ASSESSING INTERNATIONAL MERGERS AND ACQUISITIONS AS A MODE OF FOREIGN DIRECT INVESTMENT

Steven Globerman
Western Washington University
Simon Fraser University

Daniel Shapiro
Simon Fraser University

Paper prepared for Conference on Multinationals, Growth and Governance, in Honor of A. Edward Safarian, Toronto, Ontario, April 24-25, 2004. Thanks to Gregory Brown and Yao Tang for research assistance.

> "…we believe that it is possible to formulate a general paradigm of MNE activity which sets out a conceptual framework and seeks to identify clusters of variables relevant to an explanation of all kinds of foreign-owned output." (Dunning, 1993, p.68).

INTRODUCTION

A major and long-standing focus of scholarly research in the international business area is the identification and evaluation of the determinants of the location of international production (Dunning, 1993; Caves 1996). Most empirical studies in this area attempt to identify and evaluate the most significant variables associated with inward and outward FDI. The empirical studies are primarily carried out at the country and industry levels and generally concentrate on overall FDI flows without distinguishing among different modes of FDI. Empirical studies focusing on aggregated inward and outward FDI flows, especially at the country level, implicitly assume that the same factors motivate all modes of FDI (Lall, 2002). To the extent that this is not the case, many empirical studies of overall FDI flows may be misleading.

In fact, the majority of aggregate FDI flows are created through cross-border merger and acquisition (M&A) activity (Kang and Johansson, 2000; Letto-Gillies, Meschi and Simonetti, 2001; Chen and Findlay, 2002).[1] However, there are relatively few empirical studies examining the determinants of cross-border M&A activity at the country level. Accordingly, we specify and estimate parsimonious models of the determinants of inward and outward M&A flows among a sample of 154 countries averaged over the period 1995-2001. In so doing, we identify variables that are potentially M&A mode-specific. As a related focus, we address the degree of similarity between the M&A model and a model of aggregate FDI flows. Specifically, we evaluate whether variables which are statistically significant in the M&A models are also

significant in models of overall FDI. Therefore, we are implicitly evaluating whether the determinants of international M&A activity are sufficiently similar to the determinants of other forms of FDI, e.g. Greenfield investments, such that researchers can effectively focus on measures of aggregate FDI when evaluating the determinants of cross-country FDI activity.

As Dunning (2001) notes, the growth of mergers and acquisitions, strategic alliances and a host of network relationships has led academic researchers to incorporate these modes into the received theories of FDI; however, to our knowledge, there has been no systematic attempt to assess the degree to which empirical models of overall FDI at the country level apply to individual modes of FDI, in particular cross-border M&As. Our paper attempts to fill this gap in the literature. In doing so, it draws upon a large sample of developed and developing countries, as well as a new statistical database that, to our knowledge, has not yet been used in empirical studies of cross-border M&As.

The paper proceeds as follows. The next section provides an overview of the relevant literature. This is followed by a description of the FDI and cross-border M&A data utilized in this study. We then present the model to be estimated, distinguishing between mode-encompassing (applicable to all modes) and mode-specific (specific to M&As) explanatory variables. The statistical results are then presented and evaluated. The final section offers a summary and conclusions.

REVIEW OF THE LITERATURE

Although there have been many empirical studies that examine the location determinants of aggregate FDI flows across countries, relatively few have focused explicitly on identifying the determinants of FDI flows through the M&A mode at the

country level. A larger number of studies identify potential mode-specific determinants at a conceptual level. Still others provide empirical evidence on FDI mode choice using samples of individual firms rather than using data at the country level.

Statistical Studies of Cross-Border M&A Activity

Evenett (2003) presents evidence that the value of American outward M&A in a recipient country depends on the recipient nation's gross domestic product, the distance from the United States, the recipient nation's corporate tax rate and average tariff rate, and whether or not the recipient nation was once a British colony. The latter variable is taken to identify whether the recipient nation is more likely to use English as the language of business and to have a common law system. The presence of merger review laws in the host country was also found to reduce the amount of American M&A received.

Blomstrom, Kokko and Zejan (2000) examine the choice of Swedish MNEs to initiate affiliate activities abroad in two different ways: either by building a new establishment (greenfield investment) or by taking over an already existing firm (acquisition). They relate this choice to characteristics of the individual Swedish MNE, as well as to characteristics of the host country. They identify two groups of host country characteristics that merit particular attention: 1. those affecting the probability of finding suitable firms for acquisition which, in turn, is related to the size of the host country's stock market; 2. the possible effects on local output and prices of acquisitions and new ventures. The latter effects are proxied by the growth rate of production in the host market immediately before entry. Among other things, they find that market size of the host country, as indicated by the country's gross domestic product (GDP) does not appear

to have any significant influence on the choice of form of entry. They speculate that this result may arise because GDP is not an especially good proxy for the size of the host country's stock market in the sample of countries used.

In a related study, Feliciano and Lipsey (2002) examine inward FDI in the United States for 50 industries over the period 1980-1990. They estimate equations for the share of U.S. corporate assets acquired by foreign entities and the share of U.S. corporate assets accounted for by new foreign establishments. Several differences are identified. In particular, a higher price for the U.S. dollar discourages takeovers, whereas the exchange rate is not significantly related to foreign investment in new establishments. Higher U.S. stock prices are a stronger positive influence on foreign investment in new establishments than on foreign acquisitions. However, acquisitions and establishments of new firms both tend to occur in periods of high U.S. growth.

More recently, Rossi and Volpin (2003) report the results of an econometric study of cross-country determinants of international and domestic M&As. With reference to location-specific determinants of international M&A activity, they find that firms in countries with weaker investor protection are more likely to be acquired than those in countries with stronger investor protection, whereas buyers are more likely to be from countries with relatively strong investor protection. They also find that countries with more concentrated ownership have more M&As, including international M&As.

Conceptual Distinctions Among FDI Modes

Dunning (2001) identifies the importance of cross-border M&As in the FDI process and offers a broad conceptual distinction among different modes of FDI. Specifically, he suggests that the location requirements of strategic asset-seeking FDI are

different from those of natural resource, market or efficiency-seeking FDI. In particular, the presence of high quality physical and human infrastructure and a favorable political and commercial ethos towards M&As and cooperative alliances are especially important for strategic asset-seeking FDI.

Other studies also suggest a variety of possible factors that conceptually make M&A activity a more likely mode of FDI in some countries than in others. For example, Pugel (1985) hypothesizes that the depressed U.S. stock market made entry by acquisition more attractive and more prevalent in the United States in the 1970s. Mody and Negishi (2001) argue that a recent upsurge in M&As in East Asia, particularly in Korea, can be attributed to government policy changes including the introduction of international accounting standards and shareholding systems. Bridgeman (2002) asserts that the fact that many multinational businesses are U.K.-based and that London has a leading position in the international financial markets means that a disproportionately large volume of cross-border M&As will include U.K. businesses.

Firm-Level Studies of Mode Choice

Empirical evidence on the relevance of location-specific determinants of the M&A mode of FDI is indirectly supplied by studies of FDI mode choice.[2] Such studies typically identify firm-specific factors conditioning the choice of FDI mode; however, to the extent that the characteristics identified differ across populations of firms in various host and home countries, they contribute to potential differences in location-specific differences across host and home country firms in choosing the M&A mode of FDI.

