not been a strong incentive for the initial decision to invest abroad. Outward FDI by economies in transition has grown much more as a bottom-up initiative than as an *ex ante* planned macroeconomic strategy. The policy of selected economies in transition in favour of more intensive and faster internationalization through outward FDI has only just started to be shaped.

Initially, all efforts had been devoted to inward FDI. Only at present, after outward FDI has started to take off, have governments begun to realize that policies are needed even for the promotion of internationalization through outward FDI. Such approaches have started to replace the initial scepticism or even hostility towards outward FDI. Such investment had frequently been regarded only as an outflow of capital and not as a restructuring instrument that could

[19] For more information, see ICSID (www.worldbank.org/icsid/treaties).

[20] Eighteen bilateral investment treaties have been concluded with OECD members.

contribute to strengthening the competitiveness of the investing companies and even facilitate integration with the European Union and the world economy. Therefore, it is not surprising that promotional policies are yet to be established.

Only in 2000 did a programme for stimulating outward internationalization with relatively modest resources start in Slovenia.[21] In the Czech Republic, there is no explicit programme for the promotion of internationalization. So far, only an information service is provided by the Czech Trade Agency, which is co-financed by the Ministry of Industry and Trade. In Hungary, the institutions created to promote inward FDI became the starting point for Hungarian investors seeking outward FDI opportunities.[22] Similar programmes are also under discussion in the Czech Republic. The only really important instrument facilitating outward FDI in all three countries is the existing export credit and insurance (guarantee) agencies, such as the Slovenian Export Corporation, the Hungarian Eximbank and Mehib and the Czech Export Guarantee and Insurance Company.

The first priority of future policies promoting outward FDI is the elimination of barriers hindering such investment, including the elimination of attitudinal and organizational barriers. The second priority is the application of best practices implemented by other countries. These include: the promotion of "holistic" internationalization that covers both the inward and outward dimensions; the promotion of integration processes with the local economy (mergers and acquisitions); and the development of firm-specific advantages. There can be no outward FDI without certain ownership advantages being developed by the investing firms in the product or technology fields. Finally, the creation of a comprehensive macroeconomic database in line with international standard (OECD, International Monetary Fund and the European Union's EUROSTAT)

[21] Resources (SIT 1.4 billion) were allocated in 2000 to cover some preparatory activities of firms for outward FDI (matchmaking, feasibility studies, training, material costs, consultancy services and experts for specific projects).

[22] Among them is the Investment and Trade Development, a non-profit organization, established in 1993 to promote investment activity. It has established 36 offices abroad in 33 countries and 8 regional offices in Hungary. Recently, it has also started to provide information to outward investors. Corvinus International Investment Plc., established in 1997 as a venture capital firm, provides direct financial assistance. The Hungarian Export-Import Bank, founded 1994, provides indirect financial assistance and insurance by Hungarian Export Credit Insurance Plc established 1994. Finally, an ambitious development programme (the Szechenyi plan) was launched in 2000 to promote the activities of small and medium-sized enterprises (Oszlay, 2000, p. 36).

for the evaluation of outward FDI is a precondition for any future in-depth research, or for developing a more ambitious outward FDI strategy.

Outward FDI by Czech, Hungarian and Slovenian firms in the 1990s

Transition, privatization and liberalization of economic relations have created the general framework for stronger and more developed long-term cooperation with foreign partners. Associate membership in the European Union, and for the Czech Republic and Hungary also in the OECD, have facilitated long-term links of firms from these economies in transition with the European Union and OECD members. One cannot expect outward FDI to be well developed only ten years after the transition process started. Nevertheless, the data confirm that it is no longer negligible and that it has been growing quite substantially in the past three years. Outward FDI started to take off in all three countries in 1997-1998, after the transition process had produced some tangible results reflected in economic stability, the functioning of markets, privatization, liberalization and deregulation, all of which boosted the competitiveness of firms.

Trends in outward FDI

Investment abroad by firms from the economies in transition, in spite of its recent upsurge, still constitutes a very modest share of global investment (table 1). They account for only 0.3 per cent of world outward FDI flows in 1999 and 0.3 per cent of outward stocks in 1998 (compared with 0.1 per cent in 1993).

Hungary is the most important investor abroad in terms of absolute figures (table 2), although in relative terms (outward FDI per capita) Slovenia is in the lead.[23] Before 1996, the Hungarian foreign exchange authority had registered numerous outward investments with very small capital invested and mostly oriented towards neighbouring countries. After 1996, the number of outward investments began to decline, while the amount of capital invested started to grow.

[23] Outward FDI stock per capita in 1998 reached $310 in Slovenia, $156 in Hungary and $78 in the Czech Republic.

Table 1. FDI outflows from selected Central and Eastern European countries, 1993-1999

(Million dollars and per cent)

Country	1993	Per cent	1994	1995	1996	1997	1998	1999	Per cent
Czech Republic	**90**	**0.04**	**120**	**37**	**153**	**25**	**175**	**197**	**0.02**
Estonia	6	0.00	2	2	40	137	6	74	0.01
Hungary	**11**	**0.00**	**49**	**43**	**-3**	**431**	**481**	**249**	**0.03**
Poland	18	0.01	29	42	53	45	316	200	0.03
Russian Federation	142	0.06	101	358	771	2 597	1 011	2 144	0.27
Slovakia	15	0.01	14	8	52	95	146	-372	-0.05
Slovenia	**1**	**0.00**	**-3**	**6**	**8**	**26**	**11**	**44**	**0.01**
Czech Republic + Hungary + Slovenia	**102**	**0.04**	**166**	**86**	**158**	**482**	**667**	**490**	**0.06**
World	246 597	100	282 902	357 537	390 776	471 906	687 111	799 928	100

Sources: Czech National Bank; National Bank of Hungary; Bank of Slovenia; UNCTAD, 2000.

Table 2. Slovenia, Hungary and Czech Republic: outward FDI stock

(Million dollars)

Country	1993	1994	1995	1996	1997	1998	1999
Slovenia	281	352	504	469	429	563	621
Hungary	225	291	491	494	900	1 286	1 568
Czech Republic	181	300	346	498	548	804	959
Total	687	944	1 341	1 461	1 877	2 653	3 148

Sources: Czech National Bank; National Bank of Hungary; Bank of Slovenia; UNCTAD, 2000.

Outward FDI of selected transition economies significantly lags behind inflows of such investment. The net investment position (outward minus inward FDI stock) is negative, and the gap between the two had been increasing (table 3), but stabilized in 1999. Recent trends, nevertheless, indicate that the increasing role of outward FDI may gradually lead to a narrowing of the inward-outward FDI gap.[24]

[24] Slovenia is perhaps a good example. There are two explanations for this. The first is the recent upsurge of outward FDI by Slovenian firms in the former Yugoslav republics. Future plans for such investment, as reported by companies to the Ministry of Finance, also promise an increase. Outward FDI is also gaining in relative importance in Slovenia due to the modest inflow of inward FDI during the past two years.

Table 3. Net investment position (outward FDI stock - FDI stock)

(Million dollars)

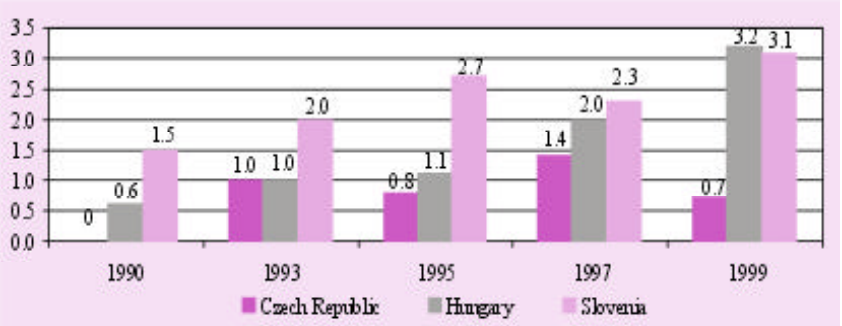
Country	1995	1996	1997	1998	1999
Slovenia	-1 259	-1 554	-1 770	-2 210	-2 063
Hungary	-12 338	-14 467	-15 186	-17 231	-17 708
Czech Republic	-7 006	-8 074	-8 686	-12 796	-12 791

Sources: Czech National Bank; National Bank of Hungary; Bank of Slovenia.

Although outward FDI lags substantially behind inward investment,[25] its share of gross domestic product is increasing in all three economies (figure 1). Slovenia's leading position in the 1990s was overtaken by Hungary in 1999.[26]

Figure 1. Outward FDI stock as a percentage of GDP, 1993-1999

(Per cent)



Sources: Czech National Bank; National Bank of Hungary; Bank of Slovenia.

[25] The share of accumulated inward FDI stock in gross domestic product was 13.4 per cent for Slovenia, 21.8 per cent for the Czech Republic and 39.8 per cent for Hungary at the end of 1999.

[26] In the European Union, in 1996, the share of outward FDI in gross domestic product was 16.8 per cent. Finland, Denmark, the Republic of Korea had, respectively, 16.9 per cent, 18.7 per cent and 3.8 per cent shares of outward FDI stock in gross domestic product in the same year.

Regional distribution

Most of the pioneering investments abroad by the then large state-owned, mostly trade monopolies from the Czech Republic and Hungary and "socially owned" more autonomous firms from Slovenia, were directed to developed countries. In recent times, the regional orientation has been changing significantly. The number of affiliates in other Central European countries is on the rise, while the number of affiliates in industrial countries is stagnating, and in some countries even divestment is taking place. Partly, that is a result of the transformation of their owners and their business rationale. Firms have undergone tremendous changes. Some have disappeared, some have disintegrated into a number of smaller privatized firms,[27] others have been acquired by foreigners,[28] while for those remaining in their original (albeit privatized) form the rationale for such investment has changed. System-escape investment is no longer rational. Therefore, divestment has started to take place. Other firms, fighting for their survival, have also started to rationalize their foreign networks. The regional distribution of outward FDI by the Czech Republic, Hungary and Slovenia has been experiencing a fundamental reorientation. This demonstrates a correlation between outward FDI and trade, where outward FDI follows exports without any decrease in the latter; a strong orientation of outward FDI to neighbouring countries; and increasing flows of outward FDI to other Central European countries.

Exports of all three countries used to be very dispersed, but are now concentrated in the European Union in terms of value. Likewise, outward FDI is also dispersed widely over a number of destinations, but a pattern of concentration is emerging. The network spread index for Slovenia, for example, exceeds 21.9 per cent, which is a very high value compared to other developed countries.[29] A wide affiliation network may be accompanied by higher transaction costs of managing far-flung operations. It may also indicate risk dispersion and high levels of ownership advantages, including

[27] This has happened frequently in Slovenia.

[28] Hungary is a good example.

[29] As a measure of transnationality, the network-spread index of a country reflects the number of host countries in which foreign affiliates are established. The index is derived as a percentage of the number of foreign countries in which the companies could potentially have located affiliates. A similar network spread index value is held by the United States (21.8 per cent), while for Japan the value is lower (18.4 per cent), although these two countries are among the world's biggest home countries (UNCTAD, 1998, p. 324). As predicted by theory, their firms are less internationalized than those from small countries.

knowledge of market conditions in many countries, or a combination of ownership and internalization advantages.[30] Widely dispersed outward FDI in economies in transition is a result of unfinished divestments from the past and more recent new outward FDI, although a wide network spread value index is consistent with the expectation that firms from small, open economies should be more internationalized and should have a broader foreign affiliate network. Increasing internationalization could be a substitute for slower growth rates and possibilities to achieve efficiency in the home market alone. The internationalization literature states that, regardless of entry mode, distance (physical and cultural) matters. As for exports, the geographical concentration of outward FDI confirms that short physical and cultural distance and past experience are the most important determinants of outward FDI (table 4).[31] Today, the main destinations of outward FDI are neighbouring countries with which the investing firms have had some previous relations, where cultural distance is short, or where minorities of their nationals live.

Table 4. Regional distribution of outward FDI (by value) by Czech Republic, Hungary and Slovenia, by major destination regions, 1997 and 1999[a]

(Per cent)

	Czech Republic		Hungary		Slovenia	
Host region	**1997**	**1999**	**1997**	**1999**	**1997**	**1999**
European Union	12.0	6.6	79.2	28.4	9.0	15.6
Central European countries	30.5	58.5	15.5	37.0	81.2	79.1
Other	57.5	34.9	5.3	34.6	9.8	5.3

Sources: Czech National Bank; National Bank of Hungary; Bank of Slovenia.

[a] Geographical breakdown on the basis of flows for Hungary and Czech Republic for 1999 and on the basis of stock for Slovenia and the Czech Republic for 1997.

[30] Since the network spread index neglects the magnitude of business activity in a host country, counting each host country only once (independent of the amount of assets, sales, production or employment located in it), neither risk dispersion nor high levels of ownership advantages seem to be a reasonable explanation of the internationalization of economies in transition.

[31] More about the role of geographical and physical proximity in an evolutionary process in international business can be found in Johanson and Vahlne (1977); Luostarinen (1979, 1994); Welch and Luostarinen (1998).

By far the biggest share and volume of outward FDI in the case of Slovenia is located in the of former Yugoslav republics, with Croatia[32] being the main destination. From 1993 to 1999, Croatia, as well as Bosnia and Herzegovina, received between 50 per cent and 70 per cent of Slovenia's total outward FDI. This is a reflection of both inherited investments and new FDI flows into these countries. Since many Slovenian firms have rich experience and knowledge about these countries, as well as comparative advantages over local firms, FDI entry to these markets is not particularly risky. Companies also tend to follow the leading competitors in those markets (Knickerbocker, 1973), or want to safeguard their market shares even before their competitors arrive (especially in the rebuilding phases of these countries). They want to achieve a first-mover advantage.

All major destination countries for outward FDI in the case of Czech Republic are neighbours, as are the most important trading partners (notably Germany and Austria) and Slovakia. Geographical proximity obviously plays an important role, together with historical factors[33] and cultural proximity, including knowledge of the language, since these factors make transaction costs lower.

In the case of Hungary, the Netherlands and Switzerland are the most important destinations of outward FDI by volume. Except for two huge investments in the Netherlands (made by foreign-owned firms), the neighbouring countries with strong Hungarian minorities (Romania and Slovakia) are important destinations. Often partners in such ventures are Hungarian nationals living there. Nationality as a facilitator of such investments makes such outward FDI flows easier when investors lack knowledge of how to do such business. "Common cultural factors make it easier for small Hungarian companies to fill the niches in these markets, but for bigger companies investment in these countries was too risky" (Oszlay, 2000, p. 13).

The sequential internationalization pattern of entering first neighbouring countries with short physical and cultural distances (already confirmed by many countries),[34] has proven to also apply in

[32] Croatia has proved itself as the market most frequently used for first entry to foreign markets through FDI.

[33] One cannot ignore the fact that the countries used to be part of the Habsburg monarchy.

[34] For example, for some Scandinavian countries, i.e. Finland (Luostarinen, 1979, 1994), Sweden (Johanson and Wiedersheim, 1975), together with Portugal (Buckley and Castro, 1998a, 1999; Simoes, 2000).

the case of the selected transition economies. The second most important destination is Central European countries. These two groups of countries are gaining in importance, while European Union countries are losing their attractiveness. This relocation to less developed markets suggests that knowledge, experience and especially the corporate ownership specific advantages of the transition economies' companies are sufficient to outperform such ownership advantages of firms from less demanding markets.

The dominant share of outward FDI in European Union countries among all industrial/developed countries is no surprise. That would be expected, parallel to the substantial export reorientation of the Czech Republic, Hungary and Slovenia to these markets. Besides, European Union member-countries used to be the main destination of outward FDI investment in the past; this experience facilitates current outward FDI. However, the motivation change from "system-escape" to market rationale strongly influences geographical (re)location.[35] The European Union is (still) a dominant export market for all three countries, while Central European countries are becoming a major destination for their outward FDI. Besides, foreign firms that account for an important share in the exports of all three countries, particularly in Hungary,[36] have little reason to invest back "home". Yet, they have many reasons to use the affiliates established in transition economies as a springboard for outward FDI in other (particularly transition) economies.[37] Another barrier to outward FDI influencing the European Union might be the lack of knowledge of these markets. The relative novelty and type of their exports may also provide an explanation. The standardized products exported there do not need close proximity to customers, as do differentiated high-technology products. Central European countries' firms do not possess firm-specific advantages that are strong enough to set up

[35] It is not surprising that many firms in economies in transition have been discontinuing such ventures in Western markets. Those for which "escaping the system" was not the prevailing rationale, or for which it was so only initially, are now even strengthening such outward FDI in European Union member countries. See, for example, the network of foreign affiliations of the largest Slovenian investor, Gorenje, a household appliances firm.

[36] Such shares in 1997 were for manufacturing in Hungary 73.9 per cent (1996), for Czech Republic 15.9 per cent (1994) and for Slovenia 28 per cent (WIIW Database, 1998).

[37] One example is the December 2000 acquisition of Macedonian Telekom (Maktelekom) by Hungarian Matav, a majority-owned affiliate of Deutsche Telekom. A similar example is the Czech affiliate of RWE Entsorgung that has the biggest "Czech" outward FDI in Romania or the German/Austrian-owned Dunapack (Hungary) in the paper industry in Romania.

production units there. Firms mainly establish trading units; but they are still, as a newcomer in such markets, relying mainly on traditional exports. For the time being, they base their competitiveness on cost advantages and therefore do not yet feel the need to develop closer links with customers as their strategic advantage. We therefore expect that such outward FDI will increase in the future, with accumulated internationalization knowledge in Central European countries and parallel to the weakening of the cost competitiveness of such exports to the European Union. In view of the over 60 per cent share of exports accounted for by the European Union for all three countries, it is expected that firms would like to strengthen their long-term presence and get closer to their customers by establishing at least trade-oriented firms there.

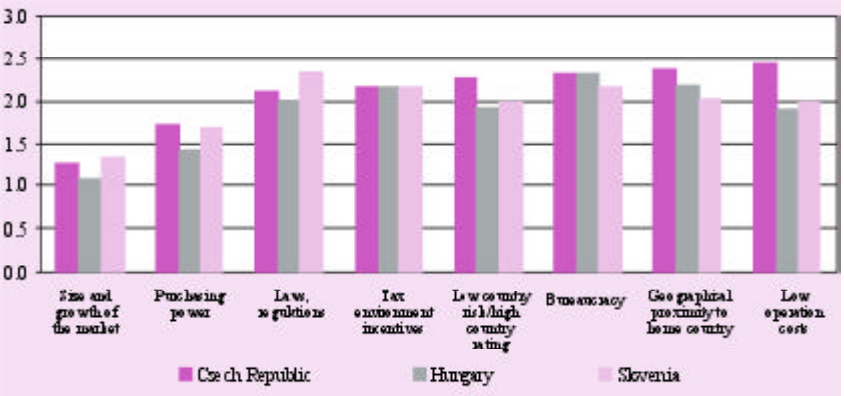
Locations are mainly chosen because of the size of the markets involved and not as a springboard to other markets. More than 81 per cent of foreign affiliates of the sample companies realize most of their sales in local markets. Only some 15 per cent of foreign affiliates (of the sample companies) further export their goods and services to neighbouring countries. Host country determinants play the major role in a locational decision: the survey showed that the most important factors influencing the locational decision of outward FDI are market related. To preserve market shares was the most frequently mentioned factor behind a locational decision. Through traditional exports alone, companies cannot keep increasing foreign market shares.[38]

In terms of the importance of individual factors underlying locational decisions (host country determinants), the sample companies indicated as the most important economic determinants the size and growth of the market (figure 2). Purchasing power was the second most important factor influencing an investment decision, followed by the vicinity of a country as well as lower transportation costs, showing that transport and communications between parent companies and their foreign affiliates are still an important consideration.

[38] The costs of increasing foreign market shares are acceptable to companies if "they play it alone" only in less demanding markets with less competition. Ex-Yugoslav markets are relatively convenient for Slovenian companies, Slovakia for Czech ones and Romania and Slovakia for Hungarian ones. Slovenian firms' brand names (and a similar situation may also apply for the two other countries) are well recognized and do not need significant additional investments to establish market recognition there.

Figure 2. The importance of factors influencing an investment location decision[a]

(Per cent)



Source: Own survey, 1999.

[a] The importance of all factors determining outward FDI is ordered by the weighted average of possible answers: 1: very important, 2: important, 3: not important (valid per cent only).

Relatively less important than economic determinants but still significant for a locational decision are factors referring to the policy framework for FDI and business facilitation (an FDI-friendly environment), such as low country risk, the tax system, FDI regulation, administrative procedures and incentives. This is in accordance with the general trend that a FDI-friendly policy framework is a necessary but not a sufficient determinant for a FDI location. It is also becoming relatively less important in light of the overall liberalization and globalization trends.

General characteristics of investing firms and their affiliates abroad

Despite the recent upsurge in outward FDI, not many firms are internationalizing by investing in economies in transition. The number of foreign affiliates is small,[39] but their role in their national

[39] We only have the approximate number of firms investing abroad in 1997 for the three selected countries. In Slovenia, 422 firms (1 per cent of the entire corporate sector), in Hungary approximately 1,000 (1 per cent of the entire corporate sector), while for the Czech Republic data are not available.

economies or in exports is much, much higher.[40] Investors abroad are also among the major exporters, representing a vital part of the economy. Although the number of firms that invests is small, they internationalize quite rapidly. They have set up a much larger number of affiliates abroad, indicating that they are expanding their international networks. The average number of foreign affiliates by investor has been increasing substantially. According to our survey, the average Slovenian investor in 1998 had 4.3 (double the number from six years ago), Hungarian 3.1 and Czech 1.3 affiliates abroad.

"Strong" (widely dispersed) foreign investors are relatively old medium-sized and large companies. Smaller firms entered only during privatization. They have been set up mostly during the transition, including firms that were spin-offs from large companies. Up to 29 per cent of Czech investors abroad that responded to our survey are more than 50 years old, 19 per cent are between 10-50 years old and 52 per cent less than 11 years old. Similarly, half of Hungarian investors are younger than 30 years (33 per cent are less than 10 years), and the other half is more than 30 years old (17 per cent are over 60 years). In Slovenia, 31 per cent of the investing firms are less than 10-year old firms, 19 per cent are between 10-30 years; 44 per cent are between 30 and 60 years, while 6 per cent are over 60 years old. The formal age of companies has a limited meaning, though, since all firms underwent substantial changes with the transition. However, the age structure illustrates inherited experiences, a certain level of know-how, brand names or trademarks that all represent assets. Investing abroad demands a certain concentration of capital and human resources (knowledge).[41] The size and age of investors

[40] In Slovenia, for instance, companies with direct investment abroad held 38 per cent of the equity and 32 per cent of all assets of the entire corporate sector in 1998. They employed 27 per cent of all employees and realised 25 per cent of total sales and even 37 per cent of the exports of the entire corporate sector. The situation is similar with value added and operating profit where investors realised 30 per cent of value added and operating profit of the entire corporate sector. Such high shares in selected balance sheet and income statements' items prove that, although small in number, companies with direct investment abroad are significantly influencing the performance of the entire Slovenian corporate sector (Trtnik, 2000).

[41] It is therefore not surprising that out of 21 surveyed firms in the Czech Republic 1 firm has over 10,000 employees, 9 (43 per cent) companies have between 1,000 and 3,000 employees, 5 (24 per cent) have between 1,000 and 500 employees, whereas the rest (29 per cent) have below 300 employees. In Hungary, 33 per cent of the surveyed firms have more than 1,000 employees, 42 per cent between 500 and 1,000 employees, 17 per cent between 100 and 499 employees and one company had less than 100 employees. In Slovenia, 41 per cent of the firms have over 500 employees, 31 per cent have between 100 and 499 and 28 per cent are small firms employing fewer than 99 workers.

confirm a sequential internationalization approach. After growth and development in the domestic market (becoming a domestic market leader), a firm gradually enters foreign markets. Foreign affiliates are established at a certain development level of a firm.

The survey showed the sequential pattern of transition economies' firms also in terms of the mode of foreign market penetration and ownership structure (table 5).[42] Wholly- and majority-owned affiliates abroad show a low level of internationalization, respectively, the beginning of internationalization through outward FDI. The samples from all three countries showed that investors abroad prefer 100 per cent ownership or at least majority ownership (over 70 per cent).

Table 5. Ownership structure of foreign affiliates, 1998
(Per cent of affiliates abroad)

Country	100%-owned	50.1% - 99.9% stake	50%	10% - 49.9%
Czech Republic	31.1	40.0	11.1	17.8
Hungary	44.7	42.1	5.3	7.9
Slovenia	59.4	21.7	2.2	16.7

Source: Own survey 1999.

