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Determinants of FDI in developing countries: has globalization changed the rules of the game?

Peter Nunnenkamp and Julius Spatz*

There is a startling gap between current thinking on, allegedly, globalization-induced changes in international competition for foreign direct investment and the lack of recent empirical evidence on shifts in the relative importance of traditional and non-traditional determinants of such investment in developing countries. We attempt to narrow this gap by making use of comprehensive survey data, collected by the European Round Table of Industrialists, on investment conditions in 28 developing countries since the late 1980s. Applying Spearman correlation coefficients and panel-data regression models, we show that surprisingly little has changed so far. Traditional market-related determinants are still dominant factors shaping the distribution of foreign direct investment. If at all, the importance of non-traditional foreign direct investment determinants has increased only modestly.

Introduction

It is widely believed that the trend towards globalized production and marketing has major implications for developing countries' attractiveness for foreign direct investment (FDI). The boom of FDI flows to developing countries since the early 1990s indicates that transnational corporations (TNCs) have increasingly discovered these host countries as competitive investment locations. At the same time, various experts argue that the determinants of, and motivations for, FDI in developing countries have changed in the process of globalization. As a result, it would no longer be sufficient to offer promising local markets in order to induce FDI inflows, and policymakers would face more complex challenges in striving for locational attractiveness for FDI (Kokko, 2002).

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It is beyond serious doubt that the rules of the game have changed in some respects. For instance, tariff-jumping FDI to serve large protected markets should have become less relevant as various developing countries have liberalized their import regimes. Apart from unilateral liberalization, successive rounds of multilateral trade liberalization have decreased the relevance of market access through FDI for many products (UNCTAD, 1998, p. 115). Recent studies also suggest that FDI is increasingly used in some industries as a means to slice up the value chain and to outsource less human capital intensive stages of the production process to lower-income countries that offer the relevant comparative advantages.¹

Yet, the notion that traditional FDI determinants are on the decline has to be qualified. The reasoning on globalization-induced changes in FDI patterns mainly refers to the manufacturing sector. However, the recent boom of FDI in developing countries is largely due to a stronger engagement of TNCs in the services sectors of developing countries.² Except for some services (such as data processing and software programming), FDI in services is almost by definition market-seeking, rather than efficiency-seeking. It was encouraged by the wave of privatizing public companies in services industries such as transport, telecommunication, energy and finance in various developing countries, notably in Latin America.³ Moreover, regional integration schemes such as Mercosur (Argentina, Brazil, Paraguay and Uruguay) provided incentives for market-seeking FDI even in manufacturing by expanding the relevant market. Hence, it remains open to debate whether the new rules of the game apply to a sufficiently large segment of FDI for non-traditional FDI determinants to be able to shape the locational attractiveness for FDI.

¹ See, e.g. Spatz and Nunnenkamp (2002) on the automobile industry; see also Dunning (2002).

² UNCTAD (1998, p. 113) notes “an explosion of FDI in the services sector as a result of the general trend towards the liberalization of FDI frameworks for services”.

³ Sader (1993) shows that foreign investors participated significantly in the wave of privatizations in 1988-1992. In this period, Latin America attracted almost two thirds of the foreign exchange from privatizations in the developing world.

In classifying FDI determinants as “traditional” or “non-traditional”, we largely follow UNCTAD’s line of reasoning. UNCTAD (1996, p. 97) argued that, as a consequence of globalization, “one of the most important traditional FDI determinants, the size of national markets, has decreased in importance. At the same time, cost differences between locations, the quality of infrastructure, the ease of doing business and the availability of skills have become more important”. Non-traditional determinants are considered important for efficiency-seeking FDI (i.e. FDI motivated by creating new sources of competitiveness for firms and strengthening existing ones), which is regarded as the hallmark of foreign investors’ responses to the changing international environment. Nevertheless, as shown below, recent empirical studies on FDI determinants in developing countries hardly address the question of globalization-induced changes. The shortage of relevant empirical studies is probably mainly because non-traditional determinants, including cost factors and complementary factors of production, are difficult to capture for a sufficiently large sample of developing countries and over a sufficiently long time span. This is in marked contrast to traditional determinants such as the size and growth of local markets.

Below, we argue that the gap between theoretical arguments and empirical evidence may be narrowed by drawing on survey results presented by the European Round Table of Industrialists (ERT, 2000). Though subjective by nature, this source offers valuable insights into various variables on which hard data are almost impossible to come by. We use these survey results, supplemented by more conventional sources, to evaluate whether the distribution of (inward) FDI stocks reveals significant changes over time. We apply Spearman rank correlation analysis in order to assess whether traditional FDI determinants have become less important, while non-traditional determinants have become more important. In the subsequent regression analysis, we examine to what extent non-traditional determinants have explanatory power for the distribution of FDI in developing countries over and above host countries’ population and GDP per capita; testing for time-varying regression coefficients, we also account for changes in their additional explanatory power over time. We summarize in the final section

that surprisingly little has changed so far as concerns the driving forces of FDI in developing countries.

Strong arguments, limited evidence

UNCTAD (1998, pp. 108-116) argues that globalization has led to a reconfiguration of the ways in which TNCs pursue their resource-seeking, market-seeking and efficiency-seeking objectives. The opening of markets to trade, FDI and technology flows has offered TNCs a wider range of choices on how to serve international markets, gain access to immobile resources and improve the efficiency of production systems (see also Dunning, 1999). Reportedly, TNCs are increasingly pursuing complex integration strategies, i.e. TNCs “increasingly seek locations where they can combine their own mobile assets most efficiently with the immobile resources they need to produce goods and services for the markets they want to serve” (UNCTAD, 1998, p. 111). This is expected to have two related consequences regarding the determinants of FDI:

- Host countries are evaluated by TNCs on the basis of a broader set of policies than before. The number of policies constituting a favourable investment climate increases, in particular with regard to the creation of location-specific assets sought by TNCs.
- The relative importance of FDI determinants changes. Even though traditional determinants and the types of FDI associated with them have not disappeared with globalization, their importance is said to be on the decline (UNCTAD, 1996, p. 97).

Likewise, John H. Dunning (1999) argues that the motives for and the determinants of FDI have changed. According to Dunning (2002, exhibit 5), FDI in developing countries has shifted from market-seeking and resource-seeking FDI to (vertical) efficiency-seeking FDI. Due to globalization-induced pressure on prices, TNCs are expected to relocate some of their production facilities to low-cost developing countries. Nevertheless, and in contrast to FDI in industrial countries, FDI in developing countries still is directed

predominantly to accessing natural resources and national or regional markets according to this author.⁴

It would have important policy implications if globalization had changed the rules of the game in competing for FDI. The policy challenge would become fairly complex in that host country governments would have “to provide and publicize a unique set of immobile assets, pertinent to the types of economic activity they wish to attract and retain, vis-à-vis those offered by other countries” (Dunning, 1999, pp. 17-18). Additionally, policymakers could no longer rely on the previous empirical literature stressing the overriding role of some clearly defined factors shaping the distribution of FDI.

Among traditional FDI determinants, market-related factors clearly stand out. In a frequently quoted survey of the earlier literature on FDI determinants, Jamuna P. Agarwal (1980) found the size of host country markets to be the most popular explanation of a country’s propensity to attract FDI, especially when FDI flows to developing countries are considered. Subsequent empirical studies corroborated this finding.⁵ Even authors who dismissed earlier studies as seriously flawed came up with results supporting the relevance of market-related variables such as GDP, population, GDP per capita and GDP growth.⁶ Avik Chakrabarti (2001), while questioning the robustness of various other FDI determinants, finds the correlation between FDI and market size to be robust to changes in the conditioning information set.

Against this backdrop, the obvious question is whether the dominance of market-related factors no longer holds under conditions of proceeding globalization, while non-traditional FDI

⁴ In an earlier paper, Dunning (1999, p. 24) states: “There remains comparatively little North-South asset augmenting FDI”.

⁵ Shamsuddin (1994) reiterated Agarwal’s finding some 15 years later: “Most empirical studies support the market size hypothesis.”

⁶ See, e.g. Schneider and Frey (1985); Wheeler and Mody (1992); Tsai (1994); Jackson and Markowski (1995); and, more recently, Taylor (2000). Schneider and Frey (1985) criticize that previous studies dealt insufficiently with the *joint* influence of economic and political factors. Tsai (1994) supposes empirical results to be unreliable unless the simultaneity between determinants and consequences of FDI is taken into account.

determinants have become more important. Recent empirical studies on FDI determinants in developing countries hardly address this question explicitly.⁷ Yet, some of these studies offer at least tentative insights, e.g. on changes in the relevance of market-related and trade-related variables.

As concerns market-related variables, David W. Loree and Stephen E. Guisinger (1995) find per capita GDP of host countries to be a driving force of FDI from the United States in 1977, but not in 1982.⁸ The authors presume that this rather surprising result is due to a shift from local market-seeking FDI towards more world market-oriented FDI. This reasoning suggests that the motives for FDI may have changed well before globalization became a hotly debated issue. However, data constraints prevented Loree and Guisinger from testing this proposition. Moreover, industrialized host countries constitute about half of the sample analysed in this study. Hence, it remains open to question whether the presumed shift in FDI motives applies to both industrialized and developing host countries. The results of Pan-Long Tsai (1994), whose sample consists almost exclusively of developing countries, indicate that the role of market-related variables in attracting FDI did not decline from the 1970s to the 1980s. In the same vein, econometric tests performed by UNCTAD (1998, pp. 135-140) reveal that, in some contrast to UNCTAD's reasoning elsewhere in the same *World Investment Report*, market size-related variables remained the dominant influence on inward FDI even in the mid-1990s.⁹

⁷ According to UNCTAD (1998, p. 135), "it is hard to derive any conclusion from these studies as to whether the list of determinants has changed over time or whether some have gained or lost importance".

⁸ These authors use detailed data from the benchmark surveys of the United States Department of Commerce for 1977 and 1982. The focus of their study is on policy factors such as investment incentives, performance requirements and tax rates.

⁹ UNCTAD (1998, p. 14) qualifies this finding by noting that market size-related variables "explain less of the variation across countries in more recent years than in earlier periods". However, exactly the opposite is true for regressions run for the sub-sample of developing countries (*ibid.*, table IV.A.4).

Recent empirical studies on trade-related determinants of FDI render the following picture:¹⁰

- Robert E.B. Lucas (1993) shows that FDI in East and Southeast Asian countries between 1960 and 1987 was more elastic with respect to aggregate demand in export markets than with respect to demand in the host country. From this result he infers that the importance of local market size is overstated in various empirical studies because they omit export markets as a determinant of FDI.¹¹
- According to Tsai (1994), FDI and growth of host country exports were positively correlated in the 1970s, but no longer in the 1980s. This finding is at odds with the widely held view that FDI has shifted towards world-market orientation. If this hypothesis were true, one would have expected the opposite correlation pattern.
- Harinder Singh and Kwang W. Jun (1995) find export orientation to be the strongest variable for explaining why a country attracts FDI. At the same time, however, this study also supports the tariff-jumping hypothesis of FDI.
- Victor M. Gastanaga, Jeffrey B. Nugent and Bistra Pashamova (1998) address the tariff-jumping hypothesis by using panel data. While cross-section results suggest that FDI flows were motivated more strongly by tariff jumping than by potential exports, the effects of import tariffs on FDI tend to be negative in a time-series context.¹² These authors conclude that “over time in individual countries trade liberalization has become the more important motive for FDI” (*ibid.*, p. 1312).
- According to Avik Chakrabarti (2001), openness to trade (proxied by exports plus imports to GDP) has the highest likelihood of being correlated positively with FDI among all

¹⁰ Below, we discuss in detail why trade-related variables are considered a non-traditional determinant of FDI in the present study.

¹¹ Note, however, that Lucas (1993) does not address changes in the importance of FDI determinants over time. Furthermore, it is questionable whether the results for world market-oriented Asian economies would hold in other regions, too.

¹² However, both the direction and magnitude of effects are sensitive to the specification of the test equation.

explanatory variables classified as fragile. Elizabeth Asiedu (2002), using the same proxy for openness, comes to a similar conclusion when separating sub-Saharan host countries from host countries in other regions.

The problem with essentially all these studies is that they use trade-related variables that are seriously flawed.¹³ Import tariff rates capture at best part of the trade policy stance of host countries. The ratio of exports plus imports to GDP suffers from a large-country bias and may, thus, lead to unreliable results. We are aware of just one recent study on FDI determinants that takes a different route, as we do below, in assessing openness. Christopher T. Taylor (2000) refers to survey results (from the *World Competitiveness Report*) on the degree to which government policy discourages imports. This measure of openness to trade is shown to be positively correlated with FDI undertaken by TNCs from the United States. By contrast, alternative measures tried as proxies of openness (tariff rates, coverage of non-tariff barriers) turned out to be insignificant when correlated with FDI.

Taylor (2000) resembles most other studies in that he does not assess changes over time in the importance of openness as an FDI determinant. His results do suggest, however, that a globalization-induced increase in the relevance of openness cannot be taken for granted. The positive correlation between openness and FDI is restricted to the manufacturing sector, whereas the correlation is insignificant for FDI by TNCs from the United States in the services sector. Considering that the recent boom of FDI in developing countries is largely because of FDI in services, the relevance of openness even may have declined.

Finally, the study by Farhad Noorbakhsh, Alberto Paloni and Ali Youssef (2001) offers insights on non-traditional determinants of FDI in developing countries, though not with regard to trade-related variables.¹⁴ The focus of this study is on human capital as a

¹³ For a more detailed discussion of different measures of openness to trade, see Edwards (1998).

¹⁴ These authors, too, use the ratio of exports plus imports to GDP as a measure of openness.

determinant of FDI. Most importantly, “the results ... are suggestive of an increasing importance of human capital through time. The estimated coefficients of the variables used as proxies for human capital as well as their t-ratios increase in magnitude across the consecutive sample periods” (*ibid.*, p. 1602-1603). The authors attribute this finding explicitly to the process of globalization. The limitations of this study are twofold: the period of observation is restricted to 1983-1994, and changes over time are not studied for FDI determinants other than human capital.

Data and approach

Before presenting our own approach and data base, it may be useful to justify the classification of variables as traditional or non-traditional determinants of FDI. As mentioned earlier, the classification is essentially based on the overview of host country determinants of FDI presented in UNCTAD (1998, table IV.1).¹⁵ Furthermore, we take into account that FDI in developing countries traditionally concentrated in market-seeking and resource-seeking activities, while efficiency-seeking FDI is of a more recent nature in these host countries (Dunning, 1999). Hence, variables that are typically regarded as driving forces of efficiency-seeking FDI are considered non-traditional determinants of FDI in developing countries in the following.

Against this backdrop, it is obvious that market-related variables such as GDP, population, GDP per capita and GDP growth constitute traditional FDI determinants. In addition, the subsequent list of traditional determinants includes some factors that UNCTAD (1998) considers to be part of the overall policy framework for FDI and business facilitation measures of host countries. This is because factors such as entry restrictions, so-called hassle costs, and economic as well as political stability are relevant, in principle, for all types of FDI. However, other elements of the policy framework for FDI may affect specific types of FDI differently. For example, performance requirements related to local content and

¹⁵ For a slightly modified version, see Nunnenkamp (2001, figure 7). The major difference to UNCTAD (1998) is on trade policy; the reasons are given below.

imported inputs are likely to discourage efficiency-seeking FDI more than purely market-seeking FDI.¹⁶

Apart from data availability, our selection of non-traditional determinants is guided by UNCTAD's proposition that cost differences between locations and the availability of complementary local factors of production have become more important in the process of globalization (UNCTAD, 1996, p. 97). As concerns differences in labour costs, our classification may be disputed on the grounds that the search for relatively cheap labour represented a rather traditional driving force of FDI in labour-intensive industries of developing countries; a shift towards more capital- and technology-intensive FDI projects may even have diminished the relevance of labour costs recently.¹⁷ However, our measure of cost differences goes beyond labour costs and includes other cost factors such as taxes (see annex). Moreover, it was only under conditions of globalization that TNC strategies gave rise to vertically integrated production structures (UNCTAD, 1998, p. 109). The fragmentation of production processes and the relocation of relatively labour-intensive segments of the value chain is no longer restricted to labour-intensive industries such as clothing, but extends to technologically advanced industries such as transport equipment (Spatz and Nunnenkamp, 2002). As argued by Dunning (2002), globalization-induced pressure on prices increasingly encourages TNCs to relocate some of their production facilities to low cost developing countries. Hence, one can reasonably expect cost differences to have become more relevant in the process of globalization.

This should apply even more so to complementary factors of production which include business-related services such as access to local finance, and the strength and efficiency of local enterprises on which TNCs would like to draw as suppliers of inputs and potential customers. Both analytical reasoning and previous empirical findings (Noorbakhsh, Paloni and Youssef, 2001) clearly suggest

¹⁶ On performance requirements, see Loree and Guisinger (1995). These authors find performance requirements to be negatively correlated with FDI by TNCs from the United States in 1977, whereas the correlation turned insignificant in 1982.

¹⁷ We owe these arguments to one of the referees.

to regard the availability of local skills as a particularly important complementary factor of production.¹⁸

The classification of trade-related variables as non-traditional FDI determinants may be contentious. In UNCTAD (1998, table IV.1), trade policy is part of the overall policy framework affecting all types of FDI. By contrast, Nunnenkamp (2001, figure 7) lists trade policy as an economic determinant of efficiency-seeking FDI. This is not to ignore the relevance of trade policy for market-seeking FDI in the past. As a matter of fact, the tariff-jumping hypothesis figured prominently in earlier research on FDI determinants (see also Taylor, 2000, p. 637). Lacking a promising alternative to FDI in the presence of significant trade barriers, it was reasonable indeed to expect higher FDI flows to large and protected markets. However, widespread trade liberalization, both multilaterally and unilaterally, should have eroded the tariff-jumping motive for FDI.

Trade liberalization has led Loree and Guisinger (1995, p. 285) to suspect FDI determinants other than trade policy to have gained relative importance. Current thinking on the interface between trade and FDI, however, invites a different hypothesis. According to James R. Markusen (1995), trade barriers cause a substitution towards FDI; at the same time, they reduce the level of both trade and FDI. The balance of the two opposing effects of trade barriers on FDI is likely to have become negative due to trade liberalization and the shift in TNC strategies towards efficiency-seeking FDI. Restrictions on foreign trade impede an internationally competitive production by TNCs in host countries and, thus, tend to discourage efficiency-seeking FDI. To the extent that the shift in TNC strategies applies to developing countries, too, the impact of trade barriers on FDI in these countries should have changed from positive (or insignificant) to negative. Put differently, the removal of trade barriers

¹⁸ For example, Zhang and Markusen (1999) present a model in which locally available skills constitute a relevant factor of TNC production and affect the magnitude of FDI flows. Noorbakhsh, Paloni and Youssef (2001) attribute it explicitly to the process of globalization that skilled labour has become more attractive to TNCs relative to low labour costs per se. Dunning (1999, p. 28) argues that a knowledge supporting human and physical infrastructure is increasingly important as a locational pull to mobile investment.

may induce higher FDI flows by giving rise to new types of FDI. That is why we regard openness to trade as a non-traditional determinant of FDI in developing countries.

The following empirical analysis mainly draws on survey data on investment conditions in 28 developing economies. The European Round Table of Industrialists (in cooperation with the United Nations and the International Chamber of Commerce) conducted three surveys on investment conditions in the developing world; the results are summarized in ERT (2000). The main sources of information on which ERT drew were the developing economies themselves. In the latest survey, the authorities of 33 economies participated by returning questionnaires, designed by ERT, on important improvements in investment conditions. Replies were restructured and completed by ERT, in order to prepare country files on improvements and remaining impediments to investment; additional sources used by ERT were exclusively from the public domain.

The checklist of the survey covers 33 items, most of which are considered in subsequent sections of this article by aggregating them into several indices (see annex for the definition of items and the aggregation). For each of these items, ERT presents economy-wise improvements and remaining impediments on a scale ranging from 0 to 6. The three surveys report improvements for 1987-1992, 1993-1996 and 1997-1999, as well as remaining impediments at the end of 1992, 1996 and 1999, respectively.

The major strength of the ERT surveys, e.g. compared to the *Global Competitiveness Report* of the World Economic Forum in Geneva, is that comparability between the three surveys is ensured. The original questions of the first survey and the criteria according to which investment conditions are measured remained unchanged. As a result, a consistent data set is available for 28 developing economies that participated in all three surveys.¹⁹

¹⁹ The economies are: Argentina, Bangladesh, Brazil, China, Colombia, Ecuador, Egypt, Ghana, Guatemala, India, Indonesia, Iran, Kenya, Malaysia, Mexico, Nigeria, Pakistan, Philippines, Republic of Korea, Saudi Arabia, Sri Lanka, Syria, Taiwan Province of China, Thailand, Tunisia, Turkey, Viet Nam and Zimbabwe.

The weaknesses are twofold. First, the assessment of improvements and remaining impediments, especially the weighting done by ERT, “can be rather subjective” (ERT, 2000, p. 29). This drawback is common to all surveys and has to be accepted unless hard data are available (which is not the case in many regards, including FDI restrictions). Second, the sample is limited to 28 developing host economies, and the time span covered by the surveys is only twelve years. Yet, the results presented in the following should be fairly representative. The ERT sample accounted for 56 per cent of inward FDI stocks in all developing countries in 1999, and for 62 per cent of FDI flows to all developing countries in 1997-2000 (UNCTAD, online data base). Furthermore, even though long-term shifts in the importance of FDI determinants may not be captured fully, the survey data are expected to provide valuable insights. They cover the period during which FDI in developing countries boomed and globalization became a hotly debated issue.

Survey results presented in ERT (2000) are supplemented by World Bank data on variables that are typically considered important determinants of FDI, including market size proxied by the host countries’ population and the level of GDP per capita, as well as the growth of local markets, proxied by GNP growth (see annex for details). All in all, we deal with 12 possible determinants of FDI in developing countries. The classification into traditional and non-traditional determinants is based on the reasoning in the beginning of this section. The following variables are considered traditional determinants:

- population of host countries;
- GDP per capita in host countries;
- GNP growth of host countries;
- administrative bottlenecks;
- entry restrictions; and
- risk factors.

By contrast, the following (non-traditional) variables should have become more important if globalization has changed the rules of the game in competing for FDI:

-
- complementary factors of production, i.e. local inputs required for an internationally competitive production in developing host countries;
 - average years of schooling, drawn from Robert J. Barro and Jong-Wha Lee (2000), in order to assess more accurately one particular complementary factor of production, namely the availability of sufficiently qualified labour in host countries;
 - cost factors, relating to taxes, employment conditions, labour market regulations and the leverage of trade unions;²⁰ and
 - restrictions of foreign trade, which may impede an internationally competitive production in developing host countries.

Some further variables cannot easily be classified as either traditional or non-traditional. This applies to:

- post-entry restrictions, some of which may discourage all foreign investors whereas other restrictions (notably performance requirements) may discourage efficiency-seeking FDI more than purely market-seeking FDI; and
- technology-related regulations, which may be as multi-faceted as post-entry restrictions.

FDI in sample economies is defined in different ways. The subsequent section refers to inward FDI stocks in absolute (dollar) terms, in order to assess changes in the distribution of FDI over time. For the correlation and regression analyses below, we use FDI stocks and FDI inflows.

Changes in the distribution of FDI stocks

This section portrays the distribution of FDI stocks in the 28 sample economies according to the (traditional and non-traditional) determinants listed above. For all determinants,²¹ we group the

²⁰ Productivity adjusted labour costs would be a clearly superior measure. However, survey results, presented by World Economic Forum (2002), on this measure are not available over a longer time span.

²¹ GNP growth is not considered in this section, as this variable relates to FDI flows rather than stocks.

sample economies into two categories of weak and strong attractiveness. For example, strong attractiveness means large markets, a high income level, low FDI restrictions, favourable cost conditions and good endowment of complementary factors of production. In all respects, the median is taken as the dividing line between weak and strong attractiveness.

Annex table 1 presents average indicator values for the subgroups of sample economies with weak and strong attractiveness. It is interesting to note that indicators improved with few exceptions from 1992 to 1999 for both subgroups of economies.²² In other words, almost all developing economies offered more favourable investment conditions in the late 1990s, especially by liberalizing FDI restrictions. For example, entry restrictions were relaxed considerably by countries with relatively weak attractiveness (from an indicator value of 3.3 in 1992 to 1.7 in 1999). Minor improvements are reported for cost factors (albeit from a lower level of impediments in 1992). This may be surprising as this variable belongs to the list of non-traditional FDI determinants which are widely believed to have become more important in shaping the distribution of FDI.

Due to across-the-board liberalization of FDI restrictions, even the less attractive developing host economies within the sample score, on average, below 2 in 1999 with regard to almost all indicators derived from the ERT survey. For various economies with relatively strong attractiveness, the ERT survey reports no remaining impediments in 1999 so that the average of all indicators derived from this source is below 1 for this sub-group of economies. Across-the-board liberalization notwithstanding, distinct differences between the two sub-groups of sample economies remained. This applies to survey results for both traditional determinants (e.g. administrative bottlenecks) and non-traditional determinants (e.g. complementary factors of production). Data drawn from other sources fit into this picture. For instance, GNP continued to grow in countries with relatively strong attractiveness more than twice as fast as in countries with relatively weak attractiveness.

²² The exceptions are: declining GNP growth for both sub-groups of economies.

The distribution of FDI stocks between economies with relatively strong and weak attractiveness, as defined above, is shown in table 1.²³ It may be surprising that economies with strong attractiveness hosted less than half of FDI stocks in 1999 according to various indicators. This applies not only to traditional determinants, but also to some non-traditional determinants (including complementary factors of production and cost factors). This is largely due to FDI stocks in China, whose share in FDI stocks in all sample countries soared from 8 per cent to 31 per cent in 1999.

Table 1. Distribution of FDI stocks in 28 developing economies: share of countries with strong attractiveness according to selected indicators,^a 1987, 1992 and 1999
(Per cent)

Indicator ^b	1987	1992	1999
Population	68.0 (65.2)	68.8 (64.0)	75.3 (64.1)
GDP per capita	64.1 (69.1)	60.3 (70.1)	51.2 (75.3)
Administrative bottlenecks ^c	..	60.0 (69.3)	49.1 (71.5)
Entry restrictions ^c	..	32.7 (36.2)	39.3 (57.2)
Risk factors ^c	..	46.3 (42.7)	37.1 (54.0)
Complementary factors of production ^c	..	35.8 (40.9)	49.0 (57.0)
Years of schooling	46.0 (61.8)	56.4 (48.7)	64.6 (50.0)
Cost factors ^c	..	40.9 (47.2)	41.1 (59.9)
Restrictions on foreign trade ^c	..	40.2 (46.4)	81.7 (73.3)
Post-entry restrictions ^c	..	41.2 (47.6)	39.3 (57.2)
Technology-related regulations ^c	..	31.8 (36.8)	41.4 (60.2)

Source: UNCTAD online database; ERT (2000); World Bank (2001); Barro and Lee (2000).

^a Strong attractiveness defined as economies with indicator values better than the median. Figures in brackets: excluding China.

^b See annex for definition of variables.

^c Based on survey results in ERT (2000).

Much of the literature attributes China's attractiveness to a host of locational advantages, including market size and growth prospects, the cost and productivity of labour, openness to

²³ While survey results on remaining impediments are available since 1992, indicators derived from other sources are reported since 1987.

international trade, and FDI promotion packages.²⁴ While this list comprises traditional and non-traditional FDI determinants, ERT survey results suggest that the boom of FDI in China was driven more by market-related determinants than by non-traditional determinants. In all three ERT surveys, China is shown to be on a “very fast track of opening” (ERT, 2000, pp. 348-350). As a result, China is rated “moderately open” in terms of remaining impediments by the end of 1999. However, the large majority of sample economies is still considered more open than China. More specifically, in 1999, FDI impediments in China continued to be above the median with regard to non-traditional determinants, such as the availability of complementary factors of production and cost factors. Hence, the steeply increased FDI share of China may be taken as a first indication that market size has remained a major driving force of FDI in developing countries in the era of globalization.

If China is excluded from the sample, the share of more attractive economies in overall FDI stocks has increased in all respects since 1992 (see figures in brackets in table 1). This increase was most pronounced for the following indicators: entry restrictions, complementary factors of production, restrictions on foreign trade, and technology-related regulations. Even though this list includes two non-traditional determinants of FDI (complementary factors of production and restrictions on foreign trade), it is difficult to draw clear conclusions from these shifts in the distribution of FDI on whether non-traditional determinants have become more important. This is not only because the distribution of (absolute) FDI stocks is dominated by some large host economies. Furthermore, shifts of FDI towards more attractive host developing economies are observed for both non-traditional and traditional determinants. For example, the concentration of FDI in relatively advanced developing economies, measured by GDP per capita, was even stronger in 1999 than in 1987 and 1992, once China is excluded from the sample. All in all, the distribution of FDI tends to confirm the reasoning of Dunning (2002) that traditional economic determinants remain important in shaping the attractiveness of developing countries.

²⁴ See, for example, Japan Bank for International Cooperation (2002) and the literature given there.

Correlation results

The relevance of traditional and non-traditional determinants of FDI may be better captured by the subsequent correlation analysis. The distribution of absolute FDI is closely related to the host countries' population (or GDP). However, as shown elsewhere (Nunnenkamp, 2001), various small developing countries were more successful in attracting foreign investors than the largest recipients of FDI, once FDI is measured in per capita terms. Avoiding the large-country bias may, thus, offer better insights into the relevance of traditional and non-traditional determinants of FDI, and possible changes over time. We take account of the large-country bias by correlating only population with FDI in million dollars. All other FDI determinants are correlated with FDI in dollar per capita. In addition to FDI stocks, we perform correlations with FDI flows. FDI flows can be expected to be less path dependent than FDI stocks. Any changes in the relevance of determinants may, thus, affect FDI flows more strongly than FDI stocks. Moreover, additional determinants can be taken into account in the case of FDI flows. We add GNP growth to the list of traditional determinants.

Before analysing FDI flows, table 2 reports Spearman rank correlation coefficients for FDI stocks on the one hand, and possible determinants of FDI on the other hand.²⁵ Almost all correlation coefficients have the sign to be expected, although various coefficients lack statistical significance at conventional levels. Typically, stronger FDI impediments reported in ERT surveys are negatively correlated with FDI stocks per capita of the host economies' population. Among the indicators with significant coefficients in 1999, all but one were significantly correlated with FDI stocks throughout the 1990s (complementary factors of production representing the exception). On the other hand, none of our indicators that had been significantly correlated with FDI stocks earlier in the 1990s turned insignificant at the end of this decade. Taken together, these two observations suggest that changes in the importance of determinants of FDI remained modest so far.

²⁵ We are grateful to one referee for pointing out that the Spearman rank correlation index, rather than the Pearson correlation coefficient is the appropriate methodology for our purposes.

Correlations between FDI stocks and traditional determinants strengthened, rather than weakened, in some respects. Booming FDI in China explains why market size, proxied by population, was more strongly associated with absolute FDI stocks (in million dollars) in the second half of the 1990s. GDP per capita and risk factors gained influence in shaping the distribution of FDI stocks per capita, indicating a shift of FDI towards more developed and stable host economies. Among traditional determinants, only administrative bottlenecks lost influence.

Nevertheless, table 2 provides some support to the view that non-traditional determinants of FDI gained importance in developing economies. For all non-traditional determinants (except restrictions on foreign trade), correlation coefficients were higher in 1999 than in 1992. The increased importance of schooling underscores the findings of Noorbakhsh, Paloni and Youssef (2001)

Table 2. Correlation results for FDI stocks^a in 28 developing economies, 1987-1999

Indicator ^b	1987	1992	1996	1999
Population ^c	0.26	0.37*	0.40**	0.42**
GDP per capita	0.62***	0.73***	0.70***	0.73***
Administrative bottlenecks ^d	..	-0.76***	-0.63***	-0.53***
Entry restrictions ^d	..	-0.13	0.06	-0.09
Risk factors ^d	..	-0.43*	-0.59***	-0.62***
Complementary factors of production ^d	..	-0.31	-0.25	-0.39**
Years of schooling	0.34*	0.42**	0.53***	0.52***
Cost factors ^d	..	-0.49***	-0.67***	-0.67***
Restrictions on foreign trade ^d	..	-0.45**	-0.55***	-0.39*
Post-entry restrictions ^d	..	-0.30	-0.03	-0.01
Technology-related regulations ^d	..	-0.00	0.00	-0.01

Source: Own calculations, based on UNCTAD online database; ERT (2000); World Bank (2001); Barro and Lee (2000).

*, **, *** significant at 10 per cent, 5 per cent and 1 per cent levels, respectively (two-tailed); see annex table for missing observations.

^a Dollar per capita of the host economies' population, if not stated otherwise.

^b See annex for definition of variables.

^c Correlated with FDI in million dollars.

^d Based on survey results in ERT (2000).

and it is also consistent with survey results: FDI stocks per capita in 1999 were relatively low in sample economies for which the lack of basic and higher education, one of the complementary factors of production (see annex), was regarded an important impediment to investment.

The results reported for restrictions on foreign trade are in conflict with the view that non-traditional determinants have gained relevance. The correlation with FDI stocks per capita turned less significant in 1999. In interpreting this surprising result, it must be recalled that the debate on the relevance of openness to trade for FDI focuses on FDI in the manufacturing sector, while booming FDI in developing countries in the 1990s was largely because of FDI in services. For FDI stocks of all investor countries held in developing countries, we cannot differentiate between manufacturing and other sectors.²⁶ Hence, we cannot separate potentially opposing effects.