For example, Harzing (2002) identifies the importance of MNC global Strategy as an important determinant of mode choice. Specifically, MNCs pursuing a “multi-

domestic" strategy are more likely to favour the M&A mode, while those pursuing a "global" strategy are more likely to choose Greenfield investments. An inference one might draw is that countries with relatively large numbers of MNCs pursuing global strategies will be characterized by outward FDI largely comprised of Greenfield investments, whereas countries that are home to MNCs primarily following a multi-domestic strategy will exhibit a strong preference for the M&A mode in its outward FDI activity.

As another example, Hennart and Reddy (1997) identify the accumulated international business experience of a company as an important determinant of that company's choice between M&As and joint ventures as an FDI mode. Firms with more international business experience are more likely to choose the M&A mode, *ceteris paribus*. The inference one might draw is that countries home to "experienced" MNCs will have higher shares of outward FDI taking the form of M&As than will countries home to relatively inexperienced MNCs, other things constant.

Overall Assessment

In summary, the literature suggests that while certain country attributes seem relevant to all forms of FDI (mode-encompassing), there may be location-specific differences in the attractiveness of FDI through the M&A mode relative to other modes (mode-specificity).[3] Even if true, this does not necessarily mean that empirical studies of FDI that ignore differences in major FDI modes will yield biased results. In particular, if the share of FDI represented by cross-border M&As is relatively constant across countries over time, econometric models of FDI that focus on changes in overall FDI at the country level will not necessarily produce biased results. Put differently, if the shares

of FDI associated with cross-border M&As are constant across countries over time, location-specific determinants of the M&A mode will be captured in the constant terms of representative FDI equations.

Cross-country differences in the share of FDI represented by specific modes will be constant, among other things, if the market for international corporate mergers and acquisitions is efficient and competitive. If this is the case, differences in location specific determinants of the relative advantage of the M&A mode of FDI should be fully reflected in the prices paid for mergers and acquisitions in home country markets. For example, if M&As are expected to be more profitable than other modes of FDI in a specific country, foreign investors should bid up the relative prices of potential corporate acquisitions, over time, such that the profitability of M&As should be no different, at the margin, than the profitability of other modes of FDI. In this case, the shares of FDI accounted for by M&As across countries should converge to constant values over time.

In fact, the limited available evidence suggests that markets for international M&As are not perfectly competitive and efficient. For example, Harris and Ravenscraft (1991) find that acquirers' gains on foreign takeovers of U.S. companies are significantly higher when the buyer's currency is strong relative to the dollar. This finding suggests that exchange rate valuations segment the ability of firms from different countries to compete for international acquisitions. More recently, Baker (2004) finds that temporary "overvaluation" of source-country capital promotes FDI, whereas temporary "undervaluation" of host-country assets has no significant impact on FDI flows.

In sum, there are potential reasons for concern that models of overall FDI determinants at the country level may yield biased statistical results by failing to

acknowledge explicitly differences in mode-specific location determinants of FDI choice, particularly international M&As. The associated biases, if present, should be non-monotonically related to the quantitative importance of M&As in overall FDI. At one extreme, to the extent that all FDI takes the form of international M&As, estimation of an M&A model is *per force* equivalent to the estimation of a total FDI model. Variables that determine investment behaviour will be identical in both models. At the other extreme, if there is no M&A activity in FDI, ignoring mode-specific determinants of M&A activity will impart no bias to the overall FDI equation. Between these extremes, any specification bias should first increase and then decrease, as M&A activity becomes an increasing share of overall FDI activity.

The relevant statistical biases associated with ignoring mode-specific determinants of FDI behaviour will also be a function, as noted above, of the constancy of the shares of FDI owing to M&A activity across countries over time. Greater constancy of the shares mitigates the magnitude of any statistical biases associated with ignoring mode-specific determinants of FDI in country-level studies. In the next section of the paper, we present some data describing international M&A activity as a component of overall FDI activity.

FOREIGN DIRECT INVESTMENT AND CROSS-BORDER M&A ACTIVITY

The recent availability of data on cross-border M&A activity by country permits a comparison between these data, and over-all foreign direct investment flows. The data, published by UNCTAD, cover both cross-border acquisitions *of* domestic companies (inbound investment) and cross-border purchases *by* domestic companies (outbound investment). These categories therefore augment the traditional aggregate measures of

inbound foreign direct investment flows (FDI) and outbound foreign direct investment flows (FDO).

We have compiled data for all four series over the period 1995-2001, for a sample of 154 countries. It is important to recognize that although the data are collected by UNCTAD, they come from different sources, and are not strictly comparable. The FDI (FDO) series are compiled from IMF data, while the M&A data come from Thomson Financial. FDI and FDO flows include investment funds transferred between a parent and an affiliate. Negative flows can therefore be recorded if funds are withdrawn from an affiliate. The M&A series record the value of the transaction at the time it is finalized, and therefore cannot be negative. It is therefore possible that the value of recorded cross-border activity exceeds the value of recorded FDI (FDO) activity, despite the fact that the latter is the more comprehensive measure. In addition, the two series may not involve coincident temporal flows of funds if an M&A transaction involves staged payments, or if the date recorded by Thomson as the final date does not coincide with the recording of funds transferred in the balance of payments. Thus, use of a single year's data can be misleading, particularly for small countries, where a single remittance by an affiliate in a given year can create temporary and possible large changes (negative) in recorded FDI. Likewise, a single large M&A can create large recorded inflows/outflows even for relatively large countries. In order to minimize problems created by negative inflows, non-coincident payments, and single large transactions, and to facilitate comparisons among the variables, we chose to average the various series over the sample period.

Broad characteristics of the data series are summarized in Table 1. The (U.S.) dollar values of total FDI and cross-border M& A flows are expressed as natural

logarithms. It can be seen that the four measures are strongly correlated. Thus, countries that record large FDI (FDO) flows are on average more likely to have recorded large amounts of cross-border sales (purchases). In addition, countries that on average are large recipients of foreign capital by whatever means are also more likely to be capital exporters.

Table 1 also reports the ratio of Inbound M&A to FDI, and Outbound M&A to FDO. It suggests that across countries, Inbound (Outbound) M&A represents about 33% (43%) of total FDI (FDO) on average. It is important to recognize that because the original data is collected by different countries and agencies, it is not necessarily the case that aggregate outflows equal aggregate inflows, as one might expect. Further, some countries are omitted from our sample, also leading to non-equality of aggregate measures. Importantly, for most countries, M&A activity is not the major source of FDI, and there are large cross-country differences in the ratios.

The relative shares of M&A flows in total FDI and FDO reported in the preceding paragraph are substantially lower than those that have been reported in some other studies. For example, Kang and Johansson (2001) report that, for developed countries, the share of M&As in inward FDI increased almost continuously from around 62% in 1991 to virtually 100% in 1997. For the entire period, 1991-97, this share averaged around 84 percent. Inward cross-border M&As as a share of inward FDI was lower for developing countries, but the average share was around 70% over the period 1991-98.