On the other hand, the theoretical explanation of the preference for total or majority ownership is that such ownership is instrumental in protecting strong ownership-specific advantages; it decreases with increasing knowledge about foreign markets (Davidson and McFetridge, 1985; Hedlund and Kverneland, 1985; Millington and Bayliss, 1990; Buckley et al., 1985). Firms from economies in transition in general do not possess strong ownership-specific advantages of a technology type that can explain the preference for majority ownership but rather a good knowledge of foreign markets. It seems that the preference by transition economies' firms for 100 per cent or majority ownership is a result of:

- Long-standing previous exports to a country and good knowledge of the local conditions. Outward FDI has usually followed exports.

[42] Internationalization of ownership is one of the internationalization measures (Luostarinen, 1994, p. 12).

- A weak rather than strong competitive position. Investors are simply still unprepared to cooperate with foreign partners, which could lead to an asymmetrical relationship between them.
- A lack of suitable local partners. Firms that decided to have a local partner were mainly motivated by knowledge of the local conditions together with the partner's connections to local administration and business.

The same arguments apply to the preference for greenfield investments (table 6). Mergers and acquisitions (M&As) are relatively exceptional, which is contrary to the prevailing FDI trends in the world in general (UNCTAD, 2000). With increasing knowledge of how to invest abroad and increasing M&A activity at home, more cross-border M&As can be expected in the future. Perhaps an even more important explanation is – at least, in the case of Slovenia – that privatization has only started to take off in the major outward FDI destination markets. Therefore, it is not surprising that already in 2001 firms predicted an increase in M&As. The existing ownership structure as well as the type of establishment in 1998 suggest that firms are in the beginning phase of outward FDI.

Table 6. Affiliates abroad, by type of establishment, 1998

(Per cent)

Country	Greenfield	Mergers	Acquisitions
Czech Republic	70	20	10
Slovenia	85	12	3
Hungary	74	0	26

Source: Own survey 1999.

Foreign affiliates abroad are mostly established as sales units. According to our survey, 51 per cent of affiliates abroad are trade related in the Czech Republic, 47 per cent in Hungary and 95 per cent in Slovenia. Only 22 per cent of Czech and 11 per cent of Slovenian affiliations are related to the production function, while the share of Hungarian production-oriented affiliates is higher (47 per cent).[43] Only lately has there been a very strong push by Slovenian

[43] Units abroad are also often related to purchasing and logistics (20 per cent in the Czech Republic, 16 per cent in Hungary, 57 per cent in Slovenia) and administration functions, while the R&D function is transferred abroad only very rarely (7 per cent, 0 per cent, 2 per cent, respectively).

firms to (re)establish manufacturing units in Croatia, Macedonia and Bosnia and Herzegovina. The explanation lies not only in differences in labour costs, but also previous business ties, knowledge of the market and language. Such investment patterns could be explained by the Ozawa model (Ozawa, 1992) as well as by network theory. It is also in line with the sequential internationalization approach, i.e. production and assembly units abroad tend to follow and supplement sales units, and R&D affiliates develop as a result of a long-lasting presence or strategic network in a foreign market.

Confronted with the increased need for internationalization in a globalized world economy, the lack of relevant experience makes such internationalization under time pressure a major challenge. To cope with international competition and to benefit from globalization, firms have to internationalize in a much shorter period. This shortness of time prevents firms from Central European countries to benefit gradually from the cumulative learning process of sequential internationalization like their predecessors in other countries did. They have to do it in a much shorter time.

Motives

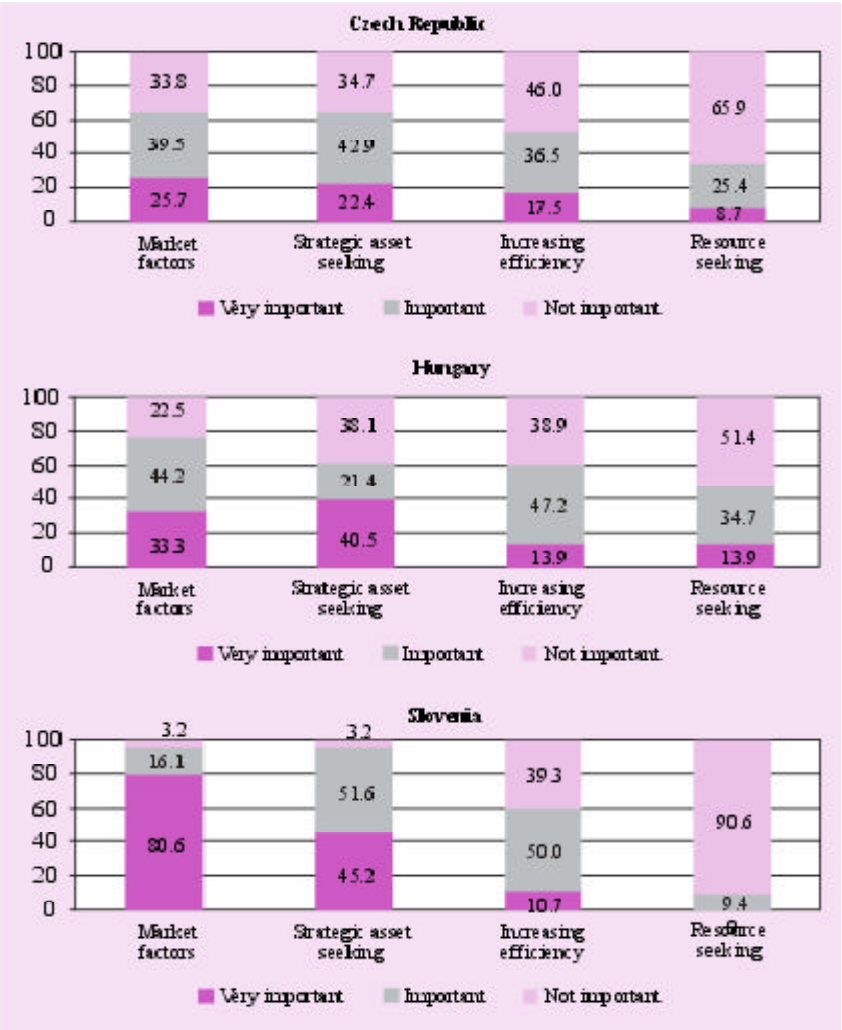
After the change in geographical concentration, the change in motivation is the second most important transformation in the internationalization patterns of firms from economies in transition. The economic development of a country and a firm's growth and strategy influence the motives of outward investment. In our survey, several individual motives listed in the questionnaire were merged (using Likert's method) into four basic groups of motives (Dunning, 1993, pp. 56-63): resource-seeking, market-seeking, efficiency-seeking and strategic asset-seeking. Figure 3 presents the motives for selected economies in transition.

In spite of some differences between the three countries, there is a high level of convergence in terms of the determinants driving firms to invest abroad. The most important motives were market-seeking, followed by strategic-asset-seeking, increasing efficiency and, lastly, resource-seeking. In Hungary, strategic asset-seeking motives are surprisingly the most important. This may be attributed to the fact that more foreign affiliates are investing abroad. Their awareness of the importance of strategic positioning in foreign markets may be stronger since they tend to be large TNCs. They may also use Hungary

as a regional hub and then expand activities to neighbouring markets, mostly other Central European countries. Slovenian firms (with the smallest domestic market) are the strongest market-seekers and look for resources abroad the least of the three countries.

Figure 3. The importance of groups of motives for firms from the Czech Republic, Hungary and Slovenia

(Per cent)



Source: Own survey, 1999.

The most important market-seeking motive is keeping/enlarging an existing market share for all three countries (table 7). All countries also underwent a major reorientation of their foreign trade in the 1990s, with firms realizing that they can also penetrate foreign markets by getting closer to customers through outward FDI. The trade-balance deficit in the 1990s (and current account deficits) remind firms that export capabilities have to be further developed and enriched through a direct presence in foreign markets. It is therefore not surprising that most of the affiliates abroad are trade-facilitating units.

Table 7. The importance of market-seeking motivating factors (weighted average)[a]

Factor	Czech Republic	Hungary	Slovenia
Keeping/enlarging an existing market share in a local market abroad (host country)	1.28	1.17	1.13
Growing demand in a local market	1.89	1.55	1.63
Access to the markets of third countries	2.10	2.27	1.88
Too small domestic market, lack of opportunity	1.55	1.67	1.35
Presence in important markets, better connections to neighbouring markets	1.67	1.33	1.73
Following competitors that have invested abroad	2.17	2.09	1.83
Following customers that have invested abroad	2.61	2.13	2.23
Need to adapt to local tastes, better after-sales service	2.06	2.00	1.56
Circumventing trade restrictions	2.22	2.33	2.47
Preferential agreements (outside Europe)	2.61	2.45	2.74

Source: Own survey, 1999.

[a] The importance of all factors determining outward FDI is ordered by the weighted average of possible answers: 1: very important, 2: important, 3: not important (valid percent only). Interpretation: weighted average above 2 - factor does not influence significantly; weighted average equal to 2 - factor is important; weighted average below 2 - factor is very important.

It is encouraging to find the strategic asset-seeking motive – in detail presented in table 8 – as the second most important incentive for the sample companies. This could indicate a long-term orientation of the investors, and it could be a sign of a very developed internationalization strategy of companies from the three countries, but it also reflects the stage of transition. Additional interviews however do not confirm such a very developed internationalization

Table 8. Importance of strategic-asset-seeking motivating factors (weighted average)[a]

Factor	Czech Republic	Hungary	Slovenia
Growth of a company	1.94	1.00	1.45
Strengthen overall competitive position	1.35	1.18	1.47
Higher profit margins expected	1.89	1.18	2.13
Diversification of risk, markets, products	1.80	2.00	1.74
Acquisition of/access to local knowledge, technology	2.10	2.36	2.79
Employment of local experts	2.57	2.45	2.63
Better R&D opportunities	2.85	2.64	2.86

Source: Own survey, 1999.
[a] Same as table 7.

strategy; rather, internationalization is being used as a strategic survival instrument.[44]

As evident in table 8, firms are aware of the importance of company growth in view of the increasing pressures of globalization, especially because firms from Central European countries are, with few exceptions, small by international standards. But they have not yet developed long-term internationalization strategies or strategies for enhancing their strategic assets through outward FDI. The high importance of strategic reasons can also be explained by the nature of the sample – which does not represent the average but instead the leading outward investors. The lack of understanding of the real meaning of strategic asset-seeking motives (respondents like to consider their outward FDI as strategic simply because it looks nice) can also be confirmed by the low importance respondents attribute to efficiency-seeking factors (table 9).

Specific strategic advantages of firms from Central Europe are specific products adapted and already affirmed in host markets. Lastly, abroad they seek to capitalize their not very new technology – but it is technology suited to the needs of local factor configurations. Quite a number of Slovenian firms are investing abroad in kind, transferring

[44] Strategic motives are usually carried out through M&As, which save time in the processes of a firm's growth and asset creation and offer quick technology and knowledge transfer. As we saw (table 6), companies from economies in transition only starting the outward FDI internationalization process have not yet accumulated enough knowledge or experience to cope with M&As.

Table 9. The importance of efficiency-seeking motivating factors (weighted average)[a]

Factor	Czech Republic	Hungary	Slovenia
Restructuring of the company, rationalization	2.11	2.40	2.32
Specialization	2.22	2.40	2.36
Economies of scale and scope, excess facilities	2.22	1.70	2.11

Source: Own survey, 1999.
[a] Same as table 7.

to their affiliates their own technology and at the same time starting to upgrade their own. Adapted technology and adapted products are their firm-specific advantages rather than very new products and very recent technology.

Strategic asset-seeking motives are often closely related to efficiency-seeking motives. With the exception of economies of scale and scope in Hungary, on average they were not considered important. One explanation may be that the efficiency-seeking incentive for outward FDI can only be realized after a parent company has established a certain network of affiliates abroad. They facilitate the further relocation of resources (by using differences and similarities of factor endowments and economic systems and institutional arrangements in different countries), pursuing their maximum-efficiency objective. Through the central supervision of geographically dispersed activities, this type of investment aims at increasing returns with specialization, economies of scale and scope and risk diversification. Although we have seen that the affiliate network of the average company in the sample is expanding, there are only a few star companies in a position to invest abroad for this reason. The important explanatory variable in this respect is the size and international experience of a company. However, companies investing abroad are on average bigger and more experienced than companies without direct investment abroad.

Public opinion frequently opposes outward FDI by asserting that it exports jobs. The general public and media in economies in transition are also not immune to such reasoning (Svetlicic et al., 1994a). Yet, our survey demonstrates that lower wages have not really played a very important role in driving outward FDI from these

Table 10. Importance of resource-seeking motivating factors (weighted average) [a]

Factor	Czech Republic	Hungary	Slovenia
Lower costs of raw materials in host countries	2.71	2.45	2.66
Lower unit labour costs in host countries	2.62	2.00	2.48
Lower transport costs	2.43	2.09	2.62
Better financing opportunities	2.30	2.18	2.61
More relaxed environmental laws and regulation	2.95	2.82	2.89
Lower taxes, duties, tax relief and other incentives offered by host country	2.35	2.36	2.75

Source: Own survey, 1999.
[a] Same as table 7.

countries, although lower labour costs have been identified as the most important resource available abroad for resource-seeking FDI. This does not mean however that firms have been following Ozawa's paradigm (Ozawa, 1992) by which a firm reallocates labour-intensive activities abroad through outward FDI when a country starts losing its comparative advantage, so that the investing firms can keep and enhance their competitive advantages. If they were to be driven by such a motivation, their imports from affiliates abroad should have been high, but that is not the case.[45] Firms are not (yet) thinking that strategically. One explanation is that globalization pressures have not yet fully influenced their operations due to the continuing, albeit already much lower, protection of local markets in different ways (less by tariffs and more by other government subsidies).

It is surprising that, in view of their smallness and the lack of natural factor endowments, resource-seeking motives are considered to be unimportant (table 10). Regardless of type, production factor costs were assessed as an unimportant motive for most sample companies. Better financing opportunities were ranked as a somewhat more important reason. This should mainly be understood in terms of better financing conditions (interest rates) due to higher inflation rates or exchange rate volatility in these economies in transition, compared to industrial countries. Financing from abroad is not

[45] According to the survey, the average share of imports from affiliates is 8 per cent for Czech sample companies, 13 per cent for Slovenian sample companies and 0.3 per cent for Hungarian sample companies.

considered as important also due to the fact that firms have much better credit ratings with home banks. Except for Hungary (where foreign affiliates often invest abroad), unit labour costs were seen as being of almost no importance as well. That is surprising in view of Ozawa's paradigm (Ozawa, 1992) and the fact that Slovenian labour costs are relatively high, at least compared to other Central European countries. Countries that have been the main destinations, particularly in the past two years, have much lower labour costs. Lower productivity can also explain the low importance of searching for lower labour costs.[46] Another explanation is the lack of knowledge of what a global combination of factors can offer in terms of strengthening competitiveness.

Conclusions

In spite of an early start during the socialist period, outward FDI by firms from the Czech Republic, Hungary and Slovenia is still very modest by international standards. Annual flows from all economies in transition, while growing, still represent only 0.3 per cent of the world's annual FDI outflows. Similarly modest is their outward FDI stock. The three selected economies in transition have cumulatively invested abroad some $3.1 billion, much less than Portugal, a country with a similar level of gross domestic product per capita as Slovenia. By domestic standards, this outward FDI stock is however more important, constituting from 0.7 per cent to 3.1 per cent shares of the respective gross domestic product. The real upswing in these investments began in 1998, and future plans reveal a continuation of that increase. With outward FDI beginning before inward FDI, economies in transition started a cumulative learning process, but this initial deviation from the investment development path did not alter the usual pattern. The transition period has actually meant a "restart" of outward FDI. Outward FDI is therefore still a relatively new phenomenon in economies in transition, and qualitative conclusions are not yet easy to draw. Limited time series, the limited scope of data, a changing methodology still not fully harmonized with international standards and the reluctance of firms to report make such an evaluation difficult.

[46] For some Slovenian firms, the important factor is access to host countries' experts, which can be explained by the smallness of the Slovenian market and the lack of certain expert profiles. Few firms claimed to establish affiliates abroad with the objective of gaining access to local computer or marketing experts.

Relevant theories have partial explanatory power for the "socialist" stage of internationalization, but can explain its post-transition stages. There are so many system-based specific characteristics that make the application of theories based on the traditions of market economies difficult to apply to the initial stage of such investment. State ownership, limited integration into the international economy and a lack of specialization make the experiences of these countries and their firms specific. Before the transition began, outward FDI by state- or socially owned firms was either of a system-escape type or part of the overall politics of the respective governments. Business considerations were not necessarily the only preoccupation. Their main motive was to facilitate trade and foreign currency inflows (with the exception of activities in developing countries, which were production oriented). Later on, they began to fit into a new version of the investment development paradigm whereby they start internationalizing earlier, and individual stages are shortened. One explanation for this is globalization and integration with the European Union. Both have sped up internationalization. The transition to a market economy – which first meant stabilization and liberalization, under the influence of globalization and European Union integration and increasing competitive pressures from global markets – has forced the now privatized companies to increase the internationalization of their activities.

Investors are mainly driven by market-seeking motives. The European Union is therefore surprisingly not the chief destination of these investments, although the European Union is the main export market for all three countries. There is even a tendency to divest from the European Union, especially as regards affiliates that have system-escape characteristics or whose rationale no longer fits into the strategies of the transformed companies. Some are simply a result of the restructuring of firms' activities during the first hardships of transition. Firms also do not possess strong enough ownership-specific advantages. In addition, the standardized types of products they are exporting to these markets on the basis of cost competitiveness do not so strongly require establishing affiliations there to get closer to customers.

Outward FDI is concentrated mostly in neighbouring countries and "fellow" Central European countries. One explanation for this

geographical allocation of outward FDI is its strategic orientation to build on recognized brand names in these markets, previous economic ties, existing national minorities there or simply knowledge of how to do business in an environment in which strong personal contacts are very important. Such knowledge, along with personal contacts, is considered to be decisive for the success of outward FDI by firms from the three countries.

The main investors abroad are relatively old and overwhelmingly large firms (by national standards), suggesting that a certain threshold of human capital is a precondition for successful outward FDI. Firms regard such moves as an efficient way of keeping their market shares and bolstering their competitiveness. At the firm level, such internationalization basically follows a sequential approach to internationalization, especially as concerns geographical concentration, foreign entry mode and functional orientation. All three countries are now leaving the first stage of the investment development path behind and are entering the second stage. Neither the different investment starting position (typically system-escape outward FDI), nor the substantially changed international economic environment (globalization and European Union integration) has altered – but rather accelerated – the investment development patterns at the macroeconomic level.

The internationalization of companies that had started investing abroad under the old regime is more intensive than that of new transition-created companies. Companies that started directly investing abroad at the beginning of the 1990s have been expanding their international affiliate networks rapidly only recently. The number of newcomers among direct investors abroad is increasing much faster in Hungary and the Czech Republic than in Slovenia, where internationalization is intensifying more through the expansion of activities of already internationalized firms. It seems that the deepening of the internationalization of already internationalized firms is stronger than is the widening of the process by newcomers.

Many exporters plan to upgrade foreign operations from traditional exports to a direct presence in a foreign market. Future plans identified through the survey reveal that firms are increasingly aware that only through a direct presence in foreign markets can they strengthen their competitiveness. When a firm is capable of internationalization through outward FDI, it is also able to integrate

into a wider economic area or, ultimately, into the global economy. Outward FDI facilitates the integration of economies in transition into the European Union, speeds up transition and is one way in which firms from economies in transition respond to the challenges of globalization.

The increased international competition that accompanies transition thus motivates companies from economies in transition to develop firm-specific advantages through outward FDI, combine these with specific local advantages and in this manner to speed up the process of catching up with rivals. Such capabilities are a precondition for successful outward FDI. The specific situation of the starting phase of outward FDI by economies in transition did not change the usual internationalization pattern, although the accumulation of knowledge had started earlier. Despite rapid changes in the international environment, internationalization remains a cumulative learning process. Now it is not only business, but especially learning, that has to be more effective. The transition has enhanced and accelerated such learning. It represents a push factor of internationalization which, when combined with globalization and European Union integration as pull factors, stimulate outward FDI by firms from economies in transition. In short, transition matters.

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The Austrian investment development path

Christian Bellak *

In a highly developed country like Austria, the net outward investment position is expected to be positively related to the level of development on the macro level. This is so because, in high-income countries, firm-specific advantages are more important determinants of the net outward investment position than general location-specific advantages. Furthermore, as firm-specific advantages vary substantially across industries and vis-à-vis other countries, it is proposed that the structural and the bilateral investment development paths differ from the macro investment development path. Using polynomial regression, we find a negative correlation between the level of development and the net outward investment position on the macro level, a positive one on the structural level, while bilateral investment development paths follow different trajectories. On the industrial level, variables reflecting combined ownership and location advantages and structural change provide better explanations of the investment development path than the general level of development.

Introduction

One of the ways of looking at the relationship between foreign direct investment (FDI) and development is the investment-development path (IDP) model (figure 1), which was developed in the 1980s and has undergone some refinement and evolution since then (Dunning, 1981, 1999). The IDP model identifies five stages of a stylized net outward investment position (NOIP) of a country, which are related to its level of development. (See Dunning and Narula, 1996, chapter 1, for a detailed overview.) The NOIP is defined as the difference between outward and inward FDI stocks per capita. With the exception of Portugal, only large countries' IDPs have been analyzed so far.

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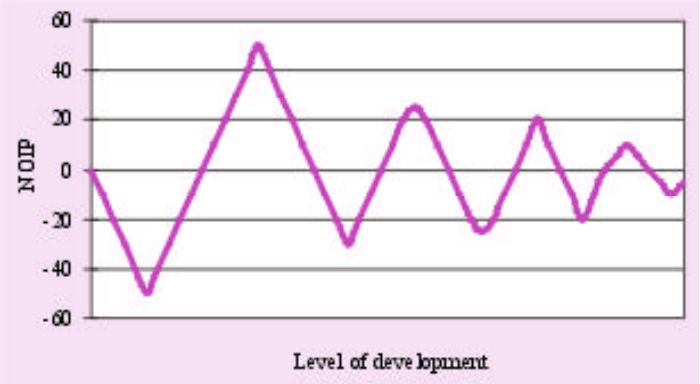
Figure 1. The stylized NOIP



Source: Narula, 1996, p. 22.

As a latecomer in FDI among the highly developed small countries[1] in Europe, Austria has several distinctive features of its internationalization path that are worth mentioning. First of all, its FDI stocks per GDP, both outward and inward, are well below those of highly developed countries in Europe, and also well below those of some less developed European Union countries like Ireland (figure 2). Secondly, inward FDI stocks have always exceeded outward FDI stocks since data on book values have been compiled in bi-annual surveys by the Austrian National Bank. Thirdly, today's FDI-stock position is the result of very low FDI-flows since 1960 (figure 3). A take-off occurred only during the 1990s, with substantial increases in outward (but also inward) FDI flows.

At first glance, a comparison of figures 1 and 4 points to some difficulties in establishing empirically the stylized relationship as proposed by the IDP model for Austria. The purpose of this article is therefore to shed more light on the Austrian IDP on the macro structural and the bilateral levels.

The article starts with a survey of earlier studies on the net outward investment position (NOIP), followed by sections on data and methodology. Results are presented in the subsequent sections. The article's main findings are that Austria's macro IDP deviates in

[1] GDP per capita in 1998 = $23,725 (PPP; current exchange rate). Size = 83,000km^2.

many respects from the stylized path and that the structural and bilateral IDPs follow different trajectories than the macro IDP.

