

Essays on Global Strategy and Institutions

by

Jordan Ian Siegel

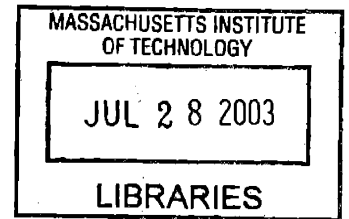
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1. The first part of the document is a list of the names of the members of the committee who have been appointed to study the problem of the shortage of housing in the city of New York.

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Jordan Siegel

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Abstract

This thesis examines how firms in countries with weak governance institutions access outside (technological and financial) resources and capabilities. The first essay challenges current views regarding the efficacy of renting foreign jurisdictions through cross-listings and shows that reputational mechanisms are more important. The second essay, which follows a group of Korean firms through the sequence of liberalizations and political changes since 1987, provides further evidence that reputational mechanisms are central in obtaining external resources and capabilities. The third essay suggests that Mexican firms selected alternative strategies besides cross-listings before liberalization, and that one of these strategies (forming a cross-border alliance) turned out to be more effective. The timing of liberalization is the key shift variable that determines which Mexican firms cross-listed and which firms instead formed cross-border alliances and/or acquired political connectedness. This thesis also demonstrates the complementarity of investing in domestic influence and the establishment of cross-border strategic alliances.

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Can Foreign Firms Bond Themselves Effectively by Renting U.S. Securities Laws?*

ABSTRACT

This study tests the functional convergence hypothesis, which states that foreign firms can leapfrog their home countries' weak legal institutions by listing equities in the U.S. and agreeing to abide by U.S. securities law and SEC regulation. The study suggests that reputational bonding better explains the growth of cross-listings than legal bonding. U.S. law enforcement neither deterred nor punished a group of Mexican insiders who collectively took billions of dollars from their firms. The study finds, moreover, that SEC action against any U.S.-listed foreign firm has been rare and mostly ineffective throughout the history of the federal securities laws. In the U.S. just as in emerging markets, institutional analysis requires that a distinction be made between the formal rules of the game and the informal rules and enforcement mechanisms that firms are forced to abide by in practice. The study concludes by suggesting that a reputational mechanism has channeled resources to a small group of cross-listed Mexican firms that built a record of voluntarily abiding by U.S. law through bad economic times. The prospect of creating a reputational asset may lead some, but not all, firms to observe rules they are not forced to follow.

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I. INTRODUCTION

In the literature on corporate governance, numerous recent studies have found that a lack of effective legal protections for minority shareholders impedes the broad sharing of financial resources between investors and firms.¹ Other recent studies have shown that overall financial and economic development often suffers from the lack of an effective rule of law.² While countries may want to strengthen their institutions, a legal system that fails to protect minority shareholders often proves difficult to change.³

A complementary solution is the functional convergence hypothesis, developed most broadly by Coffee (1999, 2002a, 2002b), which states that any foreign firm can grow in spite of the home country's weak legal institutions by migrating financially as well as legally to the U.S. Firms can migrate either by listing foreign shares through an American Depositary Receipt (ADR) on a major U.S. exchange (NASDAQ, NYSE or AMEX), or by listing shares directly on a major U.S. exchange. American laws covering U.S.-listed foreign firms can potentially deter insiders from engaging in fraud and embezzlement. Using agency theory, Coffee as well as Fuerst (1998) and Stulz (1999) predicted that U.S. laws could protect minority shareholders.

In this empirical study I examine whether U.S. laws and regulations deterred Mexican firm insiders from engaging in illegal asset taking, how the U.S. legal and regulatory institutions responded once the alleged asset taking took place, and how the financial markets responded in allocating subsequent resources to firms. As shown in Figure I, the market for cross-listings has grown dramatically in economic terms, and today more than 15 percent of all firms listed on the NYSE stock exchange are domiciled abroad. While there are purely financial reasons for a firm to list their shares in the U.S. market (Karolyi 1998), recent studies conducted by Reese and Weisbach (2002), and by Mitton (2002), have shown evidence for the importance of legal bonding. This study offers an extended analysis of whether foreign firms have indeed been able

to bond themselves effectively through an economic downturn. It examines how the financial markets responded after allegations of large-scale asset taking had been directed at a group of Mexican insiders. Further, this study examines the SEC's 68-year enforcement record against all U.S.-listed foreign firms.