The most plausible explanation of the differences between our estimates and those of Kang and Johansson (and others) is that our estimates are obtained as the simple averages of the relevant ratios across our sample of countries, whereas Kang and

Johansson simply divide the value of all international M&As by the value of total FDI flows. Given substantial variation in the relative importance of M&A activity across our sample of countries, it is econometrically feasible to identify variables that are specifically relevant to the M&A mode to the extent such variables exist.

In addition, it proved necessary to adjust the data in order to create the relevant ratios. For example, when FDI flows were negative, but the country recorded positive M&A amounts, the M&A to FDI ratio was recorded as one. Similarly, when recorded M&A amounts for a country exceeded total FDI or FDO flows, a value of one was assigned. This procedure was necessary because for some countries, very small reported FDI flows were accompanied by large reported M&A amounts, resulting in implausibly large ratios.

The data suggest that FDI and FDO flows are less concentrated than are M&A flows across our sample of countries. The variance of logarithmic outcomes is often used as a measure of concentration (or convergence, if used over time). The variance of the logarithm (the standard deviation, squared) of the FDI series is lower than that of the Inbound M&A series, and that of the FDO series is lower than the Outbound M&A series. Cross-border M&A activity, both inward and outward, is therefore concentrated among a smaller number of countries compared to FDI and FDO. Indeed, when examining the raw data, one finds that of the 154 countries, 27 recorded no inbound M&A activity and 31 no outbound M&A activity over the entire period. On the other hand, all countries recorded some FDI activity, and although 31 countries also recorded no FDO activity, the rest was allocated more evenly among the remaining countries than was the comparable M&A activity.

The fact that M&A activity is concentrated is consistent with previous evidence. Globerman and Shapiro (2003) highlight the surge of acquisitions made by EU-based investors in the late 1990s. United Kingdom-based firms were especially active acquirers. They also identify the growing prominence of U.S.-based firms as acquisition targets. Likewise, Kang and Johansson (2001) indicate that there is a marked concentration of international M&A activity in a relatively small number of developed countries.

In order to analyse whether this concentration might be expected to persist, we examined the correlation coefficients of the series over time. Specifically, we examined the correlation between FDI flows in 1995 and each subsequent year until 2001. For each series, the correlation coefficients declined over time, but the decline was less pronounced for the M&A series. For FDI flows, the correlation coefficient between 1995 flows and 1996 flows was r = 0.81; by 2001 it was r = 0.55. The correlation pattern for the FDO series was similar. In contrast, the correlation coefficient between 1995 M&A inflows and 1996 inflows was r = 0.89; by 2001 it was r = 0.80. Even higher values were recorded for the M&A outflow series where the 1995/1996 and 1995/2001 correlation coefficients were 0.90 and 0.85, respectively. Thus, cross-country patterns of M&A activity tend to exhibit greater "persistence" than patterns for overall FDI.

In summary, given the prominence of M&A activity as a source of FDI, and given the high correlation between the measures across our sample of countries, one might expect to find strong similarities in the estimated equations for M&A and overall FDI activity. Nevertheless, there are significant differences in the M&A and overall FDI series across our country sample, and those differences might reflect mode-specific country advantages that are potentially identifiable through econometric analysis In the

next two sections of the paper, we specify and estimate overall FDI and M&A equations and compare results.

MODELLING DIRECT INVESTMENT INFLOWS AND OUTFLOWS

Our empirical strategy is to specify and estimate four different equations to identify the cross-country determinants of FDI, FDO, M&A inflows and M&A outflows. In order to do so, we extend the parsimonious models developed in Globerman and Shapiro (2002; 2003). Thus, we estimate four separate sets of equations of the general form:

$$(1) \quad \text{Ln } Y_{it} = \beta_0 + \beta_1 \text{ Ln GDP}_{it-1} + \beta_2 \text{ Growth GDP}_{it-1} + \beta_3 \text{ Governance Index (GII)}_{it} + \beta_4 X_{it} + \varepsilon_{it}$$

Y represents the four dependent variables noted above, and X represents a vector of control variables that measure mode-specific location advantages. These are described below, as are the other independent variables, which we refer to as mode-encompassing.[4] Mode-encompassing variables should be interpreted as variables that conceptually affect all FDI modes to the same extent.

We have elsewhere suggested, with supporting evidence, that FDI inflows and outflows are to a large extent symmetrical (Globerman and Shapiro, 1999; 2002). The presumption is that capital outflows may be stimulated by the same factors that encourage capital inflows. For example, superior governance encourages inward flows, as well as increased capital investment more generally. In particular, successful firms created through the domestic investment process are likely to invest abroad as world-class multinational companies. In effect, superior governance encourages capital

investment and the expansion of businesses that, in turn, stimulates increases in both inward and outward FDI. In the next sub-section, we discuss in more detail how the statistical model was chosen and specified.

Determinants of Investment Inflows and Outflows

In specifying the list of independent variables, we drew upon both previous studies of aggregate FDI flows as well as recent studies that have focused on cross-country determinants of M&A activity. We therefore include variables that are mode-encompassing as well as those that are M&A-specific, although, as we discuss below, in practice the conceptual distinction is not always sharp. Definitions of the variables we use, their sources and descriptive statistics for the variables are provided in Table 2.

Mode-Encompassing Determinants

Mode-encompassing variables are those that might be expected to increase FDI, regardless of mode. We follow Rossi and Volpin (2003) in controlling for the size of the economy and its rate of growth as mode-encompassing variables. Country size is measured by the logarithm of gross domestic product (GDP). Large market size is expected to attract FDI because of economies of scale in production and distribution for products sold in the host market. In addition, larger markets may be associated with agglomeration economies that lower costs for all producers in that market. These advantages conceptually enhance the attractiveness of inward FDI regardless of mode. Additionally, large host country market size implies that a relatively large number of firms participate in the economy and represent potential acquisition targets. At the same time, multinational companies headquartered in large domestic economies are more likely to undertake outward FDI to the extent that location in a large domestic economy conveys firm-specific advantages to those companies.

The growth of GDP is included to capture potential future economic opportunities and the existence of economic rents. Specifically, rapid economic growth can contribute to disequilibria in input and output markets that create above average profit potential for investors who identify the opportunities and possess the resources to exploit those opportunities. We therefore expect growth to be positively related to the two variables measuring capital inflows, but negatively related to capital outflows, because a growing economy not only attracts investors from abroad, but it also encourages domestic firms to invest locally. However, to the extent that successful acquisitions reflect unique synergies between specific acquirer and acquiree companies, the overall growth rate of the host economy might be a less important determinant of the M&A mode of FDI compared to other modes, especially Greenfield investments (Blomstrom et. al., 2000).

The overall governance environment of the host and home economies can be expected to affect both FDI and FDO flows (Globerman and Shapiro, 2002; 2003). Specifically, "well governed" host countries can expect to attract more inward FDI compared to other countries that offer "less attractive" environments for private investment. Similarly, well-governed countries can be expected to spawn companies with the capabilities to be competitive in foreign markets. Hence, governance should also be positively related to FDO. Whether or not governance is a mode-specific location factor may depend upon the precise way in which the measure is defined, as discussed below.