Figure 2. Inward and outward FDI stocks' share in GDP among the smaller countries in Europe (and European Union average), 1997

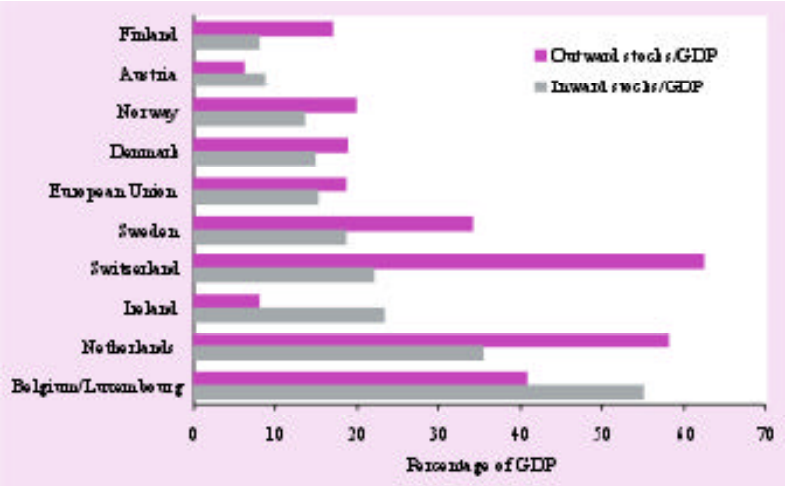


Figure 3. Outward and inward FDI flows and NOIP (in per cent of GDP), 1961-1999

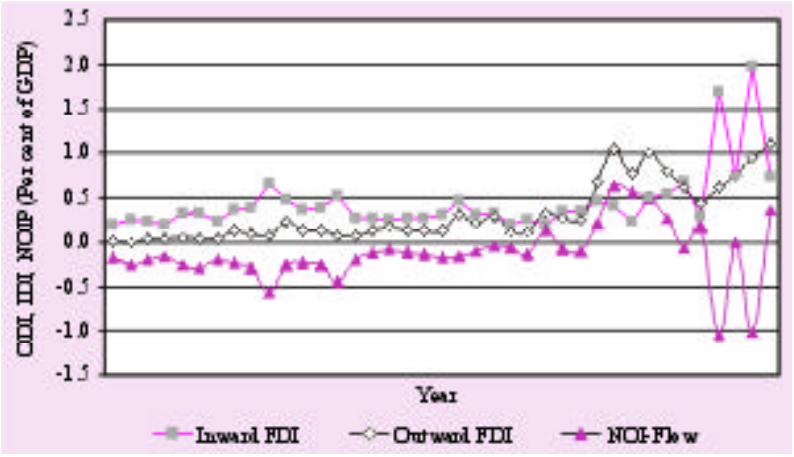
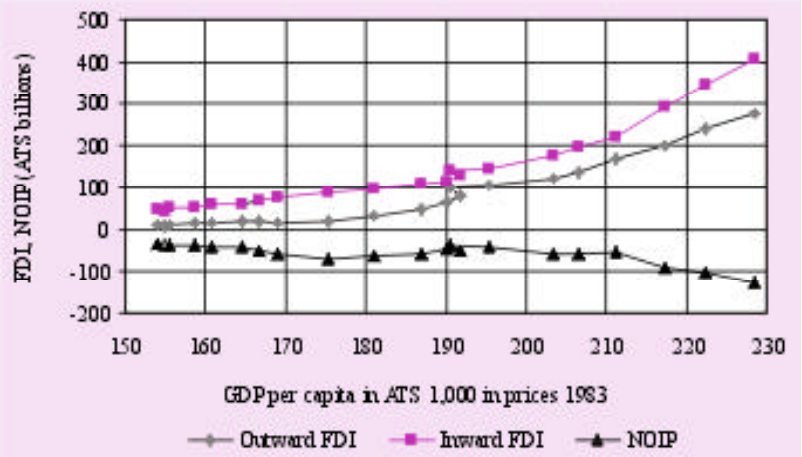


Figure 4. NOIP on macro level, 1980-2000



Review of earlier studies and research propositions

Several econometric and descriptive studies have been carried out to test whether the postulated relationship can be confirmed empirically. Although empirical evidence is generally less consistent on the country level, there seems to be a strong correlation between the NOIP and the level of development. Yet, the nature of this correlation revealed in various studies varies considerably as to the size of the coefficients and their direction, i.e. positive or negative. As will be emphasized in this article, part of these different results can be explained by the particular methodology applied, the data used and the time period studied. In many cases, countries' IDPs do not follow the stylized path; their IDPs are idiosyncratic to a large extent. Government policies seem to play a major role here.

The total number of empirical studies on the IDP is about 20. In this literature, Austria has been described as a major outward investor (Tolentino, 1993) or as a "stage 4" country (Narula, 1996). This subsection summarizes those empirical and conceptual findings of these studies that are relevant in the Austrian case. Emphasis is given to the methodology applied and to the possible shortcomings of these studies.

In the literature, two types of explanatory variables have been used to model the IDP: GDP per capita as an indicator of the general

level of development and a range of ownership and location advantages and government-policy variables. While, in principle, the latter has some advantages over the former, the lack of data on certain key variables and/or countries often puts a major constraint on the analysis. This article therefore uses the former approach, due to the fact that such constraints exist (see the section on data for details). The drawback is that it is generally agreed that general location advantages converge as countries progress to higher stages of development and that therefore firm-specific advantages become relatively more important.

The studies differ in scope (number of countries studied, time period studied, FDI data used etc.), and with few exceptions deal with the NOIP on the macro level. Most authors use a polynomial term derived from the stylized path and specify the polynomial power (mostly quadratic) in advance. Yet, the IDP model is not normative and the actual IDPs, especially when they take special forms such as J-shaped or inverted L-shaped curves, are highly sensitive to assumptions and country samples.

Some studies have used flow data in order to overcome the trade-off between the number of countries and the availability of FDI stock data. FDI flow data, widely used in the studies reviewed give, however, a biased picture of the NOIP due to the lack of consistent series on re-invested earnings. This makes earlier work on flows (as a means of investigating the IDP) largely misleading. FDI stocks are a much better proxy for the extent of international production. Stock data generally yield better results than flow data. Nevertheless, measurement problems may arise during the calculation of FDI stocks. Moreover, the lack of FDI stock data is a major limiting factor in such analyses. One particular problem involved in the use of stock data is the increasing number of mergers and acquisitions. Contrary to new investments, where a growth in FDI stocks is interpreted as additional economic activity, mergers and acquisitions represent a mere ownership change that may increase inward FDI stocks and decrease outward FDI stocks (or vice versa). This may change the NOIP dramatically and requires careful interpretation.

These problems lead most authors to conducting a cross-sectional analysis of the IDP phenomenon that is intrinsically long-term. While, from a methodological point of view, this can be fully justified, the cross-sectional analysis often leads to a clustering of observations, which is not present as a time trend. The few

longitudinal studies that used the level-of-development approach tended to find no uniform relationship between the NOIP and GDP per capita. The methodological conclusions for this analysis are summarized in the section on methodology below.

John H. Dunning (1980) asserts that the competitive advantages of a country's enterprises in servicing foreign markets are determined by the ownership advantages of those enterprises relative to those of enterprises of other nationalities, and the relative location advantages they use in host countries. He finds that the "skilled employment ratio" and "relative market size" are the main explanatory factors for exports plus foreign production of United States firms in seven countries. Dunning (1981, 1982) maintains that the future of the NOIP of developed countries will rest more on their relative status, reflected in, and determined by, the balance of their OLI advantages. Deviations of countries from the stylized average NOIP are explained by differences in their economic structure. Countries that record NOIPs below the average generate below-average ownership advantages for their enterprises, and/or below-average incentives for them to internalize these advantages, coupled with above-average location-specific advantages that encourage inward and discourage outward investment.

On the basis of an analysis of 25 developing countries' NOIPs, Dunning (1986) concludes that their transnational corporations (TNCs) derive their ownership advantages from individual or unique asset advantages, suggesting the appropriateness of a factor endowment model. First-world TNCs, on the other hand, derive many of their ownership advantages from internalizing a series of separate overseas activities, thus avoiding transaction costs of the market. Hence, a market-failure model is more likely to explain the firm-specific advantages in this case. This result suggests that it is important to distinguish ownership advantages by type. Paz Estrella Tolentino (1993) examined the NOIP of 30 countries on a cross-sectional and longitudinal basis. FDI flow data are used. She concludes that, although a significant relationship exists between NOIP and GNP per capita during sub-periods, the structural change that occurred during the period surveyed was sufficiently large to nullify such relationships. Another finding is that the relationship between NOIP and GNP per capita has become inverted since the mid-1970s (from J-shaped to inverted L-shaped). Rajneesh Narula (1996) points out that this could be due to the use of flow data (see below). An empirical result with

particular relevance to Austria is that traditional host countries that have a large stock of inward investment tend to have a high amount of reinvested profits. Therefore, their NOIP will be lower than average. He emphasizes that especially the fifth stage is less dependent on the level of development of a country. In this research, time-series analysis does not yield any significant relationship between NOIP and GNP per capita for Austria (which is interpreted to reflect the high stage of Austria's development), and even a negative sign for GNP per capita between 1960-1984.[2] Claudia Pichl (1989) shows on the basis of FDI flows of 18 countries that small, highly developed countries (including Austria) have a higher share of inward FDI in GDP than large countries. This points to efficiency-type FDI, since markets are by definition small. Foreign TNCs follow strategies of re-exporting, taking advantage of the combination of a high-productivity location and the free-trade status of Austria vis-à-vis the European Union. Outward FDI, on the other hand, is not dependent on country-size; here firm-specific attributes and the level of development are the main explanatory factors.

Dunning and Narula (1994) applied the IDP model to explain the level and structure of United States-Japanese FDI. The difference between natural and created assets is highlighted. An effect of ownership advantages on location advantages of the host country (and vice versa) is described. Such externalities could be relevant, e.g. in the Austrian-German case, where the Austrian location attacts German firms aiming at exploiting their ownership advantages. Dunning and Narula propose two modifications to the original IDP model: first, the inclusion of macro-organizational policy variables and, second, the importance of the acquisitions of strategic assets in addition to ownership advantages developed by the firm itself. In the light of the latter, a negative NOIP can point to at least a locational strength of an industry, rather than a weakness (see also Dunning, 1979). Narula (1996) also presents results based on FDI stock data of some 40 developing countries. His results contradict Tolentino's results (see above) and confirm a J-shaped NOIP for 1975 and 1988. The difference is explained to a large extent by the use of flow data by Tolentino and of stock data by Narula. This implies *inter alia* a different valuation of flows (at current values) and of stock (at historical values) and a different impact of prices on FDI (such as exchange rates, inflation rates). Narula also maintains that countries entering

[2] This rests, however, on the wrong view that Austria is a substantial outward investor.

the fifth stage experience economic convergence and their investment patterns become increasingly similar. Dunning and Narula (1996) present several country studies by various authors. In the concluding chapter Sanjaya Lall (1996) emphasizes that the NOIP is highly variegated and, though countries may follow the stylized NOIP, differences between countries may remain quite large. Structural change has a systematic relation to patterns of FDI, but these are hardly generalizable. Dunning and Narula emphasize the idiosyncratic nature of the IDP. With regard to country (market) size, the proposition of an above average NOIP for small countries in earlier periods is put forward on the grounds that the lack of economies of scale more or less inhibits inward FDI and that indigenous firms are pushed to international markets in order to achieve economies of scale. A similar argument is put forward by Peter J. Buckley and Francisco B. Castro (1999). Furthermore, Narula's results (1996), i.e. a J-shaped NOIP, are confirmed for 1980 and 1992. A division of countries by natural and created assets results in an upward vertical and horizontal shift of the NOIP to the left, reflecting stronger outward FDI of "created asset" countries at an earlier stage of development. Another example of a country study is a paper by Buckley and Castro (1998) on the IDP of Portugal, another small country. They find a novel relationship between the NOIP and development, between 1943 and 1996. The quadratic function is replaced by a polynomial function of a higher degree, which better fits the Portuguese IDP.

There are three other macro studies on the wider problem of the net external asset position (NEAP), which includes the NOIP as one of its components (Gundlach et al., 1990; Sinn, 1990; Scheide, 1993; Lane, 1999). According to these studies, negative levels of the NEAP may persist as long as their main determinants do not change; hence there is neither a pre-determined level for the NOIP of countries. On the basis of 145 countries, S. Sinn (1990) concludes that changes in the NEAP do not follow any predictable pattern and that there is no general relationship between the level of a country's NEAP and the welfare of its citizens. This implies that the relevance of the NEAP for economic policy making is limited and stands in contrast to the IDP model. Philip Lane (1999) estimates the determinants of the net FDI position of Austria and other developed countries and finds that, while "trade openness" and "country size" are less important, "output per capita" is significant. His interpretation is that this "reflects the greater propensity of firms in the most advanced countries to establish foreign affiliates and, conversely the relative

attractiveness of these countries as host locations for foreign direct investment" (idem, p. 19).

This short literature summary suggests two research propositions: one related to the macro IDP, and one related to the IDP on lower levels of aggregation. According to the first hypothesis, given Austria's high level of development, outward FDI stocks per capita not only should exceed inward FDI stocks per capita, but also the former should demonstrate a higher growth rate than the latter. The latter hypothesis would imply that Austria is on the positive segment of its IDP (stage 4) or that the NOIP will be small in quantitative terms due to high inward but also outward FDI stocks (stage 5).

Secondly, an important finding of earlier studies was that, for highly developed economies, firm-specific advantages are more important determinants of the NOIP than general location-specific advantages. Since the former vary substantially across industries, it is proposed that the structural and the bilateral IDP differ from the macro IDP. As structural characteristics of national economies are realized by firms to a different degree (innovative, mature, growth industries etc.), the FDI activities (inward and outward) of industries may vary considerably. Such structural characteristics, which are important in the case of small countries' FDI, are that a limited number of other countries, mostly neighbours, account for the bulk of small countries' trade and FDI (*low geographical diversification*). Though their contribution to world exports is small, exports relative to production are large (*high degree of openness*). A high *dependence on the external environment* (exchange rate, integration, tariffs and non-tariff barriers etc.) overrides internal factors. In many small countries, a *low degree of industrial diversification* affords imports of a substantial range of investment goods. A closer look at the structural and bilateral level NOIP is therefore expected to show large variations of the NOIP by industry and sector type and type of "partner" country.

Methodology

Earlier studies revealed that the IDP is highly idiosyncratic. It should be emphasized that the IDP model is *not* a normative approach stating that the realized path of a particular country should reflect the stylized path. Therefore, the way chosen here is to build an appropriate polynomial model by sequentially fitting equations with

higher-order terms until a satisfactory degree of fit has been accomplished, rather than to specify a certain functional form *a priori*. Because of this, the significance and the R-square should be treated with caution, since they may be artificially improved. As we shall see later on, this leads indeed to polynomial equations of quite different power.

The basic model explored here relates a country's NOIP measured by the difference of annual per capita outward and inward FDI stocks to the proposed level of development. The latter is reflected by the GDP per capita and is measured in real terms. A one-variable polynomial model is estimated as follows:

$$\text{NOIP} = \text{constant} + \beta_1 \text{GDP} + \beta_2 \text{GDP}^2 + \beta_3 \text{GDP}^3 + \beta_4 \text{GDP}^4 + u \quad (1)$$

All variables are specified in per capita terms. Equation 1 is estimated in an OLS specification. Two sets of equations have been estimated, one in absolute terms and one in log terms. The overall effect of the coefficients for $\beta_{1..4}$ on the NOIP are expected to be positive, while the sign of single coefficients will be positive or negative, depending on the power of the polynomial term. The equation does not establish, however, whether an increase in the NOIP stems from increased outward FDI or decreased inward FDI (and vice versa).

The dependent variable, NOIP per capita, varies in the calculations, depending on the level of aggregation. On the macro level it is the NOIP of the total economy (TOT); on the structural level it is the NOIP of the manufacturing sector (MAN) and that of the electronics (ELE) and the chemical industry (CHE); on the bilateral level, the two most important FDI countries for Austria have been chosen, i.e. the United States-Austrian NOIP (USA) and the German-Austrian NOIP (GER). As the dependent variable varies, neither direct comparisons of the coefficients nor tests for structural differences are possible.

The more independent ownership advantages of firms become from the overall country conditions, the more important the analysis is on the industry level (Narula 1996). Dunning and Narula (1996, p. 36) note that the IDP represents a paradigm that encapsulates complex phenomena that are exceedingly averse to aggregation. In order to assess the disaggregated level of the NOIP following Jeremy Clegg and Terutomo Ozawa in Dunning and Narula (1996) two concepts

are used, namely the structural and the bilateral IDP. The *structural IDP* reflects an industry's position vis-à-vis all its competitors abroad. It compares outward FDI of the industry in question to the inward FDI of the same industry in the rest of the world. The *bilateral IDP* reflects a country's NOIP vis-à-vis one other country. Thus, the structural IDP covers a *single* industry but *all* countries, the bilateral IDP covers *all* industries but a single *country*. In some calculations, the NOIP refers to the chemical industry only. The chemical industry was chosen, since the definition used by the Austrian National Bank has been consistent over the years and the chemical industry has not been merged with other industries. Since the GDP per capita turned out to be not a good explanatory factor (as will be highlighted later on), the predictive power of alternative indicators is tested. These indicators are thought to reflect combined ownership and location advantages with a different focus in each case, but being more specific to this industry.

Since the NOIP of a particular country is defined as the net result from indigenous firms' activities abroad and foreign firms' activities in the respective country, measures should comprise both types of advantages. The first explanatory variable (revealed comparative advantage, RCA) is thought to represent the international competitiveness of domestic and foreign firms located in Austria. The RCA measure combines location-bound and firm-specific advantages (see e.g. Sleuwaegen et al., 1999, p. 7; Sleuwaegen and Veugelers, 1998; Hirsch and Czerniawsky, 1997). It is defined as the ratio of this industry's exports over manufacturing exports to this industry's imports over manufacturing imports:

$$RCA_i = [(X_i / M_i) / (X / M)]$$

X ... exports
M ... imports
i ... industry i

The second explanatory variable (PRO) is labour productivity, reflecting the result of the combination of location and firm-specific factors. It is calculated as the value added per employee:

$$PRO = VAD / EMP$$

VAD ... value added
EMP ... employment

The third variable (VA) measures the economic structure and the degree of structural change to the chemical industry over time. To some extent it also reflects the effects of government policies such as competition policy, structural policy etc. It is calculated as the ratio of value-added over gross output (VA):

$$VA = VAD / SAL$$

SAL ... sales

These indicators are used first separately instead of GDP per capita (see equation 1). Second, they are used jointly:

$$NOIP\_CHE = \underset{(-)}{RCA} + \underset{(?)}{PRO} + \underset{(-)}{VA} + u \qquad (2)$$

The RCA is expected to be negatively correlated with the NOIP, since an improvement of the location conditions will reduce the need for outward FDI by indigenous firms, and, at the same, time is likely to increase inward FDI. Concerning productivity (PRO), the sign is uncertain, since an increase in productivity may increase the ability to invest abroad, while at the same time foreign firms may consider to expand their high-productivity activities. The variable VA is expected to be negatively related to the NOIP. As an increase of value added in a certain location may stem from the concentration of production thus leading to higher exports and partly reducing the necessity to invest abroad and may derive from a parallel increase of subsequent inward FDI.

Data

Data on the NOIP are taken from the Austrian National Bank survey on inward and outward FDI stocks. The period covered is 1980-2000 on the macro level and 1980-1998 on the structural and the bilateral levels. Although earlier data are available in principle, they have not been collected on a consistent basis as table 1 shows. Data on FDI stocks reflect book values at historic cost. Data on the explanatory variables are taken from the National Accounts (GDP) and the OECD's STAN database (VA, RCA, PRO; OECD 1999). SAS software V8.0 was used for the estimation.

Table 1. Classification changes

Year	Item
1972	Start of regular bi-annual publication of book-values of inward and outward FDI. Industry classification follows "Branchengliederung der Sektion Wirtschaftskammer Österreich [Industry classification of the Chamber of Commerce]"
1st structural break 1989	From 1989 onwards, the threshold of capital share was increased to ATS 1 mn and the minimum stake was defined as 10 per cent. (This implied a loss of smaller firms, which accounted for only a very small amount of total FDI.)
2nd structural break 1995	From 1995 onwards, also firms with a capital share below ATS 1 mn are generally excluded, yet those with a balance-sheet value that exceeds ATS 100 mn are included. From 1995 onwards, industry classification follows ÖNACE (Austrian NACE). Published data are partly groups of ÖNACE 2-digit values. Therefore, they cannot be compared to earlier data.
1998	Inward FDI: capital share was increased to ATS 5 mn. Outward FDI: capital share was increased to ATS 10 mn.
1998	5th Ed. of IMF *Balance of Payments Manual* introduced. (Affects primarily FDI flow data, *inter alia* reinvested earnings.)

The problems demonstrated by EUROSTAT and others concerning asymmetries in the bilateral investment positions of countries in balance-of-payments statistics, resulting from different definitions applied by the national compilers, are a major limiting factor for cross-country comparisons and they are even more pronounced in comparisons of one country to the "rest of the world", which is done here. Such problems are largely avoided in this analysis, since we do not use balance-of-payments statistics, and the Austrian FDI stock data follow the recommendations of the IMF and OECD benchmark definition closely.

Yet, a valuation problem with two dimensions remains: first, the age of inward and outward capital stocks might differ. This suggests a stronger re-valuation to replacement values, the older the capital stock, which applies to the inward FDI stocks in Austria. Second, when valued at market prices, the Austrian NOIP becomes even lower, due to the higher profitability of inward affiliates than outward affiliates, which is partly an effect of the different maturity of FDI of these two groups of firms.

One additional problem that emerges here is the fact that some of the Austrian outward FDI stocks are actually made by affiliates of foreign TNCs (the "ultimate beneficial owner") located in Austria. Such FDI is termed indirect FDI. If figures on outward FDI also include indirect FDI, one might wrongly attribute an ownership advantage to the foreign affiliates in Austria, where it should be attributed to its parent firm abroad (which developed it and transferred it later to the affiliate in Austria). For Austria, this is the case with Switzerland (and also with Eastern Europe). Switzerland appears as a prominent investor, but if corrected for the "ultimate beneficial owner", loses in significance to the United States, United Kingdom etc. (Bellak, 1998). Therefore, the corrected figures have been used for the estimation of the bilateral IDP. Analysis on the bilateral level implies an additional problem, namely that of the classification of FDI by industry, if cross-investments are high. In such cases, a comparison of a single industry like the trading industry, may report a number of trading companies' FDI on the outward side, but a number of foreign manufacturing firms which set up sales affiliates on the inward side.

Results

Table 2 reports the results on the macro, the structural and the bilateral levels. Column 2 of table 2 reports the results on the *macro level* (see also figures 4-7). The dependent variable is significant at the one per cent level in a cubic specification, yet has a negative

Figure 5. Austrian macro NOIP per capita

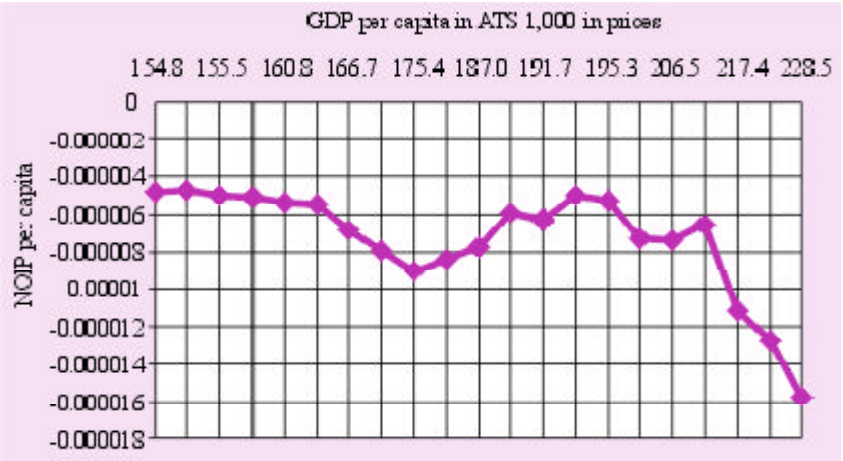


Figure 6. Equilibrium NOIP on the macro level

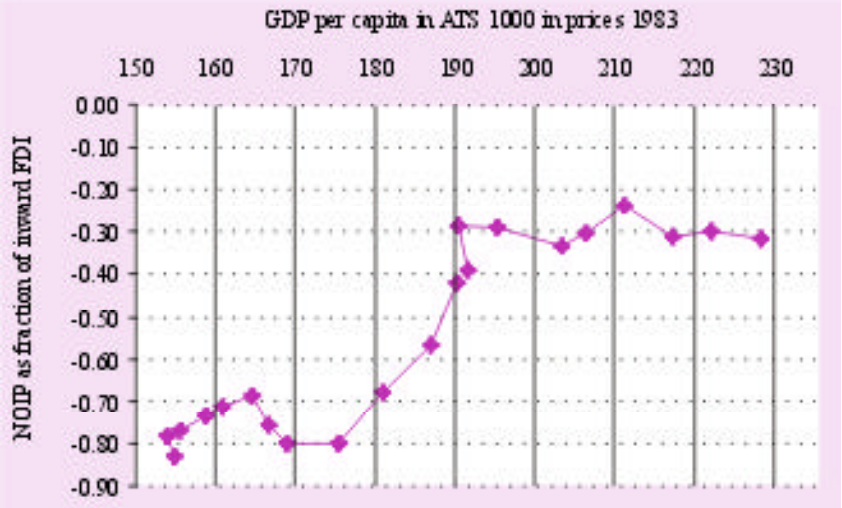
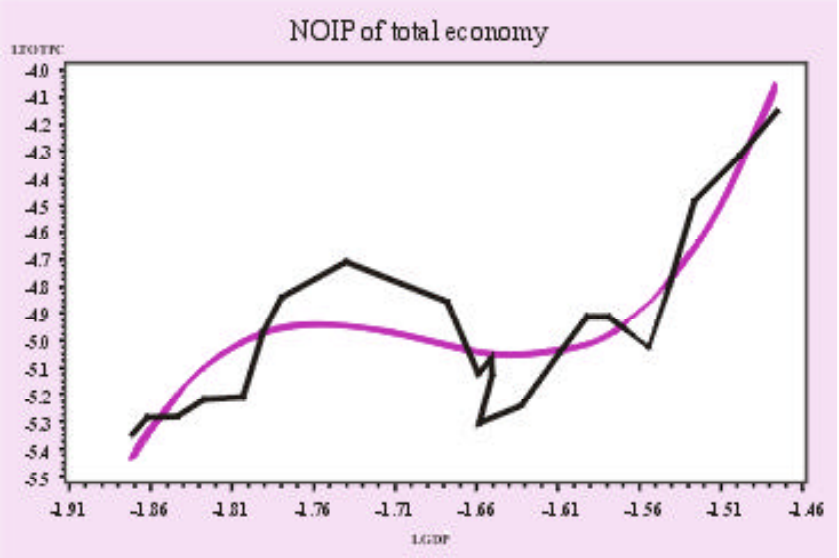


Figure 7. NOIP of total economy



Note: NOIP is calculated as inward minus outward FDI stocks.

sign. Figure 7 shows a comparison between the actual and the fitted values (smooth line).[3] The correlation suggests that Austria is not in stage 4. The possibility remains that this reflects the "ower" part of a stage 5 position. Figure 5 provides an indicator which may help to clarify the issue. In this figure, the NOIP is depicted as a fraction of Austrian inward FDI stock. Thus, a value of zero indicates that outward and inward stocks are in balance. Interestingly, strong fluctuations may indeed be seen, with one equilibrium around 75 per cent during the first decade and another equilibrium around 30 per cent in the second decade, after a short, but steep shift. Of course, the time span is too short to say anything about the stability of such an equilibrium around a certain mean value. This picture is in clear contrast to the stage five hypothesis of a fluctuation of the NOIP around a constant mean.