The theoretical issues and context relevant to the study are discussed first. A discussion of the data and the variables follows in Section III. Section IV presents the empirical evidence on asset taking by Mexican firms. Section V analyzes the lack of an effective response by the SEC and other U.S. legal institutions. Section VI analyzes the history of enforcement against all U.S.-listed foreign firms. Section VII presents a simple theoretical model as well empirical evidence for studying the reputational mechanism through which some U.S.-listed Mexican firms received the most resources. Section VIII presents conclusions.

II. THEORETICAL FRAMEWORK

A. Functional Legal Convergence Hypothesis

Coffee (1999, 2002a, 2002b) argued that while ADRs would not be a perfect solution to a country's weak legal institutions, they would deter and punish malfeasance towards outside investors. Coffee proposed that ADRs represent a form of functional convergence for countries that find it too costly to change their legal institutions.

The first part of the functional legal convergence hypothesis states that U.S. laws and regulations effectively deter malfeasance by foreign firm insiders (Coffee 1999, 683-684). Coffee pointed out, "For example, a firm that today enters the U.S. market becomes subject to the Foreign Corrupt Practices Act, which precludes not only bribes and 'questionable payments,'

but all forms of off-books accounts and falsification of accounting record” (1999, 695). A listed ADR requires a foreign firm to disclose all shareholders with a more than 10 percent share.⁴ Whenever the foreign firm makes a tender offer to buy another company, it has to follow U.S. disclosure and procedural rules. The three major U.S. exchanges have their own corporate governance requirements, though it has been confirmed with senior officials at the NYSE, NASDAQ, and AMEX that foreign firms can receive waivers by following local best practice in the foreign country. A cross-listed foreign firm is prohibited from taking advantage of minority shareholders through a “going private” transaction. Lastly, such foreign firms and their insiders become liable in court for any fraudulent statement they make anywhere around the world.

The first testable implication of Coffee’s argument is that insiders during an emerging market crisis would not engage in large-scale asset taking against outside investors if they already had bonded themselves through a listed ADR. During any downturn, a firm’s insider may find higher relative returns to asset taking than to productive firm investment (Johnson, Beach, Boone and Friedman 2000). Johnson et al (2000) present a theoretical model showing that owner-managers always have a choice between putting the firm’s resources (including outsiders’ contributions) either towards productive firm investment or towards theft. When a domestic economic downturn presents itself, the owner-manager sees lower personal returns from productive firm investment and relatively higher personal returns from moving the money to a foreign bank account. According to that formal model, only legal penalties can deter insiders. Some past authors have referred to what I call “asset taking” as “expropriation” (Johnson et al 2000) or “tunneling” (Johnson, La Porta, Lopez-de-Silanes, and Shleifer 2000).

The second part of the hypothesis is that even if foreign firm insiders engage in malfeasance, the SEC and other U.S. regulatory and legal institutions will effectively protect investors and punish the foreign firms and/or their insiders. Coffee proposed that the SEC and

U.S. law enforcement agencies had the capacity through the federal securities law to punish cross-listed foreign firms and their insiders for their malfeasance (1999, 683-684). He argued that the combination of SEC oversight and overall U.S. law enforcement would be used in practice to minimize agency costs (1999, 684). More recently, Coffee (2002a, 2002b) argued that even if the SEC were less than full effective, the foreign insiders would fear being sued by the American plaintiffs' bar. The present study seeks to discover whether SEC oversight and U.S. securities law protected outside investors whose assets had been taken illegally by Mexican controlling shareholders. As shown in Appendices I, Mexican firms with ADRs had raised more than \$6 billion prior to the 1994-95 crisis.