However, sectorally disaggregated data are available for United States FDI stocks in developing countries. We used the online database of United States Department of Commerce, Bureau of Economic Analysis, and ran our correlations for the manufacturing sector and other sectors (including services) separately. Thereby we gleaned an idea on whether the continuous importance of market-related FDI determinants is mainly because of the rise of FDI in services, and we can test the hypothesis that it is mainly in manufacturing that non-traditional FDI determinants have become more important. As argued before, globalization-induced changes in FDI determinants may be restricted to manufacturing, while traditional determinants are still dominating FDI in other sectors.²⁷

²⁶ We are grateful to UNCTAD colleagues who provided us with unpublished FDI stock data in the tertiary sector of some (developed and developing) host countries. However, this information is only available since 1995. Moreover, the list of countries includes just 2 (out of our 28) sample countries for which the data set is complete. For this reason, we chose to refer to United States FDI data only.

²⁷ Traditional determinants are not restricted to market-seeking motives shaping FDI in services, but also comprise resource-seeking motives shaping FDI in resource extraction. Given our focus on the presumed shift from market-seeking and resource-seeking FDI to efficiency-seeking FDI, however, a further differentiation of other sectors is not needed in the present context.

In table 3, we first reproduce the Spearman rank correlation coefficients of table 2 for total United States FDI stocks. The results achieved deviate just slightly from the pattern described before.²⁸ Similar to FDI stocks held by all investor countries, all correlations for traditional FDI determinants which were significant in 1992 remain so in 1999 at the same level of confidence, and three out of four non-traditional determinants were already significant in 1992. Hence, the United States appear to be fairly representative among major investor countries.

Table 3. Correlation results for United States FDI stock^a in manufacturing and other sectors in 28 developing economies, 1992 and 1999

Indicator ^b	1992			1999		
	All sectors	Manu- facturing	Other sectors	All sectors	Manu- facturing	Other sectors
Population ^c	0.48**	0.26	0.40*	0.39**	0.17	0.27
GDP per capita	0.86***	0.79***	0.87***	0.68***	0.71***	0.68***
Administrative bottlenecks ^d	-0.63***	-0.73***	-0.61***	-0.51***	-0.43**	-0.56***
Entry restrictions ^d	0.02	-0.30	0.00	-0.22	-0.22	-0.22
Risk factors ^d	-0.31	-0.43**	-0.31	-0.62***	-0.59***	-0.67***
Complementary factors of production ^d	-0.24	-0.34	-0.14	-0.41**	-0.50***	-0.45**
Years of schooling	0.48**	0.47**	0.45*	0.48**	0.59***	0.55***
Cost factors ^d	-0.57***	-0.51**	-0.56**	-0.59***	-0.62***	-0.55***
Restrictions on foreign trade ^d	-0.43**	-0.53**	-0.48**	-0.55***	-0.62***	-0.66***
Post-entry restrictions ^d	-0.29	-0.44**	-0.45**	-0.31	-0.33	-0.35*
Technology-related restrictions ^d	-0.01	0.01	-0.08	-0.16	-0.18	-0.16

Source: Own calculations based on US Department of Commerce, Bureau of Economic Analysis (online data base); ERT (2000); World Bank (2001); Barro and Lee (2000).

*, **, *** significant at 10 per cent, 5 per cent and 1 per cent levels, respectively (two-tailed); number of observations in some cases below 28 (due to missing observations).

^a Dollar per capita of the host economies' population, if not stated otherwise.

^b See annex for definition of variables.

^c Correlated with FDI in million dollars.

^d Based on survey results in ERT (2000).

²⁸ A notable difference between tables 2 and 3 relates to restrictions on foreign trade. For United States FDI in developing economies, this variable revealed a stronger correlation in 1999 than in 1992.

Against this backdrop, we compared the correlations for United States FDI in manufacturing and in other sectors. The differences are much less pronounced than one would expect, if non-traditional determinants had gained significant importance in manufacturing only:

- The correlations of United States FDI in manufacturing with non-traditional determinants are somewhat stronger in 1999 than in 1992. However, the same is true for United States FDI in other sectors.
- In 1999, the correlation coefficients with regard to non-traditional determinants deviate only marginally between FDI in manufacturing and other sectors.
- Market-related FDI determinants had a somewhat larger say in shaping the distribution of FDI in other sectors than in manufacturing in 1992. However, this difference weakened, rather than strengthened until 1999. Furthermore, GDP per capita in developing host countries continued to be the variable with which FDI in manufacturing was correlated most strongly.
- As concerns other traditional FDI determinants, table 3 does not provide clear evidence that they have become less important in manufacturing since 1992.

Taken together, the sector-specific evidence for United States FDI stocks in our sample countries suggests that increases in the relative importance of non-traditional FDI determinants are not seriously understated in the analysis of total FDI held by all investor countries.

Furthermore, we check the sensitivity of results presented in table 2 by performing the same analysis for FDI flows. In addition to the previous FDI determinants, table 4 lists GNP growth (proxying the growth of local markets). FDI flows in 1993-1996 and 1997-2000 are correlated with investment impediments at the end of 1992 and at the end of 1996, respectively. Population and GDP per capita refer to the first year of the respective subperiod (1987, 1993 and 1997). For lack of data, the same procedure could not be followed for average years of schooling; we chose the closest available years (1990, 1995 and 2000). Annual average GNP growth is lagged by

two years. For instance, FDI flows in 1997-2000 are correlated with GNP growth in 1995-1998.²⁹

Table 4. Correlation results for FDI flows^a to 28 developing economies, 1987-2000

Indicator ^b	1987-1992	1993-1996	1997-2000
Population ^c	0.46**	0.55***	0.31
GDP per capita	0.50***	0.50***	0.74***
GNP growth	0.00	0.34*	-0.11
Administrative bottlenecks ^d	..	-0.45**	-0.39**
Entry restrictions ^d	..	-0.06	-0.01
Risk factors ^d	..	-0.18	-0.54***
Complementary factors of production ^d	..	-0.34*	-0.43**
Years of schooling	0.16	0.65***	0.60***
Cost factors ^d	..	-0.41**	-0.62***
Restrictions on foreign trade ^d	..	-0.31	-0.53***
Post-entry restrictions ^d	..	-0.07	0.04
Technology-related regulations ^d	..	0.13	0.02

Source: Own calculations, based on UNCTAD online database; ERT (2000); World Bank (2001); Barro and Lee (2000).

*, **, *** significant at 10 per cent, 5 per cent and 1 per cent levels, respectively (two-tailed); see annex table for missing observations.

^a Dollar per capita of the host economies' population, if not stated otherwise.

^b See annex for definition of variables.

^c Correlated with FDI in million dollars.

^d Based on survey results on remaining impediments in ERT (2000).

Correlation results achieved for FDI flows to the 28 sample economies largely confirm previous findings for FDI stocks. As before, we find some evidence that the distribution of FDI among developing economies has been influenced increasingly by non-traditional determinants. For all non-traditional determinants, the correlation with FDI flows per capita strengthened in the 1990s. However, the same applies to some traditional determinants of FDI. Table 4 corroborates the finding that GDP per capita and risk factors became more important recently. Similar to FDI stocks, FDI flows in the late 1990s were correlated most strongly with GDP per capita.

²⁹ This lag structure accounts for possible reverse causation, i.e. FDI flows stimulating subsequent growth.

By contrast, the relevance of administrative bottlenecks in discouraging FDI flows decreased slightly. The correlations with population and GNP growth do not reveal a clear trend.

Regression results

In the following, we examine to what extent the FDI impediments presented in ERT (2000) and years of schooling have explanatory power for the distribution of FDI in developing countries over and above host countries' population and GDP per capita. Furthermore, we test whether or not the additional explanatory power of the former determinants increased in the era of globalization. To address these two issues, we proceed in two steps. First, for each additional FDI determinant, i.e. the ERT indices and years of schooling, and for each observation period, we run a regression of log FDI (in million dollars) on log host economies' population, log GDP per capita as well as the respective FDI determinant.³⁰ The t-values of these regressions are used to calculate the partial correlation coefficients of the additional FDI determinants. Second, we pool the observations for the first and the last observation period and augment the regression model with dummies to account for time-varying regression coefficients. We run the augmented regressions for each additional FDI determinant separately and test whether or not its regression coefficient changed significantly over time.³¹ This approach is taken as the ERT data set offers just three observations (1992, 1996 and 1999) and, therefore, does not permit the use of sophisticated panel analysis.

We carry out the analysis both for FDI stocks and for FDI flows. This is because FDI flows tend to be less path dependent than FDI stocks. The results, which are summarized in tables 5 and 6, support our previous findings. Controlling for population and GDP per capita, only few partial correlation coefficients are significant.

³⁰ We included only three right-hand variables at a time in order to avoid major multicollinearity problems. In other words, considering the additional FDI determinants one by one provided a better chance for them to turn out significant.

³¹ We perform a t-test of the dummy-interacted FDI determinant.

Table 5. Partial correlation results for FDI stocks^a in 28 developing economies, 1992, 1996 and 1999

Indicator ^b	1992	1996	1999	p-value for constancy of regression coefficient
Administrative bottlenecks ^c	-0.601***	-0.464**	-0.225	0.235
Entry restrictions ^c	0.048	0.083	-0.100	0.610
Risk factors ^c	-0.017	-0.067	-0.237	0.370
Complementary factors of production ^c	-0.027	-0.057	-0.149	0.720
Years of schooling	-0.055	-0.004	0.029	0.786
Cost factors ^c	-0.068	-0.430**	-0.308	0.446
Restrictions on foreign trade ^c	-0.278	-0.232	-0.386*	0.619
Post-entry restrictions ^c	0.035	-0.019	-0.108	0.613
Technology-related regulations ^c	0.077	-0.054	0.069	0.996

Source: Own calculations, based on UNCTAD online database; ERT (2000); World Bank (2001); Barro and Lee (2000).

*, **, *** significant at 10 per cent, 5 per cent and 1 per cent levels, respectively (two-tailed).

^a See text for underlying regression and calculation procedure.

^b See annex for definition of variables.

^c Based on survey results in ERT (2000).

Table 6. Partial correlation results for FDI flows^a to 28 developing economies, 1993-2000

Indicator ^b	1993-1996	1997-2000	p-value for constancy of regression coefficient
Administrative bottlenecks ^c	-0.208	-0.170	0.738
Entry restrictions ^c	0.161	-0.169	0.274
Risk factors ^c	0.162	-0.027	0.607
Complementary factors of production ^c	-0.208	-0.170	0.581
Years of schooling	0.200	0.134	0.742
Cost factors ^c	-0.149	-0.387*	0.601
Restrictions on foreign trade ^c	-0.351	-0.331	0.647
Post-entry restrictions ^c	0.137	-0.176	0.297
Technology-related regulations ^c	0.053	-0.116	0.580

Source: Own calculations, based on UNCTAD online database; ERT (2000); World Bank (2001); Barro and Lee (2000).

* significant at 10 per cent (two-tailed).

^a See text for underlying regression and calculation procedure.

^b See annex for definition of variables.

^c Based on survey results on remaining impediments in ERT (2000).

This implies that the role of the additional FDI determinants in explaining the distribution of FDI in developing countries is small. The effects of the additional FDI determinants appear to be dominated by the effects of the market-size-related variables (population and GDP per capita). The coefficients of the latter variables, which are not reported in order to save space, proved highly significant in all regressions. Focusing on the non-traditional FDI determinants, we find that at least for FDI stocks, all partial correlation coefficients developed in the expected direction in the 1990s; the partial correlation coefficients of FDI impediments became more negative, while the partial correlation coefficient of years of schooling became more positive. For FDI flows, no clear trend is discernible. Furthermore, in all cases the changes in the regression coefficients remain insignificant; the p-values for constancy of the regression coefficients lie far above conventional levels of significance. Hence, if there was a rise in the importance of non-traditional FDI determinants, it was relatively small.

Summary and conclusions

There is a startling gap between current thinking on, allegedly, globalization-induced changes in international competition for FDI and the lack of recent empirical evidence on shifts in the relative importance of traditional and non-traditional determinants of FDI in developing countries. The main objective of this article was to narrow this gap by making use of comprehensive survey data from European Round Table of Industrialists, complemented by more conventional sources, on investment conditions in 28 developing economies since the late 1980s.

We find that surprisingly little has changed so far: traditional market-related determinants are still dominant factors shaping the distribution of FDI. In particular, the large-country bias of foreign direct investors persists. Non-traditional determinants, such as cost factors, complementary factors of production and openness to trade, typically reveal the expected correlation with FDI. However, the importance of non-traditional determinants has increased at best modestly so far.

Two results are particularly striking. First, the finding of Noorbakhsh, Paloni and Youssef (2001) that the availability of local skills has become a relevant pull factor of FDI in the process of globalization is supported only in bivariate correlation analysis. Once we control for GDP per capita and population of developing host countries in multivariate regression analysis, schooling lacks additional explanatory power. This is not to say that policymakers can do little to improve the attractiveness for FDI by efforts towards more human capital formation in developing countries. Rather, better education and training tend to go hand in hand with both higher per capita income and more inward FDI.

Second, our results are ambiguous as concerns the much debated interface between trade policy and FDI. The notion that trade policy has increasingly shaped the distribution of FDI among developing countries finds little empirical support. Even more surprisingly, sectorally disaggregated correlations calculated on the basis of United States data for FDI stocks do not support the view that trade-related restrictions have discouraged FDI in manufacturing more strongly than FDI in other sectors. This result is in conflict with Taylor (2000), who found openness to trade and FDI to be positively correlated in the manufacturing sector only.

It is especially the complex relation between openness to trade and FDI to which future research efforts should be directed. Such efforts may help discriminate between alternative explanations concerning the link between trade policy and FDI. A first possibility, suggested by significantly negative correlations between trade-related restrictions and FDI in earlier years, is that the tariff-jumping motive for FDI in manufacturing had lost much of its relevance well before globalization became a hotly debated issue. On the other hand, complementarities between efficiency-seeking FDI in manufacturing and market-seeking FDI in services may be underlying the striking similarities in determinants of FDI in both sectors. In addition, complementarities in reform programmes, e.g. trade liberalization going along with privatization of public enterprises in the services sector, may have played an important role.

Similar to most of the existing literature, we dealt with FDI in fairly aggregate terms, even though we separated FDI in

manufacturing from FDI in other sectors in parts of our analysis. Future research should aim at providing a more differentiated picture, notably by identifying different types of FDI within the manufacturing sector. For instance, industry-specific characteristics, such as factor intensities and export propensity, may be referred to in order to separate efficiency-seeking FDI from market-seeking FDI in manufacturing. Such an analysis can help clarify, *inter alia*, the relevance of an open trade policy environment for developing countries striving for efficiency-seeking FDI in manufacturing.

Besides disaggregating the FDI variable, efforts should be directed at expanding the data base on non-traditional FDI determinants, in terms of country coverage and FDI policies. Among FDI policies not covered in the present article, FDI incentives may be particularly relevant for future research. This is for two reasons: the use of incentives has proliferated (UNCTAD, 1998, p. 102), and globalization may have made incentives a more important determinant of FDI (Kokko, 2002). ■

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Annex

Definition of variables and statistical sources

Administrative bottlenecks:	Inefficient administration and red tape; survey results presented in ERT (2000); 0 = low impediments, 6 = high impediments.
Complementary factors of production:	Average of survey results presented in ERT (2000) on three factors (0 = low impediments, 6 = high impediments): <ul style="list-style-type: none">• local finance: inadequate regulatory framework, insufficient links with international financial markets, and discrimination against private investors by state banks;• local private sector: lack of strength and efficiency; inadequate local supplies of goods, services and finance; inefficient distribution systems;• basic and higher education: lack of trained people in terms of quantity and quality; low opinion of apprenticeship schemes.
Cost factors:	Average of survey results presented in ERT (2000) on four factors (0 = low impediments, 6 = high impediments): <ul style="list-style-type: none">• taxes: complex tax structure; tax levels; discrimination against FDI and other distortions; inequality and inefficiency in tax collection; international double taxation;• personnel: discriminatory employment conditions compared to local employers; quotas and time limits on work-permits for international staff;• restrictive labour legislation: pressure to employ or retain more or other staff than required;• labour-management relations: trade unions with high leverage in TNCs.
Entry restrictions:	Average of survey results presented in ERT (2000) on three restrictions (0 = low impediments, 6 = high impediments): <ul style="list-style-type: none">• ownership restrictions: mandatory state or local partnership; limitations related to industrial property and land;• access to sectors and activities: industries reserved for state or local enterprises; restrictions related to acquisition of existing enterprises; minimum investment requirements;

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(Annex continued)

	<ul style="list-style-type: none">• approval procedures: discrimination against private business or FDI; complex procedures; rapidly expiring licenses; red tape.
FDI:	Flow and stock data, in million dollars and dollar per capita, from UNCTAD's online database.
GNP growth:	Annual average of percentage growth rate of GNP at market prices based on constant local currency; World Bank (World Development Indicators, 2001, CD-ROM).
GDP per capita:	GDP per capita based on purchasing power parity, in current international dollars; World Bank (World Development Indicators 2001, CD-ROM).
Population:	Million; World Bank (World Development Indicators, 2001, CD-ROM).
Post-entry restrictions:	Average of survey results presented in ERT (2000) on six restrictions (0 = low impediments, 6 = high impediments): <ul style="list-style-type: none">• management control/freedom of decision: political pressure on management; discretionary state intervention;• performance requirements: requirements with regard to exports, local content and manufacturing; foreign exchange neutrality; import and local sales licenses depending on export performance;• foreign exchange transactions: restrictions with regard to profit remittances, import financing and payment of fees; delays imposed on transfers; additional taxation of remittances;• exit restrictions: restrictions on repatriation of capital;• price controls: freezing prices and/or wages;• marketing and distribution: interference in the structure of sales organizations and product distribution.
Restrictions on foreign trade:	Foreign trade monopolies; import/export licensing and quantitative restrictions; level and structure of import duties; regulated access to foreign currency for imports; survey results presented in ERT (2000) ; 0 = low impediments, 6 = high impediments.

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(Annex concluded)

Risk factors:	Average of survey results presented in ERT (2000) on seven factors (0 = low impediments, 6 = high impediments): <ul style="list-style-type: none">• inconsistent, unclear and/or erratic regulations;• risk of nationalization or expropriation;• shortcomings in legal and regulatory systems;• political instability;• environmental risks (e.g. contingent liabilities for previous environmental damage);• high rates of criminality;• civil disturbances and violence.
Technology-related regulations:	Average of survey results presented in ERT (2000) on two factors (0 = low impediments, 6 = high impediments): <ul style="list-style-type: none">• intellectual property protection: insufficient protection for patents, copyrights, trademarks etc.; no, insufficient or highly taxed remuneration for brand use, technical assistance and technology transferred;• technology targeting: interventions into corporate technology transfers; pressure to dissipate a company's R&D efforts; insistence on local R&D.
Years of schooling:	Average years of schooling of the total population aged 15 and over; Barro and Lee (2000).

**Annex table 1. Summary statistics on FDI determinants,^a
1992 and 1999**

Indicator	Economies with weak attractiveness (median and worse)		Economies with strong attractiveness (better than median)	
	1992	1999	1992	1999
Population (millions)	20.0	22.7	225.7	250.8
GDP per capita (dollars)	1848	2421	6221	7720
GNP growth (per cent) ^b	3.0	2.5	7.4	5.6
Administrative bottlenecks ^c	2.5	1.5	0.6	0.0
Entry restrictions ^c	3.3	1.7	1.6	0.7
Risk factors ^c	1.3	0.5	0.4	0.1
Complementary factors of production ^c	2.9	1.7	1.5	0.5
Years of schooling ^d	3.8	4.6	6.5	7.3
Cost factors ^c	1.6	1.2	0.8	0.5
Restrictions on foreign trade ^c	3.9	2.5	1.6	0.8
Post-entry restrictions ^c	1.9	1.0	0.8	0.3
Technology-related regulations ^c	2.4	1.6	1.2	0.5

Source: ERT (2000); World Bank (2001); Barro and Lee (2000).

- ^a Missing observations: Taiwan Province of China for GDP per capita and GNP growth; Nigeria, Saudi Arabia and Viet Nam (1999) for average years of schooling.
- ^b 1991-1994 and 1995-1998 (instead of 1992 and 1999).
- ^c Survey results; range from 0 (no impediments) to 6 (major impediments).
- ^d 1990 and 2000 (instead of 1992 and 1999).
- ^e 1994 vis-à-vis 1991 and 1998 vis-à-vis 1995 (instead of 1992 and 1999).

How do United States public utility corporations differ from their domestic counterparts?

Clifford Wymbs*

Public utilities as an industry provide a unique research opportunity. Historically, firms in this industry have been domestic-oriented, but within the past decade they have experienced fundamental change, creating considerable domestic and foreign investment opportunities. This analysis segments the universe of public utility firms in the United States into two groups, those with international projects and those without. Secondary data and a questionnaire are used to compare and contrast these populations. It is concluded that the following variables significantly influence a firm's propensity to have international projects: firm-specific factors of organizational learning, as measured by prior domestic acquisition experience and size as measured by assets; and environmental factors of institutional legislation and oligopolistic behaviour factors, as measured via survey questions. One conclusion is that firms that have not yet gone international during the study period have no plans to do so over the foreseeable future and will likely become acquisition targets.

Introduction

The main objective of this analysis is to use a multilevel research methodology – survey research and quantitative analysis – to identify key drivers associated with the internationalization of United States public utility firms. As part of the analysis, we isolate specific factors that discriminate between firms that have chosen to go international from those that remained domestic-only.

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Public utilities (telecommunications, electric, gas and water) today provide the basic infrastructure necessary for economic growth of both developing and developed countries, just as they did at the turn of the nineteenth century. Over the past 70 years, governments have regulated these industries, attempting to maintain a complex balance of social, economic and political objectives. Government control, coupled with the traditional domestic focus of public utilities, has made this a neglected area of research for industrial and international business scholars (Wymbs, 1999).

Beginning in the 1980s, trends associated with globalization of business, smaller government and dramatic technological changes have been key factors in precipitating fundamental change and a worldwide growth of foreign direct investment (FDI) in public utility industries. M. Sarkar, S. Cavusgil and P. Aulakh (1999) observed that the globalization of key public utility industries is one of the most fascinating developments of the past decade due to the profound changes in organizational structure and the dizzying speed and volume of United States outward FDI. Many scholars found theory-driven inquiry into public utility industries to be scarce and fragmented (Boblin and Granstrand, 1994; Sarkar, Cavusgil and Aulakh, 1999; Wymbs, 2002).

Thus, public utilities present a unique research opportunity because these service industries have been constrained by government institutions to operate only at the national, regional and/or state levels until the past ten or fifteen years. For each utility industry, specific legislative or court action can be identified as a demarcation point when extra-territorial (outside the franchise area) and international activity were permitted. This is ideal from a research perspective because the umbrella of institutional constraints has dramatically reduced variability within firm path dependencies. It allows us to begin analysis of a relatively homogeneous population at the demarcation point with a fixed set of rules that is uniformly applied to all industry participants. Thus, we can attribute variations in firm location choices to firm specific attributes, similar to L. Nachum and C. Wymbs (2002). This fills the void addressed by D. E. Westney (1996, p. 10) when she observed: “we have remarkably few studies of what, if anything, makes an MNC different

from comparable firms in its home country that do not have international operations”.

To answer this question, this article compares two populations of firms: “domestic-only” and “international” firms. Then a model is developed to identify factors that differentiate these firms. Next, a logit model is estimated (for both our sample and the total population of firms), and each of the hypotheses is tested. Then, industry details obtained from a survey are discussed. Finally, manager forecasts from the late 1990s are compared with actual data from 2000 and 2001, to bring closure to the analysis.

Theory and hypotheses

Public policy responded to escalating public utility prices in the 1970s and 1980s by shifting the reliance from monopoly supply to pluralistic supply (Trebing, 2001). The introduction of competition set the stage for the following four main areas of inquiry: (1) how firms create unique attributes that provide them competitive advantage in both home and host markets; (2) how these are enhanced over time; (3) how firms’ views on competition, globalization and liberalization affect their expansion choices; and (4) what the likely competitive responses are. The first two questions relate to internal drivers of firms’ behaviour; the third question addresses the important part that the external environment has in predicting firms’ expansion behaviours and the final question brings closure by telling what is happening in the emerging competitive utility market.

How firms create competitive advantage

The resource-based theory indicates that a firm’s competitive advantages are internally generated rather than determined by the industry of which it is a part (Capron and Hulland, 1999). According to J.B. Barney (1991), the resource-based view assumes that each firm has rare, sustainable and imperfectly imitable resources, and firms use them to obtain differential advantage. However, applying the resource-based view to our problems is not completely satisfying. It does identify the firm vs. the industry as the appropriate level of

analysis, but it begs the main question, namely how these relatively homogeneous firms gain the resources that set them apart. One possible explanation could be associated with firm size. T. Horst (1972) suggested that the propensity of firms to undertake foreign production is likely to be positively related to their size. Y. Kimura (1989) concluded that domestic size was an important variable, but he cautioned that size may be a surrogate variable for technology innovation, product diversification and vertical integration. Another related explanation could be J. H. Dunning's (1995) advantage of common governances associated with some of the larger utilities. Large firms may possess global scanning (Kogut, 1983) possibilities through industry consortium participation, may leverage familiarity with new product introductions (Freeman, 1987) or may be able to exercise political capture behaviour via extensive lobbying of legislators (Phillips, 1993) in order to create differential advantage necessary to expand international. Formally:

H1: The size of firms significantly affects their location choices, with larger firms more likely to seek international activities.

Firms' advantages enhanced over time

Once investment occurs outside the franchise territory, significant learning takes place consistent with knowledge enhancing (dynamic) theories of location (Dunning and Wymbs, 2001; Kogut and Zander, 1994; Kuemmerle, 1999). Over time, some firms develop increasingly efficient operations (consistent with evolutionary theories of Nelson and Winters, 1982; Cantwell 1989 and 1994), due to the ability of managers to devise more appropriate organizational structures to harness and coordinate assets, processes and routines, particularly those associated with both acquisitions and joint ventures (Prahalad and Doz, 1987; Bartlett and Ghoshal, 1989). Similarly, T. Noda and D. Collis (2001) stated that firms' varying local market experiences lead directly to their taking different subsequent strategic actions. P. Very and D. Schweiger (2001) found a stage process between domestic and cross border acquisitions and the importance of learning throughout the process. Similarly, C. Carr (1999) observed that technological synergies and learning between firms in domestic acquisitions and international

strategic alliances are important in determining long-term outcomes. Extra-territorial expansion can be expected to take place first in the United States market and then, with the knowledge gained there, to be leveraged and applied in foreign markets. Formally:

H2: The organizational structure of firms significantly affects firms' locational choices, with firms that have gained experience in domestic acquisitions being able to leverage that operating know-how into international entry.

The economic theory of F.T. Knickerbocker (1973), which states that oligopolists would likely follow each other into new markets to safeguard their relative market position, indicates that utility firms would choose to follow each other into new (domestic and foreign) markets. Firms that improve their relative position in their industries will grow, while firms that remain solely in their territory could fall below minimum efficient scale in the industry and suffer dire financial consequences (Audretsch, 1995). The growth mantra: "we want to be a growth company" has been chanted by the chief executive officers (CEOs) of many utilities, from Robert Allen of AT&T to William McCormick of CMS Energy Corp (Hawn, 1999). More specifically, Wymbs (1999), in an end-user survey, found that public utility firms viewed the growth of market capitalization to be more important than growth of sales, profits or market share, in measuring the overall success of their firm. Formally:

H3: The prospects of growth significantly affect a firm's location decision, with firms seeking new markets and growth being positively rewarded with higher stock prices.

How do firms' views on competition, globalization and liberalization affect their expansion choices?

There is an extensive array of literature that can be used to guide the identification of environmental factors of an industry in transition. Many of the important areas can be gleaned from the studies of past industry deregulations.¹ The key areas (and their

¹ In fact, Kline (2001) draws parallels between the deregulation of airlines with that of the break-up of AT&T.

associated research basis) chosen to identify factors that differentiate domestic-only from international firms were: domestic legislative change (Faulhaber, 1987; Phillips, 1993); product technology advances (Schumpeter, 1934; Freeman, 1987); domestic competitive pressures (Porter, 1985 and 1990); liberalization of markets (Cawson et al., 1990); and global competitive forces (Dunning, 1993).

H4: A firm's view of the external environment is a key leading indicator and predictor of future expansion behaviour, with firms seeking domestic legislation protection less likely to pursue international expansion.

What are likely competitive responses?

The asset exploiting theory of T.J. Wesson (1993 and 2001) suggests that utilities seek opportunities around the world, provided that returns were sufficiently large. For R. Vernon (1983), A.M. Rugman (1979) and B. Kogut (1985), risk diversification as a motive for FDI appears to be important for firms first entering the international market because public utilities are saddled with fixed tangible assets and conservative shareholders. As more and more markets become liberalized, one would expect E.M. Graham's (1975 and 1998) theory of "tit for tat" to be played out in the utility market with growing FDI and presence in the United States market. Formally:

H5: Oligopolistic behaviour affects the foreign market choices of firms, with firms that view competitors and markets as global to be more likely to seek international alternatives.

With the theoretical backdrop and environmental context established, a five-part approach is used to evaluate the basic question: "how do transnational public utility firms differ from their domestic counterparts?" First, the research scope is identified and firms for each industry from the two populations (domestic vs. international) are compared. Second, a model is developed that identifies key factors that statistically describe firms in the two

populations. Third, survey and population data are used in the model to test the hypotheses. Fourth, management input is obtained via a questionnaire to glean detailed industry and environmental information. Fifth, the projections of managers regarding industry evolution are compared with what actually happened.

Research scope

The first step in the analytical process to ascertain differences between domestic firms and transnational corporations (TNCs) was to select a time period. Though the *Worldscope* database provides access to data that go back to 1986, the year 1992 was chosen as the first study year of the project because it was the first year of the Energy Policy Act of 1992 that permitted large gas and electric holding companies to own foreign stock and participate in foreign ventures (Phillips, 1993). Beginning in 1984, the regional Bell operating companies (RBOCs) and AT&T were legally permitted to enter foreign ventures; however, by the beginning of 1992, only two of the seven RBOCs had an established international strategy (Smith, 1993). Also, most other countries did not liberalize ownership restrictions in the telecommunication industry until after 1992. The analysis covers the years up to 1996, because this provides a key five-year window when significant modality experimentation was taking place with regard to foreign market entry.

Second, two populations were created, i.e. domestic-only and international firms. First, the *Disclosure* data for July 1997 were used to identify a universe of 217 United States-based public utility firms as of December 1996. The *Disclosure* database also contained a comprehensive set of monthly financial data for each company. Next the *Security Data Corporation* monthly database for the period of January 1992 to December 1996 was consulted to identify all foreign acquisitions, joint ventures and alliances by these United States public utility firms. Seventy-seven firms engaged in foreign activities during the 1992-1996 period. This leads to the first research question: are there financial differences between international and domestic public utility firms?

Table 1 highlights the characteristics of the universe of public utility firms. The table shows that, in 1996, 6 per cent of the firms were water utilities, 19 per cent were telecommunication utilities, 28 per cent were gas utilities, 29 per cent were electric utilities and 18 per cent were combined electric and gas utilities. In aggregate, 35 per cent of the firms in table 1 had international activities. The telecommunications industry was by far the most internationalized, with almost 60 per cent of its firms having such activity. This was caused mainly by changing standards in cellular technology and

Table 1. Number and revenues of total, domestic and international firms by sector, 1996

Industry	Total	Per cent of total		Domestic International		Domestic	International
		Domestic	International	(Per cent)			
Electricity							
Number of firms	63	29.0	44	19	69.8	30.2	
Average revenue (billions of dollars)			2.854	5.972			
Total revenue	239	19.7	125.6	113.5	52.5	47.5	
Gas							
Number of firms	60	27.6	44	16	73.3	26.7	
Average revenue (billions of dollars)			3.007	5.584			
Total revenue	222	18.3	132.3	89.3	59.7	40.3	
Gas and electric							
Number of firms	39	18.0	24	15	61.5	38.5	
Average revenue (billions of dollars)			1.763	4.378			
Total revenue	108	8.9	42.3	65.7	39.2	59.8	
Telecommunications							
Number of firms	42	19.4	17	25	40.5	59.5	
Average revenue (billions of dollars)			7.051	20.795			
Total revenue	640	52.8	119.9	519.9	18.7	81.3	
Water							
Number of firms	13	6.0	11	2	84.6	15.4	
Average revenue (billions of dollars)			0.126	0.755			
Total revenue	3	0.2	1.39	1.51	47.8	52.2	
Total number of firms	217	100.0	140	77	65.0	35.0	
Total firm revenue	1 211	100.0	421.49	789.91	34.8	65.2	

Source: *Worldscope 1997* database.

AT&T's divestiture in the 1980s. The high international percentage also demonstrates the importance of R&D technology as a likely ownership specific advantage. The water utilities were the least internationalized, due to their smaller size and the more localized nature of their business. Of the remaining industries, 73 per cent of the gas utility firms were domestic, 70 per cent of the electric utility firms were domestic and 62 per cent of the gas and electric utility firms were domestic.

When utilities are grouped by sales revenue rather than number of firms, telecommunication firms account for 53 per cent of public utility revenues, while electric firms account for the next largest amount, 20 per cent. Gas firms accounted for 18 per cent, electric and gas for 9 per cent and water firms for only 0.2 per cent. In aggregate, approximately two-thirds of the combined revenues of United States public utility firms came from firms with international activities. The average sales revenue for international telecommunication firms was \$20.8 billion, while that of their domestic counterparts averaged only \$7.1 billion. Only the gas utility international firms were less than double the size of the domestic firms in that industry. International gas and electric firms were almost 150 per cent larger, while international water firms were almost five times larger than domestic ones. The sales revenues figure was chosen for the above comparisons because it is the figure most often quoted as a financial measure; however, similar trends, with minor variations, can be observed for total assets, employment and market capitalization.