Columns 3, 4 and 5 of table 2 report the results on the *structural level*. The coefficients on the manufacturing sector's NOIP have the expected signs and are highly significant. The manufacturing sector's NOIP follows a quadratic functional form, as used in most earlier studies discussed above (see figures 8 and 9). While there is a significant positive correlation between the level of development and the NOIP of the manufacturing sector, the size of the coefficients remains small and the adjusted R-square is low (67 per cent in log terms).

Individual industries follow different paths. For the *chemical industry* (cf. column 4 of table 2 and figures 10 and 11), the NOIP diminishes heavily and significantly with an increase in the level of development in a fourth degree polynomial specification. In log terms, the correlation coefficient of the best fit equation drops to 62 per cent. The *electronics industry's* IDP (cf. column 5 of table 2 and figure 12) increases slightly upon an increase in the level of development following a quadratic trend. Since it includes negative values, no estimation was possible in logarithmic form for this industry. The significance at the one per cent level, and the high adjusted R-square prove that also on the industrial level the level of development has a strong impact. Individual industries and the manufacturing sector as a whole follow varied paths, which are partly reversed compared to the NOIP on the macro level and in some cases the overall correlation is much weaker.

[3] Since the figures reflect log values, the definition of the NOIP has been changed to inward minus outward FDI. The mirrored picture, therefore, is how we generally view the NOIP.

Table 2. Summary of the results

Independent variable	Dependent variable					
	Macro IDP	*Structural IDP*			*Bilateral IDP*	
	TOT	MAN	CHE	ELE	GER	USA
	All dependent variables and independent variable are expressed in logarithmic terms.[a]					
Constant	*-590.80*	*79.47*	*-807.11*		*-313.48*	
	(4.96)	*(-6.39)*	*(3.31)*		*(4.18)*	
LogGDP	*-1 058.62*	*85.60*	*-1 414.50*		*-554.10*	
	(4.94)	*(-5.87)*	*(3.28)*		*(4.17)*	
$LogGDP^2$	*-626.12*	*24.75*	*-818.20*		*-320.62*	
	(4.89)	*(-5.81)*	*(-1.70)*		*(4.09)*	
$LogGDP^3$	*-123.27*		*-157.54*		*-61.99*	
	(4.84)		*(3.16)*		*(4.04)*	
$LogGDP^4$						
F-value	25.81	19.61	10.96		145.03	
	0.0001	0.0001	0.0005		0.0001	
Adj. R^2	0.79	0.67	0.62		0.96	
	All dependent and the independent variables are expressed in per capita terms.					
Constant	*0.95*	*0 .06*	*1.44*	*0 .01*	*-0.97*	*-0.00*
	(5.43)	*(4.58)*	*(2.83)*	*(3.74)*	*(-3.59)*	*(-9.38)*
GDP	*-15.54*	*-0.76*	*-31.11*	*-0.16*	*22.12*	*0.01*
	(-5.57)	*(-4.91)*	*(-2.78)*	*(-4.36)*	*(3.73)*	*(8.26)*
GDP^2	*84.24*	*2.12*	*249.30*	*0.48*	*-188.01*	
	(5.70)	*(5.00)*	*(2.72)*	*(4.81)*	*(-3.87)*	
GDP^3	*-151.58*		*-881.73*		*706.95*	
	(-5.85)		*(-2.65)*		*(4.01)*	
GDP^4			*1 160.66**		*-992.79*	
			(2.58)		*(-4.17)*	
F-value	44.99	14.05	17.94	56.77	165.46	68.27
	0.0001	0.0003	0.0001	0.0001	0.0001	0.0001
Adj. R^2	0.87	0.59	0.79	0.86	0.97	0.79
No. of obs.	21	19	19	19	19	19

[a] In order to compute logarithmic terms, the definition of the NOIP has been reversed, i.e. inward minus outward FDI. Coefficients have then been multiplied by -1 to ensure comparability to results in the second half of the table.

Notes: See text for explanation; t-values are in brackets. All coefficients are significant at the 1 per cent level, except GDP^4 in column CHE (*), which is significant at the 5 per cent and level.

Figure 8. Structural NOIP of manufacturing sector

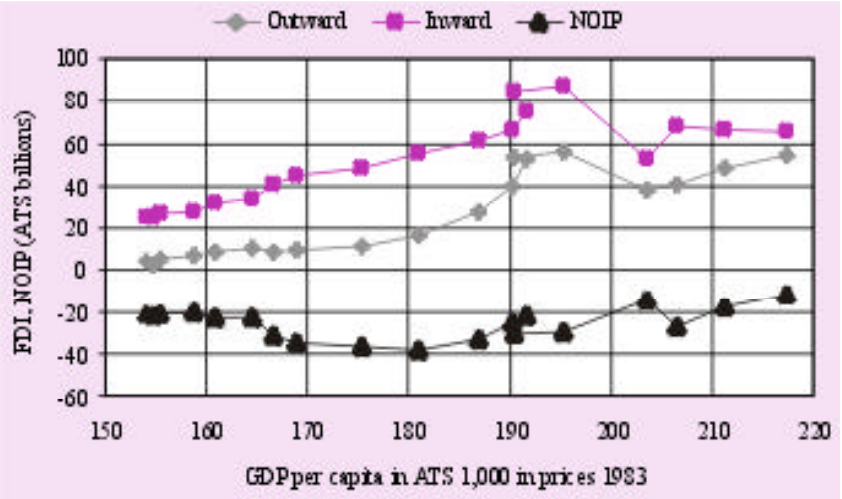
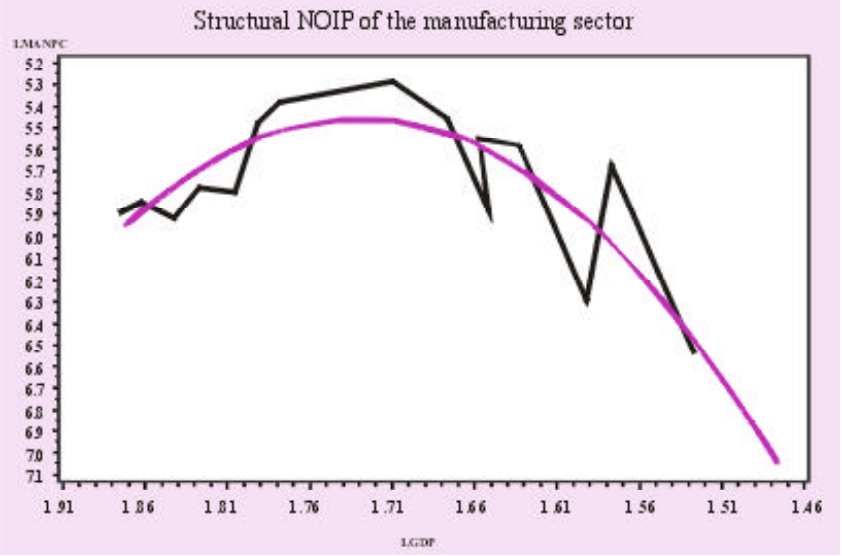


Figure 9. Structural NOIP of the manufacturing sector



Note: NOIP is calculated as inward minus outward FDI stocks.

Figure 10. Chemical industry's NOIP per capita

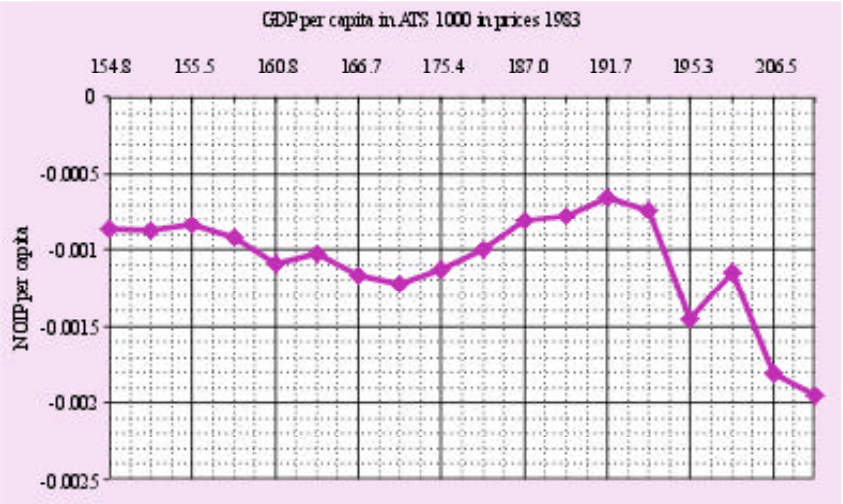
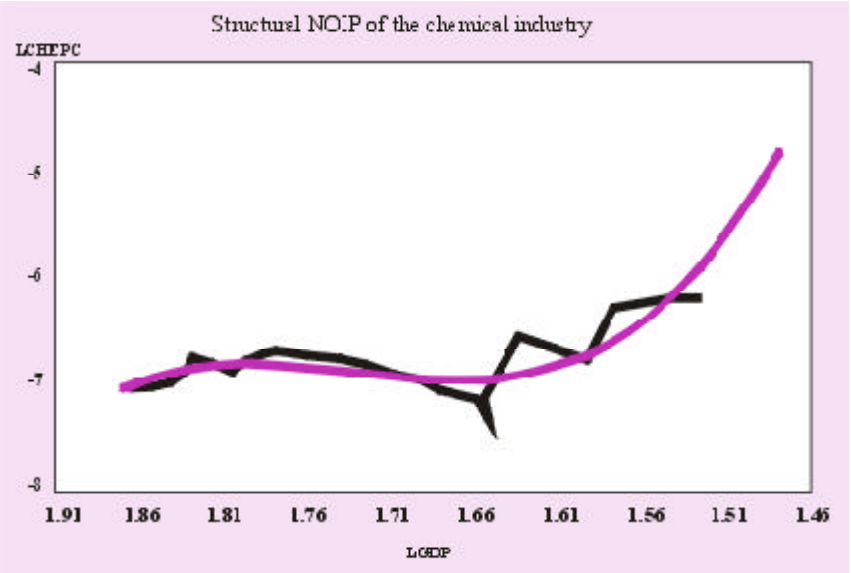
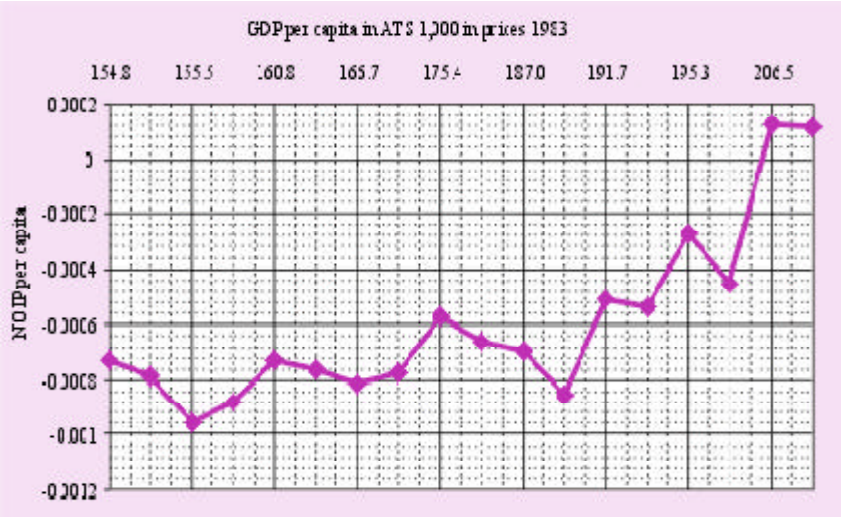


Figure 11. Structural NOIP of the chemical industry



Note: NOIP is calculated as inward minus outward FDI stocks.

Figure 12. Electrical industry's NOIP per capita



This suggests that GDP per capita should be replaced by the alternative measures discussed above. The *chemical industry's* NOIP has been analyzed using the RCA value, labour productivity and the value-added-output ratio (cf. table 3). The best fit was achieved by a polynomial of the fourth degree in all three cases, when a single explanatory variable was used. The RCA variable had a low significance, the VA had no significance and PRO had a strong significant impact. The adjusted R-square was highest when PRO was used as a single explanatory variable (80 per cent), followed by an R-square of 67 per cent in the case of RCA and was lowest in the case of VA (58 per cent). These results suggest that a multiple approach should be taken. Like in other fields of economic analysis, industry-specific factors obviously play a greater role on the disaggregated level. Using the three variables jointly (cf. table 3 bottom) shows highly significant coefficients with the expected signs. The R-square drops slightly from 76 to 73 per cent. The combined ownership and location advantages provide some explanation of the NOIP. The size of the coefficients cannot be compared, since the variables are measured in different terms. Since there are no explicit theories so far on the structural and the bilateral NOIPs, it is hoped that much can be learned from the analysis of international competitiveness of industries and countries as well as structural change, since ownership and location advantages play an important role in these models as well.

Table 3. Summary of the results on chemical industry (N=19)

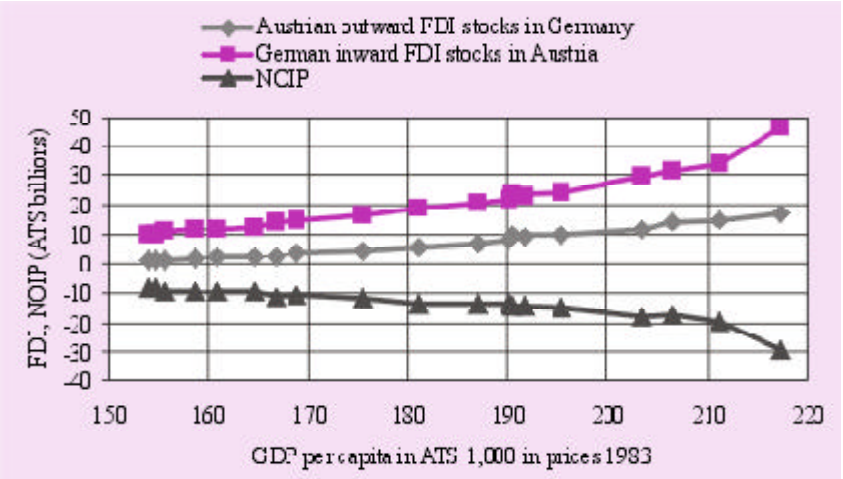
Independent variable	CHEPC (dependent variable in per capita terms)
RCA=Revealed comparative advantage	
Constant	*0.36***
	(2.34)
RCA	*-2.33***
	(-2.38)
RCA^2	*5.58***
	(2.41)
RCA^3	*-5.86***
	(-2.44)
RCA^4	*2.27***
	(2.46)
F-value	10.12
	0.000
Adj. R^2	0.67
PRO=labour productivity	
Constant	*-0.00*
	(1.60)
PRO	*-2.27****
	(-2.72)
PRO^2	*5.83E-14***
	(-3.06)
PRO^3	*-4.77E-20****
	(-3.49)
F-value	24.84
	0.0001
Adj. R^2	0.80
VA=(Value added/gross output)ratio	
Constant	*0.32*
	(1.34)
VA	*-0.04*
	(-1.43)
VA^2	*0.00*
	(1.53)
VA^3	*-4.22E-5*
	(-1.62)
VA^4	*3.31E-7*
	(1.72)
F-value	7.10
	0.002
Adj. R^2	0.58
Joint measurement	
Constant	*0.00****
	(3.49)
RCA	*-2.62E-3***
	(-2.35)
PRO	*-1.25E-9***
	(-2.35)
VA	*-4.08E-5****
	(-4.01)
F-value	17.02
	0.0001
Adj. R^2	0.73

Notes: See text for explanation; t-values are in brackets.
***, ** denote significance at the 1 per cent and 5 per cent levels.

On the *bilateral level*, results are reported in table 2, column 6 and figures 13-15 for Germany and column 7 and figure 16 for the United States. The fit of the German NOIP[4] equation with an adjusted R-square of 96 per cent and highly significant coefficients shows the expected correlation. At first glance, the negative sign seems to be a problem. Yet, considering that Germany is much larger than Austria and levels of development have converged over time, the bilateral NOIP will normally be negative. The fact that the bilateral NOIP diminishes steadily is, however, unexpected, since Austria caught up with Germany concerning the GDP per capita gap and the productivity gap during the period under consideration. It may be that efficiency seeking German investors increasingly targeted the strategic assets of Austrian firms. Concerning the United States, the picture is quite different. Data show little variation over the years and a linear specification resembles the best fit. Despite the coefficient having the expected sign and its high significance the size of the coefficient remains low. This may reflect a market-seeking motive from the part of the United States investors.

A comparison of the regression results of the *bilateral* IDP for Germany and the United States reveals that, contrary to Germany, there is almost no impact of the level of development in the case of the United States. While German FDI and Austrian FDI in Germany

Figure 13. Bilateral NOIP between Austria and Germany



[4] In 1997, Germany accounted for 47 per cent of Austrian inward and 16 per cent of Austrian outward FDI stocks.

react strongly to small changes in welfare, this pattern is not observed in the United States-Austrian case, which could be related to the impact of geographical distance (cultural distance, transport costs etc.).

Figure 14. Bilateral NOIP per capita between Austria and Germany

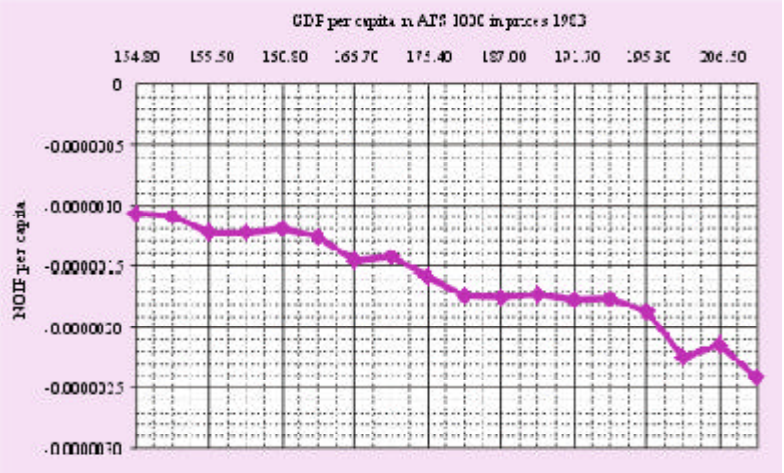
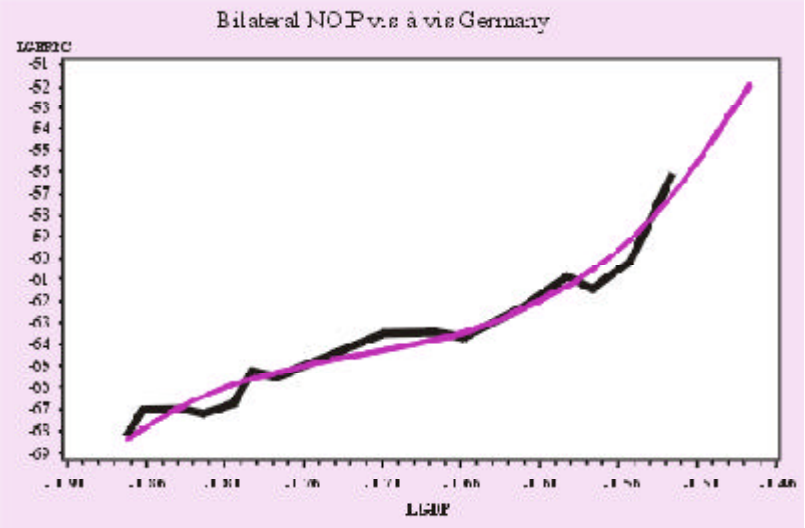
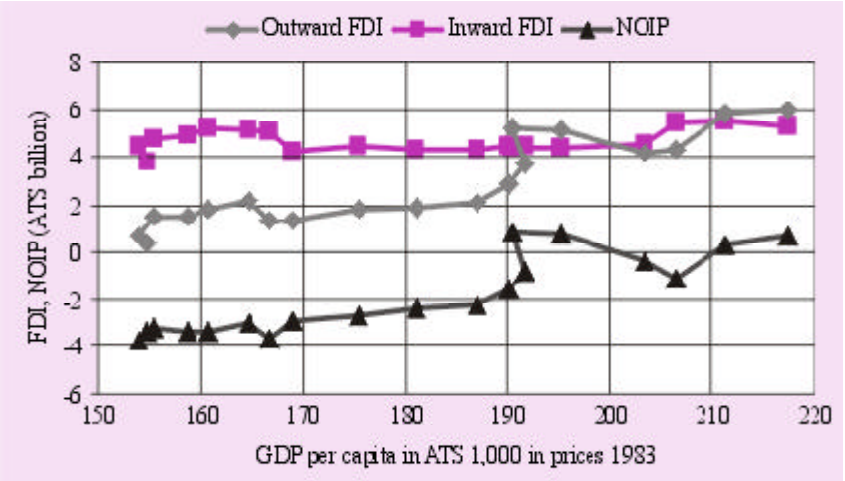


Figure 15. Bilateral NOIP vis-à-vis Germany



Note: NOIP is calculated as inward minus outward FDI stocks.

Figure 16. Bilateral NOIP position between Austria and the United States



Conclusions

The purpose of this article was to estimate the Austrian IDP on the macro, structural and bilateral levels. Contrary to some earlier studies, the empirical findings do not support the expectation that Austria follows the stylized IDP as suggested by a level-of-development approach on the macro level. A rising level of development leads to a lower Austrian NOIP. The estimation at historic cost tends to underestimate the size of the negative NOIP (as discussed in the section on data). In this sense, the results are rather conservative. They let us conclude that the Austrian case differs from those of other highly developed countries reviewed in the section on earlier studies, where in most cases a positive quadratic relationship was confirmed. They do not support either the assumption that small countries should have above-average NOIPs due to their small home markets. To the contrary, a small market leads to a concentration of production cum exporting in order to achieve economies of scale. While no policy conclusions can be drawn from such a descriptive analysis, it should be emphasized that a low NOIP is not necessarily a sign of a weakness of a host location. A below-average (or even negative) NOIP thus need not necessarily derive from the fact that firms in that country have no strategic assets. It could also be that the generation of favourable location advantages may lead to relatively large inflows of FDI into a highly developed small country.

On the *lower levels of aggregation* results are mixed. The second proposition, namely that the structural and the bilateral IDP deviate from the macro IDP has found support on the basis of polynomial regressions. Whether this is due to the fact that ownership advantages are more similar within industries in different countries rather than across industries within a single country (Cantwell and Sanna-Randaccio, 1993) or whether this is due to the varying role of general location advantages that serve as input factors across industries clearly needs further investigation.

The introduction of alternative explanatory variables reflecting combined firm-specific and location-specific advantages and structural change on the structural level has partly yielded satisfactory results. Apart from the need to use other variables than GDP per capita on the disaggregated level of the NOIP, the single variable approach of the macro level analysis must be replaced by a model with multiple independent variables reflecting industry, firm and location-specific factors as well as government policies.