Reese and Weisbach (2002), and Mitton (2002), recognized that ADRs might be an effective bonding device. Mitton (2002) was the first to test the effect of ADRs as a bonding instrument in an emerging market crisis, and he found that through the intense, initial phase of the Asian Crisis (July 1997-August 1998) firms with ADRs (both listed and unlisted) were valued higher than other firms that had received the same valuation by investors just prior to the crisis. Reese and Weisbach (2002) discovered that firms use ADRs as partial substitutes for weak legal institutions, finding that firms from a French Civil Law country are twice as likely to list on a major U.S. exchange as firms from an English Common Law country. Reese and Weisbach (2002) found that issuing an ADR could help firms to attract outside resources for at least two subsequent years following a U.S. listing.

Other authors have argued that the functional legal convergence hypothesis would not be supported by an empirical study. La Porta, Lopez-de-Silanes, and Shleifer (henceforth LLS) (1999), for example, discussed a hypothetical situation in which a firm from a weak institutional environment listed its shares in New York. LLS argued that many firms cannot afford to create ADRs, and they contended that ADRs are not an effective replacement for strong local

institutions. They predicted that unless a given country overcame political obstacles to comprehensive legal reform, its firms would struggle to attract outside resources necessary for growth. La Porta, Lopez-de-Silanes, Shleifer, and Vishny (henceforth LLSV) (2000) believed that ADRs would help improve company disclosure, but would not give minority shareholders many effective rights. Fanto (1996) went even further in arguing that SEC disclosure requirements are effectively meaningless, and Fanto proposed that the SEC needed to elicit more country-specific information on the quality of corporate governance. One would predict based on these arguments that Mexican firms could not use ADRs to bond themselves effectively, that a large number of Mexican insiders would be found to commit malfeasance in spite of their listed ADR, and that the SEC would be unable to respond effectively.

Other authors have argued that whether or not cross-listings are an effective bonding device is simply an open empirical question. MacNeil (2001) focused on foreign firms that listed their shares in London, and he found that the real legal commitments made by foreign firms were not as strong as first appeared. Cheung and Lee (1995) argued that cross-listings do present real legal constraints, but also they believed that more empirical work would be necessary to determine the optimal strength of listing requirements. Cheung and Lee pointed to SEC investigations, class action suits, and contingent legal fee arrangements as U.S. legal institutions that potentially constrain foreign firms (1995, 349-350). Licht (2000) also advocated more empirical work in this area, and he pointed out that contemporary U.S. institutions might not be fully effective across borders without the creation of new intergovernmental agreements. Licht (2000, 2001) argued that managerial opportunism might lead insiders to take advantage of poor enforcement of U.S. laws across borders.

The most recent empirical studies have begun to suggest that firms can effectively use ADRs to signal their future growth prospects. For example, Blass and Yafeh (2001) showed that

young and high-tech Israeli firms with U.S. listings enjoy higher post-IPO stock returns and revenue growth rates than do other Israeli firms. Another recent study by Doidge, Stulz, and Karolyi (2001) showed that U.S.-listed foreign firms enjoyed larger valuations than other foreign firms. Lang, Lins and Miller (2002) found that the larger valuations of cross-listed firms may be the result of a greater analyst following and more accurate earnings forecasts by analysts. This study tests explicitly for the effectiveness of cross-listings as a legal bonding instrument.

B. Context

For a number of reasons, the Mexican case provides the right set of conditions for testing whether legal bonding by U.S.-listed foreign firms is effective. First, Mexico is consistently ranked in the governance literature as providing relative weak legal protections for outside investors, and the hypothesis contends that countries such as Mexico have the most to benefit from cross-listings. Mexico has ranked at or near the bottom of the countries surveyed in terms of the quality of its legal institutions affecting outside resource providers (LLSV 1998). Of 49 countries surveyed by LLSV, Mexico tied for the second-worst score for shareholder rights. Its courts have also been rated among the weakest in the world by the country-risk-rating agency, Business International Corporation, and Mexico was tied with the Philippines and Peru for the lowest ranking on the index of creditor's rights among 49 countries surveyed (LLSV 1998).