The above data reveals two important components that must be factored into all quantitative research: individual sector differences matter; and international firms, regardless of industry, are much larger than their domestic counterparts.

The model

To test the five hypotheses presented above, a logistic regression model was constructed, linking a firm's decision to seek international projects – the dependent variable – with a set of potentially significant explanatory variables associated with drivers of such firm behaviour. The model is of general form:

$$\text{Log } D_i = f(F_i, P_i, C_i, I_i) + E_i$$

D – whether or not a firm has international activity

F – variables related to firm specific characteristics

P – variables related to a firm's perception of the external environment

C – control variables related to industries

I – interaction variables (firm variables (F) crossed with (X) control variables (C))

E – standard error term

i – firms, $i=1\dots m$

The dependent variable is a dichotomous variable that indicates whether or not a firm has sought international projects. The criteria used to differentiate domestic-only from international firms have been previously identified.

The independent variables: firm-specific

H1: Size is typically operationalized in terms of standard measures such as sales, employment and/or assets. Considerable collinearity is likely among these variables, so the final model most probably has only one size variable in it. A priori, we chose assets because it is the most stable and most reliable measure.

H2: TNCs' organizational structure. Organizational structure efficiencies are operationalized by using prior experiential knowledge associated with extra-territorial activity. More specifically, if a firm was able to acquire a firm within the United States before the start of the study (January 1992), it was assumed that it had organizational routines in place that would facilitate international expansion.

H3: Growth. One of the main opportunities associated with liberalization is the pursuit of growth, particularly the growth in market capitalization. The stock market has historically rewarded companies that are first movers in tapping new markets here-to-fore not accessible to them. However, this raises an interesting causality question: it could be argued that international operations lead to larger size, as well as that larger size leads to international operations. Though

causality cannot be asserted, a size variable (assets) is specifically included in the analysis to guard against “larger size leading to international operations” that might be associated with this variable. It is not likely that two measures of size would be significant in the analysis. Therefore, growth is operationalized by looking at the change in market capitalization between the beginning and the end of the study period, as a proxy variable.

The independent variables: firms’ perception of the external environment

A senior manager survey² of public utility firms was used to operationalize the variables associated with the external environment. Managers were asked, on a scale of 1 to 5 (with 5 being most important), to “indicate the strength of each of the below forces as fundamental drivers of firm behavior changes in your industry” for a set of eight institutional³ and four oligopolistic behaviour⁴ factors.

H4: Institutional. Both domestic legislation-state and state regulation were perceived by senior executives as key agents of change (i.e. had a score of 4 or above). As D. North (1981) indicates, Governments make the rules of the game that significantly redefine the competitive landscape. As set out in table 2, the comparison between international and domestic firms revealed significant differences for the foreign legislation and increased foreign privatization, state regulation and state legislation variables. Because the state legislation variable was the only one that had a mean score greater than four (in fact with 4.43 it was the highest score) and had a significant difference between domestic and international firms, it was the chosen variable. This is

² The details associated with the administration of the survey are discussed in the next section of the analysis.

³ The specific institutional factors were: increased foreign privatization; foreign legislation; domestic legislation-federal; domestic legislation-state; federal regulation; state regulation; court actions; macro-organizational government policies.

⁴ The specific oligopolistic behaviour factors were: new local or adjacent markets; industrial globalization; maverick firm challenging common wisdom; merging basic value chain across utility industries.

appropriate because each utility industry had changes at this level, and this change significantly affected profits that were used to fund both domestic and international operations.

H5. Oligopolistic behaviour. Not surprising, as shown in table 2, the industrial globalization variable was rated significantly lower for international firms than for domestic-only firms (Wymbs, 1999). International firms are less concerned with industrial globalization because they actively compete in global markets while domestic-only firms increasingly fear being acquired by foreign firms. None of the other oligopolistic behaviour variables had a mean score of over four or had significant domestic/international differences; therefore, the chosen oligopoly behaviour force was industrial globalization. Though not a perfect match, this is reasonable because firms that view globalization as important are likely to follow each other around the world, seeking new markets, while those that do not are likely to remain domestically focused.

The independent variables: control

Based on the finding in the research scope section, control variables for each industry were introduced. A significant sign of this variable would imply that, in addition to firm characteristics, industry characteristics also affect a firm’s decision to go international. The base for industry control variable could have been telecommunications because that was the first industry to be given freedom to pursue international activities; however, the electric

Table 2. Comparison of international and domestic firm responses with significant differences, 1998

Item	Mean Domestic	International	Difference	St. Error	T-test	Probability
Increased foreign privatization	2.96	2.38	3.58	-1.20	0.37	-3.21 0.004
Foreign legislation	2.68	2.07	3.33	-1.21	0.45	-2.77 0.001
Domestic legislation-state	4.43	4.77	4.08	0.68	0.38	1.78 0.088
State regulation	4.40	4.69	4.08	0.61	0.35	1.74 0.096
Industrial globalization	3.38	3.82	3.00	-0.82	0.42	-1.93 0.067

Source: Firm questionnaire.

industry was chosen because it had the most number of firms and was distributed similarly to the overall population of international/domestic firms.

The independent variables: interaction variables (firm-specific variables crossed with control variables)

Because international and domestic firms appear in table 1 to be clearly differentiated by industry,⁵ there could be significant interaction effects between the industry and firm-specific variables. Interaction coefficients measure the joint effects of firm and industry characteristics. Now, the model through the partial slope coefficients is able to identify simultaneously differences between big and small electric utilities that might have zero propensity to go international from a large telecommunication utility that may have a large propensity to go international and a small telecommunication utility that has a non-zero but smaller propensity to go international.

The error term

E_i takes into account unobservable characteristics that affect the locational classification of a firm as being domestic-only or international. Table 3 summarizes the explanatory variables included in the model, their operational measures, descriptive statistics and correlation coefficients.

Results and discussion from survey firms

Because of the limited number of survey responses (33), it was not possible initially to estimate the full model with interaction effects and industry control variables. Instead, the focus was on the main model that includes the firm-specific variables and the environmental variables specifically identified to test each of the five hypotheses.

⁵ A chi-squared analysis was performed on the contingency table that compared industries with domestic/international firm operations. This confirms the results that were indicated in table 1, namely, firms in the telecommunications industry are significantly (at the 0.01 level) more international and less domestic than any of the other industries.

Table 3. Means, standard deviations and correlations of all variables

Construct	Operation	Value	Descriptive statistics			Correlation												
			Mean	Standard deviation	Domestic size	Org. structural growth	Telecom	Electricity/gas	Gas	Water	Institution							
Dependent variable		0,1	0.64	0.48	1.00													
Firm-specific	Variables																	
Size	Assets 1992	Billions of dollars	9.37	7.52	-0.46	1.00												
Org. structure	Prior domestic projects	0,1	0.36	0.48	-0.45	0.30	1.00											
Growth	Change in market capitalization 1996-1992	Billions of dollars	0.88	0.27	-0.32	0.36	0.32	1.00										
Institution ^a	Domestic-legislation	5-1 Likert Scale	4.43	1.24	0.28	0.14	-0.34	-0.43										
Olig. behaviour ^a	Industry globalization	5-1 Likert Scale	3.38	1.13	-0.51	0.12	0.23	0.36	-0.36									
Control variable																		
Telecom	Dummy	0,1	0.19	0.40	-0.30	0.33	0.27	0.45	1.00									
Electric/gas	Dummy	0,1	0.18	0.38	-0.03	-0.04	-0.13	-0.14	-0.21	1.00								
Gas	Dummy	0,1	0.28	0.45	0.12	-0.25	0.01	-0.06	-0.27	-0.30	1.00							
Water	Dummy	0,1	0.06	0.24	0.11	-0.14	-0.12	-0.07	-0.11	-0.13	-0.17	1.00						
Electric	Dummy	0,1	0.29	0.46	0.08	0.10	-0.06	-0.15	-0.29	-0.33	-0.41	-0.18	1.00					

^a Estimated using only firms in the survey.

Using a modified step-wise approach, the logit model was estimated, using only the three variables associated with the firm (F) characteristics, i.e. size, organizational structure and growth. As hypothesized, the coefficients were consistent with the directional effects for hypotheses 1, 2 and 3, and all variables were significant but at the less stringent 0.15 level (table 4).

As the second step in the process, environmental variables, institutional factor and oligopoly behaviour were added to the model. When all five explanatory variables are included, only the “learning” and “oligopoly behaviour” variables were significant at the 0.10 level. The model that produced the greatest number of significant explanatory variables at the 0.10 level was one that contained the “learning,” “institutional factor” and “oligopoly behaviour” variables.

Table 4. Public utility interaction logit regression results for surveyed firms

	Item		Main model (H1, H2, H3)	Main model (plus H4, H5)	Final survey model (H2, H4, H5)
<i>Hypothesis</i>	<i>Construct</i>	<i>Operation</i>	<i>Coefficient</i>	<i>Coefficient</i>	<i>Coefficient</i>
	Intercept electric	Base – international, 2.46**	9.6	-0.96	
H1	Firm-specific Size	Variables Assets 1992	-0.3	-0.1	
H2	Organizational structure	Prior domestic projects	-2.1*	-4.5*	-4.51**
H3	Growth capitalization 1996-1992	Change in market -0.1	-0.5		
H4	Environment	Survey question		-0.3	1.90+
H5	Oligopolistic behaviour	Survey question		-1.6*	-1.80**
	<i>Regression</i>	<i>Statistics</i>			
	R ²		0.557	0.698	0.552
	Chi-Square		25.08	28.64	24.20
	DF		3	5	3
	Prob>ChiSq		0.001	0.001	0.001
	N		33	30	32

**p<0.01; *p<0.05; +p<0.10.

As indicated in table 4, both firm-specific and environmental factors are important in explaining differences in domestic only and international firm behaviour. This model has an R^2 of 0.55 and a Chi-Square value that indicates that the overall model was significant at the 0.001 level. A more detailed discussion of the significant variables follows.

For firms that had completed domestic acquisitions prior to the study period, international projects represent an extension of existing practices, rather than something completely new. Consistent with P. Very and D. Schweiger (2001) and C. Carr (1999), experiential learning associated with integrating extra-territorial domestic activities create a unique path dependency that could translate into a rare and difficult to imitate resource. This finding confirms H2.

Firms that place the greatest importance on state legislation seek institutional rather than competitive solutions to the evolving public utility marketplace. As such, they are less likely to become international; this confirms H4.

Firms that view industry globalization as important are well on the way to pursuing market vs. government solutions in response to the liberalization process in public utilities. They believe that, to maintain their relative industry position, it is necessary for them to follow their competitors in the exploration of new markets, particularly international. Therefore, the stronger this belief is ingrained in senior managers' minds, the more likely they are to follow their competitors into new markets and exhibit oligopoly behaviour (Knickerbocker, 1973). The significance of the "oligopoly behaviour" variable confirms H5.

The change (between 1996 and 1992) in the market capitalization variable is a proxy variable to indicate all growth related activities of a firm. The main reason this variable and H3 do not prove significant is that they are relatively highly correlated with two other variables, the institutional factor (-34 per cent) and the oligopoly behaviour variables (45 per cent). All three appear to

have a market/growth component that could not be isolated using the data.

Size, as measured by total assets, is expected to have a positive influence on international expansion. Its non-significance was somewhat puzzling because it is not highly correlated with either of the environmental variables: less than 15 per cent. One possible explanation is that the small sample size might have limited the number of significant explanatory variables in the model.

Results and discussion from the population of firms

Expanding the analysis from the survey sample to the total population of firms has advantages and disadvantages. On the negative side, it reduces the number of hypotheses that one can test (data were not available to test H4 and H5 in the population analysis) and increases the positive bias associated with the remaining growth variable (change in market capitalization) linked to testing H3; this variable has a relatively high correlation with the excluded environmental variables – institutional factor and oligopoly behaviour. On the positive side, it increases a number of data points, thereby increasing the reliability of the estimates; it provides the opportunity for variables like size (assets) to prove significant; it allows testing specific interaction effects; and it permits the identification of industry effects.

This model was estimated by logit analysis (Demaris, 1992). The results are shown in table 5. It had an R^2 of 0.368 and the Chi-Square indicated that the overall model was significant at the 0.001 level. As hypothesized, the model showed H1 (size), H2 (organization) and H3 (growth) as significant in line with a priori expectations.

Consistent with Y. Kimura (1989) and T. Horst (1972), size, as measured by total assets, has a positive influence on international expansion. Larger firms already have an organizational infrastructure that permits the managing of complicated and diverse projects. Also, larger firms are better able to deal with international projects that may not generate cash for a considerable period of time.

Consistent with the survey model, firms that had completed domestic acquisitions prior to the study period achieved experiential learning that created a rare and difficult-to-imitate resource.

The change (between 1996 and 1992) in the market capitalization variable is a proxy variable to indicate all market/growth related activities of a firm.⁶ One interpretation of the significant negative coefficient for this variable is that the stock market rewards international expansion because it represents a key area of relative competitive advantage and an important option for future growth.

Table 5. Public utility logit regression results

Construct	Operation	All variables		Final population model	
		Coefficient	t-value	Coefficient	t-value
<i>Intercept</i>	<i>Base - International electric</i>	3.96	36.31***	2.93	52.14***
<i>Firm-specific variable</i>					
Size	Assets 1992	-0.40	5.85**	-0.30	25.18***
Size	Employment 1992	-7.80	0.53		
Size	Revenue-level 1996	3.50	1.49		
Organizational structure	Prior domestic projects	-1.60	14.55***	-1.63	15.86***
Growth	Change in market capitalization 1996-1992	-0.40	1.50	-0.50	5.89**
Growth	Change in market capitalization 1996-1995	-0.50	0.86		
<i>Control variable</i>					
Telecom	Dummy	-2.26	8.39**	-1.46	6.10**
Electric/Gas	Dummy	-1.41	5.51**	-1.02	4.65**
Gas	Dummy	-0.93	2.00		
Water	Dummy	-1.18	1.39		
<i>Regression statistics</i>					
R ²		0.392		0.368	
Chi-Square		99.91		94.69	
DF		10		5	
Prob>ChiSq		0		0	
N		197		198	

*** p<0.001; **p<0.01; *p<0.05.

However, one must interpret this variable with care because it is potentially biased.

Both the telecommunications and electric/gas dummy variables were significant; however, the water and gas dummies were not. The significant telecommunications and electric/gas variables indicate that international projects were more likely to come from these two utilities than from electric utilities, the base dummy variable. The data in table 1 clearly indicate the importance of international projects for the telecommunications industry and one expected it to be significant here. The dummy variable for water utilities was not significant, possibly because there were only a limited number of water utilities in the population. Also, the dummy variable for gas was not significantly different from electric utilities. Interestingly, the dummy variable for firms that had both gas and electric operations was significantly different from electric-only firms. The significance of this variable could also contain a learning component (an ability to run different business simultaneously), similar to the domestic acquisition variable.

Interaction effect variables were calculated for the control and firm specific variables, except for water utilities, which had a limited number of observations. None of the interaction variables proved significant at the 0.10 level (table 6). This is somewhat surprising; hence the interaction effects for each industry, one at a time, were tested to avoid potential multicollinearity identification problems. The results for the telecommunications industry, the most international industry, are reported in table 6. Once again, no significant interaction effects were found.

The above quantitative analysis of the population of firms permits testing specifically hypotheses 1, 2 and 3 (interaction effects

⁶ Wymbs (1999) identified the international activities (alliances, joint ventures, acquisitions) of all United States public utilities for the period of 1992-1997. He found that 308 international telecommunication activities were spread over 58 countries. Consistent with Knickerbocker (1973), the vast majority of the projects, over 93 per cent, were located in countries that had more than one United States firm present. Similarly, 159 international electric activities were spread over 36 countries, with 92 per cent located in countries with multiple United States firms.

and industry effects), while the survey-based model permits the analysis of both firm and environmental factors that quantitatively differentiate domestic-only from international firms. As indicated previously, each has its strengths and weaknesses.

Next, differences between these two groups of firms were explored in greater depth (both across time and with regard to specific industry factors) via a detailed survey. Senior managers' perceptions of the industry are a good way to shed additional light

Table 6. Public utility interaction logit regression results

Construct	Operations	Full interaction model	Telecom interaction model	Final model
		Coefficient	Coefficient	Coefficient
Intercept	Base – International, electric	3.39***	3.07***	2.93***
Firm-specific variable				
Size	Assets 1992	-0.60	-0.30***	-0.30***
Organizational structure	Prior domestic projects	-1.51**	-1.73***	-1.63***
Growth	Change in market capitalization 1996-1992	-0.60	-0.50**	-0.50**
Control variable				
Telecom	Dummy	-2.49**	-1.87**	-1.46**
Electric/Gas	Dummy	-0.45	-1.07**	-1.02**
Gas	Dummy	-0.58		
Water	Dummy	-1.06		
Interaction variable				
Size	X Telecom	0.60	1.33	
Organizational structure	X Telecom	0.60	-0.04	
Growth	X Telecom	0.98	0.05	
Size	X Electric/gas	-0.20		
Organizational structure	X Electric/gas	-1.18		
Growth	X Electric/gas	-0.40		
Size	Gas	-0.40		
Organizational structure	Gas	-0.14		
Growth	Gas	-8.90		
Regression statistics				
R ²		0.399	0.374	0.368
Chi-Square		102.59	96.32	94.69
DF		16	8	5
Prob>ChiSq		0	0	0
N		181	198	198

*** p<0.001; **p<0.01; *p<0.05.

on factors that influence firms' behaviour in times of fundamental industry change.

The survey

Survey research is used to collect information directly from people about their motivations, plans and beliefs (Fink and Kosecoff, 1985). The survey instrument used here was part of a larger study of United States public utility industries. The questionnaire was pre-tested with industry experts. Then, between February and June 1998, questionnaires were sent to the CEOs in 217 firms (the complete universe of United States public utility firms). Twenty-seven firms completed questionnaires. A possible explanation of the relatively low response rate is that each public utility industry was experiencing fundamental change, with considerable downsizing and reorganizations, thereby making the filling out of a research questionnaire a relatively low personal and corporate priority. When the questionnaire data collection ended in June 1998, five of the respondent firms purchased and/or had announced the purchase of seven other firms that had previously been sent questionnaires. By including these firms, the survey response rate was increased from 12.4 per cent to 15.7 per cent.

However, as indicated in table 1, the industry has relatively few large firms and many small ones; therefore, a more representative view of the industry may be to look at revenues accounted for by respondents rather than the absolute number of respondents. In 1996, the sales revenues of the firms that had returned the questionnaire accounted for 40 per cent of the overall industry sales reported in the *Worldscope* database. Within the critical universe of firms with international projects, over one-quarter of those firms returned the questionnaire, and they accounted for more than 49 per cent of total revenues. Also, completed surveys were obtained for all study categories.⁷ Details are set out in table 7. These data shed light on the important question: do senior executives from international and domestic-only firms perceive differences regarding

⁷ Surveys were obtained for both domestic and international firms in each of five industry groupings (i.e. gas, electric, gas and electric, telecommunication and water).

industry structure, government roles, market dynamics, technology and firm factors?

Table 7. Survey to population comparison, 1996

Industry	In survey		Not in survey	
	Domestic	International ^a	Domestic	International
<i>Electric</i>				
Firms (number)	8	2	36	17
Revenues (billions of dollars)	10.1	5	55	10.1
<i>Gas</i>				
Firms (number)	2	4	42	12
Revenues (billions of dollars)	0.7	19.8	38.5	7
<i>Gas and Electric</i>				
Firms (number)	1	2	23	13
Revenues (billions of dollars)	0.6	8.2	31.2	34.1
<i>Telecom</i>				
Firms (number)	2	10	15	15
Revenues (billions of dollars)	13.4	152.8	13.4	51
<i>Water</i>				
Firms (number)	2	1	9	1
Revenues (billions of dollars)	0.3	0.3	0.9	0.9

Source: *Worldscope 1997* database.

^a Firms were classified as international if they appeared at least once in either the SDC M&A or the SDC Joint Venture/Alliance database for any of the years 1992 through 1997 or if their financial statements showed international assets in the *Disclosure* database. The remaining firms were classified as domestic.

Survey results

Senior level managers were asked in a survey instrument: *what are the most important external factors/forces that have caused (1970-1990), are causing (1991-1997) and are likely to cause (1998 and beyond) your industry to change?* Scores⁸ were recorded for each time period. The group of domestic-only and international firms was separated, then scores were summed and percentages calculated. Aggregate results that show common

⁸ A score was coded: 3 if a respondent said it was the most important change factor; 2 if it was second most important, and 1 if it was the third most important change factor.

tendencies across the time periods are reported, and the particular surveyed items are reported in table 8. Individual utility scores for domestic-only and international firms are reported in table 9.

As indicated in table 8, for each of the time periods, domestic legislative changes are viewed as the dominant change factor for both domestic-only and international public utility firms. However, as expected, the domestic legislative change factor is consistently lower for firms that have international projects. Also, it peaks in importance in the 1991-1997 period, and this is consistent with the view that this is a period of critical industry change and the appropriate study period for this analysis. Product technology advances are indicated to be more problematic for domestic firms because they do not have global scanning capabilities (Kogut, 1983) to identify and effectively harness next generation technologies. During the last two time periods, domestic competitive pressures are increasing for both domestic and international firms. Domestic firms fear these more because of their limited alternative opportunities. The liberalization of markets and global pressures are viewed for the 1991-1997 and the 1998 and beyond periods as significant factors only by those firms that appear ready to take advantage of them and participate directly in foreign markets. This geographic myopia by domestic firms could place them at a severe

Table 8. Public utility change factors, 1970-1998
(Percentage)

Variable	1970-1990		1991-1997		1998-beyond	
	Domestic	Inter-national	Domestic	Inter-national	Domestic	Inter-national
Competitive pressures - domestic	13	20	30	14	35	24
Competitive pressures - global	-	2	1	11	-	11
Globalization of markets	1	-	3	-	1	4
Liberalization of markets	-	9	4	20	8	17
Legislative change - domestic	39	31	41	33	33	23
Legislative change - foreign	-	3	-	10	1	12
Technological advances - product	23	16	16	4	15	2
Technological advances - process	7	14	3	2	6	6
Access to capital	9	5	1	4	-	-
Other	8	1	1	2	1	1

Source: Firm questionnaire.

competitive disadvantage against their international counterparts if international markets have greater profit potential or if there are economies of scope and risk diversification associated with being a global player.

Table 9. Public utility change factors for main sectors, 1997-1998
(Scores)

Variable	1970-1990		1991-1997		1998-beyond	
	Domestic	Inter-national	Domestic	Inter-national	Domestic	Inter-national
Electric						
Competitive pressures - domestic	14	-	30	-	43	-
Competitive pressures - global	-	11	3	33	-	11
Globalization of markets	-	-	3	-	-	-
Liberalization of markets	-	-	-	-	3	22
Legislative change - domestic	39	50	40	17	40	17
Legislative change - foreign	-	17	-	28	-	17
Technological advances - product	29	-	20	-	7	-
Technological advances - process	4	-	3	-	7	33
Access to capital	4	22	-	22	-	-
Other	1	-	-	-	-	-
Gas						
Competitive pressures - domestic	22	25	22	21	33	61
Competitive pressures- global	-	-	-	-	-	-
Globalization of markets	6	-	6	-	6	-
Liberalization of markets	-	33	17	50	17	11
Legislative change - domestic	50	42	39	29	22	28
Legislative change - foreign	-	-	-	-	-	-
Technological advances - product	11	-	11	-	22	-
Technological advances - process	-	-	6	-	6	-
Access to capital	11	-	-	-	-	-
Other	-	-	-	-	-	-
Telecommunications						
Competitive pressures -domestic	17	8	33	17	11	25
Competitive pressures - global	-	-	-	17	-	-
Globalization of markets	-	-	-	-	-	8
Liberalization of markets	-	-	-	-	22	-
Legislative change - domestic	50	8	50	50	11	42
Legislative change - foreign	-	-	-	-	0	17
Technological advances - product	-	50	17	8	33	8
Technological advances - process	33	33	-	8	22	-
Access to capital	-	-	-	-	-	-
Other	-	-	-	-	-	-

Source: Firm questionnaire.

The above analysis provides a good overview of general tendencies of the public utility industries, but one must also look at industry-specific results to see if there are conflicting data that would tend to cancel each other. Highlights of key environmental change factors follow for the electric, gas and telecommunications industries. One caveat here is that conclusions are based on data from relatively few firms.

Domestic electric firms sensed a dramatic increase in domestic competitive pressures over time from 14 per cent in 1970-1990 to 43 per cent in 1998 and beyond. This could be caused by the dramatic increase in the acquisitions of under-performing smaller utilities that had not achieved minimum efficient scale. International electric firms in the third period no longer had concerns associated with accessing capital, but were now concerned with technological process advances, i.e. how more efficiently to integrate global operations. These organizational concerns are consistent with the findings of Prahalad and Doz (1987), Bartlett and Ghoshal (1989) and Noda and Collins (2001).

Both domestic-only and international gas utilities were very domestic focused for each study period, probably due to characteristics of the underlying product. Gas utilities with international projects indicated a tremendous increase in domestic competitive pressures during the last period, likely reflecting domestic acquisitions.

In the telecommunications industry, two items stand out. First, there is an increased focus on domestic competitive pressures and domestic legislative change by the group of firms with international projects, particularly in the 1998 and beyond period. This is attributed to the slow implementation of the Telecommunications Act of 1996 that could place the main revenue stream of big telecommunications players (that were leaders in international projects) at significant competitive risk. The second is the relative importance of technology factors to domestic-only players and the unimportance of it to international players in the last period. United States large telecommunications firms have been technology leaders and, as such, view implementing state-of-art networks as a necessity of competition, while smaller domestic-

only players must play catch-up to be competitive, particularly as the market becomes more competitive.

In the survey, an additional question was asked to understand better firm strategic expansion attitudes, i.e. respondents were asked to categorize their current (1995-1997) and future operations (1998-2000). Public utility firms that responded to this question had current operations that were mostly within their government-defined monopoly franchise areas (93 per cent of the revenues). As set forth in table 10, firms with international operations were more diversified (i.e. had operations outside franchised territories) than domestic-only firms: 96 per cent for domestic-only firms vs. 87 per cent for international firms. In the future, this trend should be even more pronounced (revenues: 87 per cent vs. 70 per cent).

Table 10. Revenues from current monopoly area for domestic-only and international firms, 1998
(Per cent)

Revenues	Total	Domestic-only	International
Current (1998)	92.9	96.3	86.9
Future (2000+)	80.1	86.6	70.4

Source: Firm questionnaire.

Domestic firms exhibited one additional interesting fact, namely that all of their non-franchise area revenues for both current and future operations were from new domestic areas/products. In other words, if a firm had not gone international in the study period, it would have no current plans to do so. Long term, these firms can survive as independent entities only if government regulators and legislators protect their local monopolies and/or if there are not sufficient economies of scale in global operations to put them at a cost disadvantage with international players. With the number of domestic acquisitions taking place by international-based firms, the trend appears to be a clear one. The rapid pace of expansion outside of existing franchise territories (monopoly area) was interesting for international firms. In fact, they expected to go from 87 per cent of their revenues from current franchise territories to 70 per cent within only three years. Seven per cent of this expansion was to come from new domestic territories (part by acquiring domestic firms), while the remainder was to come from a variety of international

expansion modalities. In conclusion, senior officers in the survey supported the hypotheses that domestic legislative changes (Nelson, 1991) and competitive pressures (Porter, 1985 and 1990) are two main drivers of industry change.

Competitive response

As indicated by the survey, table 11 shows that the number of domestic acquisitions continued to increase in the years beyond the questionnaire study. However, the number of foreign acquisitions

Table 11. Comparisons across years among outward, inward and domestic acquisitions by United States public utility firms, 1979-2001

A. United States-> United States domestic		Domestic learning		
	1979-1991	1992-1997	1998-2001	Total number
Electric	28%	29%	43%	439
Gas	40%	38%	22%	660
Water	17%	56%	27%	88
Telephone	23%	40%	37%	1 766
Cellular	22%	49%	29%	426
Internet/Data	1%	24%	75%	870
Total number	910	1 550	1 786	4 246
B. United States -> Foreign		Foreign expansion		
	1979-1991	1992-1997	1998-2001	Total number
Electric	1%	47%	52%	169
Gas	10%	45%	45%	49
Water	17%	17%	66%	12
Telephone	7%	21%	72%	260
Cellular	12%	33%	55%	47
Internet/Data	0%	6%	94%	248
Total number	31	190	564	785
C. Foreign -> United States		Overseas reaction		
	1979-1991	1992-1997	1998-2001	Total number
Electric	..	24%	76%	29
Gas	..	9%	91%	14
Water	..	20%	80%	5
Telephone	..	38%	62%	107
Cellular	..	60%	40%	20
Internet/Data	..	13%	87%	75
Total number	..	75	175	250

Source: Thompson Financial Data, 2002.

dramatically increased in the 1998-2001 period, due in large part to United States firms establishing management and operating routines that permitted the efficient integration of foreign affiliates with their larger domestic operations. The Internet further reduced integration and coordinating costs of these large United States TNCs, giving them further advantages vis-à-vis their domestic-only competition.

Beginning in the 1992-1997 period and dramatically increasing during 1998 and beyond, there was a dramatic increase in the number of acquisitions in the United States market by foreign public utility firms. Three main reasons seem to explain this foreign firm behaviour best: (1) a competitive reaction to United States firms entering European markets seems likely (Graham, 1975 and 1998); (2) the United States market offers a higher return than many foreign market alternatives (Wesson, 1993 and 2001); (3) the utility market is becoming more global, and large European players are looking to risk-balance their operating portfolios to be consistent with United States players (Vernon, 1983; Rugman, 1979; Kogut, 1985).

Concluding remarks

This article has sought to identify firm-specific and environmental factors that differentiate domestic-only public utilities from those that have sought international opportunities. A logit model for the surveyed firms was used to test five hypotheses, while a logit model for the population of firms was used to test interaction and industry effects. A survey was conducted to identify environmental and industry factors and trace the internationalization process of firms.

The research findings appear to have analogs in other industries that have gone through liberalization. The industry model strongly suggests that the size of a firm before liberalization is a critical variable in determining whether it will go international. Larger firms have greater flexibility due to more developed managerial processes and financial leverage. The survey confirmed this when access to capital was identified as a critical factor for international electric firms. The finding of a significant size variable is not

surprising, given its importance in the airline industry that went through a similar deregulation process a few years earlier.

The significance of the learning variable associated with prior domestic acquisitions before international expansion also has a historical precedent – see what has happened, and is currently happening, in the banking industry. This was the most consistent variable in that it proved significant in both the survey and industry logit models. The oligopolistic behaviour and institution factors proved significant in the survey logit model. This indicated a need to look at environmental as well as firm factors in evaluating whether a firm will seek international opportunities. The growth variable – change in market capitalization – only proved significant in the population of firms model. The interpretation of this variable must be done with care because it is collinear with the environmental measures in the survey logit model and, therefore, is possibly biased.

Though there appear to be many similarities with other liberalization processes around the world, policy-makers must appreciate differences in jurisdictional frameworks that do not permit the replication of policy prescriptions. For example, the quick and easy deregulation of the United Kingdom's electric power industry that began in 1990 was mainly due to central government authority over the industry. When the United States tried to replicate the United Kingdom success, it quickly ran into trouble because each state (rather than one central authority) had to pass a statute and establish its own rules (Fox-Penner and Basheda, 2001).

The study via the survey makes several additional contributions related to how firms' views of the external environment affect their future behaviour. Regardless of the time period, domestic-only firms consistently viewed domestic legislative factors as the prime industry change factor, while firms with international projects view competitive pressures and liberalization of markets as more important push factors. Policy-makers are left to craft rules that steer an evolutionary path for two large groups of constituent firms with very divergent views on competition. Long-term pro-competitive policy forces will probably win out; however, domestic-only utilities will likely use existing policy tools to postpone the inevitable because their survival is at stake. Over time, the

opening of the market to foreign competition will likely accelerate the pace of competition and cause dramatic reduction, via acquisitions, of the domestic-only segment. There may be three reasons for this, namely that the United States market is the largest in the world; it is a relatively low risk area,⁹ and foreign firms want to compete in the home market of firms that are already competing in their markets.

The findings of the study support the need to pay more attention to the importance of domestic policy as it affects individual sector restructuring. For example in the 1998 and beyond period, the most important factor for international firms in the telecommunications industry was domestic legislation, at 42 per cent. This is about double that of the gas and electric industries. Another large difference is observed between electric and gas utilities, where the former rank global competition and liberalization three times more important as the latter. The quantitative model also reveals significant differences at the industry level among electric, gas and telecommunications. Even though there are similarities in service structures and liberalization approaches, policy-makers must tailor each approach to reflect the path dependencies of each industry.

There is a need for further research in order to improve policy-makers' ability to understand the new competitive dynamics as these industries make the transition from domestic to globally-owned and operated utilities. In such an environment, who will monitor (regulate) competition among global alliances and/or partnerships? How can institutions stop collusion and market allocation schemes on a global scale?

Finally, there is a need to improve the validity of the findings in this article, in particular, those derived from the survey instrument. A greater number of respondents would increase the validity of the conclusions drawn here as well as the robustness of the analysis techniques. More studies in this important area would permit comparisons and corroborate the results. ■

⁹ However, the fate of Enron, Global Crossing, Worldcom etc. in 2002 may increase United States industry risk factors.