In previous work, we report on the importance of governance infrastructure as a determinant of FDI and FDO (Globerman and Shapiro 2002; 2003). Governance infrastructure refers to a country's political, institutional and legal environment, as well as to the policies that accompany them. We found that governance infrastructure is a

critical (positive) determinant of both FDI and FDO. As described below, the governance infrastructure measure that we employ is a broad composite index that encompasses a wide diversity of country specific factors, including political risk, macroeconomic and regulatory policies, rule of law and the extent of corruption. The governance index is sufficiently comprehensive that it accounts for a number of specific variables often included in studies of this kind.[5] This broad measure is likely to be equally relevant for all modes of FDI, including M&As.

The governance index we use was first developed by Kaufmann, Kraay, and Zoido-Lobaton (1999a and 1999b), and recently expanded upon and updated by Kaufmann, Kraay and Mastruzzi (2003), hereafter KKM. They estimate six separate indices (which we will refer to as KKM indices) including measures of political instability, rule of law, graft, regulatory burden, voice and political freedom, and government effectiveness.[6] The indices have been estimated (using an unobserved components model) employing 31 different qualitative indicators from 13 different sources, including BERI, DRI/McGraw Hill, the Heritage Foundation, the World Bank, the World Economic Forum and the Economist Intelligence Unit. The indices are highly correlated with each other such that it is very difficult to use them all in a single equation (Globerman and Shapiro, 2002). We therefore created an aggregate measure estimated as the first principal component of the six measures. We refer to this aggregated governance infrastructure index as GII.

Previous studies have identified factors such as per capita GDP, physical infrastructure and human capital as determinants of FDI inflows. In order to control for all of these in a parsimonious way, we employ the Human Development Index (HDI)

published by the United Nations. HDI is composed of three sub-indices: GDP/population, educational literacy and enrolment, and life expectancy at birth. The health and education components are direct measures of human capital. The GDP/population component is a measure of wealth that we use as a proxy measure for the amount of physical infrastructure. Although we include the HDI as a proxy measure of human capital and physical infrastructure, the HDI is also a development outcome that may itself be the result of good governance. It is therefore not surprising that HDI and GII tend to be positively correlated. Nevertheless, we include both measures because development outcomes are also relevant to any discussion of FDI flows.

In general, we expect that measures of human capital and physical infrastructure should also encourage FDI outflows. These factors are likely to be associated with the ability of domestic firms to generate the firm-specific advantages that have been identified as necessary for international production (Dunning, 1993; Caves, 1996).

Finally, we include a dummy variable for China in our basic estimating equation. Much publicity has attended large recent FDI inflows to China, particularly given the fact that China's governance infrastructure is not strong. Thus, it is possible that China is receiving more FDI than would be forecast by the model. We believe that this is so primarily because much FDI in China has been undertaken by firms owned by Chinese expatriate families resident in countries that are themselves characterized by weak governance infrastructures (Thailand, Malaysia, Indonesia). Shapiro, Gedajlovic and Erdener (2003) have argued that expatriate Chinese family firms have developed particular skills in operating in environments with weak governance infrastructure. These

advantages, together with their cultural familiarity, have resulted in capital inflows to China exceeding what our basic model would forecast.

We note that our model does not include a variety of country-level variables often included in other studies (albeit with mixed results).[7] This is either because such variables are unavailable for a sample as large as ours (for example, corporate tax rates), or because they are correlated with one of the included variables. For example, a standard measure of openness to trade (imports + exports/GDP) is highly correlated with the governance variable. Further, Kaufmann (2003) has argued that governance is in fact more important to FDI than are indicators of macroeconomic and exchange rate stability.

Mode-Specific Determinants

Of the potential variables that make entry via the M&A mode more attractive, the most obvious are those associated with the liquidity and efficiency of capital markets. The ratio of stock market capitalization to GDP is one possible measure of stock market liquidity. One would expect inward M&A activity to be greater in countries with more liquid stock markets, all other things constant. Likewise, liquid stock markets should make it easier for companies to raise financial capital that can be used, in turn, to acquire foreign companies. In short, we would expect both inward and outward M&A activity to be positively related to stock market liquidity.

The ability of firms to raise capital in liquid capital markets could also facilitate their ability to make other types of foreign investments besides acquisitions of foreign companies. Hence, overall outward FDI could be positively related to stock market liquidity. While there is no reason to expect overall inward FDI to be directly related to stock market liquidity, liquid stock markets might be indicative of relatively liquid markets for other types of host country assets that are sought out by foreign investors,

including highly skilled domestic labour. If this is true, one might observe overall inward FDI to be positively related to stock market liquidity. In short, whether the liquidity of capital markets is a mode-specific determinant of FDI is ultimately an empirical issue.

Rossi and Volpin (2003) suggest that cross-border acquisitions may be facilitated by the legal regime and degree of investor protection in both home and host countries. A country's legal regime has been identified as a critical determinant of financial market development. In particular, it has been argued that countries whose legal system originates in English common law offer better shareholder protection, better protection of property rights, and are more flexible in adapting to economic change, thereby offering better financial intermediation (LaPorta, Lopez-de-Silanes, Shleifer and Vishny, 1998, 2000; Beck, Demirguc-Kunt and Levine, 2003).

To the extent that a country's legal regime conditions the development of financial markets, it may act as mediating variable in our FDI and M&A equations. Specifically, legal regime might enhance the liquidity of stock markets, and its impact could be felt indirectly through this channel. Alternatively, to the extent that the legal regime directly conditions the property rights regime, legal regime might also be seen as a subset of broader governance measures. However, the correlation between the broad governance index, GII, and the common law dummy is small, supporting Kaufmann's (2003) assessment that there are many common law countries with generally inferior levels of governance. In either case, one might fail to observe any direct relationship between legal regime and either cross-border M&A activity or overall FDI activity.

Similarly, LaPorta et. al. (1997; 2000) find that strong shareholder protection is associated with more developed stock markets, higher valuation, and lower capital costs.

These developments are likely to facilitate M&A activity in general, including both inward and outward cross-border transactions (Rossi and Volpin, 2003). In addition, lower levels of shareholder protection are associated with higher levels of ownership concentration, which can retard acquisition activity (LaPorta et. al. 1998,2000).

Bris and Cabolis (2004) document that an international takeover of a firm characterized by weak investor protection by a firm characterized by strong investor protection leads to an increased market value for the acquired firm, with no decrease in market value for the acquiring firm. The inference one might draw is that strong investor protection should directly encourage increased "outward" M&A activity from a country, while weak investor protection should encourage increased acquisitions in a country.

Thus, we include in all equations a measure of investor protection, defined as the interaction of an index of shareholder rights with an index of the rule of law, both taken from LaPorta et. al. (1998) and Pistor et. al. (2000). The interactive term follows Johnson, Boone, Breach and Friedman (2000), who suggest that it reflects the difference between *de jure* measures of shareholder rights, and their *de facto* importance after controlling for the effectiveness of the legal system in enforcing contracts. To the extent that strong investor protection primarily enhances capital market efficiency, it's impact on both inward and outward M&A activity is positive, but indirect. To the extent that differences in shareholder protection facilitate wealth gains through asset ownership reallocations, companies headquartered in countries with strong shareholder protection should be observed to acquire companies headquartered in countries with weak protection (Rossi and Volpin, 2003).