The generally lower explanatory power of a single variable on more disaggregated levels is mainly a result of the fact that - although there might be some common determinants - inward and outward FDI are driven by different factors, and these are likely to differ across industries. Further research should therefore focus on the determinants of inward and outward FDI flows and stocks separately to shed more light on the IDPs on lower levels of aggregation as observed in the present article. ■

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REVIEW ESSAY

FDI, development and investment rules: a critique of the UNCTAD Series on Issues in International Investment Agreements

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Since 1998, the United Nations Conference on Trade and Development has published a Series of booklets on issues in international investment agreements. The "Pink Series" addresses a wide variety of subjects, ranging from some of the basic building blocks of IIAs, such as national treatment and most-favoured-nation treatment, to subjects not associated with these agreements until recently, such as employment and taxation. This review article places this important Series in its international political and economic context, including with respect to development issues. Individual booklets are also examined; many explore the growing list of inter-related issues of increasing interest to the international investment policy maker. Issues raised in the booklets point to areas for further research. The Series as a whole is topical given discussions about trade and investment in the run-up to the 2001 World Trade Organization ministerial meeting in Doha, Qatar, and is also relevant to international investment negotiations in other fora. Finally, this essay notes that the Pink Series is likely to prove relevant to the work of the international investment policy researcher and practitioner wherever the merits of international investment rules are deliberated and foreign direct investment issues are discussed.

For well over two years a series of bright pink booklets has become increasingly familiar to international investment policy practitioners and researchers around the world. Published periodically as part of its work programme in this area, a total of 27 booklets in

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this UNCTAD Issues in International Investment Agreements (IIA) Series is planned, over half of which had been issued by July 2001 (see box, below). It covers a wide variety of subjects, ranging from some of the basic building blocks of IIAs, such as national treatment and most-favoured-nation (MFN) treatment, to subjects not associated with these agreements until recently, such as employment and taxation. By its completion in 2002, it will result in a mini-library of documents dealing with a wide variety of subjects with which those interested in international investment policy are increasingly called upon to be familiar.

Box. The Pink Series
The UNCTAD Series on Issues in International Investment Agreements

Booklet titles[a]

- *Admission and Establishment*
- Competition
- Dispute Settlement (Investor-State)
- Dispute Settlement (State-State)
- *Employment*
- *Environment*
- *Fair And Equitable Treatment*
- *Foreign Direct Investment and Development*
- Home Country Measures
- Host Country Operational Measures
- Illicit Payments
- Incentives
- *International Investment Agreements: Flexibility for Development*
- *Investment-related Trade Measures*
- *Lessons from the Mai*
- *Most-Favoured-Nation Treatment*
- *National Treatment*
- *Scope and Definition*
- Social Responsibility
- State Contracts
- *Taking of Property*
- *Taxation*
- *Transfer of Funds*
- *Transfer of Technology*
- *Transfer Pricing*
- Transparency
- *Trends in International Investment Agreements: an Overview*

[a] Titles published as of 15 July 2001, are in italics. All are United Nations publications. See references, below, for further information.

A synopsis of each published booklet appears on the UNCTAD International Investment Agreement website.[1] Rather than repeat this information, to which the reader is referred, what follows is primarily a review of the political and economic background to the Series, as well as a brief discussion of how it relates to some of the most important issues on the current international investment agenda, particularly in so far as they concern development. A number of individual booklets will also be discussed in this context.

To begin with, it is worth recalling the recent historical background to the Series. In the wake of protracted and unproductive debates about a New International Economic Order (NIEO) that had weighed heavily on UNCTAD's reputation on trade and investment issues since the 1970s, by the late 1980s the Organization was eager to chart a new course. With the launch of annual *World Investment Reports* in 1991, the United Nations Centre on Transnational Corporations (UNCTC – the precursor to UNCTAD's Programme on Transnational Corporations) was well on its way to evolving into a respected centre for research and policy analysis on international investment issues in developing and developed countries alike. By the time of the UNCTAD IX conference in Midrand, South Africa, in 1996, responsibility for these issues had been transferred from New York to Geneva, and from the now defunct UNCTC to UNCTAD. This was a serendipitous series of events that made UNCTAD well placed to offer its services to policy makers in Geneva and elsewhere. It was particularly important to representatives from the developing world, coming at a time of increasing interest by a number of governments and institutions in international investment issues in general, including institutional agreements designed to provide a framework for burgeoning international investment flows worldwide.

This interest had been reflected in a proliferation of bilateral investment treaties (BITs), first between developed and developing countries, though more recently including agreements between developing countries (UNCTAD, 2001).[2] Then, in 1992, the North

[1] See http://www.unctad.org/iia/iiapapers/index.htm.

[2] A media summary of the recent UNCTAD study on BITs (UNCTAD, 2001), outlining the growth in number of BITs from 385 at the end of the 1980s, to 1,857 involving 173 countries just ten years later, is available at: http://www.unctad.org/en/pub/poiteiiad2.en.htm. UNCTAD also provides technical assistance to developing countries in the preparation for BIT negotiations, and has even assisted in supporting negotiating events at which a number of countries take part in BIT negotiations. In particular, BITs between developing countries have been given further impetus as a result of these meetings. See, for example, UNCTAD, 2000.

American Free Trade Agreement (NAFTA) was successful negotiated, encompassing comprehensive rules on international investment in an agreement among developed as well as a developing country for the first time. As the provisions in a number of IIAs negotiated after the NAFTA demonstrated, the significance and influence of the NAFTA investment provisions was considerable (Graham and Wilkie, 1998; Gestrin and Rugman, 1994). And in December 1996, at Singapore, WTO member countries established "a working group to examine the relationship between trade and investment", which, although it continues not to prejudge whether negotiations should take place in the future, continues to meet and discuss related issues (WTO, 1996). At Singapore, WTO Ministers also noted UNCTAD's Midrand Declaration, which gave further impetus to UNCTAD's contribution to an understanding of relevant issues.

Curiously, however, neither the WTO's Singapore Declaration nor UNCTAD's Midrand Declaration mentioned what had quickly become the most ambitious attempt to negotiate investment rules: the Multilateral Agreement on Investment (MAI). For, in the meantime, after several years of discussions, negotiations had started at the OECD for a MAI. The closest to an acknowledgement came at the Midrand meeting in 1996 when, among other tasks, UNCTAD was rather cryptically charged with:

> Identifying and analysing implications for development of issues relevant to a possible multilateral framework on investment, beginning with an examination and review of existing agreements, taking into account the interests of developing countries and bearing in mind the work undertaken by other organizations. In this regard, the role of OECD and the activities of its outreach programme in explaining recent developments in that organization should be noted (UNCTAD, 1996, paragraph 89b).

Although the announcement of the beginning of MAI negotiations by OECD ministers in May 1995 was greeted with relative indifference, this was to change quickly once negotiating countries began wrestling with the implications of the ambition and scope underlying the prospective agreement.[3] Despite neither the WTO

[3] An increasing number of studies from both supporters and detractors of the agreement has begun to point to reasons for the failure of the negotiations in 1998. For varying perspectives, see Clarke and Barlow, 1997; Geiger, 1998; Smythe, 1998; Dymond, 1999; Henderson, 1999; Maybey, 1999; Société Française pour le Droits International, 1999; Graham, 2000; Netherlands Ministry of Economic Affairs, 2000; Schittecatte, 2000.

nor UNCTAD mentioning the MAI by name in its official pronouncements, it was evident from late 1995 through until the cessation of negotiations three years later that the issues preoccupying MAI negotiators had piqued the interest of international investment policy practitioners and others outside the negotiating rooms as well. In fact there is little doubt that the number of issues dealt with during the MAI negotiations – and their interrelationship – provided considerable inspiration for the UNCTAD IIA Series, as a comparison of titles in what has also come to be known as the "Pink Series" with the table of contents of the draft MAI text reveals (OECD, 1998a). Further impetus came after the first instalments of the Pink Series had been commissioned when the WTO's Working Group on Trade and Investment (WGTI) issued its first report in late 1998 to the General Council of the WTO. The WTO WGTI report addressed a number of issues with the interests of developing countries in mind; indeed elements of Section C ("Substantive Work") of this report lent themselves particularly well to further follow up in the UNCTAD Series (WTO, 1998).

The IIA Series is best approached by first reading three component papers that essentially provide an introduction to the issues dealt with in the rest of the series: *Trends in International Investment Agreements: An Overview*; *Foreign Direct Investment and Development*; and *International Investment Agreements: Flexibility for Development*. All of these accord a high profile to the development dimension of existing or prospective IIAs. Due to their breadth, they are organised slightly differently than most of the other papers.

The first of these booklets, which is the real introduction to the Series, is an overview of IIAs by one of the Series' principal advisors, Arghyrios A. Fatouros of the University of Athens. Fatouros succeeds in linking the increase in international investment activity with the policy response of governments to provide a framework for this activity in the form of international agreements, also noting the antecedents for this in the early part of the twentieth century. Although relatively brief, it is nonetheless a comprehensive survey, and its sweep of historical background is complemented by ample reference information provided for readers wishing to explore issues in further depth. Fatouros also provides a valuable introduction to the key themes underlying the proliferation of IIAs. Chief among these have been the growth in the foreign operations of firms, and the changing perception of the desirability and contribution of foreign direct

investment (FDI) to economic growth and other policy goals. Also worthy of note is the identification of the changing interplay between legal principles of territorial sovereignty, whereby the State is empowered to regulate economic activity (including the taking of private property for a public purpose), and the principle of nationality, under which the State seeks to protect the rights of its economic actors both domestically and internationally. One could add that, as FDI flows to developing countries have increased, an emphasis on the latter principle has become more prevalent in IIAs.

Trends in International Investment Agreements: An Overview also provides an introduction to the Series as a whole, both in terms of the structure followed by most of the other booklets, as well as to the individual issues themselves. Fatouros addresses how treaties are drafted, and then moves on to note that IIAs traditionally concentrated on what may be termed "standards of treatment" issues such as national treatment, MFN and the absolute standard of "fair and equitable treatment".

Today, however, there is also an increasing recognition of the effect of investment activity on other issue areas. In part, this is a manifestation of the ramifications of the increasing importance of international investment activity itself. Unlike trade activity, traditionally measured and defined as transactions in goods and services between independent States, FDI by foreign firms takes place behind the frontiers of States, and can thereby raise questions that strike at the heart of the domestic polity.[4] This can compound difficult policy issues faced by governments. For example, the implications of an increasing proportion of international investment through mergers and acquisitions rather than greenfield investment may be an issue of concern to competition authorities, as well as investment specialists. Similarly, the taxation of the modern firm, with numerous activities in a number of jurisdictions with different tax rates and methods of taxation, has been dealt with in many cases by governments negotiating double taxation treaties (in effect agreements to help firms avoid being taxed twice on the same income). A closely related tax issue concerns transfer pricing. While proper transfer pricing is often a requirement of tax authorities, the abuse of transfer pricing norms

[4] The implications of this illustration of "deeper integration" (of which sharply increasing FDI flows is just one example) is "systems friction", which occurs when states seek to preserve policy options at a time of concurrent pressures to intensify international policy cooperation. See Ostry, 1990.

and rules (whereby prices for transactions within a firm are artificially inflated or deflated in order to unfairly take advantage of differing tax treatment of these various activities by differing jurisdictions) is more problematic – and a thorny problem for taxation advisers and policy makers. These are just a few examples of issues that sovereign States have had to come to terms with as the cross border activities of transnational corporations (TNCs) has intensified.

Fatouros identifies these and a number of other issues for further attention, many of which may be categorized as *additional* aspects of traditional "treatment" issues (e.g. taxation, incentives and intellectual property rights) or "investment protection" issues (such as takings). Other issues concern the efficient operation of markets themselves, such as restrictive business practices and technology transfer; still others include the environment, labour, consumer protection, human rights and bribery and illicit payments. All these issues have received increasing attention recently, partly as a result of concern about the perceived influence of TNCs in a globalizing world economy. Many – but not all – of these issues are the subject of papers in the IIA Series. In addition, reflecting the growing realization that developing country needs have not been adequately addressed in many investment agreements, this dimension figures prominently in most of them.

Indeed, the other two introductory booklets that provide excellent background material both concentrate on developmental aspects of IIAs. The first of these, *Foreign Direct Investment and Development*, is useful as a conceptual introduction to the complementarities between trade and investment flows. A number of recent trends are also identified, including the fact that, in recognition of the benefits FDI can bring, some countries accord "better than national treatment" to foreign firms, and that developing countries themselves are a nascent source of FDI flows. These latter two issues are phenomena that warrant further research for a more complete understanding of emerging policy paradoxes surrounding FDI. Chief among these is a reluctance to agree on the desirability of a comprehensive rules-based framework for FDI while at the same time increasing unilateral liberalization on the part of almost all countries to facilitate FDI flows. Confirming recent FDI research, *Foreign Direct Investment and Development* notes that the FDI flows to developing countries surged over the 1980s and 1990s, although much of it has been skewed in favour of large developing markets in

Latin America and China, while Africa has received commensurately less.[5]

This volume also introduces the idea that not all capital inflows are by definition perfectly congruent with development goals. For instance, large capital inflows to some developing countries in the 1990s cannot be said to have led to increases in total investment or output. While this may be due to natural time lags, this volume points out that "…if foreign savings crowd out domestic savings with no change in the investment rate, the usefulness of foreign capital for capital formation, a key factor in development, can be questioned." (UNCTAD, 1998- *Foreign Direct Investment and Development).* In this regard, however, it is quickly noted that FDI is a distinct form of foreign capital, and that in fact where FDI predominates capital inflows, more significant increases in investment have occurred than where capital inflows have been mostly of the financial variety. In addition, other potential benefits of FDI, including greater technology transfer, management know-how and spin-offs related to more skilled labour, access to international production networks as well as markets, and established brand names are also noted. One of the conclusions of this booklet is that policy choices of developing countries with respect to FDI are not uniform, and may in some cases depend on the size of the domestic economy and market. This is an important contribution to the debate over FDI and development, and also leads naturally to the third of the trio of introductory volumes in this series: "flexibility" for development.

The third of the introductory booklets to the "Pink Series", *International Investment Agreements: Flexibility for Development*, is arguably the most comprehensive and thought provoking booklet published thus far in the IIA Series. Not coincidentally, it has also

[5] FDI statistics, particularly concerning developing countries, are not as reliable as those concerning trade flows. One reason for this is that they representing fungible capital flows rather than more tangible goods or even services captured in international trade statistics. In addition, statistical agencies are not as well funded in the developing world as in the developed world. And as recent corruption trials in China have revealed, even the reliability of trade statistics is open to question: James Kynge reported from China that the scale of recent tax fraud has been so great in southern China that "…China's overall trade balance is starting to be affected…" and that this increased "…the probability that last year's export figures were artificially inflated by fake customs documents that were used to claim VAT tax rebates." See "China's traders feel pinch in tax crackdown", *Financial Times*, 15 February 2001, p. 4.

been the most influential. In addressing the underlying thesis of this booklet, one could simply ask: "Do international investment agreements facilitate FDI flows?" If the answer is "no", then it would seem that there is little point in advocating or negotiating agreements covering FDI. If the answer is "yes", one must then ask why developing countries in particular need "flexibility" in order to avoid or postpone the real benefits that FDI can bring. Needless to say, this volume introduces several nuances to this apparent dichotomy to suggest that accommodating flexibility for developing countries in IIAs – particularly in any prospective multilateral agreements – could strengthen the appeal of IIAs for both developed and developing countries. Of course one must address in greater detail what is meant by "flexibility", and this volume goes some way to illustrate that the concept of preserving policy latitude through flexibility is embodied in an number of international trade and investment agreements already. GATS Article IV (Increasing Participation of Developing Countries) and Article XIX (Negotiation of Specific Commitments) are perhaps the most important examples of this, particularly since GATS may be said to be an investment agreement with respect to services industries. One could also add that the "positive list approach" to scheduling commitments (whereby countries commit to market access only in negotiated sectors) under the GATS also encompasses the idea of flexibility to some degree.

The volume also points out that flexibility for development has been accommodated in IIAs in a variety of other ways. It may be noted that many of them do not necessarily formally acknowledge this, since flexibility can be facilitated through the nature of the agreement itself (in essence, how legally binding it is), in its basic structure (i.e. the nature of its provisions), or in the way definitions are worded or exceptions are negotiated (i.e scope of application). Conversely, under some agreements, it has been deemed advantageous to acknowledge the way in which flexibility is encompassed through preambular statements or declarations associated with them, or in provisions that avowedly apply to developing countries differently. One implication of this is that although flexibility – for development purposes or otherwise – is a characteristic of many IIAs, it is often little appreciated. This should therefore be identified and explained more comprehensively by policy makers and analysts in assessing them. In so doing, however, one key question remains: should flexibility necessary to achieve domestic policy objectives require discrimination against foreign investment and, if so, why?

The issue of flexibility has been a very prominent theme in discussions about the desirability of an international agreement on investment in the WTO. At a time when some WTO members are questioning the need for comprehensive rules in the WTO on international investment at all, there are indications that the concept of "flexibility for development" may in fact provide some of the common ground necessary between developed and developing countries to make progress on this issue. For example, nascent signs of agreement on this point between South African and European Union representatives were in evidence at European Commission sponsored seminars on investment and other "new" issues on the WTO agenda in Lima in late 2000 and in Cape Town in early 2001 (European Commission, 2001a). At time of writing, it is premature to say whether the concept is acceptable as a starting point for negotiations on a framework for international investment or will instead serve as a point of departure; nonetheless, it has so far contributed to a more constructive dialogue on the issue. The nuanced arguments outlined in the IIA booklet on *Flexibility for Development* are at least partly responsible for this.[6]

Most of the rest of the booklets in the Pink Series are organized slightly differently from the three introductory booklets. They tend to be organized into four sections: first an "Explanation of the issue" at hand, then a second section on "Stocktaking and analysis", which is often simply a further explanation of the issue as outlined in section I, including a summary. Then, in an effort to highlight issue linkages,

[6] In the run-up to the WTO Doha meeting in November 2001, most WTO members are still considering their position on international investment rules in the WTO. Among considerations are linkages with other issues (not only services through GATS, but competition, TRIMs, implementation and other issues as well). It is difficult to generalize about country positions on the desirability of a comprehensive framework for international investment other than to say that they are in a state of flux: some developing countries are in favour of the idea, whereas some developed countries are more equivocal than they were a few years ago. While prospects for the inclusion of investment in the next WTO negotiating mandate are limited, there are some indications that a new WTO round, if any, should concentrate on development issues. OECD Ministers called for a new round of multilateral trade talks at the WTO when they met in May 2001, noting that "a new round is essential for developing countries given the need to stimulate their economic growth, alleviate poverty and promote their integration into the multilateral trading system" (OECD, 2001a). And in his opening statement to the Third United Nations Conference on the Least Developed Countries (UN LDC-III) in Brussels, also in May 2001, United Nations Secretary-General Kofi Annan stated simply: "I believe the best hope for LDCs, and indeed for the developing world in general, lies in a new round of global, multilateral trade negotiations. And this time it must be a true 'Development Round'" (Annan, 2001).

there follows a third section on "Interaction with other issues and concepts". This contains a table of all issues in the IIA series in which varying degrees of linkages are identified and then commented upon. Finally, a "Conclusion" in light of these inter-relationships follows, which is subtitled "Economic and development implications and policy options". The success of this last section depends largely on how well the argument has been structured in section II of the booklet, which is usually its heart. Let us briefly examine some of these booklets in this vein.

By mid-2001 the IIA series had published booklets on all of the basic building blocks in IIAs, namely (a) *Scope and Definition*, (b) *National Treatment*, (c) *Fair and Equitable Treatment*, (d) *Most-Favoured-Nation Treatment*, and (e) *Admission and Establishment*. All do an excellent job of addressing the most important aspects of these fundamental provisions to any IIA.

National Treatment sets out relevant issues underlying the concept, and fleshes out important institutional examples of the principle in agreements such as the GATS, NAFTA and the OECD's National Treatment Instrument. These important forerunners for comprehensive international investment rules contain provisions that have benefited from, and influenced, IIAs. The volume also illustrates that both national treatment and MFN are concepts with long histories in international investment as well as international trade agreements. Section III of the *Most-Favoured-Nation Treatment* booklet is particularly useful in illustrating that the state of MFN and other treatment issues is still evolving, and can be expected to continue to do so in view of development and other policy priorities. As noted above, the implications of dealing with national and other treatment issues are more complicated in the investment domain than with respect to the traditional border barriers dealt with in trade agreements. (This is arguably less true since the successful negotiation of a number of additional agreements to the GATT, coupled with the provisions of the dispute settlement undertaking as part of the Uruguay Round.) In turn, this has led UNCTAD and others to consider the issue of admission and establishment as separate from that of other treatment issues, particularly national treatment and MFN, as a separate booklet on this subject reveals.

However it could be argued that national treatment should mean nothing more nor less than the same treatment of foreign investors and investments as "national" (domestic) investors, subject

to exceptions as negotiated. To draw an *a priori* distinction between pre- and post-establishment national treatment (as in the Energy Charter Treaty, for example), sets up a false distinction that undermines the very concept of national treatment. This is evident if one conceives of investment agreements as a means of enhancing market access for investors and investments, which can be facilitated through negotiating national treatment, MFN and other treatment to a greater or lesser degree. Thus admission and establishment may be argued to be redundant as separate issues.

Increasingly, IIAs embody "right of establishment" *a priori* (this is also a characteristic of the OECD's Codes of Liberalisation – see OECD, 2000). This is not to say that, in some or indeed all sectors, differences between pre- and post-establishment treatment of investors or investment cannot be accommodated through negotiated exceptions or other means. However, in terms of market access for investors there is little *conceptual* justification for treating investment in the pre-establishment phase on a non-national treatment basis. Doing so leads one to argue that only established companies (which are by definition domestic companies in most jurisdictions in any case) should receive national treatment, which in turn serves to defeat the purpose of national treatment in the investment domain. In some respects this is implicitly acknowledged in the Pink Series in the way in which issues related to admission and establishment are encompassed in the *Scope and Definition* and particularly *National Treatment* booklets.

Finally, the *Fair and Equitable Treatment* booklet is an important complement to the other booklets dealing with the basic building blocks of IIAs. It features an interesting historical background to related concepts of (minimum) standards of treatment which are of increasing importance to investor-state dispute settlement procedures. Even if investment conditions for both domestic and foreign investors deteriorate, a floor for treatment of foreign investors may be established, which in turn can be important to foreign investors where the legal environment is unpredictable. Thus, minimum standards of treatment represent lowest-common-denominator, or absolute, standards rather than the relative standards embodied in national and MFN treatment provisions.

As noted in Fatouros's introductory volume, one issue that has attracted increasing attention in the negotiation of IIAs is "takings".

There is little doubt that NAFTA investor-State cases under chapter 11 of the Agreement, which unlike some earlier BITs both pre-authorized unilateral legal action by companies and encompassed comprehensive investment rules among developed countries, has affected the debate over investor-State dispute settlement and investment rules in general. These cases, coupled with what one author has characterized as an increasing tendency of United States Supreme Court decisions to put property development rights over the right of society to regulate the use of certain types of land for environmental purposes (even when land owners are compensated) have alarmed some critics, particularly – but not exclusively – from the NGO community (Graham, 1998).

The IIA booklet on the subject, *Taking of Property*, provides excellent further background material on this issue. The heart of the matter concerns the definition of a taking, and the booklet notes at the outset that the traditional debates over nationalization or expropriation are less problematic than more recent debates over what may be termed "indirect" takings, i.e. measures either "tantamount" to nationalization or "having equivalent effect" to nationalization or expropriation. It is these indirect takings that tend to be covered by contemporary BITs, chapter 11 of the NAFTA and other IIAs. What has complicated matters still further are the implications of increasing acceptance of the "Hull standard" for "prompt, adequate and effective" compensation to be awarded to investors in the event of a judgement in their favour in an investment dispute.

As also noted in this booklet, as the NAFTA chapter 11 case by Ethyl Corporation over its gasoline additive MMT unfolded, developed countries indicated that they wanted to tackle what was becoming a thorny political problem, particularly given the potential scope of the expropriation and compensation provisions of the MAI.[7] What disturbed critics was that the standard of treatment for regulatory takings under an MAI could have been even higher than the national treatment standard in the United States implied by recent Supreme Court rulings. OECD ministers were sensitive to this possibility, however, as their last statement on the Agreement reveals:

[7] The "Ethyl case" – which was settled prior to any NAFTA panel ruling – has been subject to much discussion. Official information is the subject of a (Canadian) Internal Trade Secretariat panel report (Canada, 1998a) and an Environment Canada press release (Canada, 1998b).

> Ministers confirm that the MAI must be consistent with the sovereign responsibility of governments to conduct domestic policies. The MAI would establish mutually beneficial international rules which would not inhibit the normal non-discriminatory exercise of regulatory powers by governments and such exercise of regulatory powers would not amount to expropriation (OECD, 1998b).