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Transition at Whirlpool-Tatramat: from joint venture to acquisition

Sonia Ferencikova *

This article analyses the transition of Whirlpool-Tatramat (a Slovak washing machine producer) from a joint venture to a full acquisition by the foreign partner. It describes the operations of the joint venture and the process of its incremental takeover. The article analyses the reasons for this particular acquisition and compares them with the reasons for other buyouts of local partners in Central and Eastern Europe by their foreign parent companies in the 1990s. A number of interviews were made in both the Whirlpool and the Tatramat companies, as well as with the Government of Slovakia, to gain insights into this case and other instances of follow-up acquisitions. This case study can be used to improve understanding on why and how firms choose an alliance partner.

Introduction

A large number of studies, articles and books deal with various aspects of foreign direct investment (FDI) in Central and Eastern Europe (CEE), the specific modes of entry into these economies, the impact of FDI on company restructurings, and foreign acquisitions as outcomes of privatizations. Comprehensive overviews of these issues have been written by Klaus Meyer (1998) and Arnold Schuh and Oliver Pacolt (2000), for example. Some of these issues have been analysed in the form of case studies by Daniel S. Fogel (1995), Arieh A. Ulmann and Alfred Lewis (1997), Daniel Denison (2001), Sonia Ferencikova (2001), among others. In its methodology and findings, this article further develops some of the arguments raised by these and other authors.

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The joint venture partners

Whirlpool Corporation

Whirlpool Corporation is one of the world's leading manufacturers and marketers of home appliances, such as washing machines, refrigerators and kitchen ranges. Its growth, from a domestic manufacturer in the United States to a firm with worldwide presence, is the result of a strategic decision taken in the mid-1980s. At that time, four manufacturers, including Whirlpool, accounted for almost all home appliance sales in the United States. Each was a tough competitor fighting for greater sales in a market predicted to grow slowly in the decade ahead. Unable to find adequate growth potential in the United States appliance market, the company began its global expansion.¹

By 1998, the company manufactured products in 13 countries and marketed them in approximately 170 countries. It employed over 59,000 people worldwide, and its net sales reached \$10.5 billion (Whirlpool Corporation, 1999). Over ten years, the company had doubled the number of its brands, its employees and its revenues, and had tripled the number of countries in which it had manufacturing sites (table 1).

Table 1. A decade of Whirlpool's internationalization, 1988 and 1998

Item	1988	1998
Countries with manufacturing sites ^a	4	13
Brands	14	25
Employees	29 100	59 000
Revenues (billions of dollars)	4.4	10.5

Source: Whirlpool Corporation, 1998b, and information provided by Whirlpool Slovakia.

^a Including affiliates.

¹ David Whitwan, chief executive officer (CEO) of Whirlpool, advocated the idea of globalization since 1986. His vision was to expand globally through acquisitions and to integrate the strengths of various international operating entities to create a truly global competitive advantage. His words from an interview with the *Harvard Business Review* in 1994 (Fazio Maruca, 1994, p. 136) have become well known: "We want to be able to take the best capabilities we have and leverage them in all operations worldwide".

Whirlpool's Western European operations started in 1989, when Whirlpool and N.V. Philips of the Netherlands formed a joint venture, Whirlpool Europe B.V. (WEBV). Its mission was to manufacture and market appliances in Europe. Originally, Whirlpool held a 53 per cent stake in the joint venture; in 1991, it became the sole owner through the acquisition of the remaining shares. Whirlpool Europe B.V. soon became the third largest household appliance producer in Europe, behind the Swedish company AB Electrolux and the German joint venture Bosch-Siemens Hausgeräte GmbH. After its acquisition of Philips' share, Whirlpool began production in several European countries (France, Italy, Germany and Sweden; annex figure 1). These sites achieved economies of scale by producing a minimum of 600,000 pieces per year per factory. However, the Western European market soon experienced a recession, which was reflected in disappointing sales and profits in comparison to results in the United States market. In the United States, Whirlpool Corporation made \$10 on every \$100 of sales; in Western Europe, it earned about \$2.30. Instead of winning an anticipated 20 per cent of the market, WEBV reached only 12 per cent by 1998 (Steinmetz and Quintanilla, 1998). The difference in operating margins between Europe and the United States widened in the 1990s: they decreased from 2.9 in 1990 to 2.3 per cent in 1997 in Europe, while they increased from 6.7 to 10.3 per cent over the same period in the United States. In the late 1990s, Whirlpool was going through its second restructuring in Europe. The goals remained the same, but the company conceded that it would take longer to reach them. According to WEBV's CEO Jeff Fettig (Steinmetz, Greg and Carl Quintanilla, 1998, p.1): "We see Europe being in the fifth year of a 10-year restructuring". He also acknowledged that the company had "underestimated the competition" (*ibid.*, p. 1).

After the fall of the Berlin wall and the revolutionary wave in CEE, WEBV started looking for opportunities in that region. Given the competitive pressure in Western Europe, as well as pressures on manufacturing costs, WEBV capitalized on the idea of opening new markets as well as using the low-cost competitive advantage of CEE by investing in Poprad, Slovakia. At the end of the 1990s, with a staff of approximately 11,000 and 11 factories in six

countries,² Whirlpool Europe not only ranked as the third largest producer and marketer in Western Europe, but it also was the leader in CEE, where it had one manufacturing centre (in Poprad, Slovakia; see annex figure 1) and 10 sales offices.

Whirlpool's strategy for Europe has evolved over time. During the 1990s, Whirlpool focused on closing the "value gap" between the costs of appliances relative to consumers' disposable income in Western Europe as compared to other major world markets, such as North America. That strategy was by and largely successful, although at that time the whole industry was under cost pressures, as economic growth in Europe stagnated and consumers turned to lower-cost, less-featured products. Through new products, the company undertook a dramatic restructuring of its entire line during the second half of the 1990s. Using extensive consumer and trade customer research, new products were introduced in every appliance category. In 1997, an estimated 60 per cent of revenues came from these new products.

In February 1998, Whirlpool CEO David Whitwan commented on the situation in Europe: "Europe proved to be a bright spot for us in 1997, following two years of turbulent times. Our performance in Europe has consistently improved, quarter after quarter, following cost-reduction and productivity improvement efforts begun in 1996. Additionally, we continued to expand our business in Central Europe and other emerging markets by drawing from our expertise throughout our other European operations. As a result, Whirlpool remains the leading brand across the whole region" (Whirlpool Corporation, 1998a, p. 4).

Tatramat

Tatramat was founded in 1845 by Karol Scholz as a producer of nails and currycombs for grooming horses. After World War I, the company switched to producing domestic kitchen goods; after

² WEBV is also present in Africa, where it acquired manufacturing facilities for refrigerators and freezers in Isithebe, South Africa.

World War II, the company was nationalized. Under the 45 years of socialism, the company expanded to produce zinc-coated and painted barrels, water heaters, electric ovens and automatic washing machines. It began production of automatic top-loading washing machines (under license with VIVA of France) in 1969, and front-loading washing machines in cooperation with Elektronska Industrija of Yugoslavia in 1972. In Czechoslovakia, it was the number one manufacturer of automatic washing machines (202,500 units in 1990) and domestic water heaters (146,900 units). At the beginning of the 1990s, Tatramat employed approximately 2,300 people. It controlled 88 per cent of the automatic-washing-machine market in Czechoslovakia, a near monopoly. The company derived about 12 per cent of its revenues from exports. In 1990, its sales reached \$48 million.³ The operating profit was about \$3.2 million, resulting in an operating margin of 6.8 per cent.

Tatramat's washing machines were designed to meet the requirements of the Czechoslovak market. In the late 1980s, Western brands were often too expensive, too complicated, or simply too large to appeal to the average Czechoslovak buyer. Tatramat also had an established distribution and servicing network in Czechoslovakia. This, along with a wide spread of the brand, meant cheaper distribution costs, cheaper servicing costs and lower advertising costs relative to imported brands. In addition, there was an untapped market for washing machines in Czechoslovakia. At the beginning of the 1990s, the penetration level for washing machines was only 58 per cent. It was expected to rise to the levels of Western Europe (approximately 90 per cent) within a decade. The demand for major consumer appliances was expected to increase gradually in Czechoslovakia and in neighbouring countries as the region re-oriented itself towards a market economy.

³ This calculation is based on the exchange rate after the first devaluation of the Czechoslovak currency. Given the distortion of the exchange rate under socialism, the real value of the sales at international prices should be higher. On the domestic market and in the other socialist countries in which most of the sales took place, prices were controlled and artificially kept low by the State. An exact estimate is, however, impossible because Tatramat's products were not competitive in Western markets.

After the Velvet Revolution in 1989 in Czechoslovakia, Tatramat, as well as other Czech and Slovak companies, went through major changes. The communist government was overthrown and Czechoslovakia began to build a democratic society and a market economy. Although restructuring was difficult, and the year of 1990 was particularly hard, Czechoslovakia was considered to be among the leading and most successful countries in transition.

Martin Ciran, the director of Tatramat and, subsequently, Whirlpool Slovakia, described the situation of Tatramat at that time as follows:

“After 1988, State export subsidies that covered the difference between high domestic costs and low prices on foreign markets were gradually abolished in our country. It hit the sales of our main export article, front-loaded washing machines, very strongly. At that time we realized that our products were not competitive on the open European market. We concentrated on top-loaded washing machines because our main customers were all interested in top-loaders and we were able to increase the production of only one product at a time. Obviously, top-loaders and front-loaders were produced using different technology. In 1989-1990, we introduced abroad our new product, the MINI, fully designed by Tatramat. It was a failure because of its low quality and high price. It was simply an old concept; a new machine, but an old concept. Afterwards, we started to think about how to increase the competitiveness of our products. We considered the purchase of technology or licensed production. In 1989, prior to the revolution, I began looking for partners to supply technology for top-loading washing machines. We received bids from Philips, Thompson and Zanussi. We intended to improve the technical standards of our production as well as to increase production capacity. We realized that it was not enough to produce only 200,000 units per year, because studies showed us that we had to produce more than 300,000 per year to achieve scale economies”.⁴

⁴ Author’s interview with Martin Ciran, Managing Director, Whirlpool Slovakia, Bratislava, 2 February 1998.

Martin Ciran and other managers of the company visited the leading manufacturers of white goods in Western Europe and saw that even 300,000 washing machines per year were probably not enough. The best companies produced 600,000 to 1,000,000 units per year. They decided hence to change their products, to increase production, to share costs and to cut unit costs in order for the company to survive.

Martin Ciran went on:

“In the meantime, the COMECON market collapsed. We totally lost our foreign markets for washing machines and boilers; domestic demand also went down as a result of the difficulties of the first years of transition. There were fewer apartments built, fewer weddings. ... People had other troubles and preferences than the purchase of a washing machine. We lost markets, we lost customers. In 1990, we fired about 100 people; in 1991, were fired 900, from an original of 2,300. We were lucky, because such a major lay-off did not lead to any special discontent. Employees got good compensation according to the law and some of them started to run their own small private businesses, which had not been allowed under socialism. It was also a time of so-called small privatization – the privatization of small shops, services etc. formerly owned by the State, which attracted some of our employees, too”.⁵

One of the primary challenges in the Czechoslovak transition and in the shift toward a market economy was privatization. On 1 October 1990, the Slovak Ministry of Economy transformed Tatramat from a State enterprise into a State joint stock company. At that time, ownership of assets, in the form of shares, was transferred to the National Assets Fund, under the administration of the Slovak Ministry of Privatization. As a joint stock company, the intention was to privatise Tatramat through vouchers. Companies owned by the National Assets Funds could establish joint ventures with foreign investors only after approval by the Slovak Ministry of Privatization.

⁵ *Ibid.*

Martin Ciran recalled:

“We were transformed from a State-owned company into a State-owned joint stock company, one of the first companies in Czechoslovakia. In the meantime, the separate Czech and Slovak Governments became much stronger and federal Czechoslovak Government lost most of its power. It meant that our superior authorities were no longer the federal authorities in Prague but the Slovak authorities in Bratislava. The change of the form of the company also resulted in more power in the hands of management. We started to have a real feeling for new responsibilities, and we could do a lot of things without the approval from the State or State authorities. Although short of ownership, we had more competence and power. We could, for example, negotiate with foreign companies. After we recognized that the price for a license or a new technology was very high, we started thinking about capital investment or about a partner for a joint venture. It took us half to three-quarters of a year to understand that it would not be enough to produce new machines without access to markets. Under the new conditions brought by the revolution, it was possible to think about other forms of cooperation or alliance with foreign companies, not only about licensing. At that time, Volkswagen was preparing a deal with Skoda in the Czech Republic and with BAZ in the Slovak Republic, with the assistance of Credit Suisse First Boston. We also prepared a memorandum about us, followed by an offer for cooperation. This memorandum was sent in January 1991 to all prospective investors known worldwide, all leading companies in white goods. I cannot say that all the people in the company were eager for such cooperation with Western companies as I and my closest team were, but everybody felt it was necessary to do something”.⁶

After receiving the memorandum, Whirlpool, Electrolux, Bosch-Siemens and Thompson all declared their interest in possible cooperation.

⁶ Author’s interview with Martin Ciran, Managing Director, Whirlpool Slovakia, Bratislava, 4 April 1998.

It is to be recalled that, at the end of the 1980s and at the beginning of the 1990s, Tatramat produced about 200,000 washing machines per year: 100,000 top-loading washing machines (the so-called MINI, 95 per cent sold in the Czechoslovak market) and 100,000 front-loading machines (25 per cent for the Czechoslovak market, 75 per cent for exports, primarily to the socialist countries of Poland, Bulgaria, Yugoslavia and the German Democratic Republic – only 5,000 were sold on Western markets). At that time, various problems surfaced in the factory and its environment: high fixed costs, low productivity and quality, backward technology, products unsuitable for foreign markets, the abolition of State export subsidies, the collapse of the COMECON market,⁷ and a drop in demand on the domestic market. Tatramat sales dropped from around 350,000 units in 1988 to around 220,000 units in 1991 (table 2). Finally, the devaluation of the Czechoslovak crown in 1990 tripled production costs.

Table 2. Tatramat sales, 1988-1991
(*Thousand units*)

Item	1988	1989	1990	1991
Washing machines	200.0	199.1	210.6	144.1
Water heaters	151.8	143.7	133.3	76.2

Source: Information provided by Tatramat.

At that time, Tatramat's management realized that a single purchase of technology would not solve all its problems. Market access was needed, and a partner who would be able to guarantee it. Tatramat's idea shifted from a purchase of technology or licensed production to capital investment or a joint venture. During the search for the right partner, it was realized that Whirlpool was the firm most interested in improving Tatramat's management and including Tatramat in its global network.

Motivations for an alliance between Whirlpool Europe B.V. and Tatramat

In 1990, the managers of WEBV realized that the changes in CEE brought about new opportunities and challenges for their

⁷ COMECON was officially called CMEA (Council for Mutual Economic Assistance).

company. They were attracted by the possibility of gaining new markets, as well as obtaining production facilities and a skilled labour force. Their facilities were not too efficient, but they were low-cost in comparison to Western Europe. The privatization of State-owned factories opened the way for potential ownership and control.

However, WEBV was not driven only by external reasons. It was also forced to look at new opportunities because of its internal problems: more limited success in Western Europe than expected, disappointing operating margins and the need to decrease costs.

Strategic options for Whirlpool

To solve some of the above-mentioned problems, WEBV could use various strategic options: exporting, joint venture, acquisition or greenfield investment in CEE. Every option had some advantages and disadvantages as listed below.

- *Exporting*
 - *Advantages:* sales would increase, without assuming high risks.
 - *Disadvantages:* production costs would not be reduced, tariff barriers would remain.
- *Joint venture*
 - *Advantages:* access to an existing facility, an existing brand, an existing labour force, an established market share, existing distribution facilities, an established local supplier base; low production costs; contact with authorities through the local partner; the potential to increase ownership control at a later stage.
 - *Disadvantages:* control would be shared, relationships and trust need to be built, labour force training would need to change local attitudes, need to overcome negative attitude towards the local brand name.
- *Acquisition*
 - *Advantages:* full control plus all advantages of a joint venture mentioned above.

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- *Disadvantages:* more resistance from the target firm and local government. In Czechoslovakia, takeovers had no precedence, resulting in more prejudice, resulting in less motivation or cooperation by the local partner; the facility and the labour force would be more difficult to change.
 - *Greenfield*
 - *Advantages:* new facility, full control, own trained labour force, low costs.
 - *Disadvantages:* no labour force at hand, more training needed, local competition, more obstacles from the Government and local authorities, more expatriates staff would be needed, no inherited market share, no previous brand-name recognition.

A takeover would have been the best choice for Whirlpool. However, the legal system of Czechoslovakia and the resistance of the local managers as well as the Government did not allow to go for this form immediately. Therefore, the most realistic choice for Whirlpool from a strategic point of view was a joint venture, with the possibility of a gradual increase in investment until a final takeover.

Strategic options for Tatramat

Tatramat's reasons for entering into the joint venture could be summarized as follows: drop in domestic demand, collapse of export markets in CEE, high and growing costs, obsolete technology, risk of massive lay-offs and a need to increase production to reach scale economies. To solve its problems, Tatramat had to choose between two strategic options: licensing or joint venture. Both options had some advantages and disadvantages as listed below.

- *Licensing*
 - *Advantages:* new technology, no partner to be accommodated, full control, access to training in technology, would keep producing both washing machines and water boilers under Tatramat's control.

-
- *Disadvantages:* no market access, technology and license fees may be high, no other know-how or skills inflow, no capital inflow.
 - *Joint venture*
 - *Advantages:* technology, capital, training of all types, know-how, market access.
 - *Disadvantages:* profits and control to be shared, eventually leading to a loss of control over the enterprise.

A joint venture seemed to be a better choice in comparison to a licensing agreement. Because the potential partners wanted only the washing-machine unit, Tatramat's contribution could be only this part of production. The main question that remained was what to do with the water-boiler segment. Other problems could be solved through gradually selling Tatramat's ownership to Whirlpool or by becoming a supplier to the joint venture.

Form of the deal

As seen from this analysis, the most suitable form for both partners was a joint venture. Tatramat was nevertheless concerned by the three conditions set by Whirlpool: the possibility of a gradual increase of Whirlpool's share in the joint venture, Whirlpool's unwillingness to include water-boiler operations in the joint venture, and the call for an increase in the tariff protection of the local washing-machine market. Tatramat was in a weak position vis-à-vis Whirlpool, and it decided to accept fully the first two conditions. It even managed to lobby for import tariffs.

Anatomy of the deal: main problems and outcomes

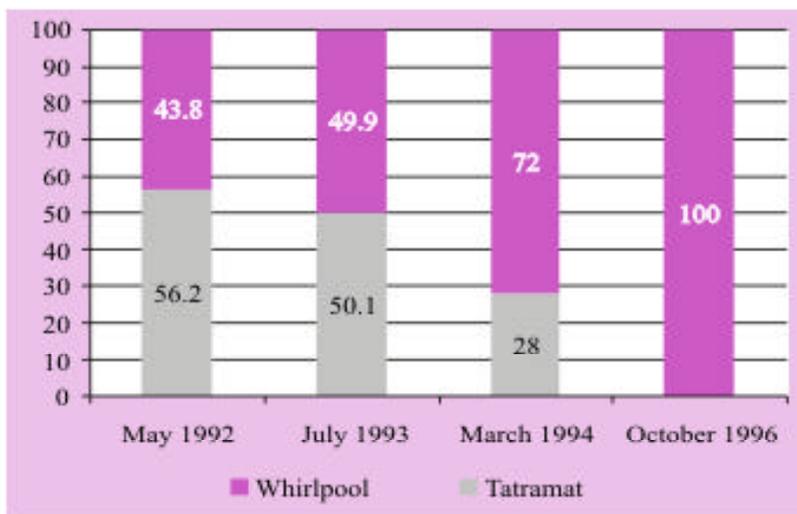
After complex negotiations (Ferencikova and Pucik, 1998), the contractual basis for the joint venture was created at the end of 1991, and it began operations in May 1992. Whirlpool contributed know-how in technology, production and marketing to the joint venture, and also bought 43.8 per cent of the shares for \$6 million (figure 1). Tatramat's non-financial contribution consisted of intellectual property rights in the area of washing-machine production, goodwill, buildings, machinery, land, and contracts. It kept 56.2

per cent of the shares of the joint venture. The original agreement was signed for ten years.

With Whirlpool's investment, the original Tatramat company split into three separate entities: the joint venture Whirlpool-Tatramat became the number one washing-machine producer in both the Slovak and Czech Republics; Tatramat itself continued to produce water heaters; and Tatramat-Quasar, a small joint venture with an Italian partner, continued to produce vending machines. Whirlpool-Tatramat became a separate organization with its own sales staff, after-sales service and support, and local distribution facilities, located at the Poprad site. The Whirlpool-Tatramat facility was not only legally split from the old Tatramat plant, but it was also physically separated by a wall that was constructed as one of the first actions of the joint venture.

Whirlpool-Tatramat produced two types of top-loading washing machines: the old Tatramat MINI (under Tatramat's brand name), and the Whirlpool T-12 (under the Whirlpool-Philips brand

Figure 1. Ownership structure of Whirlpool-Tatramat, 1992-1996
(Per cent)



Source: Information provided by Whirlpool-Tatramat.

name). The first T-12 rolled off the line in October of 1992. The company was supposed to produce 115,000 MINIs and 25,000 T-12s in 1992, but it only produced 74,000 MINIs and 5,000 T-12s. Total output for both brands combined for 1993 remained under 100,000 units. Even though results improved over time, the number of units produced in 1993 (59,000 MINIs and 39,000 T-12s) was below expectations.

Not only quantity but also quality became a critical problem in Poprad. As WEBV envisaged to broaden Poprad's role to an international production centre for western markets, the quality of Poprad's products had to meet the strict demands of Whirlpool and its customers. Quality had in fact improved at Poprad during the years 1992 and 1993. It was, however, not enough, and the company continued to sell to mostly Czech and Slovak customers. The share of "A" defects⁸ in the T-12 product line decreased from 1.2 per cent in early June 1993 to around 0.6 per cent at the end of the year (William Davidson Institute, 1994).

Employment levels significantly dropped after the establishment of the joint venture. Initially, 550 employees were transferred from Tatramat to the joint venture, and the remaining 750 employees stayed on the payroll of the Slovak parent company. The transfer of workers raised problems because the joint venture took over the production of washing machines together with its labour force. In the case of management staff, Tatramat did not want to lose its best employees to Whirlpool-Tatramat, and therefore any transfer of white-collar workers was subject to its approval. The biggest downsizing affected production workers and occurred in two waves. In 1992, mostly people with "low working morale", those who were close to retirement, and those who were willing to leave their job were released.⁹ In 1993, employment went down further from 470 to 219 (William Davidson Institute, 1994). Refusal

⁸ "A" defects denote non-functioning products.

⁹ According to the labour law at that time, they were eligible for compensation for five months after their release. Many workers accepted this package and left the factory. At the same time, those who were interested in returning later signed a contract with provisions about future employment in case of a production increase in the factory.

to sign-up for the Whirlpool management systems and conditions was the most common reason for discharging non-compliant workers. Productivity of the remaining staff, on the other hand, increased from 153 units per employee in 1992 to 199 units in 1993 (table 3).

Table 3. Productivity at the Poprad plant, 1992-2000

(Unit per employee)

Item	1992	1993	1994	1995	1996	1997	1998	1999	2000
Unit per employee	153	199	323	592	695	927	1176	1456	1419
1992 = 100 per cent	100	130	212	388	455	607	769	952	927

Source: Author's calculations based on information provided by Whirlpool Slovakia.

As for capital investment, in July 1993 Whirlpool transferred \$1.5 million to the joint venture, increasing its share in the joint venture to 49.9 per cent (figure 1). This amount was invested into a partial transfer of "hard" technology.

The external conditions of the joint venture also experienced a drastic change. In 1993, as a consequence of the division of Czechoslovakia, the local market for Whirlpool-Tatramat, with its location in Slovakia, diminished by two-thirds. Tatramat's brand name still enjoyed high name recognition in the Czech Republic, and the company maintained distribution facilities there. To catch up with these political changes, including new borders, and to avoid losses resulting from worsened operational conditions, Whirlpool-Tatramat established its own affiliate in the Czech Republic in May 1993.

Despite the drop in output and employment, the problems of quality requirements and production costs and a loss of about \$1.5 million in the first full year of operations, Whirlpool increased its share in the joint venture to 72 per cent in February 1994 (figure 1). Before Whirlpool's stake reaching two thirds of the joint venture, Tatramat had the right to nominate the chairperson of the board of directors and two other board members, compared to two seats

for Whirlpool. After having obtained the two-thirds majority, Whirlpool got the Chairpersonship plus two additional seats. Moreover, as soon as Whirlpool reached two thirds in the joint venture, the joint-venture agreement allowed it to decide, without the approval of Tatramat, on the most important issues, such as plans, major contracts and financing.

As Martin Ciran, Managing Director of Whirlpool-Tatramat since the beginning of its operations, recalled: “We were aware of the necessity of performance improvement, but we did not want to have our hands tied up by Tatramat, which faced big economic troubles at that time.”¹⁰

After the company proved to be successful, in October 1996, Whirlpool bought out the remaining shares and became the sole owner of the company (figure 1). The name was changed to Whirlpool Slovakia, and its headquarters and national sales office were moved from Poprad to the capital city, Bratislava.

In 1994, production experienced moderate growth, with the production of T-12 more than doubling to 95,000 units (table 4). The joint venture also produced the 11,000 MINIs that year, but it was the last year that the model was manufactured. The MINI was abandoned due to poor design, quality, declining sales and thin margins. Initially, in 1992 and 1993, the Whirlpool-Tatramat assembled washing machines from kits imported from Amiens, France, where the T-12 was also made. The joint venture produced only the T-12 in 1995 and 1996. In 1995, the company exceeded, for the first time, the production targets outlined in the original agreement. In 1997, a new front-loading model, the Tatry, was introduced in the factory (table 4). In 1998, the production of over half-a-million washing machines was reached in the factory. In the year 2000, production came close to one million units.

Although the capacity at Poprad made it the smallest of Whirlpool’s European manufacturing centres, it has also been its

¹⁰ Author’s interview with Martin Ciran, Managing Director, Whirlpool Slovakia, Bratislava, 2 June 1998.

Table 4. Whirlpool-Tatramat's and Whirlpool Slovakia's production, 1992-2000

(Thousand units)

Type	Brand	1992	1993	1994	1995	1996	1997	1998	1999	2000
MINI	Tatramat	74	59	16	–	–	–	–	–	–
TL ^a	Whirlpool Ignis	5	39	95	219	267	349	381	495	585
FL	Whirlpool Ignis	–	–	–	–	–	1	140	275	360
Total		79	98	111	219	267	349	521	770	945

Source: Information provided by Whirlpool Slovakia.

Note: TL: top-loaders, FL: front-loaders.

^a The model T-12 has been produced since the beginning. In 1998, other top-loaders (Kireco and Alliance) were introduced.

lowest-cost production facility. Supply costs and wages were low in Slovakia, while quality and productivity were improving. Since 1994, Poprad has begun to integrate vertically, producing more of its components in-house in an effort to reduce its reliance on the expensive Amiens components. Components account for 80 per cent of a machine's costs. This, together with transport distance, customs regulations and problems with timely delivery from the Amiens site led to a decision to source as much as possible locally. While local content was only 3 per cent in the first year, it reached 12 per cent in 1994, 37 per cent by the end of 1995, and 60 per cent by the middle of 1997. This share has been maintained since then. By the mid 1990s, the plant had only 14 local suppliers; by 2000, it had 35.

With the creation of a local supplier network, the company succeeded in increasing production flexibility, reducing costs and avoiding import restrictions such as duty, import surcharges and deposits that were applied by the Government of Slovakia as a result of a trade deficit. The Slovak parent company of Tatramat, located nearby, became one of the main local suppliers. Currently, about 30 per cent of Tatramat's sales are to Whirlpool Slovakia. For Tatramat, this relationship ensures long-term survival. Plastic parts are supplied by a new joint venture, Scame-Tatramat, located on Tatramat's site.

Because Whirlpool-Tatramat wanted to control costs, it engaged in a prudent investment policy. Until the launch of the new project Tetry, investment was limited. The total equity investment of Whirlpool, including the initial investment and the equity increases, reached about \$11 million (including technology capitalized at \$3 million) by 1996. The joint venture invested \$14 million into production in 1992 to 1995. In the years 1996 through 1998, the company planned significant investments into new front-loading machines (the so-called Delta). This project was supposed to introduce a completely new front-loading machine for the European market. Later, Project Delta was changed to Project Tetry, with less investment and different technology, producing low-end front-loaded washing machines. Investment into this model reached about \$10 million by 1997. To prepare for the launching of this product, changes had to be made to production areas and technology, and a semi-robotic line for assembling was installed. However, when considering and comparing investment costs and labour costs, automation is not yet necessary in the entire Poprad plant. The total amount of Whirlpool investment into the Poprad plant reached \$36 million by the year 2000.

In comparison to “hard” technology, “soft” technology transfer has been more pronounced. Whirlpool introduced its management and incentive structures in Poprad. The company stressed the importance of communication with workers. Face-to-face meetings with management took place, explaining human resources practices previously unknown to the employees. After the first shock in 1992 and 1993, employment gradually grew (table 5).

Table 5. Employment at the Poprad plant, 1993-2000

Item	1993	1994	1995	1996	1997	1998	1999	2000
Number of employees	216	240	304	325	341	443	529	666

Source: Information provided by Whirlpool Slovakia.

The human resources department adopted new concepts, such as performance evaluation, pay for performance, a “recognition policy” to reward hard work and innovation, and “gainsharing” schemes in which additional wages were linked to company profits. It also emphasized the need for improving inter- and intra-departmental communication, and for training on specialized topics, such as teamwork, decision-making and individual thinking. Most of the training took place in 1992 and 1993. White-collar workers were trained in basic business skills, market economics, quality management, supplier quality, ISO 9000, English, computer skills, and Whirlpool philosophy and corporate culture. These training programmes were intended to increase managers’ commitment to the firm and to spread the new corporate philosophy among workers. People were taught how to communicate, organize their workplace and how to increase productivity and the quality of work. Additionally, the human resources department provided introductory courses on the Whirlpool Excellence System (WES).¹¹ These courses were popular among Whirlpool Slovakia employees. According to the managers, it became a valuable tool for improving the work of the company.

The region of Poprad had an unemployment rate of about 17 per cent, and for Whirlpool this meant the possibility to ensure flexible work practices. The human resources department received 400-500 job applications annually. Seventy per cent of the candidates completed high-school education. Currently, workers’ wages consist of a fixed part (73 per cent on average) and a collective bonus (27 per cent), depending on productivity, flexibility, quality and the level of absenteeism. A collective bonus was chosen as a way of encouraging cooperation among employees to work more efficiently at a lower level of absenteeism. Since work there is considered to be intense, most employees at the Poprad plant are young with the average age of 28 years old.¹² The average age of

¹¹ WES evaluates every Whirlpool plant in seven categories: leadership; fact-based management; strategic planning; people; quality of processes and products; measurements and results; and customer satisfaction.

¹² Author’s interview with Zuzana Roskova, Human Resources Manager, Whirlpool Slovakia, Poprad, 4 April 1998.

managers is 38 years old, which is also considered to be young. This may reflect the fact that only young people were willing to join a *terra incognita* – a joint venture – when joint venture was established in 1992. They were trained by Whirlpool and were able to take their new positions quickly. In comparison to the Slovak average, they are well paid: during the first six years of Whirlpool's operations in Slovakia, only one employee had left the company. Currently, there is only one expatriate in Slovakia, an Italian national who serves as plant director in Poprad.

The joint venture was established with the aim to reach the productivity levels that was typical of other Whirlpool plants in Europe. The productivity in Poprad's plant increased significantly from 153 pieces per employee in 1992 to 199 in 1993 and 323 in 1994. It reached 927 pieces per employee in 1997, which is far above the expectation and levels in similar plants (table 3).

Product quality has been a critical aspect of production at Poprad. As WEBV intended to expand Poprad's role as an international production centre to serve Western markets, Poprad's products had to meet Whirlpool's global quality requirements. Quality improvements in Poprad have been attributed to the training of employees in quality concepts, in-process checks and vertical integration, including greater internal control over the quality of components. During production, every machine is tested electronically, and 10 per cent are taken off the assembly line and tested for 50 cycles. Additionally, 3 per cent out of the 10 per cent taken from the line are taken to the factory reliability lab where they are run through 250 cycles (corresponding to one year's usage) or 2,500 cycles (ten year's usage).

During the two first years (1992-1993), the company operated only in the Czech and Slovak markets because product quality at that time was too low to guarantee exports. In 1994, the company started to sell in Poland, Hungary and Argentina. In 1995, it entered into the Western European market. In 2000, about 90 per cent of the output of Poprad was exported through the corporate distribution network (table 6).

Table 6. Sales structure of Whirlpool Slovakia, 2000

(Per cent)

Country	Share
Slovakia	8.8
Czech Republic	7.0
Poland	23.3
Other CEE	12.0
Italy	15.2
Other Western Europe	12.4
Argentina	8.6
Others	12.7
Total	100.0

Source: Information provided by Whirlpool Slovakia.

On balance, Whirlpool-Tatramat proved to be successful. Its performance has gradually improved. Its WES score rose from 238 in 1993 to 702 in 1997 (table 7). Even the best Whirlpool plant in Europe managed to score slightly better results in 1997 (850). According to Whirlpool managers, the performance of Poprad has remained at the same high level since then.