One additional variable that should be directly related to inward acquisitions is the degree of privatization activity in the host country. Privatization directly increases the number of potential companies that can be acquired by foreign investors and, therefore should be positively and directly related to inward M&A activity. However, countries pursuing privatization also usually engage in liberalization of regulations and policies that discourage capital investment, including investment by foreigners. Hence, the privatization variable might well represent a broad and favourable change in governance that attracts various modes of foreign direct investment. In this context, it would be a mode-encompassing variable. We therefore include the ratio of privatization revenues to GDP in both the inbound FDI and M&A equations.

Correlation Among Independent Variables

The means and correlation coefficients for the independent variables discussed above are presented in Table 2. The highest correlation coefficients are observed between the governance index (GII) and the measure of investor protection, the Human Development Index (HDI) and the stock market capitalization rate. These relatively high correlations indicate the generality and scope of the GII index. Because of this, we report results below where the GII index is sometimes excluded.

ESTIMATION AND RESULTS

In this section, we report regression results focusing first on inflows of foreign investment and then outflows. Our primary interest is in comparing the estimated results for the inward FDI and M&A equations and the outward FDI and M&A equations, although differences in the determinants of inward and outward flows are also of some interest.

FDI and M&A Inflows

The basic results for the two inflow models are found in Table 3. Because of the relatively large number of countries that reported no inbound M&A activity, the M&A equation is estimated using TOBIT. The FDI inflow equation was estimated by OLS, with heteroscedastic-consistent standard errors. We tested a variety of alternative specifications to those reported, mainly through the use of a variety of interactive terms, including interactions of governance measures and stock market capitalization. None proved to be statistically significant, and they are not reported. Furthermore, the HDI index was never statistically significant in any of our equations (unless entered alone with log GDP), and so no results including that variable are reported in Table 3.

One primary concern with respect to Table 3 is whether specific variables are statistically significant in the M&A equations but not in the overall FDI equations. That is, we are interested in identifying mode-specific variables for inward investment. When comparing estimation results of the M&A and FDI models, they are clearly similar, if not identical. Specifically, GDP, privatization, good governance and stock market capitalization all have positive coefficients (the expected sign) and, with the exception of the privatization coefficient in equation 2, the coefficients are always statistically significant.

The common law variable is never statistically significant which may support Kaufmann's (2003) claim that broad measures of governance are more statistically robust than measures of common law in models of investment behaviour. As noted above, the impact of common law might be indirect, in any case, through its influence on the growth of domestic capital markets. To assess this possibility further, we regressed stock market capitalization on the common law term (controlling for GDP and GDP growth). The

relevant coefficient was positive and statistically significant, thereby providing support for an indirect influence of common law.

The investor protection coefficient is significant only when the stock market variable is excluded from the model. This latter result suggests that the impact of investor protection may be largely experienced by the conditioning role it plays in encouraging liquidity in capital markets.[8] However, given the relatively high correlation between the governance index and the index of investor protection, we cannot confidently separate the effects of the two variables statistically. In any case, there is no evidence that investor protection is a mode specific variable.

Two clear differences are identifiable when comparing the M&A and the FDI equations in Table 3. First, fast-growing economies attract FDI in general, but apparently not *via* mergers and acquisitions. Although this result seems anomalous, it may be consistent with our *a priori* reasoning for including the growth term. We suggested that the growth of GDP represents the potential for economic rents to be created by the growth process. However, such rents may be tied primarily to the establishment of new businesses, perhaps in new or radically restructuring industries. In this case, the capture of extant rents might primarily motivate Greenfield investments.

A second difference is that the China dummy variable is positive and statistically significant in the total FDI equation, but not in the M&A equations. As expected, China has received more FDI than would be forecast for a country with its governance profile and level of financial development. This is almost surely the result of investments by expatriate Chinese. However, these inflows have apparently not assumed the form of M&A, since the China coefficient is not statistically significant in the M&A equation.

This is not a surprising result, since, over much of this period, M&A activity was restricted in China, so that most of the inflows were in the form of Greenfields investments or joint-ventures.

The OLS and TOBIT coefficient estimates are not directly comparable, in part because the dependent variables are defined differently, but also because the marginal effects are different for the two estimation methods (Greene, 2003:764). In order to compare the marginal effects of each variable, the TOBIT coefficients must be adjusted to account for the probability that a non-zero outcome is observed. We did so, following Greene (2003: 765). On average, the marginal impact of each TOBIT coefficient in the M&A equations is the value of the coefficient times 0.82. For the most part, the *marginal* impact of the relevant independent variable in the M&A equation is slightly higher than that for FDI equation, although the impacts are qualitatively quite comparable for each of the variables that are significant in both equations. For example, one might compare equations 1 and 7 by multiplying each coefficient in equation 1 by the .82 factor. For the single-most important variable (GDP), the adjusted coefficient in equation 1 equals .936 compared to .726 in the first equation. The adjusted governance coefficient in equation 1 (.566) is quite comparable to that in equation 7 (.492), as are the coefficients for stock market cap (.413 and .557, respectively). Only the coefficients for privatization seem substantially different (8.22 in equation 1 and 4.11 in equation 7.

In summary, there is a substantial overall correspondence between models of inward M&A activity and models of inward overall FDI. For the most part, they share a common set of significant variables. Although one must be cautious in drawing precise comparison of the coefficients in the two models, it does appear that the estimated values

are similar for most variables. By extension, this suggests that the determinants of individual modes of FDI are likely quite similar. In particular, we are unable to identify with confidence uniquely mode-specific determinants of cross-order M&A activity. The most prominent difference we can identify is with respect to the influence of economic growth, which appears to affect primarily non-M&A modes of FDI.

FDI and M&A Outflows

The basic results for the outflow estimations are reported in Table 4, which is organized in the same manner as Table 3. The outflow results are both similar to, and different from, the inflow results. There is considerable symmetry arising from the positive and significant effects on outflows arising from market size, governance, and stock market capitalization. Larger economies experience both more inflows, and more outflows with respect to overall FDI and M&As. Likewise, better governance and more liquid stock markets not only encourage foreign-owned MNCs to establish affiliates in a country, but they also facilitate the growth of domestically owned MNCs that then establish their own affiliates abroad. Investor protection also acts symmetrically in the outflow equations. The sign is positive, but only statistically significant when the more general governance term is omitted. In general, an effective domestic governance infrastructure and well functioning capital markets likely encourage capital outflows by successful domestic firms.[9]

The finding that countries characterized by more effective capital markets are likely to be capital exporters, including M&A outflows, is further reinforced by some evidence suggesting that common law countries are more likely to support outbound M&A activity. As was the case for inflows, the common law coefficient is never significant for total FDO. However, unlike the inflow case, it is at times statistically

significant and positive in the M&A outflow equations. These results are consistent with the view that good governance is exported through M&A activity (Rossi and Volpin, 2003; Bris and Cabolis, 2004). However, it must also be borne in mind that the number of countries whose firms are in fact subject to take-over is relatively restricted.

Differences between the inflow and outflow equations are also observable. In particular, the GDP growth coefficients are negative and (mostly) statistically significant in both the FDO equations and the M&A equations. These results suggest that the lure of larger economic rents in fast growing home countries outweighs any advantages that faster home country economic growth may provide in the form of increased internal financing capabilities that, in turn, permit relatively low cost financing for overseas' investments.