Unfortunately, negotiations collapsed before this ministerial confirmation could be accommodated in the draft MAI text.[8] It also arguably sidestepped the issue of how to differentiate between "expropriation" and "measures having equivalent effect" as expropriation. Nonetheless, this political declaration should give heart to those who believe that the conundrum raised by provisions relating to expropriation and compensation in contemporary investment treaties vs. the right of sovereign states to "regulate" on a non-discriminatory basis can be further explored in order to find a solution to this question acceptable to all interested parties. Indeed NAFTA countries have already revisited this issue, agreeing in late July 2001 to clarify the potential scope of NAFTA chapter 11 investor-State provisions.[9] This should assist in the process of building the necessary political consensus for comprehensive international investment rules – whether at the regional, plurilateral or multilateral level.

The Pink Series also includes booklets on issues that were not traditionally among those with which the international investment specialist was expected to be familiar. The environment and labour standards issues are the most important of these since disagreement about them, particularly between developed and developing countries, contributed to the failure of the WTO Ministerial Meeting

[8] In his report to ministers of the same year, the MAI Negotiating Group chairperson had underlined the importance of this issue: "Subject to international law and to international agreements to which it has subscribed, every state reserves the right to prescribe the conditions under which all investors operate within its national jurisdiction. The MAI would not inhibit the normal non-discriminatory exercise of regulatory powers by governments and such exercise of regulatory powers would not amount to expropriation" (OECD, 1998c). Interestingly, tax and financial experts had also noted the potential scope of the draft MAI's expropriation provisions, and most agreed that the following statement as an Interpretative Note should be inserted into the draft agreement: "MAI Parties understand that no taxation measures of the Parties effective at the time of signature of the Agreement could be considered as expropriatory or having the equivalent effect of expropriation" (see "Commentary" to OECD, 1998a).

[9] See "U.S., Canada, Mexico Agree to Clarify NAFTA's Investor-State Provision" (also "Text: Free Trade Commission Clarifications Related to NAFTA Chapter 11"), *Inside US Trade*, 3 August, 2001.

in Seattle. Put simply, many trade theorists – as well as developing countries – fear that grafting provisions on environment and particularly employment issues to WTO agreements could serve to buttress protectionist pressures in developed countries. This could in turn lead to restricted access to developed country markets for goods and services from countries that do not – and cannot – maintain the same employment or environmental standards as developed countries. Ensuring that this does not result, while furthering the causes of environmental and labour standards observance, will be difficult.

The examination of the interrelationships between these issues is further advanced in the trade than in the investment domain. In some respects, however, the debates are similar, since concerns about labour and environmental standards may be said to affect aspects of production processes and end-products of tradable goods and services which in a global economy are often produced as a result of FDI. Nonetheless, as the IIA booklets on employment and environment indicate, the perspectives gained from examining these issues through an investment prism lend themselves to a greater appreciation of the linkages among relevant issues, as well as pointing to new considerations – on technology and competitiveness, for example – that need to be taken into account (see also OECD, 1999).

Several approaches have been identified to assist in reconciling positions in these debates, most of which are dealt with in the IIA booklets. The first of these is a two-pronged approach, containing provisions in an investment agreement not to lower environmental or labour standards in order to attract investment, coupled with commitments to enforce (and work to enhance) domestic laws in these areas.[10] A newer version of this approach, which has enjoyed support from the labour community, is to enshrine these commitments in the treaty itself, as has been done in Articles 5 (Environment) and 6 (Labor) of the recent United States/Jordan Free Trade Agreement (USTR, 2000). A third approach is a political commitment to address

[10] This may be termed the NAFTA approach, at least as far as the environment is concerned, whereby Article 1114.2 on "not lowering standards" is coupled with a "side agreement" including institutional mechanisms for follow-up on environmental law enforcement through the North American Agreement on Environmental Cooperation (see NAAEC, 1993). Labour issues are also covered by a side agreement to which signatories pledge domestic enforcement of laws and other regulations in this area, assisted by the North American Agreement for Labour Cooperation (see NAALC, 1993).

these issues with firms directly. One example in this regard is the OECD Guidelines for Multinational Enterprises, which sets out recommendations to enterprises on these and other issues, and couples them with commitments by adhering governments to assist in ensuring that the recommendations are followed. This approach can be complemented by actions in other areas, including the encouragement of the development of private standards (one of the most successful of which is the ISO 14000 set of environmental standards). How – or whether – to integrate this latter "integrative" approach more formally when negotiating investment agreements is only beginning to be explored and merits further consideration (see European Community and Its Member States, 1999; DFID, 2001; OECD, 2001b).

Ultimately, there is nothing to stop these approaches being combined in any number of ways, including permutations of GATT Article XX or GATS Article XIV type General Exceptions in the mix. Again, this will not be an easy task, but will have to be addressed for prospects of comprehensive international investment rules to be enhanced. Of course environment and labour standards are not entirely analogous, as WTO ministers themselves noted in their recommendations about how they could each be examined in their trade context at the WTO Singapore meeting in 1996. This legacy has continuing implications for these debates, as witnessed by reminders of the role of the International Labour Organization (ILO) for labour standards issues, noted by both proponents and detractors of stronger enforcement of labour standards through the trading system, which is in turn also reflected in their treatment in the Pink Series. Thus, it may be noted that the *Environment* booklet is more comprehensive than the *Employment* booklet in its treatment of analytical and institutional aspects of its issue area, although this, too, reflects the fact that international debate in this field – particularly with respect to an exploration of the linkages to trade and investment issues – is arguably further advanced in the environmental than the employment domain.

For further direction in the politically sensitive domain of IIAs as a whole, one might expect to be able to turn to the booklet on *Lessons from the MAI*. However, among other problems this booklet suffers from a lack of historical distance and hence perspective in addressing what nonetheless is an important set of issues for the investment specialist. As noted above, the political controversy over

the MAI continues long after its demise (see fn. 3 above). Nonetheless, unlike many booklets in this series, *Lessons from the MAI* examines its subject matter – soberly, to its credit – in insufficient depth and scope to address comprehensively either the political debate over the Agreement (reviewed very briefly), nor the strengths or shortcomings associated with the provisions of the Agreement itself.

The second section of the booklet, for instance, seeks to narrow the MAI negotiating issues to "outstanding substantive issues". This attempt does not succeed as much as it could, however, not least because it fails to note that all issues in the incomplete Agreement remained outstanding when negotiations were abandoned, but also because the issues that are addressed are dealt with in too cursorily a manner. To take the first of two issues: the "Definition of investment" is fundamentally important to any investment agreement because, in many respects, it determines the scope of the agreement itself. This is implicitly acknowledged in the title to the IIA Series booklet *Scope and Definition*, although even there the explanation of the issue arguably does not do adequate justice to the fundamental importance of the definition of investment (and to exceptions) to the underlying nature and scope of an IIA. In the *Lessons of the MAI* booklet, however, the issue is dealt with in only one paragraph and relies heavily on the MAI negotiating text and accompanying commentary. Not surprisingly, it fails to capture all the nuances associated with the debates over this important provision that has ramifications for continued discussions in many fora. The resolution of how such important issues as whether an investment agreement should cover short-term capital flows, or whether it should otherwise include indirect investment, intellectual property or other assets usually is evident through the definition of investment. These issues remained unresolved during the MAI negotiations, and remain extremely salient to continuing discussions about international investment.

The MAI booklet notes, but does not address in sufficient depth, linkages between the definition of investment and other issues such as investment protection. As the *Transfer of Funds* booklet points out, even if balance of payments and/or other safeguard provisions are not yet a feature of many IIAs, there is growing consensus on the desirability of the principle being included in investment agreements, as it was in the NAFTA and draft MAI. The conceptual relationship between these two issues warrants further exploration, since the broader the definition of investment, the more likely it is that a balance

of payments or other safeguards provision may be necessary. Growing unease about the implications of a very broad definition of investment to include portfolio investment and other short-term capital movements was increasingly evident as the 1990s drew to a close – particularly in the wake of the Asian crisis. Recent re-thinking of what is commonly understood as part of the "Washington Consensus" on the desirability of the liberalization of FDI inflows has already had policy implications for the investment rules – particularly the definition of investment. For instance, the European Commission now considers that an "investment framework [in the WTO] should focus on FDI, leaving aside short-term capital movements (whereas the MAI included all kinds of investment)" (European Commission, 2001b). Further examination of this important issue in this booklet, or indeed in the booklets on *Scope and Definition* or even *Transfer of Funds,* would have been useful.

Similarly, discussion of a second issue (national and MFN treatment, taken together) in the *Lessons of the MAI* booklet is also too brief. It fails to take into account important linkages and implications between the MAI – indeed any investment agreement – and the WTO agreements, in particular as far as MFN is concerned (Wimmer, 1996). While crosswalks between these agreements received some attention during MAI negotiations, it would be safe to say that the implications of "MFN-ing" all MAI provisions, including with respect to dispute settlement, covered by WTO agreements to all WTO members, were not addressed comprehensively by all negotiating parties, and further attention to this matter would have been useful in this booklet.[11]

Nonetheless, *Lessons form the MAI* is an important booklet if only because its inclusion points to the fact that the debate over the MAI had profound implications for the genesis of the IIA series as well as the negotiation of comprehensive investment rules. It also succeeds in identifying several key issues in the negotiating text and commentary over which agreement was less advanced, such as the "REIO" (Regional Economic Integration Organisation, i.e. EU) clause,

[11] Even among OECD signatories to the GATS, only two countries (Canada and Poland) exempted investor-State dispute settlement provisions of their investment agreements in their list of MFN exemptions. In the recent review of MFN exemptions in the GATS Council some WTO members have questioned the need for such exemptions in relation to GATS and similar treaties. This interrelationship between bilateral or regional investment agreements and WTO agreements has not been sufficiently explored.

a cultural exception, incentives, labour and environment issues, regulatory "takings", and dispute settlement. These issues remain to be addressed if there should be any further attempt to negotiate comprehensive international investment rules, some of which could have been added as subjects for investigation in the IIA Series.

In conclusion, while a few minor criticisms may be made of a few booklets in the Pink Series, this should nonetheless not detract from a recognition of the contribution that the Series as a whole makes to the international investment policy debate. The booklets are perhaps a little too varied in quality – most, including those noted in this article – are excellent, others are somewhat limited in their treatment of the issue at hand. This variable quality applies in particular to section III of the booklets on "Interaction with other issues and concepts". Whereas almost all booklets treat their subject more than adequately in the first two sections, this is less true when the linkages between issue areas is explored in the subsequent section. Paradoxically, a section III on linkages can serve to downplay interrelationships between issues, particularly since the Series as a whole is largely on individual topics. Many issues, such as scope and definition, or dispute settlement, could be argued to be related to every other concept to a greater or lesser degree, thereby making the tabular format introducing section III as well as the structured comment that follows unnecessarily constraining for adequately addressing issue linkages. Thus, another booklet could have perhaps explicitly addressed issue linkages, including crosswalks between IIAs and other agreements, including WTO Agreements (in particular GATS, TRIMs and the Agreement on Subsidies and Countervailing Measures), the OECD investment instruments, and indeed BITs in general.[12]

Finally, there remains scope for further additions to these booklets, on issues such as intellectual property, cultural policy or the relationship between international investment policy and international governance. Another subject that could be addressed is the growing contribution of the international business community, the labour movement and non-governmental organizations (NGOs) to the debate over international investment issues, to which governments in both the developed and developing world are increasingly seeking to respond. Finally, as far as the production of the Series as a whole is

[12] For an exploration of how rules on international investment could be further explored through the GATS, see Sauvé and Wilkie, 2000.

concerned, a numbering system would be helpful for reference purposes, and it could be pointed out more explicitly that reading the three "introductory" volumes as addressed above might prove the best way of approaching the Series.

But these are relatively minor quibbles. It is undeniable that the UNCTAD Series on Issues in International Investment Agreements amounts to a significant contribution for those interested in debates about issues related to international investment. This contribution includes providing considerable background information to assist in addressing the ultimate underlying issue of the desirability of a comprehensive multilateral framework for international investment. Conceived of partly in response to MAI negotiations, the Series is a good illustration of the fact that policy makers are sometimes prone to take what one keen observer has described as a "rear-view mirror" approach to international investment policy making (Ostry, 1997). However, this cannot be said to be a criticism of UNCTAD in successfully seeking to elucidate the issues that must be taken into account when contemplating international investment rules in the future. The Pink Series constitutes valuable reference material for the international investment policy maker and researcher, and can be counted on to be so for many years to come. In addition, the sensitivity to the development dimension in these booklets makes them even more relevant and topical in the run-up to Doha and beyond. ■

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REVIEW ARTICLE

The geography of TNC operations

The Geography of Multinational Firms
Pontus Braunerhjelm and Karolina Ekholm, editors
(Boston, Dordrecht and London,
Kluwer Academic Publishers, 1998), 225 pages

Foreign Direct Investment and Corporate Networking: A Framework for Spatial Analysis of Investment Conditions
Robert L.A. Morsink
(Cheltenham and Northampton, MA, Edward Elgar, 1998),
272 pages

Regions, Globalization, and the Knowledge-based Economy
John H. Dunning, editor
(Oxford and New York, Oxford University Press, 2000),
506 pages

Globalisation, Institutions, and Regional Development in Europe
Ash Amin and Nigel Thrift, editors
(Oxford and New York, Oxford University Press 1996),
282 pages

Global Shift: Transforming the World Economy (third edition)
Peter Dicken
(London, Paul Chapman Publishing, 1998), 496 pages

International business and economic geography have been distinct fields of analysis on the organization of economic activity and have, for the most part, evolved separately from each other. But recent developments in both fields have created a cross-fertilization of ideas and an increasing use of common concepts and theoretical frameworks. The books reviewed are notable examples of such approaches in both disciplines.

The examination of the factors affecting the geography of foreign direct investment (FDI) has been central to the interest of international business scholars since the pioneering contributions of Stephen Hymer (1976). John H. Dunning, drawing on the theories of location, has introduced them into an FDI paradigm more

systematically. He has referred to the locational advantages of host countries as one of the three factors constituting the eclectic paradigm, which explains the propensity of firms to engage in cross-border activities and the patterns of FDI. He has also emphasized the role of the locational advantages of home countries in shaping the ownership advantages of transnational corporations (TNCs) (see Dunning, 1993, for a comprehensive review).

Until very recently, this interpretation of the geography of FDI was solely formulated with reference to countries as the units of analysis. The explanations for the locational decisions of TNCs and for the geographical patterns of FDI were based on differences between countries in terms of endowments with natural and man-made resources, the nature of the local labour force and domestic demand, local infrastructure and the local institutional setting. No reference has been made to differences between locations within the same country in their attraction for FDI. This approach was derived from the tradition of the neo-classical trade theory that assumed a full immobility of the factors of productions within countries. This way, there was no reason to worry about the distribution of international economic involvement within countries.

However, there are striking and persisting differences in the economic performance of locations within countries, and strong patterns of concentration of the economic activity in particular industries within countries. This approach was highlighted already by Alfred Marshall (1890) and is still valid. Along with globalization, and despite diminishing transportation and communication costs, there has been a rising clustering of economic activities.

International business scholars have started to acknowledge these patterns of locational concentration and have begun to examine their implications for their models and conceptualizations only recently. As part of this interest, some international business scholars (along with trade theorists and international political economists) have looked at intra-country differences in resource endowments providing the basis for the competitiveness of firms (Porter, 1994; Ohmae, 1995; Enright, 1998) and at agglomeration economies in explaining the intra-country distribution of FDI (Dunning, 1997; Nachum, 2000). Increasingly, attention has turned towards the spatial aspects of value added activities, and these aspects are incorporated into the mainstream thinking about the growth and competitiveness of firms and the economic structure and dynamic comparative advantages of

locations and countries. The books by Pontus Braunerhjelm and Karolina Ekholm, and Robert L.A. Morsink are notable examples of this interest by international economists and international business scholars, respectively.

The volume by Braunerhjelm and Ekholm contains a series of articles written by a number of researchers, the majority of whom are affiliated with the Research Institute of Industrial Economics (IUI) in Stockholm. The questions addressed in this book vary considerably, but all chapters deal with different aspects of the determinants and consequences of the location of foreign affiliates and the geographical dispersion of the activities of TNCs. Attempts are made to examine the role of agglomeration forces in the location of production and research and development abroad. For the most part, the empirical work presented is based on a rich database of Swedish TNCs that has been collected by IUI, covering approximately 90 per cent of the Swedish TNCs in the period 1965 to 1994.

Several of the chapters present evidence on the extent to which host country market size, agglomeration factors and comparative advantages based on differences in relative factor endowments affect the locational patterns of TNC activities. Agglomeration factors seem to affect mainly knowledge-intensive activities, which is possibly an indication of the importance of geographically limited knowledge spillovers.

Morsink's book presents analyses of the geographical patterns of FDI flows by combining elements from the theory of international production and the theory of economic geography. Morsink addresses an old question: why do investments go to one country and not to others, building on methodological developments drawn from economic geography, thus attempting to provide a better understanding of the geographical patterns of FDI. He also incorporates a strategic aspect, by deriving sets of determinants for different FDI patterns and evaluates the corporate strategy behind these flows. Thus he is able to identify some overall corporate strategies prevailing in the various spatial investments. Theoretically, he builds on the three strands of Dunning's eclectic paradigm, combined with three types of a TNC organization of international activity and relationships between affiliates and headquarters (drawing on UNCTAD's work in this area). He analyzes investment flows within the European Union, as well as investments originating from the United States, Japan, Germany and the Netherlands and destined for Western

Europe, South and Southeast Asia and North and South America. He found that the locational advantages of countries have a strong explanatory power for the patterns of FDI. The role of governments in facilitating the development of locational advantages, too, is outlined.

The underlying theme of Dunning's edited volume is the impact of the increasing globalization of economic activity and the advent of the knowledge-based economy on the spatial distribution of economic activity, both between and within countries. As stated by Dunning in the introduction (p. 1), the book "seek[s] to reconcile the paradox of 'slippery space', as demonstrated by the growing transnationalisation of the production of goods and services; and that of 'sticky places' as shown by the increasing tendency for certain kinds of economic activity – and particularly knowledge intensive activities – to be concentrated, or clusters, in limited spatial areas". A main merit of the book is to look at this paradox from the lens of several scholarly disciplines, and to analyze it with different analytical tools. The chapters thus present the perspectives of the economist, the business scholar and the economic geographer on how contemporary economic events are affecting the optimal spatial areas for the economic activities by firms and the role of governments. Some chapters examine the role of regions as units of spatial analysis, in light of the trend towards regional economic integration, and suggest that regional groupings are likely to play a more important role in the locational decisions of TNCs. These chapters also discuss the question of whether regionalization ought to be regarded as an integral part of globalization, or as a substitute for it. Other chapters examine the geographic patterns of business activity in a range of specific contexts, and raise particular aspects of the interface between national and subnational economic issues. Several other chapters describe the actions taken by national and subnational governments to provide the economic environment and institutional infrastructure which is necessary both to attract FDI and to encourage domestic firms to be more competitive in the global marketplace.

While international business scholars have discovered economic geography, economic geographers have become more occupied with global issues, and have acknowledged the role played by TNCs, as the engine of globalization, in affecting the fortune of local economies. Traditionally, economic geographers used to focus on processes taking place in geographically confined localities, where high levels of vertical disintegration and specialization typically tended

to create a local supply of the entire value added chain of the particular products produced at a given locality. Only recently have economic geographers started to acknowledge the growing tension between the global and the local (Dicken, 1994) in affecting the economic fortunes of firms in localized clusters. Ash Amin and Nigel Thrift have emphasized the need to consider local clusters as the outgrowth of a world economy which is rapidly internationalizing, leading to the development of "neo-Marshallian nodes[1] in global networks" (1992, p. 571). A number of economic advantages traditionally attached to localized business clusters have increasingly been realized in interaction with broader spatial configurations, and in particular global networks (Storper, 1997; Scott, 1998).

With specific reference to TNCs, these scholars have considered a number of questions regarding the appropriate geographic area that should be considered. To what extent can local clusters help firms compete internationally for the necessary sources of knowledge? What is the role of TNCs that, by their very nature, are part of the international network, in the dynamics of these localities and how do they affect the local processes taking place there? Firms based in local clusters are often linked into global networks, and the latter come to have a significant impact on their ability to compete successfully in international markets. In particular, TNCs are, by their very nature, part of global networks. The papers in Amin and Thrift and Peter Dicken's book represent this growing interest in globalization forces among economic geographers.

The papers in the volume by Amin and Thrift examine the implications of globalization for local economic prospects, stressing the institutional dimension of current changes. They develop an institutionalized focus on the problem of, and prospects for, European cities and regions in a global political economy, as a way of exploring the interrelationships between globalizing and localizing tendencies. The book draws upon current debates and developments in economics, sociology, management studies, politics and geography that argue that economic life is embedded in social relations and is therefore heavily dependent upon a mix of cognitive, cultural, social, and political institutions. The papers in the book develop a framework

[1] Neo-Marshallian nodes are Marshallian industrial districts characterized by substantial and growing global linkages, in addition to the local ones. The term was coined by Amin and Thrift (1992) and has been used widely in the literature on the current evolution of industrial districts.

for interpreting local economic trajectories and development possibilities within the context of an all-pervasive globalization of economic, political, social and cultural processes.

As part of this investigation, some of the papers examine the changing role TNCs as agents of local economic development. Notably the chapter by Dicken, Anders Forsgren and Mats Malmberg addresses the local embeddedness of TNCs, an issue that has long been central in the debate over the relationship between TNCs and the locations in which they operate. It examines the influence of the local milieu on TNCs behaviour, and in particular the extent to which TNCs affect the localities within which they operate. The paper argues that in the face of intensifying global competition, rapid technological change and changing political pressures at national and supranational levels, TNCs are restructuring their activities in ways that have profound implications for local areas.

Dicken's book is written in a similar vein, examining how globalization affects local communities. The basic argument of the book is that globalization processes are primarily the outcome of the interaction between two major sets of institutions – TNCs and states, set within the context of a volatile technological environment. Through a complex and dynamic set of interactions, these constitute the primary generators of global economic transformation. TNCs, through their geographically extensive operations, and governments, thought their trade, FDI and industrial policies, shape and reshape the global economic map. Examples are drawn from all parts of the world to illustrate this diversity of the globalization processes. Dicken maintains that there is a strong propensity for economic activity to form localized geographical clusters, or agglomerations. The geographical concentration of economic activity is the norm not the exception. What is changing, however, is the scale and complexity of the structures within which such activities are embedded.

These five books represent different approaches to the issue of the geography of FDI. They are written by scholars originating from different academic backgrounds, for the most parts using different methodological tools. The papers in Braunerhjelm's and Ekholm's book are written by economists who are sharing an interest in TNC activities, and whose theoretical starting point is international economic theory. The analysis seeks to provide a basis for policy responses towards TNCs. Much of the empirical analysis carried out in this book rests on theories of TNC activities that are closely related

to the so-called new trade theory and the theory of location. Morsink is strongly rooted in business and management, and seeks to combine the theory of FDI with strategic theory in order to prove that locational patterns are associated with specific TNC strategies. Amin and Thrift and Dicken draw upon a wider range of academic disciplines, including sociology, economics, international business, political science and economic geography, to illustrate that economic activity is socially embedded, often in a geographically tight area. Dunning's volume combines contributions from all these disciplines, drawing on this variety of theoretical bodies.

The books differ also in terms of the unit of analysis. Economic geographers take the geographical entity as their unit of analysis, while economists and business scholars refer to firms, often aggregated across industries and/or countries. From these differences follow different concerns. While (some of) the papers in Amin and Thrift and Dicken's book are primarily concerned with what is happening to regions within the world economy as a result of the activities of TNCs, international economic and business scholars look at what determines the locational decisions of TNCs, and the implications of these decisions for the geography of FDI.

Yet, from their different points of view, these books highlight the importance of location. Morsink and the papers in Braunerhjelm and Ekholm and in Dunning both show the strong explanatory power of the locational advantages of countries and regions for the investment decisions of TNCs. The papers in Amin and Thrift and Dicken's book emphasis the strength of local influences in a rapidly globalizing world. Taken together, these books suggest that geography is an important determinant of the competitiveness of firms and of the emerging patterns of global competition.

Together, these books have made considerable progress in bridging the gap between international business and economic geography, and have pointed at the potential advantages that such bridging may contain. Writing from a point of view of an international business scholar, it appears that the flow of ideas between these disciplines provide fertile grounds for insights and understandings that framework and paradigms of international business alone would have failed to provide. Further progress should be made in this direction. For the most part, the traditional locational advantages are those appearing in the discussions of economists and international business scholars. Insufficient attention is given to agglomeration, and to

resources and processes which are confined to particular regions within countries. This calls for a further integration of economic geography in the theories of international business and economics, to enable one to take a fuller account of intra-country differences in the geography of FDI.■

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BOOK REVIEWS

The End of Globalization

Alan M. Rugman
(London, Random House Business Books, 2000),
xiii + 237 pages

Alan M. Rugman has drawn on his wide knowledge of the behaviour of transnational corporations (TNCs) and the institutional/political environment in which they operate, to advocate allowing TNCs to play a larger role in the global economy. In his view, for TNCs to increase the efficiency of the world economy, governments must achieve a multilateral agreement on [foreign direct] investment (MAI) which guarantees national treatment (no discrimination between domestic and foreign firms). Chapter 5 champions the Organisation for Economic Co-operation and Development (OECD) version of such a MAI while admitting that this has a long way to go before being agreed to.