Table 7. The Poprad plant's WES Score, 1993-1997

Category	1993	1994	1995	1996	1997	Maximum
Leadership	33	56	67	67	72	95
Fact-based management	16	32	34	42	47	60
Strategic planning	15	46	49	59	63	85
Whirlpool people	35	102	95	110	115	150
Quality of processes and products	38	84	80	80	90	150
Measurements and results	49	86	104	112	115	160
Customer satisfaction	52	170	175	195	200	300
Total	238	576	604	665	702	1000

Source: Information provided by Whirlpool Slovakia.

Note: A change in company communication policy does not allow releasing information on the WES scores after 1997.

Whirlpool Slovakia plays a major role in the Slovak economy: by 1997, it became the 19th biggest Slovak exporter (\$60 million) and second largest exporter of machinery, surpassed only by Volkswagen Bratislava. By 2000, it had become the 23rd largest Slovak firm with a turnover of \$142 million and the 11th largest exporter (\$117 million).¹³ This result was obtained with 666

¹³ "Najvacsie podniky Slovenska", *Trend Top 2001* (Bratislava).

employees (table 5), producing close to 1 million washing machines in Poprad (table 4). The vision of local managers from 1990 – to keep washing-machine production in Poprad and the same level of employment in the factory at least until 2000 – has become reality.

Reasons for the takeover of the joint venture by Whirlpool

The following reasons for the full takeover of the joint venture by Whirlpool could be identified:

- *The global strategy of Whirlpool.* Whirlpool and Tatramat were two unequal partners with two different goals: since the beginning, the goal of Whirlpool was a gradual increase of its share in the joint venture with the aim of taking it over. It is consistent with its worldwide strategy of acquisitions and global control.
- *The economic problems of Tatramat.* Tatramat was not able to keep its share in the joint venture. In 1993, when it was time for the first significant investment to increase productivity, Tatramat was unable to contribute. This situation propelled a gradual increase in the share of Whirlpool in the joint venture. Under the worsened conditions, the goals of Tatramat to continue washing-machine production and to survive the transition could be reached only at the expense of losing control over the joint venture.

The hopes of Tatramat's management to obtain the dividends from a profitable joint venture and to improve its own difficult economic situation were not realized. At the beginning of its operations, the joint venture was in the red, and the only way for Tatramat to get some cash was to sell its shares to the other partner.

With this deal, each party nevertheless satisfied at least some of their needs: Whirlpool established production in a low-cost country, benefited from the local skilled labour force, reached a new market and created a new export base for other countries. Tatramat avoided going into bankruptcy, received cash and

knowledge in various areas, including marketing, management and production.

Factors of success at Whirlpool Slovakia

A manager's point of view

According to Martin Ciran, “the very comprehensive and detailed joint venture agreement consisting of 30 pages and four appendices worked out by English lawyers from the Scadden Arps company was one of the reasons for the success of the company. In each case of a misunderstanding, we referred to this agreement, and it really showed us the way out. On the other hand, you have several cases in Slovakia where a joint venture broke up because of a non-qualified agreement. After the collapse of the centrally run economy, the establishment of joint ventures was marked by a lack of hands-on experience on the Slovak side. Due to a shortage of reputable and experienced law firms, we chose a foreign company to draft the agreement and it was really worthwhile”.¹⁴

There is still more to that story. Martin Ciran described other success factors:

“Based on the joint venture agreement and the follow-up development of the ownership structure, the parent company Whirlpool practically had full managing and decision-making power in the company. Its approach has been very transparent and we got all the necessary knowledge and skills through training and technology transfer. On the other hand, Whirlpool’s headquarters in Italy had agreed to the use and application of this knowledge. I would say mutual trust has been one of the basic points of our success. Furthermore, our people have been eager to learn and to apply new procedures. It was also essential that top management of the joint venture was young and not ‘afflicted by socialist working practices’. It identified very quickly with the Whirlpool

¹⁴ Author’s interview with Martin Ciran, Managing Director, Whirlpool Slovakia, Bratislava, 2 June 1998.

philosophy and corporate culture. The managers have transferred these values to other employees. We have implemented a new management system known as the Whirlpool Excellence System, quickly and successfully. In my opinion, the greatest change since the Tatramat days has not been in technological innovation or investment but in employee attitudes. The new thinking of our employees and their accomplishments in improving the working conditions at the facility and in making the production lines more flexible set the company apart from most of the other firms in Slovakia today. On top of that, the next very important success factor has been ‘not overinvesting’. In other words, our company has a big cost advantage in comparison to Western European producers because of low debts. With high investment we would lose this advantage”.¹⁵

A broader approach to success factors

Even though many success factors were mentioned by Martin Ciran, it is necessary to add that the story started with the investment of Whirlpool into a local monopoly producer. Hence, an immediate market share was guaranteed for the joint venture. This was important especially at the beginning of the operations when it was not possible to export products abroad due to their low quality. The monopoly position was also guaranteed in the joint venture agreement stipulating a non-competition clause. It did not allow the Slovak parent company to produce washing machines and excluded competition between affiliates and parent companies. Whirlpool could also realize classical first-mover advantages. The combination of a monopoly position, low-cost production and first-mover advantages has contributed to the success of Whirlpool Slovakia. It is interesting to note that Whirlpool insisted on market protection, but this was automatically abolished in the Czech Republic after the split of Czechoslovakia and did not play any special role in Slovakia. The firm maintained its market share simply because imported goods were too expensive for the average Slovak customer

¹⁵ Author’s interview with Martin Ciran, Managing Director, Whirlpool Slovakia, Bratislava, 5 May 1998.

at the beginning of the 1990s. There were no other classical incentives (such as tax holidays) provided to Whirlpool.

The performance of the Slovak parent company

The managers of Whirlpool were satisfied with the evolution of Whirlpool-Tatramat and later Whirlpool Slovakia. However, the situation in the Slovak parent company, Tatramat, has proved to be more complex.

With the creation of the joint venture Whirlpool-Tatramat, and the splitting of the old Tatramat into washing-machines and boilers production, the parent company Tatramat entered into a period of difficulties. The parent company Tatramat tried to adjust to its joint ventures with foreign partners. At the beginning of the 1990s, in addition to Whirlpool-Tatramat, it established Tatramat-Quasar, which produced vending machines with an Italian partner. At a later stage, it also established Scame-Tatramat with an Italian partner to produce plastic parts. As activities moved out from the parent firm into the joint ventures, Tatramat experienced a large decline in its labour force, especially in the first half of the 1990s, and at a certain point even faced bankruptcy.

As initially expected, the sense of rivalry, jealousy and competition between Whirlpool-Tatramat and its Slovak parent company evolved during the first year of operations: Tatramat, located in the neighbourhood of Whirlpool, has become its main local supplier.¹⁶ According to the Slovak managers of Whirlpool, Whirlpool's orders placed in Tatramat and its ventures created employment for about 200 persons there. Besides that, they argued that Whirlpool contributed to the creation of 400 more jobs in other Slovak companies. This means that one workplace established in Whirlpool creates another job in supplier, service or distribution companies doing business with or for Whirlpool.¹⁷

¹⁶ Whirlpool has other Slovak suppliers. Plastika Nitra, for example, supplies packaging materials and polystyrene.

¹⁷ Author's interview with Martin Ciran, Managing Director, Whirlpool Slovakia, 17 March 2000, Bratislava.

In the end Tatramat survived its period of transition. In 2000, it reported a turnover of about \$11 million, of which 75 per cent came from export sales. It recorded a pre-tax profit of \$ 0.15 million (compared with a loss of \$0.6 million in 1997) with 520 employees.¹⁸

Conclusions

The acquisition of Tatramat by Whirlpool is only one example out of many: since the middle of the 1990s, the strategy of investors in Slovakia has changed, especially among large transnational corporations (TNCs). The new trend is characterized by incremental takeovers. In several instances in the late 1990s, TNCs (including the biggest investor in manufacturing, Volkswagen) steadily increased their equity shares in joint ventures in Slovakia.

There are a number of reasons for this new trend:

- the global strategies of TNCs;
- the weak, unequal position of the local partners in comparison to their foreign partners;
- the conflicts between the Slovak and foreign partners over the joint venture strategy;
- conflicts over the control of key or common services such as energy, telecommunications and security (joint ventures are usually situated in the former plants of Slovak parent companies);
- conflicts over pricing and transferring profits abroad;
- a lack of experience by local companies in how to deal with these issues (under socialism, cooperation with Western companies was not permitted);
- the inability or unwillingness of the Slovak partners to maintain their shares in the joint ventures;

¹⁸ *Hospodarske noviny*, 14 January 2002, p. 10.

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- financial difficulties of the Slovak partners forcing them to sell their shares in the joint ventures to their foreign partners;
 - the success of TNCs in establishing their own communication channels with the authorities, in building positive public relations and in finding local managers for top positions, resulting in less reliance on local partners in these areas; and
 - the recognition by TNCs that the transition process is irreversible and thus risk-sharing with local partners was no longer necessary.

Most TNCs that first established a joint venture with local partners in Slovakia have in the meantime moved into the acquisition of shares (Whirlpool-Tatramat, Volkswagen-BAZ, Alcatel SEL-Tesla, Henkel-Palma, Hoechst-Biotika etc). There are only a few exceptions – usually based on legal constraints, such as State participation in the telecommunication industry. Moreover, this situation is typical not only for Slovakia, but also for many other transition economies in CEE. If the best-known examples in Slovakia are Whirlpool and Volkswagen, a similar evolution has taken place, for example, in Hungary with respect to General Electric-Tungsram, in Poland with respect to Gerber and in the Czech Republic with respect to Philip Morris.

As soon as TNCs became the sole owners, they tended to invest more into technology (however, they usually tried not to “overinvest”, i.e. not to lose the cost advantage and not to replace cheap labour by machinery). Most Governments seem to have no policy tool to prevent an “incremental takeover”. Moreover, potential accession to the European Union – and the acceptance of its legal framework – may further limit the possibilities to block such acquisitions. However, there is always a way to encourage and support investment into advanced technology and research and development, especially through incentives like tax holidays and tax credits. The question remains if these incentives prove to be attractive enough. This is a key policy issue because advanced technology,

controlled by TNCs, will have almost no impact on local companies if technology transfer to their affiliates is not fast and deep enough. If technology transfer takes place, on the other hand, it will eventually spread, to a certain extent, to local suppliers; otherwise the lack of access to technology will prevent their efficient entry into the supplier network. ■

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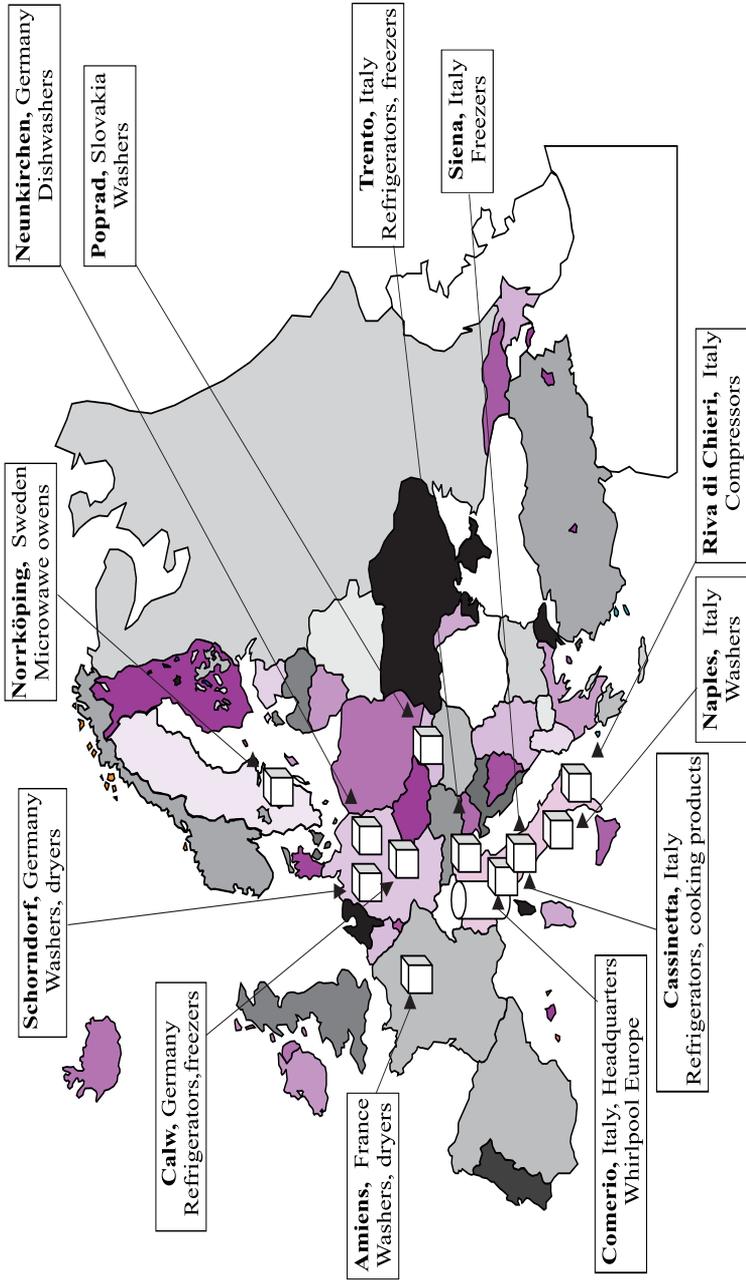
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Annex figure 1. Whirlpool's European appliance production centres, 1996



Source: Whirlpool Corporation, 1997.

RESEARCH NOTE

Administrative barriers to foreign investment in developing countries

Jacques Morisset and Olivier Lumenga Neso*

Administrative costs of entry and operational procedures vary greatly across countries and so influence the locational decision of foreign investors. To analyse the implications of those costs, this study uses a new database on administrative costs faced by private investors in 32 developing countries and economies in transition, containing not only information on general entry procedures such as business and tax registration, but also capturing regulation of access to land, site development, import procedures and inspections. The most important barriers are delays associated with securing land access and obtaining building permits, which in several countries take more than two years. Countries that impose excessive administrative costs on entry tend to be equally intrusive in firm operations, thereby weakening the argument that barriers to entry are a substitute for a Government's unwillingness or inability to regulate enterprise operations. The level of administrative costs is

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positively correlated with the incidence of corruption and exhibits a negative correlation with the quality of governance, degree of openness and public wages. These results suggest that administrative reforms need to be incorporated into the broader agenda of trade and financial liberalization as well as fight against corruption and public sector reform.

Introduction

Foreign direct investment (FDI) flows to developing countries increased fivefold during the 1990s, reaching almost \$237 billion by 2000. These flows, however, have been concentrated in a few countries, with the world's top 30 host locations accounting for 95 per cent and 90 per cent of total FDI inflows and stocks (UNCTAD, 2001). The reasons for this concentration are multiple. Countries with large consumer markets and abundant natural endowments attract more transnational corporations (TNCs). Recent studies, (e.g. Morisset, 2000) have also demonstrated that the quality of the investment climate plays an important role in the location decision of many investors. There has been an increasing recognition that administrative procedures – and the costs and delays associated with them – can significantly influence the location of TNCs and their resulting productivity (Dollar et al., 2001).

The role of administrative barriers has been investigated by Hernando de Soto (1989) in his seminal work on the negative impact of “red tape” on business activities. Time matters for investors – both foreign and local. A country where it takes excessive time and costs to accomplish all the procedures necessary to establish and operate a business will see its potential investors lose money as they decide to locate elsewhere or cancel their investment projects. In spite of the relevance of this issue, there have only been a few attempts to quantify barriers in developing countries. The main reason for the lack of quantitative analysis is that information is difficult to compile since its collection requires first-hand experience and extensive interaction with government officials.

The objective of this study is to examine the importance of administrative barriers in a set of 32 developing countries and economies in transition. The contribution of this study is to provide a new database on the number of procedures, the delays and costs that investors have to face when they want to establish and operate a business. The database covers entry procedures such as business and tax registration and procedures required to access land, develop a site, connect to main utility services, as well as a few operational procedures such as import or export. These last procedures have not been included in previous studies (e.g. Djankov et al., 2002; WEF, 2001), even though they play a decisive role in the location decision of many foreign investors. Furthermore, the inclusion of operational procedures allows us to examine the extent to which Governments are intrusive after a company has been established.

This study also attempts to explain cross-country variations in administrative costs faced by investors. By focusing on the bureaucratic, technological and institutional aspects of the procedures, traditional policy recommendations have suggested eliminating duplicative documents or forms, establishing virtual networks or on-line registration as well as implement so-called “one-stop shops”. These recommendations, albeit useful, have generally failed to generate the expected results in most developing countries, suggesting that the origin of excessive administrative barriers lies in more fundamental factors. The role of governance, trade and financial openness, the political regime, public wages and the legal system will be explored, using simple correlations across countries. The results of this study suggest that administrative procedures should be viewed in a broader context than usually adopted by policy-makers and advisors.

This research note is organized as follows. The next section discusses the definition and role of administrative barriers. It is followed by information on the database, including sources of information and assumptions used in constructing the series, as well as its limitations. Then, the basic results are described and compared across countries and regions. The subsequent section studies the reasons why countries have different sets of administrative barriers. The last section concludes by a brief summary and a suggestion for four directions for future research.

What are administrative procedures?

Administrative procedures exist in all countries. Indeed, it is legitimate for Governments to control or even screen some activities and investors who are seeking to establish themselves in their territories. Many reasons explain the presence of these procedures. Authorities have generally advanced arguments such as security, protection of the environment, health protection and quality control. The economic literature has justified government intervention in the public interest theory of regulation developed by Arthur C. Pigou (1920). In short, government regulation reduces or eliminates market failures, therefore, raising global public utility.¹

Still, countries significantly differ in the ways in which they regulate business entry and operations. Excessive regulation can lead to substantial delays and costs to firms that may decide to locate elsewhere or operate in the informal sector. The lost revenues can lead to a sub-optimal equilibrium and lower public utility. Along these lines, the public choice theory has argued that regulations can be captured by bureaucrats and politicians or by existing industries, which are able to keep out their competitors (Stigler, 1971; Shleifer and Vishny, 1993). In both ways, the overall social utility is reduced at the benefit of a few privileged groups.

It is difficult to identify when regulation is excessive. The approach followed in this study is to compare current practices in a set of 32 developing countries and economies in transition by identifying 26 core administrative procedures that are generally required to set up and operate a business. These key procedures allow comparisons across countries. For simplicity, they are grouped into three principal categories, which are briefly described below (while each procedure is presented in table 1).

Entry approvals. For foreign investors, entry starts with legal, statistical, labour, pension and fiscal registration. Often, investors also apply for fiscal incentives. The requirements and background documentation for these procedures vary significantly

¹ For more details, see Djankov et al. (2002).

across countries, depending on their institutional and legal frameworks. Some countries have been able to simplify these steps by using one application form, one identification number or one agency (the so called “one-stop-shop”),² while others have retained a more diffuse process.

Table 1. Summary of administrative procedures

Code	Category and item
A	Entry approvals
1	Company registration
2	Investment code registration
3	Initial bank deposit
4	Residence and working permits
5	Tax office registration
6	Foreign investment licensing
7	Business and trading permits
8	Statistical office registration
9	Existence, conformity, opening reporting
10	Health care and pension plans
11	Social security registration
B	Land, site development, utility
12	Access to land (State land)
13	Town planning certificate
14	Site inspections and general approvals
15	Building permits
16	Electricity and power connection
17	Telephone and telex
18	Water and sewerage
19	Post, box and private bag
C	Operational requirements
20	Import-export intention and permits
21	Import-export clearance process
22	Foreign exchange controls
23	Fiscal situation certificate (quitus)
24	Health and safety inspections
25	Labour inspections
26	Social welfare plan payments

² For more details, see Wells and Wint (1991).

Access to land, site development and utility connections. Subsequent to entry registration, or sometimes in parallel to it, investors have to secure land access as well as develop their business sites and connections to main utilities. Land ownership is a sensitive issue and, for this reason, investors often lease land from a Government rather purchase it. Both alternatives are considered in this study. The process of buying or leasing land can be lengthy and expensive since it involves multiple state agencies and sometimes the approval of local communities. Once investors have secured land, their next regulatory challenge is to obtain permits, generally from local authorities, for site and building development. Those generally require pre-approvals, multiple site inspections (health, security, labour etc.) and final approvals. Lastly, investors have to secure connections to key utilities, such as electricity and telephones.

Operational requirements. The last set of procedures consists of operational requirements that investors have to fulfil when operating their business. The main requirements included in this study consist of import-export procedures, foreign exchange controls, tax and social security payments, as well as labour and health inspections.³ These operational requirements, especially for import-export, are fundamental for enterprises that interact with foreign markets.

These three categories, which include 26 separate core administrative procedures, provide a sufficiently broad basis for a cross-country comparison. Industry specific procedures and other procedures such as environment assessments that differ significantly in their concept across countries have been avoided. Nevertheless, it is worth noting that more procedures are covered in this study than in previous studies, which have focused on general entry approvals (see e.g. Djankov et al., 2002) or building permits (Bertrand and Kramaz, 2001). By including land access and utility connection, the analysis has been extended to procedures that are sources of important delays in most countries and, thus, are likely to influence significantly the investment decision of private

³ In some countries, some of the operational procedures can also be needed at the entry, such as import and foreign exchange licenses. However, because of trade and financial liberalization efforts, those are less and less frequent.

enterprises. Furthermore, the data on operational procedures allow to examine to what extent Governments are intrusive on both entry and operations. This distinction is interesting since it can be argued that some Governments choose to impose a higher burden on entry because they are unable or unwilling to regulate operating enterprises.

Sources and methodology

The database used in this study covers 32 developing countries and economies in transition, including 20 African and 7 Central and Eastern European countries.⁴ Focusing on developing countries and economies in transition ensures a degree of homogeneity in terms of institutional and legal development, as well as technological and administrative capacity. A comparison with industrial countries, while useful, would capture significant differences between countries not necessarily related to administrative procedures but rather to their level of economic development.⁵ It has to be noted that the country sample was constrained by the availability of data, as explained below.

The two main sources are reports from the Foreign Investment Advisory Service (FIAS) and the United States Agency for International Development (USAID). These two agencies have collected the necessary information through official documents and interviews with focused groups such as private investors, government agencies as well as private accounting and legal firms. These interviews should not be viewed as systematic surveys since they do not cover a large sample of users and regulators. Moreover, it

⁴ Argentina (1999), Armenia (2000), Bulgaria (2000), Burkina Faso (2000), Chile (1999), Czech Republic (1999), Egypt (1999), Ghana (1995), India (1999), Jordan (1998), Kenya (1999), Latvia (1999), Lesotho (1997), Lithuania (1999), Madagascar (1998), Malawi (2000), Mali (1998), Mauritania (1999), Morocco (1999), Mozambique (1996), Nigeria (2001), Romania (2000), Slovenia (2000), Senegal (1999), South Africa (1999), Swaziland (1997), United Republic of Tanzania (1997), Tunisia (1999), Turkey (2001), Uganda (1997), Zambia (1999) and Zimbabwe (1999). The year of the data collection is in parenthesis.

⁵ For example, business registration is only a mouse click away from investors in most industrial countries thanks to the development of on-line registration. Such an instrument is not readily available in the majority of developing countries because of limited human and financial resources as well as poor communication infrastructure.

has to be recognized that the quality of information varies across reports and countries. In most reports, the main objective was not to quantify administrative procedures but rather to identify issues and develop recommendations for the relevant authorities. Moreover, some procedures have not been systematically reviewed in every country, as the focus of each report depended on the interest expressed by the authorities. Whenever possible, the data on entry approvals were complemented by those collected in Djankov et al. (2002).

For each country of the sample, the data were collected at one point in time, between 1997 and 2001 (with the exception of Ghana and Mozambique). The collection dates are sufficiently close to permit a comparison across countries. The number of official steps for each of the identified procedures, as well as their time requirement and costs are reported. The number of steps indicates the number of documents and institutions for each procedure. For example, business registration may involve successively the Register of Commerce, the Ministry of Finance and the Ministry of Trade and Industry (without accounting for notary services). The time or delay associated to each procedure provides a proxy for an investor's opportunity costs. When possible, time is defined as the real time spent by investors, rather than official requirements. The time spent to gather information is not known; it is assumed that all investors know all procedures from the very beginning. Lastly, the monetary expenses reveal the direct official fees to obtain forms, fiscal stamps and so on. Costs that are paid to support private services such as notary fees and legal services, and do not account for bribes, are not considered. These three reporting methods provide complementary information.

The total administrative costs – defined as the sum of time and out of pocket monetary fees – faced by private investors in each country are also reported. When an enterprise invests in one country, both the aggregate time and direct monetary costs spent in the administrative process matter in the decision. To calculate total administrative costs, the main difficulty is to convert time into monetary costs. For simplicity, local and foreign investors are distinguished; however, it is assumed that all investors have the same

utility function and that all projects have the same size.⁶ Then, time is covered into monetary costs by considering that, for each business day spent in the administrative process, the foreign investor has a daily opportunity cost equivalent to the average daily income per capita in developed countries (which account for over 85 per cent of FDI outflows worldwide). Alternatively, the local investors' opportunity costs are equivalent to the average income per capita in their countries.⁷ It is further assumed that local investors follow simplified procedures since they do not need to obtain immigration and residence permits as well as the "foreign investment" approval, which is still in use in some sample countries.⁸

In every country, the number of procedures, time and monetary costs vary significantly not only across industries, but also with firms' characteristics such as size, ownership and legal status. For this reason, the approach has been to consider a "standardized" firm with the following main characteristics: it performs general industrial or commercial activities; it operates in the largest city by population (mainly capital city); it is exempt from industry-specific requirements; it does participate in foreign trade; it employs expatriates and a total of 20-50 employees; it purchases or leases State land;⁹ it is connected to 10 phone lines and uses on average 100 kwh of electricity during peak hours (and half otherwise); and

⁶ As explained below, it is assumed that one standardized firm makes all investments.

⁷ For local investors, the same approach as in Djankov et al. (2002) has been followed. It has to be noted that the opportunity cost is likely to be underestimated because local investors are likely to report higher revenues than the average citizen.

⁸ In reality, additional differences are likely to exist because local investors are more familiar with the system and with government officials than are foreign foreigners. In a recent research, B. Smarzynska and S. Wei (2000) showed that foreign investment in the form of joint ventures is more likely to occur with complex and long administrative procedures. In other words, they found that administrative barriers influence ownership composition as foreign investors look for local partners in a complex and lengthy administrative system.

⁹ The value of land is equal to 50 per cent of the initial capital, and the renting price of land is 10 per cent of the capital. We set the superficies of the land at 1,000 square meters with 60 per cent of them being used or covered.

it is a limited liability company with an initial capital of \$10,000.¹⁰ Furthermore, if a range of delays or costs were reported, the median was used. If costs were reported in dollars, they were registered directly. When, however, they were in local currency, they were converted to dollars using the respective year-end exchange rates. By using a standardized company, potential information about the variability of the procedures, which also influences the location decision of investors, was excluded.

A word of caution might be necessary, especially when trying to interpret cumulative figures. First, the database does not report the cumulative time that an investor spends in dealing with all procedures. Some of them can be realized simultaneously, while others can only be initiated after others have been achieved. A second limitation is that the database does not report how often a business has to face operational procedures, like for example in import-export activity. By contrast, entry registration procedures have to be realized only once – when a company attempts to establish itself in a country. Lastly, it is important to note that missing data do not necessarily mean that the procedure does not exist in a country. Rather, it may indicate that no information in the sources used for this study was found.

Cross-country comparison: basic results

The data reveal considerable variations in the number of administrative procedures as well as the time and monetary costs associated to them across countries. Still, in almost all countries, the aggregate costs appear sufficient to explain why investors are influenced in their decision and may decide to circumvent administrative procedures by locating elsewhere or remaining in the non-official economy. The overall results for every country are summarized in table 2; data for each individual procedure are available upon request. Below is a review of the main results in terms of number of steps, time and monetary costs, followed by a comparison of the total administrative costs faced by local and foreign investors, respectively, in each country of the sample.

¹⁰ The amount of \$10,000 has been retained for two reasons. First, it is close to the average minimum required capital in most African countries; second, it is not far from the figures chosen by Djankov et al. (2002) and, thus, facilitates comparison.

Table 2. Summary of main results by country, latest year available

Country	Number of procedures			Time (number of business days)			Monetary cost (Dollars)		
	Entry	Land, site	Operations	Entry	Land, site	Operations	Entry	Land, site	Operations
Argentina	13	..	..	47	..	..	763	..	..
Armenia	13	45	10	59	131	15	84	4 414	75
Bulgaria	29	40	19	157	545	..	291	233	..
Burkina Faso	14	..	..	29	..	..	655	..	..
Chile	9	..	..	26	..	..	620	..	..
Czech Republic	11	..	..	65	..	..	447	..	..
Egypt	10	..	..	52	..	..	943	..	..
Ghana	8	19	12	34	255	30	338	2 940	202
India	9	..	..	39	..	..	261	..	..
Jordan	15	36	12	60	89	..	..	11 281	..
Kenya	10	22	10	51	70	39	397	3 975	2 282
Latvia	17	19	..	114	..	..	367	5 885	..
Lesotho	2	19	8	61	341	122	120	154	..
Lithuania	10	22	9	36	166	..	139	1 550	..
Madagascar	11	15	..	171	375	8	80	47	..
Malawi	10	30	2	46	413	20	470	562	10
Mali	9	27	13	79	170	..	154	2 696	250
Mauritania	11	..	10	54	..	..	328	..	3 186
Morocco	12	16	5	91	278	63	255	1 149	1 981
Mozambique	8	34	13	106	625	..	143	11 045	..
Nigeria	8	23	26	18	210	30	176	13 750	809
Romania	10	42	..	50	584	..	154	22 523	..
Senegal	11	25	10	96	228	40	801	1 847	51
Slovenia	12	30	7	30	45	..	2 895	..	..
South Africa	6	..	..	23	..	..	158	..	..
Swaziland	10	13	8	53	117	20	391	4 006	200
Tanzania, United Republic	19	25	18	187	795	45	3 040	508	12
Tunisia	7	..	..	39	..	..	286	..	..
Turkey	22	125	8	121	985	..	304	..	..
Uganda	9	24	14	69	495	70	607	1 520	..
Zambia	6	..	..	29	..	..	124	..	..
Zimbabwe	6	21	10	85	90	30	352	4 379	13
Average	11	31	11	68	334	41	504	4 723	756
Minimum	2	13	2	18	45	8	80	47	10
Maximum	29	125	26	187	985	122	3 040	22 523	3 186

Source: Authors' calculation based on USAID and FIAS studies.

Note: Two dots (..) mean that the information was either unavailable or inapplicable in respective countries.

A closer look at the number of procedures confirms that the second category (access to land) requires the largest number of steps, up to 125 in Turkey (when the land is purchased from the State).¹¹ In this category, site inspections and approvals by local authorities are the main barriers, followed by building permits. Operational requirements consist on average of more procedures than entry registration (11.3 versus 10.6), especially in Africa, where import-export permits and processes as well as health and safety inspections, generate many administrative steps (up to 15 in Nigeria for only import-export procedures). The number of procedures also varies significantly across countries, even for simple procedures such as company registration, ranging from 1 (in Ghana, Senegal or Uganda) to 7 or 8 in Burkina Faso and Bulgaria.

Investors spend considerable time on administrative procedures with enormous variations across countries (table 1). Data on individual countries indicate that the longest delay is found in Turkey (1,106 business days), followed by Mozambique (731), Bulgaria (702 days) and Romania (634 days). The most significant delays arise from land purchase (from the States) and site development procedures, especially permits and inspections from local authorities that appear to be relatively little efficient in processing investors' requests. It is noteworthy that, in spite of recent trade liberalization efforts, import-export permits and clearance processes are still extremely time-consuming in Africa, averaging almost 47 business days (with a maximum delay of 63 days in Morocco) and exceed the time spent in other regions significantly. In most countries, general entry approvals appear to be less time-consuming than other procedures, with the notable exception of residence and working permits that can generate delays of 2 months or longer in Bulgaria or the United Republic of Tanzania.

The direct official monetary costs exceed \$10,000 in 3 countries of the sample (Romania, Nigeria and Mozambique), although they remain relatively low in absolute values in the majority

¹¹ Contrary to most countries included in the sample, Turkey has an extensive and active market for private land. In that case, the delays associated to administrative procedures would have been much shorter than those reported for purchasing State land.

of the countries. They are nevertheless relatively high when they are compared to the average income per capita in most countries, especially in Africa, where most investments are from micro-enterprises. By far, the procedures associated to land access are the most expensive in most countries, averaging over \$1,500, followed by building permits (especially in Africa) and some utility connection fees (electricity in Romania). Among the operational procedures, import-export processes can require payments over \$1,000 in Morocco, Nigeria and Mauritania. Finally, general entry approvals can require payment over \$1,000 in Senegal and Slovenia, but they are almost free in Malawi, Madagascar and Argentina. Among these procedures, immigration and working permits are generally the most expensive.

The aggregate fees spent by local and foreign investors are presented in table 3, where countries are ranked in ascending order. It has to be noted that the two series were normalized by the number of procedures to minimize the bias introduced by differences in the information reported in each country. The ranking by country indicates that Zambia, Madagascar and India are relatively inexpensive for their local investors, in contrast to Romania, Jordan, Slovenia and Nigeria. The total administrative costs for foreign investors are relatively low in South Africa, Zambia and Chile, but they could exceed \$5,000 per procedure in Turkey, Mozambique and Romania. The variations in the aggregate costs between worst and best performers seem to match with FDI patterns across countries. These variations can also be interpreted as the maximum “bribes” for circumventing or accelerating the administrative approval process in each country. Although an investor can establish elsewhere or operate in the non-official economy, it would be equivalent to pay, *ceteris paribus*, these extra amounts (per procedure) for being released from regulations. The positive correlation between administrative costs and bribes has been advanced by the “tollbooth” theory and will be explored further in the next section.