Unlike the case for FDI, we have some evidence that HDI affects capital outflows, in particular those accomplished by M&A. For total FDO, the HDI coefficient is statistically significant only when the governance term is absent. However, in the M&A outflow equations, the HDI coefficient is positive and statistically significant, even in the present of GII. This is consistent with the view that HDI measures the ability of domestic firms to generate firm-specific advantage that can be transferred abroad. Finally we note that the China dummy variable, included for completeness, is not statistically significant in the outflow equations. The "China" effect is limited to total FDI inflows.

The two sets of outflow equations lead to broadly similar results. A specific inference one might draw is that the important determinants of outward M&A activity, by and large, also determine other modes of outward direct investment. As in the case of the inflow equations, the coefficients obtained through the Tobit estimation do not measure

marginal effects. The deflation factor for the equations in Table 4 is (.8) or approximately the same as for the M&A inflow case. However, since the impacts of all variables in both sets of equations are overstated by the same relative amount, a direct comparison of coefficients is meaningful. Clearly, the estimated coefficients for GDP, growth of GDP and governance are quite similar in the two sets of equations. Since these three variables are the main determinants of both FDO and M&A outflows, one can infer that there is a strong correspondence between the determinants of M&A outflows and outflows for Greenfield and other modes of FDO.

SUMMARY AND CONCLUSIONS

The purpose of this paper is to identify the determinants of cross-border M&A inflows and outflows, and to compare them with the determinants of other modes of FDI. In doing so, we consider whether there are mode-specific determinants of FDI. We use a new database on M&As for a large sample of countries to accomplish this purpose. On balance, we find that most of the important variables influencing inward and outward M&A flows are the same variables that are prominent in models of aggregate inward and outward FDI flows. Moreover, the coefficient values for those variables are quite similar in both sets of equations.

To be sure, there are some differences in the structure of the M&A and aggregate FDI models. In particular, economic growth is an important determinant of aggregate FDI flows but not M&A flows. Another prominent difference between the equation structures is the identification of a strong "country effect" for China with respect to aggregate FDI but not with respect to M&A flows. To the extent that China continues to liberalize its

restrictions against foreign acquisitions of domestically owned companies, this difference is likely to disappear.

In the absence of evidence from simulation studies, it is impossible to evaluate how much more accurate models of overall FDI would be if more explicit attention was paid to mode-specific determinants. Our evidence at least suggests that the convenience of being able to estimate aggregate FDI models might well outweigh any modeling improvements associated with disaggregating FDI into its mode components and estimating equations for each individual mode.

As an indirect outcome, our study reinforces the findings of a growing literature that documents the role that governance plays in the FDI process. In particular, our study suggests that broad measures of governance are more informative than relatively narrow measures, such as a country's legal heritage or ownership protection. Nevertheless, narrow measures of governance may condition important institutions, such as capital markets, which, in turn, are directly important influences on FDI behaviour.

REFERENCES

Baker, M. (2004), "Stock Market Valuation and Foreign Direct Investment", Cambridge: Harvard Business School, mimeo.

Beck, Thorsten, Asli Demirguc-Kunt, and Ross Levine (1999). "A New Database on Financial Development and Structure", World Bank

Beck, Thorsten, Asli Demirguc-Kunt, and Ross Levine (2003). "Law and finance: why does legal origin matter?", Journal of Comparative Economics 31: 653-675.

Blomstrom, M., A. Kokko and M. Zejan (2000). *Foreign Direct Investment*, New York: St. Martins Press.

Bridgeman, J. (2002), "International Mergers and Acquisitions", *European Business Journal*, 14 (2), 58-63.

Bris, A. and C. Cabolis (2004), "Adopting Better Corporate Governance: Evidence from Cross-Border Mergers", Yale School of Management, mimeo.

Brune, Nancy, Geoffrey Garrett and Bruce Kogut (2003). "The International Monetary Fund and the Global Spread of Privatization". mimeo

Caves, R.E. (1996). *Multinational Enterprise and Economic Analysis*, Cambridge: Cambridge University Press.

Chang, Sea-Jin and P. Rosenzweig (2001), "The Choice of Entry Mode in Sequential Foreign Direct Investment", *Strategic Management Journal*, 22, 747-776.

Chen, C.and C. Findlay (2002), "A Review of Cross-Border Mergers & Acquisitions in APEC", Canberra: The Australian National University, mimeo.

Davis, P., A. Desai, and J. Francis (2000), "Mode of International Entry: An Isomorphism Perspective", *Journal of International Business Studies*, 31 (2), 239-258.

Dunning, J.H. (1993). *Multinational Enterprises and the Global Economy*, Wokingham, England: Addison-Wesley Publishing Company.

Dunning, J.H. (2001a), "The Eclectic (OLI) Paradigm of International Production: Past, Present and Future", *International Journal of Economics and Business*, 8 (2), 173-190.

Dunning, J.H. (2001b), "The Key Literature on IB Activities", in A.M. Rugman and T.L. Brewer, eds., *The Oxford Handbook of International Business*, Oxford University Press, 127-149.

Evenett, S. J. (2003), "The Cross-Border Mergers and Acquisitions Wave of the Late 1990s", Cambridge, Ma.: National Bureau of Economic Research Working Paper 9655.

Feliciano, Z. and R. E. Lipsey (2002), "Foreign Entry into U.S. Manufacturing by Takeovers and the Creation of New Firms", Paper presented at Annual Conference of the Western Economic Association, Seattle, June 29-July 2, mimeo.

Globerman, S. & Shapiro, D. (1999). "The Impact of Government Policies on Foreign Direct Investment: The Canadian Experience," *Journal of International Business Studies*, 30 (3), 513-532.

Globerman, S. and D. Shapiro (2002), "Global Foreign Direct Investment Flows: The Role of Governance Infrastructure", *World Development*, 30 (11), 1898-1919.

Globerman, S. and D. Shapiro (2003), "Governance Infrastructure and U.S. Foreign Direct Investment", *Journal of International Business Studies*, 34, 19-39.

Globerman, S. and D. Shapiro (2003), "Assessing Recent Patterns of Foreign Direct Investment in Canada and the United States" in R. Harris, ed., *North American Linkages: Opportunities and Challenges for Canada*, Calgary: University of Calgary Press, 281-312.

Greene, W.H. (2003), *Econometric Analysis*, 5th Edition, Upper Saddle River, New Jersey: Prentice-Hall.

Harris, R. S. and D. Ravenscraft (1991), "The Role of Acquisitions in Foreign Direct Investment: Evidence from the U.S. Stock Market", *The Journal of Finance*, 46 (3), 825-844.

Harzing, Anne-Wil (2002), "Acquisitions versus Greenfield Investments: International Strategy and Management of Entry Modes", *Strategic Management Journal*, 23, 211-227.

Hennart, Jean-Francois and Sabine Reddy (1997), "The Choice Between Mergers/Acquisitions and Joint Ventures: The Case of Japanese Investors in the United States", *Strategic Management Journal*, 18, 1-12.