Additionally, political constraints require that any such agreement have some safeguards for certain industries. That would be, however, in Rugman's view, a second-best outcome. In his assessment of such safeguards, if necessary, he identifies the North American Free Trade Agreement (NAFTA) as the best model available. Explicit recognition of the political necessity for inefficient safeguards aside, the author's underlying philosophy is reminiscent of that of Milton Friedman. Rugman views improvements in allocative efficiency as the single most important dimension of interest: in a world of no discrimination by governments against foreign affiliates and fierce competition among them, an optimum outcome will ensue. Rugman's discussion is based on the implicit presumption that TNCs do not impair the efficiency of the allocation of investment.

The book offers two main arguments. The first is that there are forces – a radical and ill-informed opposition from left-wing forces such as those that generated riots at the meetings of the World Trade Organization (WTO) in December 1999 in Seattle – threatening the further spread of TNCs with the consequent loss of the potential marginal benefits for host countries. This argument relies on inductive analysis based on hypothesized developments about the future

evolution of international institutions: its correctness depends, *inter alia*, on the realization of the perceived scenarios.

This proposition explains the title since Rugman is pessimistic about the ability of the community of nations to liberalize international economic policy further (particularly, to reach agreement on an effective MAI). Here, he notes, on page 39, that the full commitment of the United States would be necessary (but not sufficient) for the success of such negotiations. On page 22, he offers the following gloomy prediction:

> "NGO [non-governmental organizations] activities, the probable withdrawal of the United States from the WTO [World Trade Organization], its lack of commitment to free trade, and the dissolution of the post-war consensus about the virtues of free trade will lead to the end of globalization."

While Rugman is not explicit on the question, it is by no means impossible that the failure of nations to agree on further liberalization could induce retrogression. If the post-war consensus on free trade falls apart and once retrogression starts, a self-reinforcing process could start.

The second argument is that globalization is an incorrect description of the spread of TNCs and the deeper international economic involvement attained in recent years. TNC activities are predominantly centred in formal, politically-negotiated blocs such as NAFTA and the European Union (EU). Within these blocs, they think regionally, not globally. This second argument lends itself to empirical support, and a great deal of data is brought to bear on this point on chapters 7 and 8. The essential point is that the activities of TNCs are located overwhelmingly in the industrialized countries and that, while TNCs may have assets in many parts of the globe, the affiliates of these firms operate and develop strategy in a regional, not in a global, context. Because this second argument can be tested empirically, it is the more forceful.

That TNCs should originate predominantly in the industrialized countries is hardly a surprise and it in no way rebuts the concept of globalization. But given that there is a substantial amount of inter-bloc foreign direct investment (FDI), there must be someone thinking globally somewhere unless all of the inter-bloc FDI is the result of intra-regional reinvested profits of existing foreign affiliates.

The book is avowedly "popular" in the sense that it is written for people who are concerned with the role of TNCs and with the appropriate policy setting in which they operate, and who are not professional (economic) specialists working in the area. However, every economist, even one specializing in international business, is likely to learn much from this volume.

The author has his own personal agenda so that the book is designed to convince the reader of the correctness of the author's policy prescriptions. But if the book is designed to educate members of the left-wing NGOs opposing further integration, i.e. in trade in services and in investment, although its logic may be good, its prose is likely to antagonize. For example, this reviewer has noticed (on page 81) a reference to the environmentally concerned Sierra Club of Canada as left-wing NGO is simply misleading. But, strangely, Rugman's rebuttal of anti-integration NGOs does not develop the potentially beneficial effects of TNCs on the environment and treats the environment as a sector that will have to be safeguarded in attempts to reach a MAI. Sarianna Lundan (1996) shows that the pollution haven hypothesis is, so far, invalid: when pulp and paper TNCs are subjected to environmental standards in countries in which they operate, they tend to raise environmental standards in all of their affiliates to meet the highest set of requirements they face.

Rugman's two arguments cannot be completely separated from each other. The further spread and development of international production by TNCs will reinforce the opposition to further globalization. Deeper and broader economic integration between industrialized, technology-rich countries and relatively poor, labour-rich countries will increase the inequality of income in the industrialized countries and, in direct consequence, heighten the opposition to globalization. Thus, to the extent that globalization involves integration between industrialized and less-affluent developing countries *within* NAFTA or the EU, opposition to their spread will exist within the blocs. The EU has agreed in principle to the admission of several nations, including some transition economies. The nations of the Western Hemisphere have taken an initiative in proposing the formation of a regional economic bloc among themselves. Thirty-six countries met in April 1998 in Santiago de Chile and agreed unanimously to negotiate towards the creation of a Free Trade Area for the Americas (FTAA). The target date for agreement was 2005. In essence, the FTAA will represent a hemisphere-wide expansion of the NAFTA including the countries of Central and South America as well as the many countries of the Caribbean. At present,

this initiative is dormant. With rare prescience, Rugman anticipated the result of the elections in the United States in the year 2000 and identified a shift away from multilateralism that does not bode well for FTAA in the near term.

Because the argument on the legitimacy of the term globalization can, given Rugman's definition, be tested empirically, this review will report on and critique the two arguments in reverse order.

The argument that globalization is an exaggeration of what has taken place in the international economy must depend on the definition. Many sociologists and some economists, including this reviewer (Gray, 1999, chapter 10), would include a cultural dimension, which can be seen as involving national values or nationhood, as a legitimate element of an objective function, Rugman's analysis confines himself to a narrow economic version: "the worldwide production and marketing of goods and services by multinational enterprises" (p. 5). On page 55, globalization is recognized as being generally defined as being "due to the activities of multinational enterprises undertaking foreign direct investment, in which equity control is exercised over the operation of foreign-owned subsidiaries". Future gains in the efficient allocation of resources hinge on competition among TNCs themselves, free of any unnecessary governmental regulation. Rugman views increases in arm's-length trade brought about by the lowering of impediments to trade in goods (transportation costs and trans-border impediments to trade) between countries and blocs as "trivial" in promoting global efficiency (globalization) and sees the need for progress in facilitating trade in services and national treatment of FDI as crucial. The concept of globalization can be rebutted, therefore, by showing (in chapters 7 and 8) that an overwhelming concentration of TNC activity, including both production and international trade, is based in Triad countries and that, within these blocs, TNCs operate regionally not globally. (Of course, few would expect that parent companies of TNCs would not be concentrated in the industrialized countries.)

Oversight by government is not absent. Despite the lack of a global hegemon, there is governance at the regional level within the Triad, and this governance can create administrative protection. The political/economic power of TNCs deriving from their huge size is seen as exaggerated. Using a table comparing GDP of nations and revenues of TNCs, he concludes that TNCs are pygmies in terms of the Triad economies (implicitly suggesting that TNC sales revenues

determine their power with government). This comparison of the size of countries and of firms, like its predecessors, makes a serious error in comparing value-added for nations against revenues for TNCs: the resultant bias weakens rather than strengthens Rugman's conclusion.

Rugman's argument that globalization is a misnomer and that the strength of regional forces is too strong for globalization to be a legitimate description of current behaviour has strong support. The data provided show that intra-regional trade and investment are much greater than extra-regional trade and investment. This outcome is even more marked when Rugman expands the concept of the Triad from the EU, the United States and Japan (the core Triad) to the broad Triad that includes, on the Asian side, for example, Australia, New Zealand, China, Taiwan Province of China, Hong Kong (China), India, Indonesia, Malaysia, Philippines, Singapore, Thailand and others (p. 114). When these countries are included, Asia receives 33.5 per cent of Japan's FDI and 53 per cent of Japan's trade. These data give credence to the regionalism hypothesis although they detract from the formal bloc hypothesis.

For this reviewer, this analysis of the state of trade and FDI patterns is very interesting but it does not refute what this reviewer believes to be an appropriate definition of globalization. If you define globalization as an ever deepening integration among economies possessing a socio-economic infrastructure – a set of Northian institutions allowing markets to function effectively – adequate for modern business practice, it currently excludes a large number of countries from its domain. But if globalization is seen as an ongoing *process*, the fact that some countries have not yet "graduated" to allow their inclusion does not affect the legitimacy of the process itself.

Probably the main concern is whether or not the development of internationally mobile created assets and new management technologies in an era of relatively liberal policy arrangements allows more middle-income countries to be brought into a system of open economies searching for growth and development. One possibility is that many middle-income countries have, in fact, graduated sufficiently to being open economies through *inclusion* in one of the regional blocs. This possibility suggests that regional blocs are very important and their plans for expansion augur well for this version of globalization. The idea that this aspect is advantageous derives from the fact that the per unit gains in the collective incomes of the open

economies (including the industrialized members of the Triad) are likely to be larger when countries with quite different resources and socio-economic infrastructure are joined. The gains will derive not only from greater international trade but also from the transfer of proprietary technology, and the upgrading of host economies' standards of education and socio-economic infrastructure.

Rugman's first argument that globalization and regionalization are destined to lose momentum because of the decreasing support for integrative policies among the major Triad powers seems acceptable. At a minimum, some pause for digestion of what has been accomplished may be needed – more so in the Western Hemisphere than in Europe. Whether this is so serious as to warrant considering the end of globalization is open to dispute. Much depends upon on how the new administration in the United States emphasizes the benefits from FTAA. If it allows neo-isolationism to flourish, it will, paradoxically, be giving credence to the arguments of Ross Perot, whose campaign was instrumental in helping to defeat President George Bush in 1992. This reviewer sees the most severe danger to internationalism deriving from a different source: from the inability of the United States to continue running current account deficits in the range of $300 billion per annum – a rate that will increase the deficit on foreign income (and the current account) by roughly $15 billion per annum (at a 5 per cent carrying cost). Sooner or later, this is likely to bring about a global financial crisis as confidence in the dollar wanes and severe adjustment problems are incurred. That the global economy needs more not less attention is fairly self-evident.

Rugman's emphasis on the benefits of the allocative efficiency of a world in which there is no discrimination between foreign and domestic goods and units of TNCs would generally be accepted. He complains, on page 36, that economists "have no parallel theory of free trade to apply to liberalization of investment" demonstrating optimum allocative efficiency. This may be attributed to the stationary equilibrium condition (with balanced current account), which can be imposed on trade models but not on models which contain ongoing flows of FDI. A formal model of optimum investment would need to include the efficiency of allocation of investible funds under alternative scenarios. In the meantime, in a less formal model, the benefits of international flows of proprietary technology, FDI, and the "education" of developing countries on the importance of the provision of both physical and socio-economic infrastructure would almost surely outweigh any minor inefficiencies in the allocation of investible funds.

Because of concerns with financial stability, the free international movement of liquid portfolio capital could not be included.

One must respect the wealth of institutional knowledge that Rugman has brought to his task. This review has offered some alternative scenarios but these, in no way, detract from his major theme. The disagreements merely indicate aspects of the study, in which Rugman's philosophy may have pushed the arguments further than a less extreme criterion would warrant. ■

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China's Service Sector: A New Battlefield for International Corporations

Yadong Luo
(Copenhagen, Copenhagen Business School Press, 2001),
315 pages

This is a fascinating book for anyone interested in the role of services in the new global, information-driven economy, the contribution of global trade in services to the economic growth and development of nations, and the economic, legal and institutional transformation of China. The author, Yadong Luo, brings an insider's view to the liberalization of the services sector in China, having served previously as a member of the Chinese negotiating team during the early phases of the negotiations on accession to the World Trade Organization. He also brings to the task the qualities of an astute observer of the commercial world, and the incisive analysis of a scholar working at the University of Miami.

In the preface the author makes explicit that the book was written for international executives and business students interested in emerging markets. He sells himself short. This book is equally valuable to officials and students interested in the role of services in the modern economy and both the opportunities and challenges facing international negotiations on trade in services. Moreover, anyone who pretends to know anything about the evolution of the Chinese economy and society should read this book for the insights it provides into the Chinese policy making process and the dynamics of change in China today.

Luo is a wonderful storyteller, which makes this a highly readable book. He intersperses his analysis of the key services sectors in the Chinese economy with case histories, describing the experiences of a key international services company in establishing and building its business in China and, in turn, the benefits the company brought to the development of the industry in China. Every negotiator, trade official and regulator involved in either international negations on the liberalization of trade in services or purely domestic efforts to reform domestic regulations in services should read this book for the insights it provides into both the challenges and opportunities of opening services markets to greater domestic and international competition. Any stakeholders in such efforts with the necessary imagination should be able to use the insights provided by this timely book to fashion new creative solutions to the international trade

liberalization and domestic regulatory reform challenges facing them.

Following the paradigm of the new global information-based economy, the author builds his analysis of the Chinese information economy in a logical fashion. After an introductory chapter on the importance of the services sector to China's economy and the market opportunities it provides to global corporations, the book moves to chapters on Internet services, e-commerce and telecommunications, industries that provide the backbone of an information-based economy. The book then moves to chapters on banking and financial services, insurance, advertising and accounting – all industries that largely involve the processing and dissemination of information, and depend heavily on the telecommunications backbone. The book concludes with chapters on retailing and tourism and hotels, services that can gain significant improvements in productivity from advances in information processing and telecommunications.

Luo makes a convincing case for the reform and liberalization of regulations that hinder the development of the key information-based services industries by limiting competition and the transfer of know how and technology by the most competitive global firms. As he observes in the first chapter "As China draws nearer to accession to the World Trade Organization, it is the services sector that will determine China's role in the global economy…China will not become an economic giant until it opens its services sector and increases foreign trade and investment in services." The book clearly describes the innovative services and technologies that transnational corporations in services have brought to the Chinese market, and the impact they have had in increasing the productivity of local enterprises.

While the author champions the liberalization of services in China, he also provides a realistic assessment of the adjustment costs and the challenges posed by reforming the large and pervasive Chinese bureaucracy. He nevertheless shows how the progress that has already been made towards the liberalization and reform of regulations has yielded economic gains for the country and commercial gains for foreign companies that have had the foresight, patience and persistence to build their operations in China on a step-by-step basis.

For each chapter covered in the book, the author provides essential background on the industry, a history of government policies, an analysis of the structure of the market and a penetrating analysis of the opportunities and threats facing new investors. This is followed by a case study focused on a foreign company that has played a seminal role in the industry.

This assessment of the potential contribution of the book to the policy-making world should not in any way diminish the value of the book to international executives and business students, the principal audience targeted by the book. The book clearly explains what potential investors in the Chinese services can expect in terms of both challenges and opportunities. The book explains the facts of life of working in the Chinese environment, what it takes to succeed in the face of Chinese reality, and the strategies companies can adopt to increase their chances of success despite the all the handicaps. Moreover, as the book makes clear, China is a very large and diverse country, with considerable differences in attitudes among officials and the public towards reform and acceptance of outsiders.

At the same time, the book sets out the tremendous opportunities provided by the large size, vitality and rapid growth of the Chinese economy, particularly in light of the further liberalization that will follow from China's accession to the World Trade Organization. While the negotiation of the terms of Chinese accession have not been completed, enough details about the various bilateral agreements were publicly available at the time the book was written so that interested investors can get a fairly good picture what they will be able to do once the negotiations are concluded and the agreements are implemented.

With a population of over one billion people, China accounts for a significant portion of the human family. Reforms of government policy are stripping away the constraints that have hindered the natural economic dynamism of the Chinese people. The world has marvelled for some time what Chinese entrepreneurship was able to accomplish in Hong Kong, China and Singapore. Anyone who has travelled to China in recent years has had the opportunity to observe the same dynamism now at work throughout China. The future of that economy is of utmost importance to the global community, and should be of interest to anyone following global business and trade. Luo's timely book strips away some of the mystery of what is happening behind the great wall of China. ■

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The Nature of the Transnational Firm (second edition)

Christos N. Pitelis and Roger Sudgen, editors
(London and New York, Routledge, 2000), 224 pages

This is the second edition of a deservedly successful volume, first published in 1991. The success of the latter was reflected in the fact that although it "was not meant to be a textbook *per se* ... it gradually acquired such a role" (p. 1). It is not a textbook, but was used as such because of the absence of suitable material for students on its theme, which is that of the economic theory of the transnational corporation (TNC). The contributors of the second edition are very similar to those of its predecessor, all well-known figures in the field of the economics of the TNC. The only addition is a chapter by James Peoples and Roger Sugden on "Divide and rule by transnational corporations", replacing Sugden's "The importance of distributional considerations" in the 1991 volume.

Except for the Peoples and Sugden chapter and that by Neil Kay, the contents too are broadly similar, albeit mostly updated. In their introduction, Christos N. Pitelis and Sugden highlight some of the developments in theory that have occurred since 1991 and that are reflected in the chapters. Two developments, in particular, are referred to by the editors. The first concerns the resurrection of Edith T. Penrose's (1959) ideas in the literature on the theory of the firm. While this influenced writings on resource-, competence- and knowledge-based theories of the firm, there was little application in the TNC literature until Bruce M. Kogut and Udo Zander (1993). One of the editors' objectives was to remedy this deficiency in the new edition. It was done by inviting Kay to develop an explicitly Penrose-based theory of the TNC, extending his existing work on the resource-based approach to the TNC. The second was to incorporate the increasingly important issue of inter-firm relations, deriving in part from Penrose but more particularly George Richardson (1960). In this volume, some aspects of inter-firm relations (principally equity and non-equity joint ventures) are considered from a transaction-cost perspective by Jean-François Hennart; disappointingly, there is rather little on the subject by John H. Dunning, except a short, new section at the end of his chapter on "Extending the eclectic paradigm to embrace non-equity alliances". Dunning, of course, has written extensively on what he terms "alliance capitalism" (see, for instance, Dunning, 1997). Reading the editors' introduction to the book, when they rightly highlight important aspects of inter-firm relations such as

clusters, networks and webs, more could have expected on these topics in the volume as a whole.

Chapter 2, "A survey of theories of international production" by John Cantwell, is the longest chapter (at 47 pages in length, it shares that position with Hennart's contribution). It was one of the best chapters in the first edition, and the one that could be always referred to new researchers seeking to find a path through the maze of theoretical contributions. It still provides a clear and thorough exposition of the various conventional theories, their antecedents and the relationships among them. The observation about seeking "to avoid fruitless confrontation between alternative theories that set out spuriously to encompass one another" (p.10) is still valid. The survey includes the market power approach (Stephen Hymer, Charles Kindleberger et al); internalization (Peter J. Buckley and Mark Casson onwards); the eclectic paradigm (Dunning); competitive international industry approaches (Raymond Vernon, Edward M. Graham, Cantwell etc); and macroeconomic developmental approaches (Vernon, Kiyoshi Kojima, Terutomo Ozawa and others). A good number of additional references have been added compared to the 1991 edition, thus assisting researchers; however, it was disappointing that the content remained much as it was then.

Chapter 3 is an excellent contribution by Mohammed Yamin on "A critical re-evaluation of Hymer's contribution to the theory of the transnational corporation". There is an interesting new introduction to the chapter which positions Hymer's contribution clearly, and additional arguments are presented (in that sense, it may be desirable to read both the 1991 and the 2000 chapters by Yamin). In particular a new section on "Explaining the boundaries of the firm: organisational replication versus control" usefully discusses Hymer within the context of the work of David J. Teece, Richard R. Nelson and Sidney J. Winter, and Kogut and Zander.

Hennart has included quite a lot of new material in chapter 4 ("Transaction costs theory and the multinational enterprise"). The sections on "The benefits and costs of hierarchy" and "Why firms use both price and hierarchy" are helpful, as is the extended discussion of "Why do multinational firms expand abroad?". Generally there is plenty of solid material here, despite the comment in paragraph 2 above.

Chapter 5 contains Dunning's contribution on "The eclectic paradigm of international production: a personal perspective". It

provides a concise review of the eclectic paradigm for anyone unfamiliar with Dunning's ideas, including sections on the paradigm's origins, criticisms and extensions. Only the latter, relating to non-equity alliances, is new.

As indicated above, Kay's chapter (chapter 6 on "The resource-based approach to multinational enterprise") is basically new. There is a good, extended section on "Penrose, the resource-based approach, and multinational enterprise". This forms the basis for the remainder of the chapter, which sets out to develop a resource-based approach to the development of the TNC. What is particularly interesting and worthy of further development is the use of this approach to analyze the alternative directions that TNCs may pursue, both domestic and foreign. Pitelis rightly identifies this as a gap in the literature in his concluding chapter (p. 198).

Graham's short chapter 7 on "Strategic management and transnational firm behaviour: a formal approach" is concerned with oligopolistic interaction theory. Covering an important topic, which is attracting more attention from scholars, the chapter is little changed from its 1991 version. It would have been good if Graham had, for example, even extended and updated his final section on "Can any of this be applied to the real world?".

Chapter 8 by Peoples and Sugden does not sit comfortably in the volume. It is primarily empirical and takes a different and more critical approach than most other chapters. The essential argument being tested is that by producing in various countries TNCs may "divide and rule" their workforces, thereby reducing the bargaining power of the latter and lowering labour costs. It is something of an outlier. However, despite such misgivings, in the final chapter 9, Pitelis ("The TNC: An all-weather company") skilfully provides some necessary integration via a discussion on the economic impact of TNCs. Internalization theorists emphasize the internalization of market imperfections and reduced transaction costs. However, the internalization of monopolistic advantages (as reflected in the Hymer-Kindleberger-Richard E. Caves tradition) may reduce competition and lead to Pareto inefficiency. Similarly Peoples' and Sugden's work suggests that TNCs derive distributional gains from labour and implies Pareto inefficiency. In this final chapter, Pitelis attempts to introduce a demand-side perspective into the volume, as part of his thoughts concerning the "all-weather company". He suggests that demand-side considerations (inadequate demand and profitability pressures at home) can be an additional reason for outward investment. Again this reflects the editors' underlying critical perspective on the TNC.

Overall, this volume deserves to sell well, like its predecessor; and it is thoroughly recommended, especially to those who missed the 1991 edition. It is to be observed, however, that, while this volume is still fresh, it fails to really capture a number of the new, exciting developments taking place in international business. Think of the Special Issue of the *Journal of International Business Studies* (JIBS) (vol. 29, no. 1, 1998) devoted to "Multinational enterprise and economic analysis". A combination of some of the chapters in this volume and some of the *JIBS* articles (particularly the papers by Buckley and Casson, Dunning on "Location and the multinational enterprise", Sylvia Ostry and Louis T. Wells, Jr.) could produce an excellent reader. ■

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Foreign Direct Investment in Transitional Economies: A Case Study of China and Poland

Michael Du Pont
(Houndsmills, Macmillan and New York, St. Martin's Press, 2000), 324 pages

Economies in transition both in Central and Eastern Europe and in East Asia have witnessed a significant increase in foreign direct investment (FDI) in the past decade. The scale of this investment and its character begin to play an important role in their economic development. FDI inflows also affect the particular elements of the systemic transformation process, especially in countries that have chosen a fast path towards a market economy. In today's world economy, economies in transition encounter strong competition from other countries in attracting FDI characterized by unilateral liberalization, bilateral investment agreements and regional initiatives. In this context, an enquiry into the trends, patterns and determinants of FDI in the light of the recent changes in the investment climate of China and Poland, the subject of the book, is very interesting.

Selecting the above countries, the author is aware of the differences between them and subjects them to a thorough and in-depth analysis. At the same time, the author looks for a common denominator to the analysis of these countries' experiences resulting from the inflow of FDI, which is a real challenge.

The book consists of nine chapters. The first part of the book (chapters 1 and 2) is an introduction to a further analysis. The author surveys FDI theories and the empirical evidence related to them. He raises important questions concerning the ability of the traditional FDI theories to explain new phenomena, especially in developing countries and in economies in transition. One has to agree with the author that globalization, the development of information technology and the international division of labour affect the trends in, and patterns of, FDI in the above mentioned countries. However, the conclusions that generalizations based on traditional theories can be misleading, particularly for newly emerging economies in transition, seem to be going too far.

The second part of the book (chapters 3, 4 and 5) analyzes the systemic reforms in China and Poland in a historical perspective. This part assesses changes in the two countries' FDI policies, as well

as their FDI trends and patterns. The author conducts conscientious analysis of economic developments and policies. This part of the book can be recommended to all those who look for in-depth information on that topic.

The next part of the book (chapters 6, 7 and 8) is more empirical in nature. It presents the results of the author's own firm-level survey conducted through interviews with management personnel of foreign affiliates located in China and in Poland. This survey focused on four industries: agriculture, food processing, car manufacturing, and paper and pulp. Investors evaluated the following factors motivating FDI: market, resources, labour, cost efficiency, strategic position, know how, geographical location and investment climate. In the last case, the key issues were categorized into four groups: government regulations, taxation, capital markets and political and macroeconomic factors. This survey was completed with an analysis of information coming from international financial institutions and governmental institutions. On the basis of this information, the author has attempted to identify the main factors determining FDI in economies in transition as well as the existing constraints.