The ranking per country differs significantly for local and foreign investors. The explanation is that time is relatively more valuable for foreign investors, who have higher opportunity costs.

Table 3. Total costs per procedures, latest year available
(Dollars)

Local Investor		Foreign Investor	
Country	Cost	Country	Cost
Madagascar	48	Zambia	417
India	83	Chile	470
Lesotho	85	Burkina Faso	517
Malawi	100	Tunisia	576
South Africa	101	Argentina	639
Tunisia	105	Egypt	727
Burkina Faso	135	Czech Republic	869
Chile	168	India	974
Uganda	196	Mauritania	1 221
Senegal	201	Latvia	1 229
Egypt	214	Kenya	1 318
Czech Republic	243	Armenia	1 366
Tanzania, United Republic	246	Swaziland	1 560
Mali	255	Senegal	1 784
Ghana	257	Lithuania	1 850
Argentina	319	Ghana	1 884
Armenia	326	Zimbabwe	2 098
Morocco	395	Mali	2 172
Zimbabwe	402	Slovenia	2 363
Bulgaria	405	Lesotho	2 605
Swaziland	443	Morocco	2 650
Kenya	444	Malawi	2 703
Lithuania	449	Uganda	2 733
Mauritania	512	Jordan	2 941
Latvia	540	Nigeria	3 343
Turkey	832	Madagascar	3 452
Mozambique	1 070	Tanzania, United Republic	4 756
Nigeria	1 365	Bulgaria	6 023
Slovenia	1 535	Romania	6 207
Jordan	1 945	Turkey	6 480
Romania	2 530	Mozambique	6 695

Source: Authors' calculation.

Notes: Total costs are defined as delays (converted into monetary costs) plus direct costs associated to administrative procedures in each country. Delays are converted into monetary costs, assuming that opportunity costs for local investors are equal to the number of days multiplied by the daily GDP per capita in each country. For foreign investors, the daily average GDP per capital in developed countries is used.

Time or delays account for about 80 per cent of their total costs, while they are only equivalent to 30 per cent of total costs for local investors. This difference may mean that foreigners are less likely to accept long delays as they are used to best practices in industrial countries.

This section is concluded by exploring a few patterns from the data. First, it appears that the countries with the highest number of procedures are not necessarily the ones with the longest delays or largest monetary costs.¹² For example, Latvia has many more procedures than Nigeria, but it has a greater capacity to deal efficiently with them.¹³ It is, therefore, possible that the number of steps reflects the public interest theory through which a Government protects its citizens, while delays and costs can be viewed as a rough indicator of a Government's capacity or willingness to respond to investors' requests (i.e. the public choice theory).

Another insight from the data is that Governments are likely to impose high barriers on entry and operations simultaneously, weakening the argument that entry procedures are a substitute for Governments' inability or unwillingness to interfere with operating enterprises. The data show relatively high positive correlation coefficients between entry and operational procedures in terms of number of steps (0.21), time (0.58) and direct costs (0.60).

Administrative barriers: why?

There are many possible explanations for why the costs of administrative barriers vary so much across countries. Most advisers and researchers have focused on the bureaucratic, technological

¹² For example, Nigeria does have a reasonable number of procedures, compared to other African countries, and delays are relatively short; still costs exceed 3 to 4 times those identified in Senegal, Mali and Ghana.

¹³ The relatively low positive correlation coefficients between the number of steps and the associated time (equal to 0.49) and between the number of steps and monetary costs (0.16) suggest that that these variables may capture different motivations from Governments. Note that Djankov et al. (2002) found higher correlation coefficients in their study, with a different sample of countries and by normalizing costs and delays with the average income per capita in each country.

and institutional aspects of administrative procedures; but this focus has failed to generate significant progress in most countries. The reasons for this lack of success are rooted in the fundamental features of each country. Therefore, it is proposed to explore to what extent the variations in administrative costs are explained by structural factors such as the political regime, the level of corruption, the degree of openness, the public sector wage policy and the legal system in use in each country of the sample. Including these factors allows to understand better the successes and failures of Governments in their efforts to streamlining these administrative barriers.

In the absence of a precise analytical model of the factors determining administrative costs, the basic variables for the analysis were selected on the basis of the existing literature. At the outset, it is useful to note that this study voluntarily focuses on the public choice theory of regulation by retaining the aggregated administrative costs faced by investors, rather than the number of procedures, as the variable that is to be explained across countries.¹⁴ This study alternatively uses the aggregate costs faced by local and foreign investors as reported in table 3. Controlling for the level of development is crucial, and, thus, the costs were divided by the GDP per capita in each country. Not only is it expected that costs are strongly and positively correlated to economic development, but also, without income controls, that the political and institutional variables may be no more than proxies for income levels.¹⁵ In making this adjustment, this study also follows Djankov et al. (2002).

The selection of the basic variables, which has been partly driven by the availability of data in the sample of countries, is provided below. The level of *corruption* or the lack of good *governance* is expected to influence the administrative costs as bureaucrats and politicians are more likely to capture the extra rents.

¹⁴ This departure from the public interest theory of regulation is mainly justified by the difficulty to capture this argument with quantifiable explanatory variables. Nevertheless, for such an approach, see Djankov et al. (2002), which favoured the public choice over the public interest theory of regulation.

¹⁵ For example, administrative capacity is lower in poor countries.

Corruption can be both the cause and the consequence of high administrative barriers. While this double causality is recognized, this study privileges the explanation that it is easier for a Government to reduce or remove administrative procedures than to alter the extent of corruption in a country.¹⁶ Along the same lines, it can be argued that the *degree of political freedom* affects the capacity of bureaucrats or incumbent enterprises to exploit rents derived from administrative procedures. In a despotic regime, rents are more likely to be captured by interest or political groups that have more opportunities to exploit market failures.

The inclusion of the degree of *trade or financial openness* can be justified on the grounds that administrative costs are lower in an open country. The process of liberalizing forces policy-makers to address a number of vested political interests, including those of bureaucrats, which may in turn lead to a decline in administrative costs (see Weir, 2000, for more explanation). The level of public wages is included, following the argument that low-paid bureaucrats are more likely to capture extra rent by raising administrative costs. To the extent that a Government's objective in screening investors is partially the result of the existing *legal framework*, it is relevant to examine its impact on administrative costs. Finally, *regional patterns* may reflect differences in cultural factors or mentalities, which in turn affect the way through which Governments regulate private companies' entry and operations.

In order to test empirically the relationship between total administrative costs and the above variables, it was decided not to proceed with cross-country regressions but rather with a simple correlation analysis, for three main reasons.¹⁷ First, the endogeneity problems between administrative costs and several explanatory variables cannot solve easily because of a lack of observations and, consequently, degrees of freedom.¹⁸ For example, as discussed

¹⁶ See Bai and Wei (2001) for a similar approach with capital controls.

¹⁷ Upon request, the results of simple ordinary least square (OLS) regressions are available. They do not differ in their direction from the correlation coefficients presented in table 4.

¹⁸ Moreover, the sample of countries is relatively small and does not cover one single reference year.

earlier, corruption can be a consequence or a cause of high administrative costs. Second, it is also possible that both the political variables and administrative costs are simultaneously determined by some deeper historical or cultural factors. Finally, there exist some multi-collinearity problems between variables (e.g. political freedom and anti-corruption are highly correlated) which can bias the estimated results. Although the correlation analysis can only give indications on the basic relationships between variables, it aims at motivating and providing directions for future research.

The most interesting aspect of the empirical findings is that they emphasize the difficulty to reduce administrative costs in corrupt and closed economies. Reformers will have to face the resistance of both middle-level bureaucrats and incumbent enterprises. As expected, the negative correlation coefficient between administrative costs and corruption (as well as governance) indicates that high levels of corruption are associated with higher administrative costs and longer delays for investors. The estimated coefficient indicates that, the better a country is ranked in the Transparency International database, the lower are the administrative costs faced by investors (table 4). In a country with widespread bureaucratic corruption, a Government loses its ability to collect fiscal revenues from formal tax channels, and, as a consequence, it has to rely increasingly on the otherwise inefficient and distortionary administrative procedures to finance the provision of public goods.¹⁹ It is only when the level of corruption is significantly reduced, or tax collection improved, that administrative costs could be reduced significantly. It has to be noted that the costs associated with administrative barriers were found to be lower in a free political regime, confirming that politicians and bureaucrats have fewer opportunities to capture extra rents.²⁰

The positive correlation coefficient between financial openness and administrative costs suggests why protected incumbent firms may resist lower entry barriers. In relatively closed economies,

¹⁹ Or, more precisely, the marginal costs of collecting tax revenues rises with the level of corruption (Bai and Wei, 2001).

²⁰ Djankov et al. (2002) found a similar positive correlation with other proxy variables of political freedom such as political rights and efficiency of the judiciary system. In fact, most political variables are highly correlated, and it does not matter so much which variable is used in the regressions.

high administrative costs are likely to protect incumbent enterprises from new entrants that might compete with them.²¹ The causality can, of course, operate in two ways since lower administrative barriers will in turn encourage FDI and, thus, create a virtuous circle. It has to be noted that the trade openness index (as measured by the ratio of trade over GDP) was not correlated significantly with the cross-country variations in administrative costs.

Table 4. Correlation coefficients
(All variables in logs)

Variable	Total administrative cost per procedure over GDP	
	Local investor	Foreign investor
Corruption	-0.62	-0.61
Governance	-0.59	-0.60
Political freedom	0.40	0.36
Trade/GDP	-0.04	-0.03
FDI/GDP	-0.18	-0.12
Openness index	-0.59	-0.70
Average wage	-0.36	-0.54
African countries	0.34	0.52
Anglo-Saxon legal origin	0.17	0.24

Source: Authors' calculation.

Notes: The Transparency International Index measures corruption, while governance is captured by the scores compiled by Kauffman et al. (2001). The higher the score, the less corrupt or better governed a country. The degree of freedom in each country is defined by the Freedom House index, which rates the levels of political rights and civil liberties worldwide (a low score indicates more political freedom). The degree of openness is defined by using the ratio of trade over GDP, the ratio of FDI over GDP and the overall indicator developed by the Fraser Institute (which includes an evaluation of property rights, capital and exchange rate controls, price stability and structure of commercial flows). Since it was not possible to obtain consistent data on public wages, the average salary in each country reported in the ILO Yearbook and various World Bank's publications is used instead. Countries are classified based on the origin of their commercial laws, distinguishing by a dummy variable between Continental and Anglo-Saxon systems. Finally, countries are separated between African and non-African countries, using a second dummy variable.

²¹ See Hoekman, Kee and Olarreaga (2001), for some empirical evidence.

Other results can be commented briefly as follows. Average salaries do influence administrative costs, thus supporting the argument that low paid bureaucrats are less assiduous in dealing with investors' requests. Note, however, that, with the use of the average wage in each country (rather than the average public wage), the estimated coefficient may not capture properly this relationship. The origin of the legal system may influence the administrative costs since countries with an Anglo-Saxon legal system appear to have higher administrative costs.²² Similarly, African countries seem to have higher administrative costs than non-African ones.

Conclusion and future agenda

This study used administrative regulation data collected for 32 developing countries and economies in transition to show that Governments impose significant administrative costs on firms that want to establish and operate in their countries. While some procedures are necessary, others are not, and their costs vary considerably across countries. The ranking shows that administrative costs faced by foreign investors are the lowest in South Africa, Zambia and Chile, while they are highest in Mozambique, Turkey and Romania. The variance between the best and worst performers is extremely high, as the average cost per procedure is more than ten times higher in Mozambique than in South Africa.

The main conclusions of this study are that access to land and site development are the sources of the longest delays in most countries, followed by operational requirements for imports and/or exports, especially in Africa. Although business registration appears not so costly relative to land access and site development, there is a wide dispersion across countries. There is no systematic positive correlation between the number of procedures and their costs (both monetary and in time), suggesting that the number captures governments' willingness to protect their citizens (the public interest theory of regulation), while costs may reflect the ability of a few privileged groups to capture those rents (the "public choice" theory).

²² It is possible that administrative costs and corruption are determined jointly by the origin of the legal system.

Finally, the high and positive correlation between administrative costs on entry and operations suggests that Governments are equally intrusive before and after enterprises are established, which weakens the argument that entry regulation is a substitute for operational requirements.

When policy advisers attempt to reduce excessive red tape, they generally address administrative, technological and institutional issues. Their emphasis on the administrative aspect is justified because complex and redundant procedures are often the result of unnecessary forms, signatures and documents. Technology can also provide a useful tool by linking together agencies via virtual networks and, thus, facilitate relations not only between investors and government officials but also within the public administration. Finally, there has been a strong push towards institutional reforms – most notably in favour of the so-called one-stop-shop.

The traditional recommendations are important, but far from sufficient. Given the results of this study, it is not surprising that recent efforts aimed at streamlining administrative barriers have failed to bring the expected results. This limited success has been explained by the lack of coordinated effort across the public sector and resistance from middle-level bureaucrats, who may prefer to maintain the status quo. Last but not least, it often involves changing mentalities and behaviours, which takes time and prolonged actions as well as strong political commitment. This analysis shows that rationalizing administrative procedures is a difficult task. Administrative costs reflect more profound characteristics of each country. Countries with higher corruption levels, lower quality of governance, lower degree of financial openness and lower public wages are more likely to have higher administrative costs. It seems that administrative reforms must be incorporated in broader reforms, such as trade and financial liberalization, corruption and public sector reforms.

There are at least four directions for future research. The first direction consists of improving data and inputs. Not only the quality of the data needs to be improved for the countries included in this study, but it would also be especially useful to expand the

number of countries by including Latin American and East Asian countries. The second direction would be to use the database for identifying best practices and helping Governments in their efforts to set up targets and monitor progress over time. This effort would need to account for the legal and institutional framework in each country, beyond the quantitative approach followed in this study. The third direction would be to go one step further in the understanding of the causes behind the variations in administrative costs by giving, for example, further attention to the eventual role of institutions such as one-stop shops or enterprises networks that have been implemented in various countries, sometimes with success. Finally, the fourth direction would be to examine the impact of administrative costs on investment decisions and on firms' productivity. A first indication of this impact can be derived from the estimated elasticity reported in the correlation analysis in this research note: for every 10-percentage-point decrease in administrative costs (as perceived by foreign investors and in percentage of GDP), the ratio of FDI over GDP rises by about 1.2 percentage points. This empirical result should be interpreted with caution but is indicative of the significant positive impact that a reduction in administrative cost may produce as regards FDI flows. This should provide a motivation for future research. ■

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Foreign banks in Saudi Arabia: a brief history

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The note examines the history of foreign banks in Saudi Arabia to shed light on the evolution of foreign direct investment in banking there and its contribution. The banking industry has gone from being totally foreign to being majority domestic, in a process that was partly forced, partly inadvertent, and partly market driven. It is not clear that forcing the pace was necessary or worthwhile, at least from an economic perspective. Furthermore, despite the measures, over the past two decades the affiliates of foreign banks have gained market share. The note also provides some short histories of the individual foreign banks operating in Saudi Arabia.

Introduction

The Kingdom of Saudi Arabia gives us an opportunity to study a special situation as far as foreign direct investment (FDI) in banking is concerned. The affiliates of foreign banks are an important part of general commercial and retail banking in the country. The foreign banks' important role is not a legacy of colonialism (Saudi Arabia was never a colony or protectorate), nor is it the result of acquisitions of local banks as has occurred in Latin America (Guillén and Tschoegl, 2000). It is the consequence of organic growth. Still, in recent decades, the foreign banks' growth has occurred despite a nostrification of the banking industry that has been partly forced, partly inadvertent when public entities have acquired shares as recapitalizers of last resort, and partly market-driven.¹

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¹ To the best of my knowledge, the term "nostrification" first appeared after the dissolution of the Hapsburg Empire and in connection with policies in the Czech Republic towards Austrian investments. A policy of nostrification is one of ensuring that industries and firms be in national hands, albeit private ones. What distinguishes nostrification from nationalization, which refers to the imposition of national government ownership, is the acceptance of private ownership.

Obviously, the evolution of any banking system is a unique process. This uniqueness makes prediction impossible, both for the system itself and for other systems as well. Still, as K. Windschuttle (1996, p. 242) argues: “The impossibility of prediction does not, however, rule out the possibility of comprehension.” It is this comprehension that provides the reason for examining the Saudi case. Many countries today have experienced an influx of foreign banks that has brought with it foreign domination of their banking systems in the sense that foreign-owned banks now manage the bulk of the banking systems’ assets. This is the case in much of Latin America, in the transition economies and in other countries in which banking crises have left domestic banks weak. Examining the evolution of the Saudi banking system over the past 50 years can give us insights into some of the forces that may affect the banking systems of these other countries in the coming decades.

Theoretical background

As B. Williams (1997) argues, the internalization approach, which goes back to S. H. Hymer (1976) and C. P. Kindleberger (1969), provides an adequate general explanation of FDI in banking. The internalization approach argues that firms engage in FDI when they find FDI a more profitable route for the exploitation of opportunities or assets than licensing or exporting. In banking, licensing is difficult because of the intangibility of such assets as a bank’s relationships with individuals or firms from its home country. Exporting too is difficult because the production of services requires that the producer be in contact with the customer. The internalization approach encompasses both what R. E. Caves (1998) calls asset-seeking behaviour and asset-exploiting behaviour.

As G. Ragazzi (1973) has pointed out, barriers to the flow of portfolio capital can be one source of asset-seeking behaviour. As V. Errunz and L. Senbet (1981) point out, when a foreign bank’s shareholders cannot more cheaply directly acquire shares in host-country firms, either because barriers segment capital markets or there are no shares to buy, FDI adds value. For much of the second half of the twentieth century, foreign individuals have been unable to buy into local banks in Saudi Arabia; hence buying shares in home-

country banks with operations there provided foreign shareholders a measure of portfolio diversification.

But the foreign banks have also exploited assets that they possessed. The primary assets in banking are first, the bank's own management; second, the relationships with existing customers (governmental, corporate or individual); and third, the skills or capabilities that the bank can deploy to attract new customers. To home-country firms operating in a host country, the foreign banks offer the benefits of an ongoing relationship. The capabilities that foreign banks have to offer when dealing with host-country firms are also quite straightforward: expertise in foreign exchange, international networks for trade payments and for verification of counterparties, and frequently expertise in specialized forms of lending. There may be a subtle benefit of foreignness when leading domestic family groups own the major banks; many owners of firms outside these groups may be more comfortable dealing with a foreign bank than with one whose owners also own the clients' competitors.

However, as A. E. Tschoegl (1987) has argued and others have shown, foreign banks have no particular advantage when engaging in general commercial and retail banking in already competitive markets. Foreign banks tend to have lower margins and profits than domestic banks in industrial countries; the opposite holds in developing countries (Demirgüç-Kunt and Huizinga, 1999; Claessens et al., 2001).² In industrial countries foreign banks tend now to avoid the retail market except in the niche market of ethnic banking — the provision of banking services to home country nationals resident in a host country.

Furthermore, there is the principle of comparative advantage that dates back to David Ricardo in the early nineteenth century. The principle implies that economic agents, whether individuals, firms or countries, serve the general weal best when each specializes in what it does best or least worst. Even if foreign banks are better

² However, one caveat is in order; in a cross-country study, Demirgüç-Kunt and Huizinga (2001) also found evidence that foreign banks engage in relatively extensive profit shifting, making any firm statements about the profitability of foreign banks suspect.

than local banks at both foreign and corporate banking on the one hand and retail banking on the other, the local banks will have a comparative advantage in retail banking. That is, the local banks will be less deficient in retail banking than they are in foreign and corporate banking. Where foreign banks initially dominate a country's banking industry, one should expect to see them exit retail banking and specialize in foreign activities *pari passu* with the emergence of local competitors. For instance, this is what happened in Cyprus vis-à-vis the British banks (Phylaktis, 1988).

The permissible mode of the foreign banks' presence is also an important factor in their viability. Banks wishing to deal primarily with firms, especially in the areas of foreign exchange, corporate lending and trade finance, tend to prefer to work through branches of the parent bank. Branches are an integral part of a parent firm and so trade on the basis of the parent's reputation and capital. Branches are subject to the prudential supervision of their home country regulators as a branch fails if the parent fails and the assets and obligations of a branch are the assets and obligations of the parent. Banks wishing to operate in the retail market in a foreign country tend to operate via local affiliates. Again, the affiliate trades on the basis of its own capital and reputation, and supervisory responsibility rests with the host-country regulatory authorities. When a foreign bank wishes to take retail deposits, the regulators often explicitly or implicitly insist that bank do so through the modality of an affiliate. However, a branch is cheaper to establish and operate than an affiliate as it does not face the setup and maintenance costs of incorporation.

The history

R. D. Robinson (1964) has introduced some temporal divisions — the Concessionary Era (1918-1945), the National Era (1945-1975) and the International Era (1975-date) — that are useful for organizing the discussion of the regulatory context as they highlight broad international trends in the regulation of foreign firms. This study uses Robinson's classification because it is the only one extant that describes the changes in the international environment facing foreign banks over the period of interest.

In Robinson's view, the Concessionary Era was essentially a transitional period following the Exploitative Era (circa 1850-1914). In the Concessionary Era, Western enterprise attempted to freeze its status in the developing countries and the non-Western world in the face of the home countries' weakening power umbrella.

During the Concessionary Era, which essentially predates the major oil discoveries, the region of the Arabian Peninsula and the Gulf was something of a backwater.³ Because Saudi Arabia was too poor and uninhabited to be of much interest to the colonial powers, and because of the Koranic prohibitions on interest, the commencement of modern commercial banking came late relative to its appearance elsewhere in the world. The first entity to offer some banking services was Gellatly, Hankey & Co., a diverse trading and ship handling company, which established itself in Jeddah in 1885; it dealt with the banking needs of the small European community (Wilson, 1991).⁴ Unfortunately we know little or nothing about non-European bankers that may have operated in the area in the nineteenth and early twentieth centuries.⁵ We do know that banians and Jewish merchants were present in the ports of the Red Sea.⁶ The banians in particular may have carried out some banking functions.

³ In Saudi Arabia, oil was first discovered in 1933.

⁴ Founded in 1862 in London as a partnership, Gellatly, Hankey & Co. still operates in Eritrea, Djibouti, Ethiopia and elsewhere in the world. Lloyds appointed the company as Lloyds Agents for Jeddah in 1889. In 1955, British Bank of the Middle East acquired Gellatly's banking business in Saudi Arabia (Jones, 1987). In 1963, HRH Prince Abdullah Al-Faisal established the Arabian Establishment for Trade, which largely took over the company's remaining activities in Saudi.

⁵ K. A. Chaudhry (1997) has a chapter on informal and formal banking in Saudi and Yemen that discusses money changers and money transmission in the second half of the twentieth century.

⁶ Yule and Burnell (1903) define a banian (banyan) as a "Hindu trader, and especially of the Province of Guzerat, many of which class have for ages been settled in Arabian ports and known by this name; but the term is often applied by early travellers in Western India to persons of the Hindu religion generally. The word was adopted from Vaniya, a man of the trading caste (in Gujarati vaniyo), and that comes from Skt. vanij, 'a merchant.'" The earliest accounts of the Banyans in the Red Sea, the Gulf of Aden and the Horn of Africa date from the end of the sixteenth century; they survived well into the Twentieth Century in some parts of the area.

The Ottoman Bank was the first bank in the Arabian Peninsula. It established a branch in Jeddah in 1912 and another in Hodeidah in 1911 (Clay, 1994) to serve as paying agent for the Turkish troops in the area. The Ottoman Bank closed its branches as the army was driven from the Peninsula, but after the war the bank sought to re-enter. The Sharif of Mecca refused to grant permission, citing the Islamic prohibition on interest (Autheman, 1996). Still, during the period of the Hashimite Kingdom of Hedjaz (circa 1915-1925), the Arabian National Bank of Hedjaz not only operated but also issued banknotes as late as 1924. Apparently there was also an Egyptian bank operating in Jeddah at the time (Wilson, 1991). However, both closed after Abdul Aziz ibn Saud defeated the Hashimites.

Eastern Bank, a United Kingdom bank now absorbed into Standard Chartered Bank but the first bank whose presence on the eastern side of the Arabian Gulf has survived to the present, commenced operations in Bahrain in 1920 (Wilson, 1987). The first bank in Saudi Arabia with a presence that continues to the present was the Nederlands Handel-Maatschappij (NHM), which entered in 1926 (see below).⁷ For many years it was the only operating bank in Saudi Arabia and served as the Central Bank, maintaining the country's gold stock and processing oil royalty payments. The second entrant to Bahrain was the British Imperial Bank of Iran, and it only entered in 1944.⁸ The next entrant to Saudi Arabia after the NHM was the Banque de l'Indochine in early 1948 (Meauleau 1990).⁹

Robinson's National Era, which commenced after World War II, was a period of decolonization, rising nationalism, étatism, and

⁷ Nederlands Handel-Maatschappij translates into Netherlands Trading Company. This later became Algemene Bank Nederland (ABN) and then ABN-AMRO after the merger with Amsterdam-Rotterdam Bank.

⁸ In 1948, this became the British Bank of Iran and the Middle East. After the bank withdrew from Iran, it renamed itself the British Bank of the Middle East (BBME). In 1959, Hongkong and Shanghai Bank acquired BBME. What was BBME is now the core of HSBC Bank Middle East.

⁹ In 1975, Banque de l'Indochine merged with Banque de Suez et de l'Union des Mines to become Banque Indosuez; in 1997 Credit Agricole acquired Banque Indosuez.

the adoption of socialism in much of the Third World. The era saw the nationalization of foreign banks in much of North Africa, sub-Saharan Africa and the Middle East at the hands of leaders who at best idealistic followers of a flawed model and at worst opportunistic rogues who cloaked imperial ambitions in a less self-serving rhetoric.¹⁰ Saudi Arabia was spared nationalization, but nationalism was an issue.

The Government, with the help of the International Monetary Fund (IMF), produced a programme of reform in 1951 aimed at introducing a modern monetary system. That programme led to the establishment of the Saudi Arabian Monetary Agency (SAMA) in 1952. SAMA was a response to a perceived need for a central monetary authority that would issue national money and for a fiscal agent to handle Saudi Arabia's increasing oil revenues and its expenditures. As E. Helleiner (1997, 1998) has pointed out, with the spread of the ideology of nationalism, national leaders saw in money a powerful way to disseminate national symbols. As part of its modernization programme, the Government of Saudi Arabia commissioned the minting of its first gold coin, a guinea equivalent to 40 riyals in value (see below).¹¹ The newly created SAMA then issued the coin, which greatly facilitated government and commercial transactions. Still, SAMA's original charter forbade the Agency to issue paper money.¹² Instead, SAMA issued "pilgrim receipts".

¹⁰ For instance Arab Bank, based in Amman, Jordan lost its branches in Egypt (1961), Syria (1963), Iraq (1964; absorbed into Rafidain Bank), Aden (1969) and Libya (1970), all to nationalization. The Egyptian banks such as Bank Misr and Banque du Caire too lost their branches in Libya, Sudan, Syria or Yemen. Lastly, the Syrian nationalization also cost Saudi Arabia's National Commercial Bank its branch there.

¹¹ The £1 coins had the same dimensions, gold content and purity as the United Kingdom's gold sovereign, which was already circulating widely in the region. Also, and separately, between 1945 and 1947 ARAMCO, the oil company, had the Philadelphia Mint produce 123,000 gold £1 and 91,000 £4 coins for use in Saudi. Most of these, however, were remelted into bullion.

¹² Edo (1975, p. 10) reports: "the prohibition was made when full-bodied metallic coins were standard in most parts of the Peninsula, and government officials were uncertain whether the public was ready to accept a paper currency".

The intent was to relieve pilgrims of the necessity of carrying large bags of coins, but the local business community too found the notes convenient; in 1960 SAMA started to issue paper money. The agency was also responsible for supervising the nascent banking system. It now achieves bank solvency through credit controls and conservative capitalization requirements.

The Government had been using a local moneychanger as its fiscal agent, but in 1953 permitted the firm to become the first Saudi bank, with the name National Commercial Bank (NCB).¹³ The second Saudi bank, and the first joint-stock bank, was Riyadh Bank (RB), which opened in 1957. The Al Watany Bank, established in 1958, was the second joint-stock bank. In 1960, SAMA forced the by then insolvent Al Watany Bank into liquidation and transferred its viable assets to RB, which however also required reorganization. Since September 1995, the Ministry of Finance and SAMA own 21 per cent and 7.5 per cent of RB, respectively.

A new Banking Control Law, passed in 1966, gave SAMA enhanced power to license and regulate all banks. It barred foreign banks from further expanding their branch networks. As a result NCB and RB — the two Saudi banks — accounted for virtually all bank branches in the country until 1975. Still, by 1975 there were 10 foreign banks present in Saudi Arabia, operating 29 branches.

The trouble arose after the first oil boom. Foreigners were criticizing Saudi Arabia for having such a backward domestic banking system whilst being the only Third World country with a permanent

¹³ The bank's website history starts with the Royal Decree in 1953 that established the bank as an unlimited liability partnership. Still, the bank can trace its origins back to 1938 when Abdel-Aziz Kaki, Musa Kaki and the Bin Mahfouz family established the Al-Kaki and Bin Mahfouz Co. by merging their money changing firms in Jeddah (Wilson, 1983). In 1996, Khaled ibn Mahfouz announced the purchase of his brothers' shares and that he and his wife were now the sole owners. In 1997, the bank converted itself to a limited joint-stock company. In 1999, the bank sold 50 per cent of its shares to the Public Investment Fund as part of a change that also involves management. The Government has affirmed that it intends to sell its shares as the market is able to absorb them.

seat on the board of the IMF. At the same time, nationalist elements were criticizing the authorities for allowing foreign banks to operate at all on Saudi soil (Wilson, 1983, p. 89).

In an attempt to silence critics, SAMA decided to allow all banks in the Kingdom to expand to create a more competitive environment but to introduce a policy of nostrification (El Hajj and Sarkis, 1981). Sama required all foreign-owned banks wishing to continue to operate in Saudi Arabia to incorporate locally and to reduce ownership to no more than 40 per cent by taking on Saudi partners or individuals for the remainder (SAMA, 1999). The general mechanism was that the new firm allocated 40 per cent of its equity to the foreign bank as compensation for its existing operations which the firm was taking over, and then raised the remaining 60 per cent through a (frequently) over-subscribed public issue of shares. The foreign banks also took management contracts in their new affiliates.

Saudi Arabia was not the only country that saw fit to regulate the ownership and management of banks located within its borders. Within the Arab world, Morocco in 1973 instituted a requirement that 50 per cent of all banks' management had to be local. Kuwait, North Yemen, Tunisia, Mauritania and Jordan imposed similar regulations. In sum, during the National Era, many countries that had been open to foreign banks in 1920 closed, and no country that been closed opened (Tschoegl, 1985).

One cannot discuss Saudi Arabia's banking industry without mentioning the role of Bahrain. Faced with dwindling oil revenues, in the early 1970s Bahrain decided to make Bahrain a financial centre for the region (Sherbiny, 1986). Several foreign banks already had onshore branches there, and in 1975 Bahrain introduced regulations modeled on those in the Cayman Islands and Singapore to permit foreign banks to operate OBUs: Offshore Banking Units (Moore, 1981; Gerakis and Roncesvalles, 1983). A number of the banks already in Bahrain decided also to establish OBUs, and other foreign banks entered with representative offices or newly-formed OBUs. By 1978 the Bahrain Monetary Agency (BMA) had licensed 48, and by 1983, 53.

Several factors supported the growth of Bahrain as a financial centre. The civil war in Lebanon had made Beirut too dangerous for bankers. Also, no other country in the region was as open to foreign banks, as well located on airline routes, and as willing to give the banks as much operating freedom. Bahrain, as a small, island state with an established foreign bank presence, had no domestic interests that further openness would threaten. Bahrain had negligible oil revenues, so the employment and income benefits from hosting the centre also meant that the BMA would listen to and accommodate the foreign banks. Lastly, Bahrain used English law. Because the BMA required that the OBUs be actual operating entities, not just “brass plate” booking entities, many banks transferred assets there from elsewhere (Moore, 1981). For the foreign banks operating in Saudi Arabia, having a branch or an OBU in Bahrain provided a degree of flexibility in terms of where to book some deposits and loans. As table 1 shows, of the 10 foreign banks with a branch or 40 per cent-owned affiliate in Saudi Arabia in 1980, only one did not have either an onshore or an offshore branch in Bahrain. The table also suggests there was a slight tendency for offshore and onshore branches to serve as substitutes for each other rather than complements.

Table 1. Foreign banks with branches or 40 per cent ownership in an affiliate in Saudi Arabia in 1980 and their simultaneous presence or absence from Bahrain

	<u>Offshore branch: Yes</u>	<u>Offshore branch: No</u>
<u>Onshore branch: Yes</u>	Algemene Bank Nederland British Bank of the Middle East Citibank	Arab National Bank Bank Melli Iran Banque du Caire United Bank
<u>Onshore branch: No</u>	Banque Indosuez National Bank of Pakistan	Banque du Liban et d’Outre Mer

Source: Moore, 1981.

Log-odds of the table: -0.98, with a standard deviation of 1.44, for a ratio of -0.68. The negative log-odds signals that the off-diagonal is stronger than the diagonal and hence suggests a tendency for onshore and offshore branches to be substitutes for one another.