Johnson, Simon, Peter Boone, Alasdair Breach and Eric Friedman (2000). "Corporate governance in the Asian financial crisis". *Journal of Financial Economics* 58: 141-186

Kang, N.H. and S. Johansson (2001), "Cross-Border Mergers and Acquisitions: Their Role in Industrial Globalization", STI Working Papers 2000/1, Paris: OECD, mimeo.

Kaufmann, D. (2003). "Governance Redux: The Empirical Challenge", World Bank Policy Research Department Working Paper, available at: http://www.worldbank.org/wbi/governance/pubs/govredux.html.

Kaufmann, D. Kraay, A. and Zoido-Lobaton, P. (1999a), "Aggregating Governance Indicators," World Bank Working Paper #2195, available at: http://www.worldbank.org/wbi/governance

Kaufmann, D., Kraay, A. & Zoido-Lobaton, P. (1999b). "Governance Matters," World Bank Working Paper#2196, available at: http://www.worldbank.org/wbi/governance

Daniel Kaufmann, Aart Kraay and Massimo Mastruzzi (2003). "Governance Matters III: Governance Indicators for 1996-2002". World Bank Policy Research Department Working Paper, available at: http://www.worldbank.org/wbi/governanceT

Lall, S. (2002), "Implications of Cross-Border Mergers and Acquisitions by TNCs in Developing Countries: A Beginner's Guide", QEH Working paper Series, mimeo.

LaPorta, R., F. Lopez-de-Silanes, A. Shleifer & R. Vishny. 1997. "Legal Determinants of External Finance". *Journal of Finance*, 52: 1131-1150.

LaPorta, R., F. Lopez-de-Silanes, A. Shleifer & R. Vishny. 1998. "Law and Finance". *Journal of Political Economy*, 101:678-709.

LaPorta, R., F. Lopez-de-Silanes, A. Shleifer & R. Vishny. 1999. "The quality of government". *Journal of Law, Economics and Organization*, 15: 222-279.

LaPorta, R., F. Lopez-de-Silanes, A. Shleifer & R. Vishny. 2000. "Investor protection and corporate governance". *Journal of Financial Economics* 58: 3-27.

Letto-Gilles, G., M. Meschi and R. Simonetti (2001), "Cross-Border Mergers and Acquisitions: Patterns in the EU and Effects", London: South Bank University, mimeo.

Mayrhofer, U. (2004), "The Influence of National Origin and Uncertainty on the Choice Between Cooperation and Merger-Acquisition: An Analysis of French and German Firms", *International Business Review*, 13, 83-99.

Mody, A. and S. Negishi (2001), "Cross-Border Mergers and Acquisitions in East Asia: Trends and Implications", *Finance & Development*, 38 (1), 1-8.

OECD (2002). Recent Privatization Trends in OECD Countries. *Financial Market Trends* 82, June

Pistor, Katharina, Martin Raiser and Stanislav Gelfer (2000). "Law and Finance in Transition Economies". EBRD Working Paper 48, February.

Pugel, T. (1985), "The United States" in John Dunning, ed., *Multinational Enterprises, Economic Structure and International Competitiveness*, Chichester: John Wiley & Sons, 57-90.

Rossi, S. and P. Volpin (2003), "Cross-Country Determinants of Mergers and Acquisitions", London: Centre for Economic Policy Research, Discussion Paper No. 3889.

Shapiro, D., E. Gedajlovic and C. Erdener (2003). "The Chinese Family Firm as a Multinational Enterprise," *International Journal of Organizational Analysis*, Vol.11, No. 2, pp. 105-122

Table 1

Correlation Matrix of FDI Variables
N=154

	Mean (sd)	(1)	(2)	(3)	(4)	(5)	(6)
(1) FDI (Inflow)	7.62 (2.50)	1.00					
(2) FDO (Outflow)	4.78 (3.90)	.75	1.00				
(3) M&A (Inbound)	5.62 (3.66)	.86	.73	1.00			
(4) M&A (Outbound)	4.09 (4.15)	.63	.82	.81	1.00		
(5) In Ratio	.33 (.32)	.50	.47	.76	.59	1.00	
(6) Out Ratio	.43 (.44)	.34	.49	.58	.73	.44	1.00

Notes:

-FDI: foreign direct investment inflows, average 1995-2001.
-FDO: foreign direct investment outflows, average 1995-2001.
-M&A (inbound): value of cross-border sales, average 1995-2001
-M&A (outbound): value of cross-border purchases, average 1995-2001
All variables are measured as natural logarithm (U.S. dollars), except the ratios.
The In Ratio is the ratio of cross-border sales to FDI; the Out ratio is the ratio of cross-border purchases to FDO.

Source: United Nations Conference on Trade and Development (UNCTAD), *World Investment Report*, United Nations, various years

Table 2

Correlation Matrix, Independent Variables
N=154

	Mean (sd)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) GDP (log)	2.77 (2.19)	1.00							
(2) GDP (growth)	.12 (.25)	-.10	1.00						
(3) Governance Index	-.004 (1.00)	.51	-.15	1.00					
(4) Development Index	.68 (.19)	.56	.05	.65	1.00				
(5) Common Law	.31 (.46)	-.08	.06	.09	-.06	1.00			
(6) Stock Market Capitalization	.21 (.38)	.54	-.14	.58	.41	.22	1.00		
(7) Investor Protection	19.39 (11.68)	.42	-.02	.69	.47	.32	.47	1.00	
(8) Privatization	.05 (.07)	.21	-.09	.38	.26	.10	.28	.20	1.00

Notes:
-GDP: average nominal GDP, 1991-1995, measured in natural logarithms. Source: IMF, *World Economic Outlook Database*, 2003
-GDP growth: logarithmic growth rate, 1991-1995. Source: IMF, *World Economic Outlook Database*, 2003
-Governance Index: the first principal component of a series of governance indicators estimated by Kaufmann, Kraay and Mastruzzi (KKM, 2003) for 1996-2002. The indices are themselves estimated by aggregating a number of measures. VOICE (Voice and Accountability) includes measures of political and civil liberties as well as freedom of the press. INSTAB (Political Instability and Violence) includes measures of political violence, terrorism and ethnic conflict. GOV (Government Effectiveness) includes measures of government efficiency. REG (Regulatory Burden) includes measures of the degree of regulation and market openness, including tariffs, and import, export and fdi restrictions. LAW (Rule of Law) is a measure that includes costs of crime, contract enforcement, and property rights. GRAFT (Graft), includes measures of corruption.
-Development Index is the Human Development Index (HDI), by the United Nations Development Program, averaged for the period 1995-2001. HDI combines three measures, gdp per capita (GDPC), education, measured by a combination of adult literacy and the combined gross primary, secondary and tertiary enrolment (EDUC) and life expectancy at birth (LIFE).
-Common Law is a dummy variable, equals 1 if the legal regime of the country is based on English Common Law. Source: LaPorta et. al. (1998).
-Stock Market Capitalization is the ratio of stock market capitalization to GDP. Source: Beck et. al. (1999).
-Investor Protection is the interaction of and index of shareholder (antidirector) rights, and an index of the rule of law. Source: LaPorta et. al. (1998, 1999); Pistor et. al. (2000). Investor protection is measured for 70 countries.
-Privatization is the ratio of privatization revenues to GDP, for the period 1988-1998, or 1990-2000. Sources: Brune et. al. (2003); OECD (2002).