The results of this research, bearing in mind the limitations of the study (which the author himself admits) are interesting and essentially in line with the findings of previous literature. The survey of China showed that market considerations were the most important factor inducing foreign firms to invest in that country. The list of additional factors includes labour costs, government incentives and stable policies and supply of raw materials. In the case of Poland, cost factors were the single most important determinants, followed by market factors, labour factors and the investment climate. A previous survey on the motivation of foreign investors in Poland, as compared with Hungary and France, drew similar couclusions (Witkowska and Wysokinska, 1997). In that survey, foreign investors additionally pointed to the prospects of economic development as a factor encouraging them to invest in Poland.

The examination of the factors motivating foreign investors and the barriers to FDI in the countries under analysis was supplemented with information on the performance of foreign investment projects. The author conducted an analysis of the profitability, plans and strategies of the firms, their technology transfer, their exports and the size and character of employment created by them. It complements well the macroeconomic analysis of the preceding parts of the book.

Do the results of this research prove the thesis put forward at the beginning of the book, that is, conventional theories of FDI can not explain FDI in developing countries or economies in transition? However conscientiously the two case studies have been conducted, they do not yet allow us to reject the traditional theories of FDI and even less to build a new theory. But this evaluation does not diminish the cognitive value of the book. Each verification of the FDI theory against the case of a specific country, especially if it is undergoing systemic transformation, allows us to perceive new aspects of the FDI phenomenon. The author's enormous research effort should thus be properly appreciated.

One should agree with the author that the phenomenon of FDI in economies in transition requires further research. Beside the fields indicated by the author, one could also recommend to analyze the impact of the enlargement of the European Union on investment decisions in the candidate countries. ■

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Reference

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Business Restructuring in Asia: Cross-Border M&As in the Crisis Period

James Zhan and Terutomo Ozawa
(Copenhagen, Copenhagen Business School Press, 2000),
112 pages

This well-focused and clearly written book concentrates upon the impact of the Asian crisis on the five most seriously affected countries – Indonesia, the Republic of Korea, Malaysia, the Philippines and Thailand. It is organized into five sections. In addition to an introduction and a conclusion, it features sections on cross-border merger and acquisition (M&A) trends, their impact and their policy implications.

The authors begin the book by highlighting the limited role of cross-border M&As in Asia prior to the crisis of 1997. They also reveal that FDI generally fell in the region after the crisis, but the value of cross-border M&As rose. The statistics below, extracted from the book, confirm a dramatic increase in the importance of cross-border M&As in these five economies:

- The value of cross-border M&As rose from just $2.6 billion in 1996 to $15 billion in 1999.
- The share of the five most affected economies in the region's cross-border M&As increased from 26 per cent in 1996 to 70 per cent in 1998.
- In 1996, cross-border M&As accounted for a mere 20 per cent of inward investment flows in those countries, while in 1999 they accounted for over 80 per cent.

The nature of the Asian crisis varied significantly across the five economies. In Indonesia it was much more than a financial crisis. It was a political crisis that saw the demise of President Suharto, accompanied by a social crisis. This deteriorating business environment resulted in net divestment of FDI. Still, cross-border M&As reached record levels in 1999, although these were only slightly higher than those achieved in 1996, the last year before the crisis.

The Republic of Korea witnessed by far the most dramatic increase in cross-border M&As. In 1996, fewer than 200 such deals took place. In 1999, the number had swelled to more than 9,000.

The most active acquirers were TNCs based in western developed economies. Significantly, TNCs in other Asian economies (with the exception of China and Hong Kong, China) did not take advantage of the opportunity to acquire assets in these five economies. Sectorally, cross-border M&A activity was most pronounced in services, accounting for almost half of all activity, followed by electrical and electronics industry; food and beverages; and automobiles.

The time frame of the study is narrow (i.e. mid-1997 to mid 1999), and the authors readily concede that "it is difficult to assess the impact of CBM&As at this time" (p. 13). Nevertheless, this is a very succinct overview, and the authors certainly meet their objective of setting "the stage for the future research on the long-term implications of M&As in crisis-affected and other developing economies" (p. 13) .

In assessing the impact of cross-border M&As, the authors consider the time horizon; realistic counterfactuals; the motivations of foreign investors; and the development strategies and degree of openness of the host economies. They argue convincingly that the roots of the crisis can be traced to some of the very factors that spawned the "East Asian miracle".

Similarly, they highlight that in the absence of cross-border M&As, the target companies often faced bankruptcy. Therefore, the recent surge in cross-border M&As is in many cases providing a solution to problems arising in the host country environment. This is particularly true of the Republic of Korea where the Government for many years had been concerned at the extent of *chaebol* (i.e. large conglomerate) domination of all sectors of the economy, and their reluctance to concentrate on a small number of core businesses. Policy initiatives prior to the crisis had had little impact in solving the problems associated with the *chaebols*. In this context, the crisis created an opportunity for policy makers to carry out the necessary reforms. In this chapter, the authors look at examples of cross-border M&As in the Republic of Korea by several European TNCs. The post-acquisition integration process has been highly favourable to the host economy, as manufacturing operations have been transferred to the Republic of Korea.

Based on the limited evidence available, there are indications that cross-border M&As have had a positive impact on the host country economies in terms of technology, employment, exports, productivity and tax base. This reflects the fact that acquirers have in the main

been *strategic investors*, rather than *financial* or *speculative investors. Strategic investors* are concluding cross-border M&As in order to achieve or enhance their competitive position in the national and/or regional market. At the same time they appreciate the potential to integrate the acquired entities into their global strategy.

From a policy perspective, the authors conclude that cross-border M&As represent an opportunity to foster local competitiveness and to accelerate recovery from the crisis. They note the opportunities for indigenous small and medium-sized enterprises to establish business relationships with global companies that, for the first time, have significant presence in those host country economy. They also warn of the need to have an effective competition policy in order to avoid abuses of market concentration.

In summary, this book provides an excellent summary of a major trend in international business. The authors highlight the policy options for host economies and provide thoughtful recommendations. Their work is likely to stimulate many doctoral students to address this issue in years to come. Academics will admire the economical and skilful analysis and find here valuable material for MBA classes in international business and public policy. More importantly, policy-makers will welcome this considered overview of new challenges facing many emerging economies.■

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Multinationals, Technology and National Competitiveness

Marina Papanastassiou and Robert Pearce
(Cheltenham and Northampton, MA: Edward Elgar, 1999),
288 pages

The statistical basis of this book is two surveys carried out under the auspices of the Economic and Social Research Council of the United Kingdom. The first consisted of replies to a questionnaire sent to all manufacturing foreign affiliates of transnational corporations (TNCs) in the United Kingdom, with enquiries about the affiliate's age, means of establishment, size, market orientation (i.e. the degree to which it is part of the TNC's European strategy), technologies used and the affiliate's strategic status. From the 812 questionnaires sent out in 1993-1994, 190 satisfactory replies were recovered. The second survey consisted of a questionnaire sent to the research-and-development (R&D) centres of foreign TNCs in the United Kingdom, both those that stood alone and those attached to a producing unit. This enquired about the R&D centres' contribution to production and pre-competitive research. From the 180 questionnaires sent out, 48 satisfactory replies were obtained (p. 14). Unfortunately, none of these questionnaires is annexed to the book.

One of the most interesting aspects of the samples is the age profile of the laboratories: 29.8 per cent were established before 1965, 25.5 per cent between 1966-1985 and 44.7 per cent in 1986 and after. All the United States laboratories and most of the Japanese and European ones were created anew. Acquisitions of existing R&D facilities accounted for 8.2 per cent of the cases and as part of a merger another 8.2 per cent (pp. 134-135); 17.4 per cent of laboratories employed fewer than 10 scientists; 36.2 per cent of respondents said that all their scientists had been recruited in the United Kingdom, most by noticeably United States-owned and pharmaceutical firms; 25.3 per cent had less than 80 per cent local personnel (p. 138); the greatest diversification was for Japanese and electronic facilities.

The empirical results are often presented in the form of frequency tables and are used for theoretical conclusions. On the basis of their own hypotheses and a cross-sectional analysis, the authors attempt to construct a superstructure to explain present and evolutionary relationships. Unfortunately they do not compare their

model against other empirical data on R&D between countries and industries provided by the OECD and the Government of the United Kingdom, or analyses made by economic geographers. Also, they need to differentiate more between industries. Without a strong differentiation between food, automobile, aerospace, pharmaceutical and chemical industries, the conclusions drawn are too general. The same applies to the treatment of policy influences. The authors generally refer to the impact of trade liberalization but do not analyze the impact of trade restrictions. In the early 1990s, the European Union applied quota limits on the imports of Japanese cars and anti-dumping duties on colour television, audio tapes, video cassettes, floppy discs, photocopiers and microwave ovens, all of which encouraged the inward investment of Japanese companies. (Under the Uruguay Round, however, the quota have gone and the anti-dumping duties are being reduced.)

The authors ignore the rapid changes in the TNC's economic environment. They seem to think of TNCs as making decisions about what and how to produce in relatively stable circumstances, whereas at present the dynamics of the world economy appears to be led by rapid technological changes. New products and process technology may be developed in the laboratories of a TNC, but they may not be the most appropriate for the host firm. As a result, firms react either by splitting up into specialist units, or by mergers and acquisitions to gain access to new technology or extended markets. Design is frequently farmed out to specialist firms. The profitability and even survival of a firm depends on it adopting the technology with the greatest potential. Furthermore firms appear to be relinquishing their personal control of component production and, at least in the automobile industry, encouraging the component manufacturers to take on design and research activities. Indeed, there are plans for establishing Internet markets for supply components in the automobile and steel industry.

TNCs are still a decision making unit, but its response to technology change may not only be to alter the location of production but often to change its specialization, for instance, to move from manufacturing to the provision of services. A cross-sectional analysis of R&D facilities should therefore be supplemented by an empirical analysis of the subsequent changes in the structure of the industry. Researchers are then left with the eternal problem of whether to look at a situation backwards (i.e. the present structure is compared with a previous distribution of R&D activities), or forwards (i.e. compared

with what will happen next). The latter would appear more fruitful because there are instances of the actual disappearance of industries as a result of lack of R&D.[1] ■

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[1] For instance the United States textiles machinery industry.

A Yen for Real Estate. Japanese Real Estate Investment Abroad: from Boom to Bust

Roger Simon Farrell
(Cheltenham and Northampton, MA, Edward Elgar, 2000),
288 pages

In this book with a rather sensational title, Roger Simon Farrell provides a sombre analysis of one of the most conspicuous yet transient economic phenomena of the 1980s – the surge and collapse of Japanese foreign investment in real estate. Farrell dissected this phenomenon with precision, in a highly scholastic and meticulous manner, supported by a lucid writing, a clear construction of arguments and a wealth of episodic examples.

There is no doubt about the scholastic quality of the study contained in this book. The motivation of the study and the importance of the subject are also clear. As Farrell puts it at the outset: "Japan became the world's largest creditor during the 1980s and real estate emerged as the largest single component of Japanese foreign direct investment" (p. 1), yet "[s]urprisingly, there has been little detailed analysis of [its] trend" and "little information is available on the nature, organizational structure and motivation of this form of investment" (p. 1). Indeed, detailed analyses and information on the nature, pattern, organizational structure and motivation of investment are what readers will get from this book.

Readers could be frustrated, however, if they were looking for a more general account of Japanese foreign investment in real estate of this era – as the title might have enticed them – with a hope to understand the phenomenon as whole, beyond individual firms' motivation behind the investment. This is due to the approach Farrell took. He determinedly tried to explain the phenomenon within a strict framework of theoretical models of foreign direct investment (FDI), although the phenomenon itself may not be apt for such an approach.

The theoretical models of FDI are largely based on the theories of industrial organization, and characteristically look for the type and determinants of FDI from that perspective, investigating what the motivation of individual firms would have been in making investment decisions and predicting investment behaviour based on its type. The

Japanese foreign investment boom in the 1980s and early 1990s, however, was inextricably linked to the domestic asset price bubble of that era, which was led by that of land price. A large part of the FDI in question was a spillover from this domestic economic stew, with little rational and strategic motivation behind it if viewed as an independent investment behaviour.[1] Instead of purchasing Rockefeller Center in New York, for example, Mitsubishi Estate could have bought a medieval chateau in France or a masterpiece of Rubens (which other investors did). It was a phenomenon that was more macroeconomic than microeconomic, financial than industrial, and speculative than strategic. This was in fact confirmed by Farrell's studies in this book. If one wishes to understand the phenomenon, therefore, he must start from the examination of what was happening in the Japanese economy at large during the period. Only then, he could put this phenomenon in perspective, and understand precisely how and why these firms started to invest in foreign real estate in such an excessive and inefficient manner. The theoretical models of FDI adopted by Farrell, on the other hand, treat this part of the story essentially as an external factor. After reading this book, hence, readers will certainly gain a great amount of knowledge on the subject but may not feel having understood it in its totality. It is a feeling as if listening to a lecture on an anatomy of a tail but without knowing what animal it belongs to.

To be fair, Farrell does talk about financial factors, touching upon this aspect in various chapters and, later on, devoting one chapter specifically to analyze financial motivation of investment. His analyses are convincing, and they are supported by rich and interesting episodic examples. Yet, it is disappointing to read his overall conclusion from these analyses that, indeed, financial factors were primarily responsible for the boom and bust of Japanese foreign investment in real estate. This should be, for many readers, going thorough quite some length to show what is obvious, at least in retrospect. Such a predication could have been of a great value if said in the midst of the phenomenon – as a warning towards the overvaluation of properties and the stupidities of these investments. However, with all dusts settled, it does seem a bit stale.

[1] Granted that some non-negligible portion of Japanese real estate investment abroad was based on a strategic motive. However, such an investment should then be a subject of a more long-term sectoral study, for example on the expansion of Japanese tourism abroad and related service industries (e.g. hotel chains, resort development), and not in the context of a study on the "boom and bust" of real estate FDI of this era.

In the first two chapters of this book, Farrell introduces the subject and sets out the approach and theoretical framework. In doing so, he provides an excellent summary of FDI theories with a good literature review, which could serve as an introductory textbook material by itself. The obvious downside is that it might test the patience of some readers who are eager to plunge into the subject – the Japanese real estate boom and bust of the late 1980s to 1990s. After laying out the pattern and organizational structure of the said investment in the subsequent two chapters, he plunges into the core subject of this book, the motivation behind the investment. The first two chapters of this part (chapters 5 and 6) are particularly rich in case studies, providing useful information and insights to readers. For example, one learns that the difference in valuation methodology of real estate was one of the major causes of over-investment by Japanese firms. The next chapter is the aforementioned analysis on financial motivation of investment. This chapter, which sets out the very nature of the Japanese investment boom and bust in question, could have been a good starting point of the whole discussion, had Farrell not chosen to stick to the theoretical framework he adopted. The subsequent two chapters (chapters 8 and 9) examine, respectively, the locational and regulatory motivations. These chapters confirm certain conventional wisdom on how investment behaviour is affected by locational and regulatory factors, and would be of great interest to particular readers. The final chapter provides the author's conclusions.

In his concluding remarks, Farrell cites the relative lack of studies on real estate FDI in general, and ascribes this to the paucity of data and the relative unimportance of this form of FDI in the past. But a more important factor is the particular nature of real estate investment that might have made it difficult to justify a study of real estate FDI as such. First, there are real estate investments seeking location-specific factor advantage, such as a resort development in a location attractive to tourists. Secondly, there are investments in which the acquisition of real estate was not the primary objective, such as a purchase of land to build a car factory or of an office space to support the foreign operations of a firm. These types of investment could probably be better analyzed in the context of the industry in question (e.g. tourism or automobile industry) rather than linked and discussed together with other types of real estate investment. Thirdly, there could be foreign real estate investment that seeks to service local market, such as residential apartment or office buildings that primarily aim to service the local population and business. With this type of investment, investors consider the produce of real estate (e.g. rent or sales revenues) as the main objective of investment and, thereby, it is

most fit to be analyzed in the context of conventional FDI theories. However, compared to other sectors, this type of investment does not appear significant in its volume. Finally, there are real estate investments made primarily on a speculative motive, as observed in Japanese FDI addressed in this book. Thus, each type of real estate investment has to be analyzed separately for a researcher to produce proper analysis and meaningful policy implications. A major contribution of the book could be that it has provided some theoretical and empirical underpinnings to this diversity and to the future direction of studies on real estate FDI. Ironically, this future direction would not follow the theoretical framework that Farrell established in this book.

To conclude, this book certainly makes a significant contribution to our understanding of Japanese foreign investment in real estate in the 1980s and early 1990s. It is an indispensable source of information and insights for diligent students of the subject. It is a pity to see Farrell taking an overall theoretical approach that was not totally convincing in its choice and arrived at an overall conclusion that was not particularly exciting, as readers who expected the book to provide something that was particular to Japanese real estate FDI of this era, especially the "boom and bust" part, or a fresh look at the phenomenon after a decade could be disappointed. ■

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JUST PUBLISHED

World Investment Report 2001: Promoting Linkages

(Sales No. E.01.II.D.12) ($49)

The *World Investment Report 2001* is the eleventh volume of the leading publication on global trends and developments relating to foreign direct investment (FDI) and transnational corporations (TNCs). The report analyzes the geography of FDI, patterns and shifts in the locational distribution of FDI, at the national, regional and international levels. *WIR 2001*'s special topic is linkages between foreign affiliates and local companies in developing countries as a means to enhance the competitiveness of the enterprise sector. Backward linkages, i.e. long-term business relationships between foreign affiliates and local suppliers, can be of mutual benefit for both partners. *WIR 2001* identifies best practices in the area of linkage formation, drawing on country experiences, analyzes the focus on general patterns of linkages between foreign affiliates and local firms, how they have worked, what obstacles were encountered and, in particular, what policy measures, if any, could help to strengthen them or create new ones. In 2001 again *WIR* presents the list of the largest TNCs of the world, of developing countries and of Central Europe. As in the past years, the *Report* offers useful empirical information and policy analysis for decision-makers in government and business and to researchers. Additional information is available at http://www.unctad.org/wir/.

World Investment Report 2001: Promoting Linkages: Overview

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Environment

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Environmental protection and related matters have, to date, been rarely mentioned in international investment agreements. This may not be surprising, because the latter might not be considered as the primary instruments with which to address environmental matters. Yet, linkages between environmental concerns and international investment rules do exist, including where there is intent to ensure that investment rules do not frustrate host countries' efforts to protect the environment. Moreover, international investment agreements can provide for a framework to encourage the transfer of clean technology and environmentally sound management practices to host countries, which could contribute to development objectives. A number of options exist with respect to the way in which environmental matters could be dealt with in international investment agreements. Firstly, parties could choose not to address environmental protection issues in them, leaving them to other international legal instruments. Secondly, an international investment agreement may include general, hortatory provisions that stress the importance of environmental preservation. Thirdly, specific clauses that affirm or preserve the regulatory powers of host countries with respect to environmental protection could be included in them. Equally, they might contain carve-put clauses for environmental measures. Fourthly, parties could address environmental protection through provisions that oblige them not to lower standards in order to attract FDI. Finally, international investment agreements could include mandatory legal duties, addressed to actors in FDI, to observe certain environmental standards, including those related to environmentally sound technology and management practices, which could be provided for, or incorporated by reference, in the respective international investment agreements.

Social Responsibility

(Sales No. E.01.II.D.4) ($15)

The social responsibility of corporations, including transnational corporations (TNCs), is typically not addressed in international investment agreements. Nonetheless, it is a question that has been

raised through the adoption, since the 1970s, of international codes of conduct for TNCs. More recently, it has been addressed in a number of international fora and the United Nations Global Compact. Given that the issue of social responsibility is relatively new to international investment agreements, the stocktaking section of this publication draw not only on provisions in international investment agreements but also on other instruments that offer examples of the types of provisions that may be used to operationalize social responsibility obligations. In the area of economic and development implications and policy options, the challenge is to balance the promotion and protection of liberalized market conditions for investors with the need to pursue development policies.

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Ten Years of World Investment Reports: The Challenges Ahead

Proceedings of an UNCTAD special event on the future challenges in the area of FDI
Palais des Nations, Geneva, 17 October 2000
(UNCTAD/ITE/Misc.45)

Foreign direct investment (FDI) is now the most important factor in international economic relations, and there is a growing need to look into the policy implications of this phenomenon, especially for developing countries. In assessing the work of United Nations in this area, Secretary General Kofi Annan stated, in his message sent to the UNCTAD special event, that "*WIR* has been the leader in exploring globalization and in discussing this phenomenon in its various manifestations, such as the rapidly increasing flows of foreign direct investment, and the various activities of transnational corporations". John H. Dunning, Professor of International Business, University of Reading, United Kingdom, and Rutgers University, United States, echoed a similar conclusion by saying that *WIR* has become "the bible of scholars interested in data on FDI and in the interaction between FDI and national government policies". The special event gathered experts from academia, governments, and representatives of labour and of business, as well as international organizations and non-governmental organizations. While this booklet, available free of charge, contains the transcription of the proceedings, UNCTAD's web page contains, in addition, the full text of Kofi Annan's message (http://www.unctad.org/wir/events/unsgmessage.htm), the videotape of the

discussion (http://www.unctad.org/wir/video/wir.ram), as well as the videotaped presentation of Jeffrey Sachs, Director, Center of International Development Studies, Harvard University (http://www.unctad.org/wir/video/jswir56.ram).

FDI in Least Developed Countries at Glance

(UNCTAD/ITE/IIA/3)

Virtually all countries today recognize that foreign direct investment (FDI) can play an important role in economic growth and development. This applies also t the 49 countries that the United Nations classifies as least developed countries (LDC). While FDI flows to the LDCs generally are small in absolute terms, they can nonetheless constitute a significant proportion of the overall capital formation in poor countries. Indeed, contrary to what is commonly thought, these countries offer considerable opportunities for additional investment. This booklet is divided into two parts. The first depicts recent trends in FDI to LDCs and changes that have taken place in relevant areas of the regulatory framework. The second part presents country profiles of each of the 49 LDCs to enable the reader – at a glance – to get a general picture of the role of FDI in these countries. A limited number of copies are available free of charge upon request. The electronic version of this publication is available at http://www.unctad.org/en/pub/poiteiiad3.en.htm.

An Investment Guide to Uganda: Opportunities and Conditions, March 2001

Co-published with the International Chamber of Commerce
(UNCTAD/ITE/IIT/Misc.30)

After 14 years of remarkable political and economic development, Uganda is clearly positioned to become one of the most attractive business locations in eastern and southern Africa. The country offers a wide range of investment opportunities in mining, agriculture and fishing. Linked to almost all of the primary-sector industries are opportunities in upstream and downstream manufacturing activities. In addition, the extensive privatization programme of the Government has opened up industries that were formerly closed to the private

sector, particularly in the infrastructure sector. Uganda strongly encourages private investment, both foreign and domestic. The Government has pursued a steady policy of improving the business climate by reducing bureaucracy, streamlining the legal framework, fighting corruption and stabilizing the economy. On the downside, the condition of much of Uganda's infrastructure is poor. Road and rail systems have been identified as major problems by foreign investors. Until recently, the intermittent and extensive power supply had been a severe problem. Significant recent improvements have dramatically reduced the problems in this area. Although Uganda is still a very poor country and this will not change in the immediate future, with almost unparalleled dynamism and a track record of stability, the Ugandan economy is bound to remain one of the most positive examples of successful development in Africa. A limited number of copies of this report are available free of charge upon request. The electronic version of this publication is available at http://www.unctad.org/en/docs/poiteiitm30.en.pdf.

Books received on foreign direct investment and transnational corporations since April 2001

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GUIDELINES FOR CONTRIBUTORS

I. Manuscript preparation

Authors are requested to submit three (3) copies of their manuscript in English, with a signed statement that the text (or parts thereof) has not been published or submitted for publication elsewhere, to:

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Articles should, normally, not exceed 30 double-spaced pages (12,000 words). All articles should have an abstract not exceeding 150 words. Research notes should be between 10 and 15 double-spaced pages. Book reviews should be around 1,500 words, unless they are review essays, in which case they may be the length of an article. Footnotes should be placed at the bottom of the page they refer to. An alphabetical list of references should appear at the end of the manuscript. Appendices, tables and figures should be on separate sheets of paper and placed at the end of the manuscript.

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Dunning, John H. (1979). "Explaining changing patterns of international production: in defence of the eclectic theory", *Oxford Bulletin of Economics and Statistics*, 41 (November), pp. 269-295.

United Nations Centre on Transnational Corporations (1991). *World Investment Report 1991: The Triad in Foreign Direct Investment*. Sales No. E.91.II.A.12.

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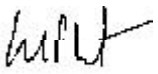

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