SAMA had an ambivalent attitude towards Bahrain and the offshore market. The banks there relied heavily on Saudi (and Kuwaiti) business. Now dated estimates suggest that the banks in the centre were capable of capturing at most 5-10 per cent of the business of the banks in the neighboring countries (Gerakis and Roncesvalles, 1983). Although SAMA wanted much of Bahrain's business to come back to the Kingdom, it was precisely its regulations that had caused business to transfer to Bahrain and permitted the center to flourish. Because SAMA's charter forbids it to pay or receive interest, in line with Islamic prohibitions, SAMA cannot engage in open market operations or function as a lender of last resort. Instead, it must manage Saudi Arabia's money supply through quantitative measures such as credit controls and required reserves. This makes Bahrain important to the functioning of the banking system in Saudi Arabia. In the absence of a well-functioning interbank market in Saudi Arabia, Bahrain allowed the local banks to square their positions.

The creation of Bahrain's financial centre occurred at the same time as the transition from the National Era to the International Era (1975 on), and was in many ways symbolic of the transition. The International Era has been one of a swing of the pendulum away from the socialism and nationalism of the National Era. Instead there is increasing openness with governments at best courting and at worst accepting the entry of the transnational corporations. In recent years many countries around the world have reversed their earlier exclusionary policies. For instance, in 1998 the Government of Morocco permitted Arab Bank to repurchase the Government's 50 per cent holding (via Banque Centrale Populaire) in Arab Bank Maroc. Several other banks in Morocco now have substantial foreign ownership. Arab Bank is currently seeking to acquire the large minority share of the Government of Tunisia in Arab Tunisian Bank. Egypt is now permitting the foreign partners in Egyptian-foreign joint ventures to acquire the majority or all the shares in these ventures, and may be commencing the process of privatizing the large domestic banks.

In Saudi Arabia, SAMA, in addition to further deregulating banking (SAMA, 1999), from 1980 on permitted foreign banks to

open representative offices (table 4). Since the early 1990s, Saudi Arabia has been exploring the possibility of joining the World Trade Organization (WTO). However, accession would require liberalization of entry. To prepare for that eventuality, SAMA has been encouraging the banks in Saudi Arabia to increase their capital and to merge in order to ensure that they can compete with foreign entrants and that several at least will remain in domestic ownership. Lastly, SAMA has started cautiously to move away from requiring all foreign banks to operate in the Kingdom via affiliates. In 1999 it permitted the partially Saudi-owned Gulf International Bank (see appendix A) to open the first branch of a foreign bank since 1975.

SAMA's policy is somewhat like that of the Central Bank of Oman (CBO) and of the Monetary Agency of Singapore (MAS), both of which have encouraged mergers among the domestic banks. Oman too was interested in accession to the WTO and has provided domestic banks with financial support for mergers.¹⁴ However, at the same time as CBO has permitted foreign banks to continue to operate it has restricted new entry. MAS is of the view that, if Singapore's banks are to compete in the region, they must be larger, but that Singapore is too small to accommodate more than two to three large banks. It recently permitted two mergers that reduced the number of Singaporean domestic banks from five to three. After having essentially limited access from 1975 to 2000, MAS is complementing its merger policy with a policy of giving foreign banks increased access to the domestic retail market to ensure competition (Tschoegl 2002).

The impact of the foreign banks

As of the end of 2000, the Saudi banking system consisted of ten locally incorporated banks, of which seven had some foreign ownership. Only the first, third and fourth largest are wholly Saudi-owned (table 2). The other seven all had their origin in branches of foreign banks and still have some, perhaps vestigial, foreign ownership (table 3). All the joint-stock companies have public

¹⁴ Oman became a member in November 2000.

Table 2. Saudi Arabia's banks, 1980 and 2000

Bank	Ownership ^a (2000)	1980			2000 ^d			Growth	
		Assets (Million dollars)	Branches	Assets in million dollars/ branch	Assets (Million dollars)	Branches	Assets in million dollars/ branch	Assets (Per cent)	Branch (Per cent)
National Commercial	P, G	8 286	101	82	26 633	246	108	221	144
Saudi American (SAMBA)	P, F, G	1 887	2	943	21 511	64	336	536 ^e	276 ^e
Saudi Cairo		1 493	15	100					
Riyadh Bank	P, G	6 456	79	82	17 468	196	89	171	148
Al Rajhi	P, G				12 978	366	35		
Saudi British	P, F	1 161	14	83	11 504	69	167	891	393
Arab National	P, F	876	9	97	10 102	114	89	1053	1167
Al Saudi Al Fransi	P, F	1 518	10	152	10 131	56	181	567	460
Saudi Hollandi	P, F	952	5	190	5 917	37	160	521	640
Saudi Investment	P, G, F	1 069	3	356	3 718	13	286	248	333
Bank Al-Jazira	P, F	614	9	68	1 394	13	107	127	44
Total	24 312	247	121 355	1 394	1 394	399	372		
Herfindahl-Hirschman Index ^b	0.21	0.28	0.14	0.19					
Numbers equivalent ^c	4.8	3.6	7.2	5.3					

Source: *Financial Times*; SAMA website; Al-Dukheil, 1995.

^a P – Private; G – Government; and F – Foreign.

^b The Herfindahl Hirschman Index is a measure of concentration that takes on a value of 1 in the case of monopoly and approaches 0 as the number of firms in the market becomes large with each firm having an equal share. The formula is $H = \sum p_i^2$ where p_i is the proportion of the total (in this case of assets or branches) accounted for by the i th bank.

^c The Numbers Equivalent is the reciprocal of the Herfindahl-Hirschman Index. It represents the number of equal sized banks that would generate the same value of the Index. The larger the number, the less concentrated the market.

^d The figures do not include GIB's branch.

^e Growth based on the inclusion of United Saudi Commercial Bank.

Table 3. The locally incorporated banks with foreign ownership, 2000

Bank	Foreign ownership		Orientation
	Name (nationality)	Per cent	
Saudi American (SAMBA)	Citigroup (United States)	23	Corporate and wealthy
Saudi British	HSBC (United Kingdom)	40	Commercial
Arab National	Arab Bank (Jordan)	40	Retail
Al Saudi Al Fransi	Crédit Agricole Indosuez (France)	31	Commercial
Saudi Hollandi	ABN AMRO (Netherlands)	40	Commercial
Saudi Investment	JP Morgan Chase (United States) and Industrial Bank of Japan	7.5	Wholesale and corporate
Bank Al-Jazira	National Bank of Pakistan	2.5	Retail; Islamic

Source: press reports and annual reports.

Table 4. Representative offices of foreign banks in Saudi Arabia

Bank	Entered	Departed
Hill Samuel	1980	1999
International Commercial Bank of China (Taiwan)	1980	
El Nilein Bank (Sudan)	1981	1985
Kleinwort Benson (Later Dresdner Kleinwort Benson)	1981	
Philippines International Commercial Bank (Later Equitable PCI Bank)	1981	
Philippines National Bank	1981	
Commercial and Savings Bank (Somalia)	1983	1990
Faisal Islamic Bank (Sudan)	1983	1990s
PK Banken (Later Nordbanken)	1988	1993
Turkiye Emalk Bankasi	1988	
Banco Saudi Espagnol	1988	1993
Faysal Islamic Bank of Bahrain (Later Shamil Bank)	1989	
Lebanese Arab Bank SARL	1998	
Credit National (France; later Natexis)	1998	
Bank Melli Iran	1999	

Source: *Polk's Bank Directory* and *Thomson Bank Directory*.

Note: all years are approximate.

shares, but currently foreign investors can only invest through a limited number of country mutual funds.¹⁵

The foreign banks have grown faster than the wholly domestic banks. The two semi-exceptions are Bank Al-Jazira and Al Rajhi Banking & Investment Corporation. Al-Jazira has vestigial National Bank of Pakistan (NBP) ownership but has, until recently, not found a niche for itself (appendix A). Al Rajhi only received a banking license in 1987 and so is not part of the calculation. The more rapid growth of the banks with foreign partners is a testament to the management skills, systems and experience that the foreign partners bring.

The growth of the banks with foreign ownership has also resulted in a fall in concentration over the period 1980-2000. The Herfindahl-Hirschman Index (HHI; table 2) indicates that the market is not concentrated; the numbers equivalent measure suggests that there are too many participants for easy oligopolistic collusion. One must remember though that the HHI is a lower bound for the concentration that one would expect to see in particular places or product markets.

The HHI also suggests that concentration is higher for branches than for assets. In 2000, the reason was the large number of branches belonging to Al Rajhi. However, these branches are not strictly comparable to those of the other banks. Al Rajhi's branches function more as moneychangers and transmitters than full-service branches. However, even in 1980, i.e. before Al Rajhi received its banking license, the HHI signaled greater concentration in branches than in assets. The fundamental reason is that the foreign banks and the domestic banks have targeted different markets.

At one (foreign) extreme we have SAMBA and Saudi Investment Bank (SAIB); these two banks have the highest ratio of assets per branch of the ten banks (table 2). SAMBA has always targeted corporations, and Citibank has pursued a worldwide

¹⁵ Until late 1999, only one closed-end fund, managed by SAMBA, allowed foreign ownership. Now new regulations allow foreign ownership of mutual funds.

strategy of targeting corporations and the well-to-do who are more likely than the less well-to-do to value its global network of offices and its expertise in credit cards. The merger with United Saudi Commercial Bank in 1999 (appendix A), brought SAMBA to 126 branches in total, but by 2001 SAMBA had cut the number to 57 or by about 55 per cent. SAIB has from its inception been oriented towards corporate and wholesale banking rather than retail banking.

At the other (domestic) extreme, we have Al Rajhi, which again is a special case. Still, National Commercial Bank and Riyadh Bank also are tending to the mass-market end, joined by the Arab National Bank and Al-Jazira. Again, this is visible in the data on assets per branch. The remaining three banks (Saudi British, Al Saudi Al Fransi and Saudi Hollandi) are general commercial banks that fall somewhere between these two extremes. As one can see in table 2, the orderings of banks by the ratio of assets per branch is highly stable, suggesting that strategies are stable too. (The squared correlation between the figures for 1980 and 2000 is 84 per cent.)

Although the orderings are stable, the actual ratios do show often dramatic change ranging from Saudi British's 101 per cent increase to SAMBA's 64 per cent decrease, which of course reflects the merger with the much more retail oriented United Saudi Bank. Furthermore, there is a strong negative correlation between the change in assets per branch between 1980 and 2000 and the value of the variable in 2000. (The squared correlation is 30 per cent.) The correlation would suggest that, on the one side, we have Saudi British, Al-Jazira, NCB, Al-Fransi and Riyadh that have achieved the geographical coverage they have sought and now are emphasizing an intensification of business per branch. Then, on the other side, we have Arab National, Al-Hollandi, SAIB and SAMBA that are still growing their networks.

Because of the restriction on foreign ownership, it is hard to give a crisp answer to the question: "What is the foreign banks' share of the system's assets?" Technically, and treating the question legally, the answer would have to be 0. More realistically, if one multiplies the assets in the seven banks with foreign ownership by the percentage of foreign ownership, sums the results and then

divides the sum by the total assets in the ten banks in the Kingdom, one gets a proportion of about 17 per cent. If one treats SAMBA, Arab National, Saudi British, Al Saudi Al Fransi and Saudi Hollandi as wholly foreign and the other five as wholly domestic, the percentage increases to 49 per cent. With respect to branches, the answers would be 12 per cent and 29 per cent, the difference between the asset and branch numbers reflecting the different strategies of the foreign and domestic banks.

The foreign share also raises the question of the contrafactual: what would have happened had SAMA not mandated nostrification? If one puts aside the political feasibility of such a course of non-action, one can surmise that Bank Misr, NBP, BLOM, Bank Melli and United Bank, and possibly Banque du Caire would have remained with their branch operations. Instead, Bank Misr withdrew and the banks that NBP, BLOM, Melli and United created have never been particularly successful. All have required some government support or rescue.

ABN, Indosuez and BBME would likely have maintained a branch in Jeddah or Riyadh, or both, for the commercial banking business and created affiliates as well. All had extensive experience operating affiliates in developing countries and continue to do so, though Indosuez and ABN AMRO are now generally withdrawing from that market in other parts of the world. Arab Bank might have maintained a dual structure, though the evidence from Oman (appendix B) suggests that it would eventually have converted to an affiliate with majority local ownership. With respect to Citibank, the picture is more ambiguous. On the one hand, it has avoided general retail banking abroad; on the other hand, it is highly opportunistic and so might still have created SAMBA in parallel to its branches.

The question of course is what impact the provision of a choice would have had on the achievement of the goal of giving Saudi Arabia a domestically owned banking system. Here the experience of the Sultanate of Oman might be instructive (appendix B). Oman, facing an analogous situation, appears to have achieved an equivalent or higher level of nostrification without force. The

Central Bank of Oman encouraged Omanization of staff and ownership. In 1977 it also required all locally-incorporated banks to move to 51 per cent local ownership, but even so it also permitted wholly foreign-owned branches to exist, and thrive.

The Oman-Saudi Arabia comparison with respect to openness to foreign banks parallels that of the Republic of Korea and Japan where T. Ursacki and I. Vertinski (1992) found that the Republic of Korea, having the weaker bargaining position vis-à-vis foreign banks, was forced to be more open than Japan. Its stronger bargaining position probably enabled Saudi Arabia to impose tougher conditions on foreign banks than Oman could. However, it is not clear, even with respect to the issue of domestic ownership, that the power to be more demanding enhanced the country's achievement of its objective.

Discussion and conclusion

Foreign banks in Saudi Arabia have sought to deploy their capabilities in both the corporate and commercial market and the retail market. The foreign banks first came to Saudi Arabia by following their customers in a form of ethnic banking, but in the Saudi case following individuals on pilgrimage rather than resident communities or even tourists. Once Saudi Arabia opened, most of the banks that then entered came to facilitate trade, and Citibank at least followed corporate customers in the oil business. The foreign banks established branches but after the imposition of requirements aimed at the nostrification of the banking industry, converted their operations to locally incorporated affiliates.

Unfortunately, Saudi Arabia chose to mandate the conversion rather than permitting foreign banks to choose to continue to operate via a branch, but with limited access to the retail market. Had SAMA offered the foreign banks an option it would have created a banking system that was both more effective and efficient than the one it did create, and that it is now slowly dismantling. By forbidding all but affiliates with less than 40 per cent foreign ownership, SAMA forced the foreign banks into a Procrustean bed, limiting some in ways that reduced their ability to serve their clients and forcing others to expand

in ways that they had not sought and to which they were not well-suited. It pushed banks away from pursuing their comparative advantage and towards competing with the local banks in retail banking, where the Europeans and North Americans have nevertheless still thrived.

Over the past two decades, the affiliates of foreign banks have actually increased their share of the banking system's assets. At the same time there has been gradual erosion in the foreign ownership of some of these affiliates.

Because it never succumbed to all the enthusiasms of the National Era, Saudi Arabia has avoided the crippling of the banking industry that has afflicted many other countries in the region. As Saudi Arabia deregulates further, it can expect some *de novo* entry by foreign banks wishing to establish fairly specialized branch operations. At the same time, some of the existing foreign banks may establish branches too for their corporate and wholesale business, while selling their shares in their affiliates. If mergers follow, Saudi Arabia may find that as foreign ownership shrinks further, concentration increases, posing a new regulatory challenge.

For countries concerned about the domination of their banking systems by foreign-owned banks, the Saudi case suggests two lessons. First, the foreign presence is a response to a transient opportunity. As the domestic banking industry becomes more capable and more competitive, one can expect foreign banks to retreat to their comparative advantage, international banking. However, and second, forcing the pace does not appear to be helpful or effective. ■

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Appendix A: the foreign banks in Saudi Arabia

The discussion below reflects the order of the banks' entry to Saudi Arabia.

Saudi Holland Bank: The bank began in 1926 as the Jeddah branch of the NHM. The branch served the foreign exchange needs of pilgrims from the Dutch East Indies (now Indonesia). Until after World War II NHM was the only bank in Saudi Arabia. In 1976, ABN established the Saudi Holland Bank to take over its branches in the country. Today the bank is a joint-stock company with 60 per cent of the shares in Saudi hands and 40 per cent in ABN AMRO's hands.

Saudi-French Bank (SFB): Banque de l'Indochine opened a branch in Jeddah in 1948. The bank sought to benefit from its knowledge of gold trading and from serving pilgrims from North and West Africa (Meuleau 1990). By 1948, l'Indochine had already had a long connection with the Red Sea region. It had established a branch in Djibouti in 1908 that later became Banque Indosuez Mer Rouge. (Emboldened by the success of the branch in Jeddah, l'Indochine opened a short-lived branch in Hoddeiddah (1949-1951) in Yemen and later a more successful one in Taïz in 1974. Since then the Indochine has relocated its headquarters in Yemen to Sana'a (Rajab, 1985).) In Saudi Arabia, the bank rapidly established itself in the precious metals business, exchanging the country's oil royalties, which were paid in dollars, for gold and silver coins. In 1950, the Government of Saudi Arabia commissioned the bank to produce the first Saudi gold coins on its behalf, and in 1952 the bank produced some 1.9 million guineas. The bank also developed innovative traveler's checks for pilgrims (Meuleau 1990). The bank expanded its operations in the country with new branches in Al Khobar (1949) and Dammam (1953). In 1977, Banque Indosuez transferred its Saudi branches to the newly formed joint-stock company Saudi French Bank. Today, ownership is 31 per cent Credit Agricole Indosuez (CAI) and 69 per cent Saudi, though CAI has a management contract. SFB also owns 25 per cent of

Banque Française de l'Orient (CAI owns 38 per cent), which has branches in Paris, London, Geneva, Cannes, Monaco and Nice.¹

Arab National Bank (ANB): Arab Bank also established a branch in Jeddah in 1949. Early on, both the Governments of Saudi Arabia and Kuwait took on small stakes in Arab Bank of about 10 per cent each (Wilson, 1983, p. 48). Despite this and despite being pan-Arab in its orientation, Arab Bank was unable to escape the policy limiting foreign ownership. In 1980, it transferred its six branches to the newly created Arab National Bank. Arab National had a service agreement with Arab Bank that expired in 1988 and was not renewed. Arab Bank owns 40 per cent of the bank and some 5000 Saudi shareholders own 60 per cent. (Ayyoub (2001) reports that today the Governments of Saudi Arabia and Kuwait own about eight per cent of Arab Bank between them). ANB has opened a branch in London.

Saudi British Bank (SABB): The British Bank of Iran and the Middle East opened branches in Jeddah and Al Khobar in 1950. The Jeddah branch in particular depended for its profits on the *Hajj* (Jones, 1987). Hongkong and Shanghai Banking Corp (HSBC) acquired the by then BBME in 1959 and in 1978 established the Saudi British Bank as a joint-stock company to take over its three branches in Saudi Arabia. Ownership is 60 per cent Saudi and 40 per cent HSBC, and HSBC has a technical services agreement with the bank. SABB too has a branch in London.

¹ Banque Française de l'Orient (BFO) is the result of the merger in 1989 of the European operations of Banque Libano Française (95 per cent owned by Indosuez) and Banque Al Saoudi in France. Banque Al Saoudi was established in 1976 and was 75 per cent owned by the Paris-based Saudi Arab Finance Corporation. However, in 1988 Al Saoudi failed and the Bank of France arranged a rescue that also involved Rafik Hariri's Méditerranée Investors Group (MIG). In 1992, BFO merged in Banque de la Méditerranée's European operations. BFO's ownership became 49 per cent Indosuez and 35 per cent MIG. MIG owns shares too in Indosuez and Arab Bank. Hariri has been Prime Minister of Lebanon since 1992 but earlier worked in Saudi Arabia and became a naturalized Saudi citizen. (His Saudi citizenship is suspended for the duration of his involvement in Lebanese politics.)

Saudi Cairo Bank: The Banque du Caire (Bank of Cairo; est. 1952) opened a branch in Jeddah in 1954 and expanded to five branches by 1975. At that time the bank converted to a joint stock company with the name of Saudi Cairo Bank (SCB) of which Banque du Caire owned 40 per cent and Saudi individuals owned 60 per cent. The bank ran into trouble in the early 1980s when two senior managers engaged in unauthorized speculation on precious metals during the 1979-1981 silver and gold price bubble. The two managers lost over \$100 million, an amount that exceeded the bank's capital. SAMA arranged a rescue that resulted in a recapitalization of the bank. In 1988, the bank again needed recapitalization. This time, the Public Investment Fund took 50 per cent of the shares and Banque du Caire's share fell to 20 per cent. Prince Al-Waleed bin Talal bin Abdul Aziz Al-Saud acquired 33 per cent of the shares in 1996. In 1997, in the first bank merger ever in Saudi Arabia, SCB merged with United Saudi Commercial Bank (USCB) to form United Saudi Bank (USB). Banque du Caire's ownership of the new entity fell to 9.8 per cent.

Bank Al-Jazira: The bank originated in the National Bank of Pakistan's (NBP) branch in Jeddah, which opened in 1950. Its owners founded Bank Al-Jazira in 1976 to absorb NBP's branches in Saudi Arabia. A ten-year management contract with NBP expired in 1986. Never successful, Bank Al-Jazira began a restructuring process in 1992 and brought in a new management team in 1993. The bank consolidated its 23 branches into 13, introduced modern technology, modern banking and products and started replacing old staff with new, experienced staff. Although NBP originally held 35 per cent of the bank, repeated recapitalization through 1994 diluted NBP's interest to 5.83 per cent. The bank became profitable in 1995 and in 2001 announced that it would transform itself into an Islamic bank.

Bank Misr: The bank first tried to enter Saudi Arabia in 1936 (Wilson, 1983). Through Misr Navigation Company Bank Misr had much improved facilities for the Hajj, the annual pilgrimage to Mecca, especially the route between Suez and Jeddah, and wished to build on that. However, King Abdl Al-Aziz ibn Saud blocked the application, apparently on two grounds: first, he objected to

banking on religious grounds; second, he believed that Misr was making excessive profits on foreign exchange transactions for pilgrims (Davis, 1983). (Davis reports that Misr had introduced a scheme whereby pilgrims could buy Saudi money in Suez so as not to be at the mercy of moneychangers in Jeddah.) The second appears to have been the more important reason as the NHM was already conducting foreign exchange operations in Jeddah. The Government finally permitted Bank Misr to establish a branch in Jeddah in 1950. It maintained its presence in Saudi Arabia until 1979 when it left.

United Saudi Commercial Bank (Al-Bank Al-Saudi Al-Tejari Al-Muttahad): Its owners created USCB in 1983 to absorb the branches of Banque du Liban et l'Outre Mer (BLOM), Pakistan's United Bank, and Bank Melli Iran. BLOM had established a branch in Jeddah in 1954 to engage in trade finance. Bank Melli entered in 1972 to serve Iranian pilgrims. Lastly, United Bank had established a branch in Dammam in 1975 to serve Pakistani nationals living and working in the Eastern province. Each of the three contributors took 10 per cent of the equity and Saudi International Bank (SIB) also took 10 percent, bringing total foreign ownership to 40 per cent.¹⁷ Until 1991, SIB also had a technical services agreement. BLOM sold its shares in 1986, and Saudi International sold its shares in 1995. Lastly, United Bank too sold its shares — in equal tranches to two Saudi public institutions — in 1996. In 1988, Prince Al-Waleed bin Talal, who had built up an ownership position of as much as 40 per cent, became Chairperson of the USCD. In 1997, he merged SCB into USCB to create USB; Bank Melli retained a small percent share in the new bank.

Saudi American Bank (SAMBA): First National City Bank (Citibank) opened its Jeddah branch in 1955 and its Riyadh branch in 1966. It formed SAMBA in 1980 to take over these two branches after having unsuccessfully sought to avoid nostrifying its operations. In 1985 SAMBA opened a branch in Istanbul that it later closed. In July 1999 SAMBA merged with USB, to form one of the largest banks in the Middle East. The combined institution had 126 branches in Saudi Arabia, and has a branch in London, a subsidiary in Geneva and a representative office in Beirut. Before the merger Citibank

(now Citigroup) owned 30 per cent of SAMBA, having sold a 10 per cent tranche to two public agencies in 1991. After the merger it is still the largest shareholder with 23 per cent of the shares. Kingdom Holding Company (owned by Prince Al-Waleed bin Talal) also has a large share ownership deriving from his ownership in United Saudi Bank. It is not clear if Bank Melli retains any ownership. Citigroup still manages SAMBA under a management contract that has Citi seconding key staff and providing technical support.

Saudi Investment Bank: In the 1950s, Chase National Bank (later Chase Manhattan Bank) too wanted to establish a branch in Saudi Arabia in response to the needs of the United States oil companies operating there (Wilson, 1986). However, SAMA did not give it permission on the grounds that one United States bank — Citibank — already had a branch in Saudi Arabia. In 1975, however, Chase was finally able to enter indirectly. Chase took a 20 per cent participation in Saudi Investment Banking Company (SIBC) and a contract to manage the venture. Other foreign investors included Industrial Bank of Japan, Commerz Bank and J. Henry Schroder Wagg with five percent each. Saudi investors included Bank Al-Jazira with 5 per cent and Riyadh Bank and National Commercial Bank with 8 percent each. In 1984, SIBC received a full commercial banking license and changed its name to Saudi Investment Bank (SAIB). Commerz Bank sold out to the National Industrial Company, reducing foreign ownership to 25 per cent. In 1987, Chase gave up the management contract. With SAMA's agreement, it tried to sell its shares in 1988 but was only able to sell five per cent; it retained the remaining 15 per cent and its seat on the Board of Directors. Currently it owns 7.5 per cent of the bank and Industrial Bank of Japan owns 2.5 per cent. A government agency owns 8 per cent also.

Gulf International Bank (GIB): In early 1999, SAMA granted GIB a license to open a branch in Riyadh. When the branch opened in late 2000, it was the first non-Saudi bank since 1975 to operate as a branch in Saudi Arabia. GIB is something of a special case though. The six Gulf Cooperation Council (GCC) governments (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE)

established the bank in Bahrain in 1975. GIB is a wholesale commercial and investment bank with operations covering the Middle East, Europe, North America and the Far East. It concentrates, however, on the GCC market and trade and financial flows between the region and the rest of the world. In 1999 GIB acquired Saudi International Bank and renamed it Gulf International Bank (UK) Ltd. The GCC governments jointly owned 72.5 per cent of the merged bank through a holding company, the Kuwait-based Gulf Investment Corporation (GIC); SAMA owned 22.2 per cent and J. P. Morgan Chase owned 5.3 per cent. Recently the GIC sold its position in GIB to its shareholders. Saudi Arabia will hold a 34.275 per cent stake in GIB, each of the other GCC states will hold 12.075 per cent, and JP Morgan Chase will hold 5.3 per cent. The change may have been part of the groundwork for ultimately privatizing the bank.

Representative offices: Since 1980, SAMA has permitted a number of foreign banks to open representative offices (table 4). Representative offices perform a liaison function, but do not engage in banking. In some cases, the banks refer to themselves in directory listings or in their parent's listings as agencies or branches, but Saudi Arabia considers all as representative offices. El Nilein (now closed) operated out of the Sudanese Embassy and International Commercial Bank of China operates out of the Taipei Economic and Cultural Representative Office. Philippines International Commercial Bank has as its address the Philippine Desk in certain branches of Al Rajhi Bank. Also among the representative offices are one belonging to the Bank of Korea — the central bank of the Republic of Korea — and one belonging to the Islamic Development Fund. Lastly, Riyadh is home to the Arab Investment Company (AIC). The 17 governments that own the company established it in 1974. AIC owns a full service bank in Bahrain and has regional offices in Cairo, Tunis and Amman.

Appendix B: the experience of the Sultanate of Oman

From 1948 to 1968, the British Bank of the Middle East had a legal monopoly on banking in Oman. When the concession ended, Chartered Bank (now Standard Chartered), Grindlays, and Habib Bank — the first two United Kingdom and the third Pakistani — entered between 1968 and 1972. The first domestic bank was National Bank of Oman, which was established in 1973 with foreign participation (39 per cent — split between Bank of America and Bank of Credit and Commerce International (BCCI)). In the following years, several foreign banks entered either with branches or minority positions in local banks, and several local banks also came into existence. In 1977 the government mandated that locally-incorporated banks have 51 per cent Omani ownership, but permitted foreign banks to continue to operate as branches of the parent. The government also has forbidden the entry of new foreign banks except by purchase of a local bank. Still, even without forced nostrification, market driven and inadvertent nostrification has been sufficient to permit domestic banks to dominate Oman's banking system.

In 1984, BBME (see footnote 5) sold three-quarters of its branches to Oman International Bank, a domestically-owned bank based on the formerly foreign-owned Arab African International Bank. In 1993, the Commercial Bank of Oman (CBO; established in 1976 by local investors) acquired branches from Standard Chartered Bank. CBO later merged into the Omani Savings and Finance Bank, which had acquired ANZ Grindlay's Omani operations, and which retained the Commercial Bank of Oman name. CBO also acquired Oman Banking Corporation (which began as the Omani-UAE owned Bank of Oman and the Gulf), and Bank of Oman, Bahrain and Kuwait (originally 49 per cent Bank of Bahrain and Kuwait). Most recently CBO has merged into Bank Muscat (itself the result of a merger of Bank Muscat with Al Bank Al Ahli Al Omani — originally 20 per cent Société Générale); Société Générale's stake in Bank Muscat is now 10 per cent. Other banks with an originally large foreign minority stake that have since merged into Omani-owned banks include Union Bank of Oman and Bank Dhofar

Al-Omani Al-Fransi (Bank Dhofar). The foreign-owned Habib Bank AG Zurich is now the locally-owned Majan International Bank. Arab Bank, which entered in 1973, in 1984 created Oman Arab Bank, in which it retained an ownership of 49 per cent, to take over its operations in Oman. As of the end of 1999, the seven Omani wholly or majority-owned banks accounted for 92 per cent of all bank branches. The nine foreign banks accounted for eight per cent. The foreign bank with the most extensive network — Pakistan's Habib Bank — had 12 branches. The Omani bank with the fewest branches — Majan International — had four, and the Omani bank with the next fewest — Bank Dhofar — had 23. Consistent with Tschoegl's (1987) argument, retail banking tends not to lend itself well to foreign direct investment when the host market is competitive.

The only, but highly dramatic, example of inadvertent nostrification arose out of the collapse of BCCI. When BCCI failed worldwide in 1991, the Central Bank of Oman closed BCCI's 12 branches in Oman and then transferred them to Bank Dhofar (then ten percent owned by Paribas and now four percent). BCCI also owned 40 per cent of National Bank of Oman (NBO), from which it had borrowed extensively. (Bank of America had earlier withdrawn from BCCI of which it was a founding shareholder, and also had sold to BCCI its shares in NBO.) BCCI's default effectively bankrupted NBO. The Government of Oman stepped in with a rescue package that also involved the government taking over BCCI's shares in NBO and distributing them to various government bodies and pension funds such as those of the Royal Oman Police and the Royal Guard.

BOOK REVIEWS

Les rapprochements d'entreprises: une nouvelle logique stratégique?

Ulrike Mayrhofer

(Bern, Peter Lang, 2001), 354 pages

In this book, Ulrike Mayrhofer develops an original approach to “interfirm links” as a general category, including contractual arrangements such as licensing, strategic alliances and mergers and acquisitions (M&As).¹ The author argues in favour of such an aggregation by first reviewing the literature on interfirm cooperation. The transaction cost perspective clearly distinguishes hybrid modes of cooperation from full internalization and explains why firms may prefer the former to the latter from the perspective of cost efficiency. The evolutionist perspective rather considers cooperation as a way to access or generate complementary competences. It thus focuses on learning rather than cost efficiency as a driving force. Industrial organization contributes to the analysis of alliances as part of the competitive dynamics within specific industries. Finally, the resource-dependence perspective emphasizes uncertainty as a determinant for cooperation.

The author concludes that these different perspectives are useful to study firms’ cooperation in a very broad sense, including both non-equity and equity arrangements. According to her, a major distinction is to be drawn rather between internal development and external growth. She nevertheless emphasizes the tradeoffs between “sustainability and flexibility”, “opportunism and trust” and “sharing and control”. These tradeoffs in fact characterize better alliances than acquisitions.

¹ She refers to the classification made by Yoshino and Rangan (1995), but does not isolate their “strategic alliance” category.

The second chapter reviews the empirical literature on alliances and acquisitions from the mid-1970s to the late-1990s. Various studies on both national and international operations show that the trend is clearly towards more external growth and cooperation. Beside this very general trend, more detailed characteristics cannot be observed over the whole period and for all the Triad countries.² It nevertheless seems that the number of cooperative alliances was stabilizing in the 1990s, after continuous growth in a wide range of industries during the 1980s.³ The empirical studies on M&As show that their number was increasing between the mid-1980s and the late 1990s. At this general level, one could then summarize the evolution by saying that alliances had been increasing rapidly before the latest M&A wave took over.

The author concludes that both theoretical interpretations and empirical studies suggest numerous similarities between cooperative alliances and M&A, which argues in favour of a unitary approach to “interfirm links” as a global economic phenomenon (p. 141). The empirical part of the book should thus focus on the reasons why firms embark on external operations – as opposed to internal growth or downsizing – rather than on the choice between alliances and M&A.

The second part of the book compares the interfirm links of French and German companies. The author built a database on these operations between 1989 and 1996, relying on a French weekly professional journal for French firms and on its German counterpart for German firms.⁴ Overall, the proportion of M&A was slightly higher for French firms – 43 per cent as compared to 35 per cent for German firms. The author attributes this difference to the “cooperative logic of the German system” (p.183). The higher propensity of German firms to conduct jointly similar activities in

² Both acquisitions and alliances are overwhelmingly initiated by firms from the United States, Europe and Japan.

³ This is confirmed by OECD (2001), based on data from 1989 to 2000.