Table 3: FDI and M&A Inflows

	M&A Inflows TOBIT Estimates						FDI Inflows Ordinary Least Squares Estimates					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Log GDP	1.17**	1.07**	1.21**	1.38**	1.20**	1.26**	.726**	.725**	.763**	.881**	.817**	.783**
	(.106)	(.113)	(.096)	(.089)	(.107)	(.105)	(.064)	(.073)	(.059)	(.047)	(.060)	(.058)
Growth GDP	.218	-.222	.163	-.078	-.671	.115	1.17**	.871**	1.09**	.929**	.518*	1.08**
	(.714)	(.721)	(.711)	(.748)	(.743)	(.737)	(.499)	(.353)	(.500)	(.462)	(.266)	(.489)
Privatization	10.27**	5.34**	10.13**	13.14**	6.32**	12.72**	4.11**	1.91	3.91**	6.09**	2.33**	5.71**
	(2.59)	(2.49)	(2.58)	(2.59)	(2.48)	(2.53)	(1.21)	(1.23)	(1.16)	(1.56)	(1.10)	(1.44)
Governance Index	.708**	.544**	.784**				.492**	.327**	.569**			
	(.238)	(..262)	(.216)				(.183)	(.160)	(.173)			
Common Law	-.057	-.301		.131			-.151	-.337		.026		
	(.399)	(.464)		(.405)			(.223)	(.292)		(.213)		
Investor Protection		.020			.050**			.003			.023**	
		(.968)			(.017)			(.012)			(.008)	
Stock Market Cap	.516*	.860*				1.31**	.557*	.525**				1.07**
	(.288)	(.499)				(.622)	(.321)	(.210)				(.339)
China	-.426		-.519	-1.28		-.847	1.86**		1.78**	1.23**		1.59**
	(2.137)		(2.13)	(2.24)		(2.21)	(.385)		(.379)	(.318)		(.342)
Intercept	1.66**	2.56**	1.67**	.999**	1.73**	1.12**	5.28**	5.83**	5.26**	4.83**	5.30**	4.89**
	(.380)	(.606)	(.361)	(.352)	(.498)	(.334)	(.187)	(.402)	(.177)	(.211)	(.256)	(.180)
Adjusted R Square							.733	.852	.733	.698	.820	.714
Log Liklihood	-296.73	-117.35	-297.01	-303.16	-120.99	-301.02						
N	150	68	150	150	68	150	150	68	150	150	68	150

Values in parentheses are standard errors. ** indicates significance at 5% levels; * at 10% levels. For OLS estimates, standard errors are adjusted for heteroscedasticity

Table 4: FDO and M&A Outflows

	M&A Outflows TOBIT Estimates						FDO Outflows TOBIT Estimates					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Log GDP	1.37**	1.39**	1.40**	1.52**	1.64**	1.36**	1.10**	1.23**	1.18**	1.28**	1.43**	1.12**
	(.115)	(.12)	(.116)	(.113)	(.141)	(.130)	(.127)	(.163)	(.117)	(.121)	(.168)	(.128)
Growth GDP	-1.88**	-1.71**	-1.43*	-2.53**	-2.53**	-1.86**	-1.70**	.868	1.13	-1.91**	.108	-1.51*
	(.786)	(.787)	(.833)	(.835)	(943)	(.871)	(.787)	(1.055)	(.865)	(.896)	(1.123)	(.879)
Human Development Index	7.79**	-1.34	6.15**	8.07**	4.57**	9.96**	-1.34	-1.08	1.71	5.07**	4.52*	4.27**
	(1.65)	(2.79)	(1.68)	(2.35)	(2.23)	(.1.56)	(2.79)	(3.83)	(1.57)	(1.41)	(2.72)	(1.38)
Governance Index	.976**	1.46**	1.30**				.895**	1.16**	1.09**			
	(.264)	(.352)	(.264)				(.300)	(.482)	(.281)			
Common Law	1.88**	.462		2.43**			.462	-.037		.687		
	(.427)	(.536)		(.437)			(.536)	(.747)		(.471)		
Investor Protection		-.023			.053**			-.002			.057**	
		(.022)			(.021)			(.030)			(.025)	
Stock Market Cap	.366	1.00**				1.98**	1.08*	1.18*				1.86**
	(.575)	(.46)				(.590)	(.630)	(.647)				(.637)
China	.788						1.19					
	(2.07)						(2.51)					
Intercept	-6.29**	1.30	-4.64**	-9.80**	-4.69**	-7.59**	.086	1.82	.302	-2.41**	-3.57*	-1.66**
	(1.20)	(2.12)	(1.15)	(1.09)	(1.53)	(1.05)	(1.040)	(2.93)	(1.014)	(.871)	(1.89)	(.841)
Log Liklihood	-230.4	-.114.51	-241.72	-238.00	-128.55	-247.72	-314.70	-141.73	-316.29	-322.27	-147.58	-319.12
N	154	70	154	154	70	154	154	70	154	154	70	154

Values in parentheses are standard errors. ** indicates significance at 5% levels; * at 10% levels.

ENDNOTES

[1] We use the term "M&A" without distinction between "mergers" and "acquisitions." In fact, acquisitions dominate cross-border M&A transactions. See Chen and Findlay (2002).

[2] Examples include Harzing (2002), Chang and Rosenzweig (2001), Davis, Desai and Francis (2000) and Hennart and Reddy (1997).

[3] Mayrhofer (2004) summarizes a substantial number of recent empirical studies that discuss how the FDI mode choice might be influenced by the national environment of firms.

[4] The model is specified such that both FDI flows and GDP are measured in logarithms, with the GDP coefficient measuring the elasticity of FDI flows. Numerous studies document the overwhelming empirical importance of GDP as a determinant of FDI. Given its GDP level, a country will be more or less attractive to foreign investors depending upon the extent and nature of its infrastructure and quality of life. Alternative specifications to (1) were considered and tested. In particular, we estimated models in which the dependent variable was specified as the ratio of FDI (inflows or outflows) to GDP, and the Ln GDP term was dropped as an explanatory variable. This specification was rejected because the dependent variable was typically clustered within a narrow range, and the limited variation produced very unreliable parameter estimates and low degrees of explanatory power when either OLSQ or Tobit estimation methods were employed. As an alternative, the logisitic transformation of the FDI/GDP ratio was calculated and employed as the dependent variable. This specification produced results that are similar to those reported below.

[5] Details about our findings regarding governance infrastructure measures are provided in Globerman and Shapiro (2002), where comparisons to other possible infrastructure measures are also provided.

[6] The data are available at: Hhttp://www.worldbank.org/wbi/governance/datasets.htm#datasetH. Further detail is provided in Kaufmann et. al. (1999a; 2003). The full set of variables employed in this study and their sources are presented in Table 2.

[7] Such variables include relative labor costs, trade intensities, exchange rate regimes and volatility and tax rates.

[8] Note that the investor protection variable was available only for a truncated sample of 68 countries.

[9] There is no notion implied here that FDI is necessarily good while FDO is bad for a country. Both flows contribute to an increased specialization of international production that should improve real incomes internationally.