⁴ *L'Usine Nouvelle* and *Wirtschaftswoche*, respectively. The latter focuses much more on large companies and, as a result, the total number of French operations is 2,471 and the German total is only 1,401. As a consequence in the sample, operations between large firms are much more frequent for German firms (94 per cent) than for French firms (71 per cent).

their alliances – as opposed to complementary activities – is interpreted along the same line. The different composition of the French and German samples is not discussed, but it may partly explain these differences in the profile of interfirm links. Based on her interpretation, the author concludes that, despite globalization, firms' strategies still depend on national contexts. The driving role of global competition nevertheless appears clearly. In particular, interfirm links tend to be more numerous in both emerging industries and mature industries undergoing restructuring.

The share of domestic operations remained high throughout the period. It was higher for French firms (45 to 55 per cent) than for German ones (35 to 46 per cent), which may be due to the higher proportion of large firms in the German sample. The proportion of intra-European operations is also higher for German firms than for French ones, but tends to decrease after the completion of the Single Market in 1992. This last observation has also been emphasized by other studies of European alliances (Narula, 1999). Mayrhofer concludes that it is so because firms had anticipated the Single Market and were diversifying their partnerships in the 1990s to adapt to globalization. Other studies suggest that European firms simultaneously adapted to the Single Market and globalization from the 1980s on.⁵

Transatlantic interfirm links were already numerous in the second half of the 1980s; their share of European operations slightly decreased at the very beginning of 1990s, but reached even higher levels afterwards. As in the mid-1980s, one driving force was technology sourcing by European firms in high-technology industries, such as biotechnology, electronics or software. As a result, the number of transatlantic research-and-development (R&D) alliances is particularly high, especially in high-technology industries.⁶ This

⁵ This argument has been developed based on empirical studies of various sectors in Sachwald (1994).

⁶ Over the period of 1990-1999, transatlantic alliances represented 42 per cent of the total cross-border alliances by European firms (intra-European alliances: 24 per cent), but reached 66 per cent for R&D alliances (intra-European R&D alliances: 13 per cent), according to OECD (2001). Miotti and Sachwald (2002), focus on high technology for all European firms and on the case of French firms in all industries.

trend is clearer in the case of alliances, which are better adapted to “R&D only” cooperation than M&As. The aggregation of alliances and M&A is thus ill adapted to observe this phenomenon.

The third part of the book studies the influence of the national context in the country of origin on the configuration of interfirm links. It first reviews the empirical literature on the influence of domestic characteristics on internationalization strategies. Most of the studies under review examine the determinants of the mode of entry into a foreign country – mainly the United States, China and East European countries. The focus of these studies is the choice between exports, licensing, joint ventures and wholly owned affiliates. In other words, they try to understand why firms choose to internalize rather than cooperate or conduct arms’ length transactions. They find that cultural distance is one important factor explaining the choice of a local partner, but that characteristics of the country of origin also have an influence by shaping managerial practices.⁷

The book does not sufficiently discuss the influence of the industry composition of interfirm links, nor the role of firms’ international experience, which are both related to nationality. This has been demonstrated in the case of Japanese firms, in particular: as they have been gathering international experience, they have tended to take control of their foreign operations more often than in the late 1980s.

The last chapter examines the influence of national characteristics on the type of interfirm links, their strategic orientation and their geographical distribution. Multifactor analysis indicates that, overall, nationality is a relatively weak characteristic of interfirm links; the type of link (alliance vs. M&A) and its geographical orientation (domestic vs. extra-European) are much more discriminating. The author then uses chi-square tests to examine interdependences between the different characteristics of interfirm links. Hypotheses about the choice of M&A as opposed to

⁷ The most significant variable is the “hierarchical distance”, which is higher in centralized companies. Firms from countries where hierarchical distance is high tend to control their affiliates rather than entering with joint ventures or using licenses.

cooperative alliances are based on risk and transaction-cost arguments.

The first test confirms the descriptive statistics mentioned above and shows that French firms resort more frequently to M&A than German firms. Links with foreign firms are more likely to be alliances than domestic links. Similarly, links with extra-European partners are more likely to be alliances than European links. This result is in line with previous studies showing that M&A are more frequent than alliances when partners and local environments are better known.⁸ More generally, firms tend to limit their investment when geographical or strategic risks increase, as suggested by transaction cost theory. German firms tend to link more willingly with other European firms than French firms through M&A, the latter showing a preference for intra-European alliances. This difference may be due to the fact that German firms have a better knowledge of the European business environments. The book rather suggests that it may be due to the promotion of domestic M&A by the French *dirigiste* State.

The author interprets her results as a proof that nationality strongly influences strategic behaviour since “French and German firms do not necessarily choose the same types of interfirm links” (p. 314). This argument would be more convincing if the study had systematically examined the interactions between nationality and other relevant characteristics, such as industry specialization. The data explored in the book suggest that strategic objectives and geographical orientation of interfirm links are major determinants of the type of links firms choose. In particular, both French and German firms tend to choose European partners to conduct horizontal expansion, and in such cases they prefer M&A to alliances. Studies of technological alliances have also shown that intra-European partnerships exhibit specific characteristics. They aim at exploiting economies of scale and share costs, while transatlantic partnerships rather aim at pooling complementary competences, especially in high-technology industries.⁹

⁸ The author refers to Kogut and Singh (1988); Kim and Hwang (1992); and Meyer (1997) in particular.

⁹ See, for example, Veugelers (1995); and Miotti and Sachwald (2002).

The author rightly emphasizes the role of interfirm links as major instruments firms use to adapt to rapidly changing competitive conditions in the context of globalization and accelerating technological change. This is why she aggregates all interfirm links together. Her empirical tests nevertheless distinguish M&A from alliances and focus on the role of risk and information as determinants of the type of interfirm links. This is in line with a large body of literature that argues that M&As and alliances are each suited for specific objectives and contexts.

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In Search of Decision: The Maquiladora Industry in Mexico

Samuel Schmidt

(Ciudad Juárez, Chihuahua, Universidad Autónoma de Ciudad Juárez and The Flagstaff Institute, 2000), 433 pages

This book addresses a controversial phenomenon. The *maquiladoras* have been a subject of debates in Mexico itself, in the United States, and ultimately all of North America in the wake of the North American Free Trade Agreement (NAFTA). While seen on the one hand by some as a way to bring jobs and development to what had once been depressed regions of Mexico, others have seen them as the harbingers of the worst excesses of globalization. To the critics, the transnational corporations availing themselves of lower wages have brought sweatshop exploitation, shantytowns and environmental degradation and pollution to Northern Mexico. Most recently, Ciudad Juárez, the city that is the focus of much of this study, has also become known for a series of grisly murders of young women. In any event, with, as of the year 2000, over 3,600 factories across Mexico employing over 1.3 million workers, *maquiladora* industries have clearly had an important impact on the economy.

While many analysts seeking to account for the development of the *maquiladoras* might look to various economic factors and trends, such as wage differentials between the United States and Mexico and the impact of currency devaluations, Samuel Schmidt takes a very different approach, providing instead a detailed documentation of the micro-level decisions of business investors, local officials in the border regions and officials in the ministries in Mexico City to provide an exhaustive description of the decision process. His goal he says is to attempt to explain “why the maquiladora industry was created” (p. 11) and how the decision was made by way of lengthy in-depth interviews with these key actors.

In his introduction, Schmidt sets out the context for the study, albeit in a very limited way. He outlines the fact that the

maquiladoras have, for over 30 years, been the subject of controversy. However, since the economic crisis of 1994, their continued growth has for some saved the Mexican economy and thus many are eager to claim credit for what they would see as a successful policy. Yet, critics point to continued low salaries (reflected in a very high turnover in plants) and the fact that the expansion of the investment has not resulted in what we might call backward linkages and further integration into Mexico's economy by way of increased local inputs. Schmidt also acknowledges upfront that "Industries came to Mexico looking for cheap labor and they found it and in some cases they also came looking for a de-politicized labour environment, free from union challenges" (p. 13). Thus low wages, weak unions and workers with very few options provide the main attraction to foreign, initially United States, investors. Moreover, Mexican business at the time, he points out, had no interest in these sorts of investments, preferring to "engage in short-term investment looking for immense earnings and rapid amortization ... No one wanted to make low-yield investments and it was preferable to maintain large earnings in a protected market" (p. 13).

By examining the views of various key officials in the 1960s, Schmidt also is able to provide a window on a major debate in Mexico over export-led versus import-substituting models of industrialization, a debate that took place in many other developing countries, too.

The immediate stimulus to addressing the problems of the border regions of Mexico had its roots in the United States' decision in 1964 to end what had been called the *bracero* programme, under which Mexican agricultural workers were admitted to the United States on a temporary basis. The looming crisis of unemployment in the border areas precipitated a decision to create a zone in which imports would be permitted duty free as inputs to be processed in Mexican plants in the border area, then re-exported to the United States, where duties would only be levied on the value added. The decision did not come, according to the author, from a single player, but "a mixture of circumstances, processes and initiatives led to a phenomenon whose evolution no one could predict" (p. 14).

As a consequence, interviews have been carried on with many persons involved in the establishment of the first *maquiladora* plants in Ciudad Juárez, including Antonio Bermúdez, a Ciudad Juárez-born federal official appointed to head up the National Border Programme, and his nephew Jaime Bermúdez, a businessperson and former mayor of Ciudad Juárez. In addition, the author interviewed the head of one of the trade unions, the Confederation of Revolutionary Workers and Peasants, and various officials from the Departments of Treasury and Industry and Commerce and the managers of some of the first United States plants established under the programme. These included a manager of the consultancy firm Arthur D. Little who had approached Antonio Bermúdez for a study of the border areas' potential for industrial development, which evolved into a study of the Juárez region. The 1964 study is included in the appendix of the book. In addition, executives of A.C. Nielsen and General Electric, two of the first companies to establish plants in the Juárez area, were interviewed.

At this point, it would seem the stage was set to obtain some fascinating insights into the decision to go forward with the *maquiladora* programme. However, the book is disappointing, and in many ways fails to deliver on the promise that such in-depth probing of primary sources might offer. This is largely due to the fact that these interviews, provided almost verbatim with very little editing, are accompanied by little in the way of introduction, background, context or analysis on the part of the author. This is complicated further by the tendency of a number of the Mexican officials interviewed to take credit for the programme and engage in long rambling narratives of their role. The author's lack of analysis or intervention quickly leads to the reader becoming lost or confused by the varying accounts and styles. Thus, the book as whole lacks coherence and integration.

This is unfortunate since there are buried within these long-winded interviews some interesting nuggets of information and insights into the policy process, including the debate described above about industrial policy, the sense of extreme centralization of power in Mexico City and, perhaps most fascinating, the frank admission of United States managers about their motivations for setting up plants in Mexico. The key for United States firms such as A.C.

Nielsen (which set up a coupon sorting plant) was always proximity, cheap labour and “no pressure from the unions”. A General Electric executive freely admitted that their labour concerns disappeared “once we understood the difference between Mexican and US unions” (p. 309). The lack of real representation of the interests of Mexican workers who have borne the brunt of the major peso crises of the 1980s and 1990s continues to this day, as reflected in the 20 labour complaints filed by Mexican workers under the NAFTA side agreement on labour, many of which deal with attempts to stop the creation of unions. Thus, these interviews provide some insight into how these companies viewed and exploited the situation of Mexican labour in the 1960s, giving a perspective, in essence, on globalization from the company level. The interviews also point to a reality of the Mexican economy, which Canada shares as the other spoke attached to the United States hub in North America. This reality is reflected in the fact that, although the United States did not play a direct role in fostering or pushing the idea of the *maquiladoras* on Mexico, yet indirectly it caused it. A simple change in United States policy towards Mexican agricultural workers precipitated a regional economic crisis in Mexico, which had to be addressed, ultimately in this case, by further integration with the United States economy. As a Canadian prime minister once lamented, this proximity to the United States elephant means that any minor twitch or movement has grave consequences for bedmates.

Unearthing these insights, however, given the poor editing of the volume, requires much work and frustration on the part of the reader. The raw material provided here, however, might well, at some point, serve to provide the empirical basis of a more analytical study of how various Governments of Mexico and corporate interests responded to the pressures of globalization and created a system which, although a “success” in terms of production, was clearly predicated on a set of interests that did not give priority to the concerns of the workers, or indeed the environment.

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The Business of Peace: The Private Sector as a Partner in Conflict Prevention and Resolution

Jane Nelson

(London, International Alert/Council on Economic Priorities/The Prince of Wales Business Leaders Forum, 2000), 158 pages

This book focuses on the relationship between the activities of transnational corporations (TNCs) and violent conflicts in such countries as Angola, Azerbaijan, Bosnia and Herzegovina, Colombia, Guatemala, Indonesia, Israel, Mexico, Mozambique, Myanmar, Nigeria, the Philippines, South Africa, Sri Lanka, the Sudan and Turkey. Most of these conflicts result in intra-country violence between various ethnic groups, or between parts of the population and the Government. The book's main argument is that TNCs can and should help to create and strengthen peace in host countries where these conflicts occur. Consequently, the book is aimed primarily at company managers and policy makers, and explains how TNCs can play a role in conflict prevention and resolution. The author describes various examples of corporate engagement; at a general level, she discusses the challenges TNCs face in this respect. Moreover, she brings forward arguments why it is in the own interest of firms to contribute to conflict prevention and resolution.

The latter is a very interesting aspect of the book, because it raises questions that are relevant for research on foreign direct investment (FDI) and TNCs, because addressing them can provide new insights into the relationship between FDI flows, on the one hand, and the location-specific factor of violent conflict, on the other. Three aspects of the book deserve particular attention here.

In the first place, Jane Nelson addresses the issue why peace is better than conflict for TNCs. She does this by highlighting, among other things, the types of direct costs of operating in conflict areas: security costs, risk-management costs, material losses, opportunity

costs, capital costs, personnel costs, litigation costs, and reputation costs. This raises the question to which extent these costs are counterbalanced by the business benefits derived from a location in conflict. For instance, there may be new opportunities to enter specific regions through cooperating with one of the parties in the conflict, increased local risk may frighten off smaller competitors, local competitors may not be able to offer the same degree of secure services as foreign affiliates, the bargaining position of the local Government towards foreign investors may be weakened, or the conflict itself may provide a demand for goods such as weapons, fuel, uniforms, housing, infrastructure, transport and financial services. Having assumed that TNCs in unstable countries indeed generally prefer peace, it is still be interesting to know more about the relationship between costs and benefits of conflict situations.

In the second place, some TNCs in unstable countries are more likely than others to engage actively in conflict prevention and resolution. The author discusses various relevant variables, which indicate that, for instance, mining TNCs generally face a higher risk than TNCs engaged in the marketing and distribution of consumer goods. A higher risk of incurring costs leads to a stronger motivation for corporate engagement in peace making. This raises the question of what this means for those TNCs that do not have the characteristics that make them likely candidates for corporate engagement such as TNCs with limited local involvement, or those whose FDI represent relatively little value, or those that aim exclusively at short-term local targets. For them, there is less at stake and it is easier to ignore the conflict or move away from the conflict area. How many and which TNCs stay passive or disinvest once a conflict erupts?

In the third place, the book focuses exclusively on TNCs that are actually present in the politically unstable countries where conflicts occur. This raises the question of how many and which TNCs belong to the group of companies that do not enter conflict countries in the first place. Violent conflicts lead to increased uncertainty, because more unexpected events occur than under peaceful conditions. It seems likely that the more difficult it becomes to foresee local market and political developments, the less inclined

TNCs will be to make major investments. Therefore, although conflict regions may attract specific forms of FDI, the general effect of severe political instability on FDI flows is that fewer TNCs will make major investments. It would seem interesting to have more detailed knowledge of how FDI flows – as produced by TNC behaviour – respond to such instability.

While she does not discuss this last issue explicitly, Nelson provides a model that can be used to address questions about the interaction between firms and local conflict. The model consists of three categories of relevant data: conflict, actor and company characteristics. With regard to assessing the conflict, according to the model, it would be necessary to identify its causes, stage and location. With regard to the actors involved in the conflict, the relevant issues would be roles, power, capacities, and relationships. Finally, with regard to the company, an analysis along the lines Nelson proposes would focus on the type of industry, size, history, ownership, collective activities with other firms, and spheres of influence. The author explains how each of these characteristics determines how a company influences or is influenced by conflict situations. The result is a straightforward analytical tool that leaves sufficient room for future refinements and that is useful for any research into the investment behaviour of TNCs in conflict countries.

The Business of Peace is a well-written book, providing a good introduction into the topic of TNCs and violent conflicts. Although aimed at practitioners, it is of value also to researchers of FDI because it raises important questions and provides a model for analysis that is useful for this field. Systematically applying Nelson's approach may lead to a better insight into how conflict and firm characteristics influence the TNCs' perception of their interests in conflict countries and how this influences the geography of FDI flows.

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Multinational Enterprises from the Netherlands

Edited by Roger van Hoesel and Rajneesh Narula

(London and New York, Routledge, 1999), 307 pages

The Netherlands is one of the world's largest foreign investors. In 1995, it accounted for 5.8 per cent of the total world stock of outward Foreign Direct Investment (FDI). FDI from similar small European countries, such as Sweden and Switzerland, accounted for, respectively, 2.3 per cent and 4.0 per cent. According to UNCTAD's *Transnationality Index*,¹ documented in its annually published *World Investment Report*, Dutch Transnational Corporations (TNCs) are among the most internationalised. Nevertheless, editors Roger van Hoesel and Rajneesh Narula observe that research on Dutch FDI remains scarce, citing a 1985 work as the most recent one. This has triggered the editors to compile a highly informative book that provides a balanced and well-structured contribution to fill this lacuna in the international business literature. The book's completeness is reflected in the wide range of FDI themes dealt with by mostly Dutch contributors: geography and history of FDI, location and entry mode choice of Dutch TNCs, FDI and research and development (R&D), FDI in services, and policy challenges of FDI.

Some of the key questions throughout the book concern issues such as the explanation of the unique position of the Netherlands as opposed to other small countries and the continued leading role of the Netherlands in internationalisation, unlike similar former colonial powers such as Portugal and Spain. The limited opportunities for growth in a small domestic economy and an open and liberal Dutch policy environment form the pillars of the expansion of outward FDI from the Netherlands.

¹ The transnationality index is calculated as the average of three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

The first chapter of the book provides an excellent overview of the trends in Dutch outward FDI stock between 1973 and 1995, both at a geographical and industry level. The chapter draws two striking conclusions. First of all, the relative importance of the other European Union (EU) member States and the United States as attractive locations for FDI have increased substantially, with only marginal FDI located in Central and Eastern Europe over the period of analysis. Secondly, the outward FDI stock in the tertiary sector increased tremendously over the 1973-1995 period. Chapter five explores the characteristics of FDI in services, while chapter eight further deals with the nature of FDI located in the United States. Regrettably, there is no chapter devoted to the explanation of FDI in the EU and how this relates to European integration in general. This is remarkable as the EU is the prime destination of Dutch outward FDI.

The fact that “history matters” in international business is evidenced in chapter two of the book. It traces the historical antecedents of the expansion of Dutch TNCs back to the colonial era in the 17th century. It convincingly demonstrates that, in addition to the explanatory factors cited above, the long experience with outward FDI, in particular in the Dutch East Indies, and the commercial ties in trade established in this period, connected with a willingness of many Dutch TNCs to take risks, largely explains the continued foreign presence of Dutch TNCs. This combination, for instance, gave Royal Dutch Shell the strength to ‘exchange threats’ with Standard Oil in its home region, California, while Dutch sympathy towards the young American republic explained the first expansions of Dutch companies in the United States after 1783, giving Dutch TNCs a competitive advantage over later arrivals in the New World.

The evolutionary character of Dutch FDI in the United States, from trade-supporting and market-seeking during the 1950s to the 1970s, to efficiency- and strategic-asset-seeking in the 1990s, is touched upon in chapter eight. This chapter, however, concludes that one of the challenges of Dutch TNCs in the United States is to defend their historical competitive advantage, which is eroding due to maturing of FDI from other European countries such as the United Kingdom, Switzerland, Germany and more recently France.

One of the major weaknesses of the book is that it relies too heavily on FDI data in the analysis of the internationalisation of TNCs from the Netherlands. Although it is often argued that FDI is the single source of empirical data on the foreign involvement (in particular production) of TNCs, FDI data are associated with many problems and disregard the nature and structure of the internationalisation strategies of TNCs.² The problems stem from a number of causes, ranging from the accuracy in the collection of FDI data by national monetary authorities and statistical offices to methodological shortcomings in terms of reliability and validity. As the editors note in the first chapter, until very recently only a small number of host countries of Dutch FDI were specified in the statistics collected and published by the Dutch Central Bank. Similarly, the authors of chapter eight note that Dutch FDI is dominated by only a few very large TNCs that are concentrated in a few industries. The statistics are limited and details are suppressed for reasons of confidentiality.

Chapter nine largely overcomes this weakness by using METI (formerly known as MITI) and *Toyo Keizai* survey data in analysing the expansion by Dutch TNCs in Japan. In addition, this chapter (as well as chapter one) provides *strategic profiles* of Dutch TNCs (e.g. Shell, Philips, Unilever, Akzo Nobel, DSM and ABN-Amro). As FDI is concerned with the investment decisions made by managers in TNCs, perhaps the best way to study internationalisation strategies empirically is to analyse TNC strategies. The book could have increased our understanding of FDI from small economies by using more firm-level data and adopting a company focus in all the strategic issues dealt with in the book.

Second, for an open economy such as the Netherlands, outward and inward FDI are two sides of the same coin. High levels of outward FDI move together with high levels of inward FDI. The latter was confirmed by research by the Economist Intelligence Unit that cited the Netherlands as the top business

² For an elaborate analysis of the pitfalls of FDI data see Stephan and Pfaffmann (2001), as well as Lipsez (2001).

³ A useful analysis, reflecting both the home and host nature of the Netherlands, is that by Goedegebuure (2001).

location for foreign TNCs in 2001. An analysis largely based on outward FDI therefore seems very parochial, and only partially reflects the impact that globalisation can have on a small economy and the ways policy makers manage an open economy. Chapter ten to a certain extent fills this gap by emphasizing the role of the Netherlands as an attractive location through its fiscal policy for foreign-owned TNCs.³

Despite these minor shortcomings, the editors and contributors have nevertheless delivered a substantial contribution to an emerging library on FDI, globalization and small open economies. The library has recently been enriched by a new book exploring the role of small open economies in a globalising world economy and the pressures and challenges this poses for them (Van Den Bulcke and Verbeke, 2002).

The relevance of research on small economies with increasing levels of outward and inward FDI goes beyond the boundaries of the developed world. Many of the challenges faced by FDI and the policies adopted are of particular relevance for developing, emerging and transition economies, which have only recently liberalized their FDI policies and lack the (historical) experience needed to manage their open economies. The emerging relevance of the topic is best exemplified by a theme workshop at the last Academy of International Business (AIB) meeting in June 2002 entitled *Small is beautiful: competitive advantage and small countries*.

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***Przedsiębiorstwa z udziałem kapitału
zagranicznego w Polsce w latach 1990-1999:
Miejsce w gospodarce kraju, czynniki i
perspektywy rozwojowe
[Companies with the Participation of
Foreign Capital in Poland in 1990-1999:
Their Place in the Economy, Their Situation
and Opportunities for Growth]***

Włodzimierz Karaszewski

(Torun, Nicholas Copernicus University Press, 2001), 371 pages

Foreign direct investment (FDI) in Central and Eastern Europe (CEE) is a subject of particular interest to researchers for at least two major reasons. On the one hand, throughout the 1990s, the inflow of FDI coincided in time with changes in government regulations undertaken in the framework of systemic transformations. This enables the researcher to observe simultaneously a twin process: the reaction of foreign investors to the changes taking place and the influence and effect of FDI on the ongoing systemic transformation. On the other hand, now that foreign affiliates have been operating in the region for more than a decade, there is a need for research on how FDI affected economic development in the CEE countries.

The book under review falls within the stream of publications exploring those two issues surrounding FDI, in this case focusing on Poland, a country that attracted more FDI than any other country in the region in the 1990s. The author sets forth the aim of his research as to analyse the conditions and effects of FDI in Poland, the performance of those companies that were either created as a result of FDI or whose operations were transformed as a result of FDI. The hypotheses and assumptions underlying the author's work relate to various aspects of those effects, and he attempts to verify them based on empirical data on all foreign affiliates in Poland. His research is based on statistical information published by the Polish National Bank, the Central Office of Statistics (GUS), and Polish National Agency for Foreign Investment (PAIZ), as well as data collected

through his own surveys. The latter, consisting of a nation-wide survey (with 116 responses) and a regional one (with 35 responses) cover foreign affiliates in services and manufacturing (excluding the financial sector).

The book consists of three parts. Part I is of introductory nature, providing the background information necessary for the subsequent analyses. The author presents the main theories of FDI, the volume of FDI worldwide and its structure, and focuses in particular on FDI in CEE. Much of his information is based on UNCTAD's *World Investment Reports*. He also reviews the research on the motives for, and barriers to, FDI in CEE. This part is concluded by a thorough analysis of total FDI flows to Poland between 1990-1999, as well as its industry breakdown, countries of origin and locational structure. This information is collected from a database maintained by the Polish National Bank. The author also presents and discusses the formal and legal requirements for FDI in Poland.

The analysis concerning Poland presented in Part I includes a description of the basic characteristics of FDI flowing into the Polish economy, the formulation of which is consistent with the results of other research. The author presents an interesting analysis of the effect of tax regulations on FDI, focusing on the steady growth, until 1998, of FDI in the form of intra-company loans granted by foreign shareholders. The percentage share of this form in total FDI flows into Poland rose from 13.1 per cent between 1990-1994 to 25.5 per cent between 1995-1999. Tax regulations encouraged this form of FDI in two ways. In the first place, the interest payments made by affiliates located in Poland to their foreign shareholders, established by an investment contract, were exempt of Polish income taxes as a result of bilateral agreements of Poland with the investing countries on the avoidance of double taxation. At the same time, the interest payments could be deducted by enterprises located in Poland as a cost of doing business until 1998. A change in the income tax regulations in 1998 provoked an immediate reaction by foreign investors, significantly reducing their intra-company loans. It is difficult to avoid the conclusion that the possibility of deducting these interest payments as business costs from taxes used to act as a significant

incentive for FDI in the form of intra-company loans. This conclusion seems to shed light on the ongoing debate in the developing countries about the efficacy of tax incentives in attracting FDI.

Part II of the book focuses on the performance and impact of foreign affiliates. Here the author uses statistical data gathered from GUS, information on the largest foreign investors from PAIZ, and data taken from the list of the 500 largest companies in Poland. The author's findings on the main features of foreign affiliates and their significance for the Polish economy are presented in a well-organized way. The author reviews the evolution of the number of foreign affiliates; the total value and structure of FDI; employment and wages; asset structures, with a breakdown into fixed and liquid assets; investment structures; income from business activities; exports; profits and losses of foreign affiliates; labour productivity; plant productivity; and the technological level of plants and equipment. The analysis is very wide in scope; nevertheless, the author sorts through and selects appropriate data with ease. This clearly presented statistical analysis is among the best features of his work.

As a result of his extensive analyses, the author was able to arrive at the following conclusions:

- The number of foreign affiliates rose throughout the entire decade; in most cases (76 per cent), foreign investors had majority ownership.
- The bulk of foreign affiliates were large companies; their size increased throughout the decade. In 1999, 13 per cent of the foreign affiliates accounted for 94 per cent of the total inward FDI stock of Poland, and the top 5 per cent – those firms employing more than 250 persons – accounted for 67 per cent of the total labour force in all of foreign affiliates.
- The industry structure of FDI in the Polish economy, taking into account labour productivity, changed in a negative direction. The share of foreign affiliates in labour-intensive, natural-resources-intensive and basic low-technology industries increased to more than 50 per cent of total FDI, while the share of foreign affiliates in high-technology and research-intensive industries employing innovative technologies fell.

-
- Nevertheless, foreign affiliates showed significantly higher labour productivity than locally owned firms (on average, 80 per cent higher in 1995-1999). This is accompanied by higher wages, although the difference between the average wage paid by foreign affiliates and the overall average wage in Poland diminished over time. In addition, unlike local firms, foreign affiliates tended to increase the gaps between wage groups as they attempted to attract highly qualified specialists and executive managers.
 - Foreign affiliates showed much higher investments in fixed assets than Polish-owned firms, reflecting their higher priorities attached to investment. It is worth noting, however, that minority-owned foreign affiliates were more the most investment intensive.
 - The increase in production capacities in foreign affiliates brought with itself a significant increase in the share of those companies in overall gross revenues of business in Poland (reaching almost 32 per cent in 1999). The share of foreign affiliates in exports also rose (to almost 49 per cent in 1999).
 - On the other hand, foreign affiliates demonstrated decreasing profitability and decreasing cash-flow liquidity throughout the decade, which must be considered as a disturbing trend. The author hypothesizes that the reason for this decline is most likely related to the fact that foreign affiliates are frequently saddled with large license- and other technology-related fees owed to their foreign parent companies. However, the author goes on to suggest that, frequently, these formal obligations are designed to reduce income taxes, and in fact are often uncollected. This may be the reason for the paradox that foreign affiliates invest more despite the fact that they report lower profits than other firms.

This detailed study of the financial situation of foreign affiliates is followed by an analysis of the impact of those firms on the Polish economy at both the micro- and macro-economic levels. On the basis of both secondary information and the author's own surveys, the impact of FDI in Poland on technology transfer, research and development and management systems is assessed, along with the impact on the Polish national budget, trade balance, and market structure. Especially noteworthy are the results of the author's own

survey on the propensity of foreign affiliates to improve product and services quality, and on the spillover of those improvements to Polish enterprises. The author's research confirms the widespread nature of this diffusion effect.

This analysis provides the reader with a clear picture of the advantages and disadvantages of FDI for the Polish economy. Many of the issues require further and more extensive research, as the author himself emphasizes. Overall, he suggests that the advantages outweigh the disadvantages, although some features of FDI such as low profitability and the possibility of lost taxes due to transfer pricing require special attention on the part of researchers and policy makers.

Part III of the book is based on the author's surveys of the motivations of foreign firms investing in Poland, the factors that discourage them from doing so, the degree to which investments have met original expectations, the factors that facilitate and those that restrict the development of foreign affiliates in Poland, as well as prospects for the future. These surveys were of a wide nature, although the response rate was similar to that of surveys conducted by other researchers.

The two key motives of foreign investors identified in the author's surveys were related to the market ("establishment of a new market for products"; "securing an existing market", "taking advantage of the lower level of competition of local firms") and to costs ("lower production costs"). This is in line with the results of earlier surveys. The book goes on to classify firms by the number of employees, the share of foreign ownership, the forms of FDI, the length of activities and the value of FDI. It also creates a special group for the foreign affiliates to be found on the list of the 500 largest enterprises in Poland. The author analyses the degree to which foreign investors' expectations have been fulfilled. He concludes that expectations have been largely met as regards to "lower production costs", "establishment of a new market for products", and "securing an existing market", while investors seeking "fewer administrative barriers", "lower tax liability", "fewer import barriers" and "longer workdays" have been mostly disappointed.

The author's detailed research into the acquisition of real estate by foreigners is a valuable contribution to research on this subject. The majority of foreign affiliates have purchased real estate in Poland. The share of such real estate in the overall assets of the firms is significant, although in most cases it does not exceed 20 per cent. Most of the foreign investors reported that their expectations of "acquiring low-priced real estate" were only partially fulfilled. The procedural requirements for foreigners wishing to purchase real estate in Poland are described uniformly as "complicated" or "very complicated".

The book concludes with a chapter summarizing the results of the research on factors that facilitate or inhibit the development of foreign affiliates, as well as those factors that are most likely to determine the future prospects for such investment. According to respondents to the author's survey, the most important factors stimulating future development are: engagement, having qualified and competent managers and financial potential. A lower significance than one might expect was assigned to the level of technology applied. The main factors inhibiting development were related to governmental regulation: legal instability, excessive taxation and too many changes in policies. The overall prospects for development were nevertheless assessed overall as "good" or "very good" by 90 per cent of the responding firms. The respondents were nearly unanimous in confirming that FDI would be significantly encouraged by the likelihood that Poland would join the European Union (EU) as well as by better growth prospects. A majority also expressed the view that development of a stable economic policy would also significantly increase FDI.

The research results presented in this final section of the book allow the reader to understand better the behaviour of foreign firms investing in Poland and shed light on some issues that have hitherto not been the subject of extensive research. It is worthy of special attention and recommendation.

Taking into consideration previous research, however, a few comments could be offered concerning the methodology and scope of the author's survey. It would have been useful, for example, if

the author could have compared the characteristics of his respondents with those of *all* foreign affiliates operating in Poland, in order to assess their representativeness. Also curious is the fact that the ongoing process of Poland's integration with the EU, which the author presents as a uniformly assessed positive factor for the *future development* of foreign affiliates, is omitted from the list of factors that *motivate* foreign investors. In this context it would also be interesting to do further research into differences in motivation, the fulfilment of expectations and factors both encouraging and limiting FDI according to country of origin.

These concluding reservations in no way reduce the highly positive assessment that this reviewer has of the book under review. It is recommended as a source of valuable information concerning the situation of foreign affiliates in Poland, as well as the scope and scale of their operations and their effects on the Polish economy.

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Scherrer, Christoph and Thomas Greven, *Global Rules for Trade: Codes of Conduct, Social Labeling, Workers' Rights Clauses* (Münster: Westphälisches Dampfboot, 2001), 173 pages.

Steiner, George A. and John F. Steiner, *Business, Government and Society: A Managerial Perspective* (New York: McGraw-Hill Irwin, 2002), tenth edition, 702 pages.

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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.

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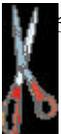
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