Second, if one is looking for how to test the strength of the legal bonding hypothesis for emerging market firms, it is important to look at all-too-frequent economic downturns in emerging markets. Of course, firms and individuals break the securities law even during good times, as illustrated by the almost 400 litigation releases issued by the SEC against almost uniformly American defendants in 1997, 1998 and 1999.⁵ Yet, as shown by Johnson, Boone, Breach and Friedman (2000), there is theoretical reason to believe that even more is stolen from outside investors during bad economic times. As shown by Park and Lee (2001), and by Lee and

Rhee (2002), financial and economic crises are a recurring event in emerging markets. For example, Park and Lee compiled data on 239 currency crises that occurring between 1970 and 1997, including 160 independent crises, from all developing countries that required IMF intervention (2000, 6-7). Many of these also involved economic crises (Park and Lee 2000). At the end of 1994, Mexican firms experienced a crisis after their government became insolvent and asked the Clinton Administration for a multibillion-dollar bailout.

The Mexico crisis had broadly similar effects on Mexican firms as other recent crises had on firms in other emerging markets. What happened in Mexico is in no way unusual. Park and Lee (2001), and Lee and Rhee (2002), found that the Mexico crisis of 1994-95, far from being a meltdown, was a representative case of a crisis involving an economy opening up to foreign trade which saw a rapid fall in GDP followed by a rapid recovery in macroeconomic statistics.

Third and most importantly, Mexico can be distinguished by the fact that at in 1994 Mexico had the largest number of firms in any emerging market to have tried the legal bonding strategy.⁶ The evidence suggests that Mexican firms of all observable types and sizes issued cross-listings.⁷ In contrast, only five firms across five countries affected by the Asia crisis had issued a listed ADR prior to 1997 (Mitton 2002). Lastly, the Mexican crisis was the first to allow enough time (1995-2002) for the U.S. governance institutions to punish the lawbreakers.

III. DATA AND VARIABLES

A. Sample Selection

This paper uses a database of all Mexican companies with a Mexican equity listing prior to the crisis of 1994-95. I specifically include all companies that were listed on the Mexico Stock Exchange (MSE) prior to September 1994.⁸

B. Time Period of Interest

The intense period of the Mexico crisis began on 30 September 1994, when the Mexico Stock Exchange's IPC Index finished its plateau and began to fall precipitously.⁹ I will measure whether the dominant owners of Mexican firms engaged in or were alleged to have participated in illegal asset taking or legal asset taking between 1 January 1995 and 31 December 1999. The reason for selecting this particular time frame in the Mexican case is that some insiders began engaging in asset taking at the time of the intense period of the Mexico case but a few were not implicated until some time had passed. I will also examine whether the SEC took any action against these firms between 1 January 1995 and 30 June 2002. Because nearly every case of alleged asset taking is believed to have begun at the start of the economic downturn, the SEC and other U.S. legal and regulatory institutions had more than seven years to act.

C. Dependent Variables

For a detailed description of all variables and data sources used in this paper, see Table I. The data on listed ADRs, unlisted ADRs, illegal asset taking, and legal asset taking are shown in Appendices I-IV. The summary statistics for all the variables are shown in Panels A and B of Table II, and the correlation matrix is shown in Panel C.

The first set of variables measures whether law enforcement agencies, regulators, and/or minority shareholders publicly accused a firm or its insiders of having engaged in asset taking. Sources include *Reforma*, *El Norte*, *El Financiero*, *Sourcemex Economic News & Analysis on Mexico*, *Mexico Corporate Monthly*, *LatinFinance*, *Forbes*, *Dow Jones International News*, *Wall Street Journal*, *Wall Street Journal Europe*, company annual reports, and company press releases. A dummy variable equals 1 for illegal asset taking when a firm's controlling owner and/or senior manager allegedly took assets illegally and then was publicly confirmed as having fled Mexico for a period of at least a year. These controlling owners and/or senior managers

were all eventually accused by Mexican law enforcement of theft, fraud or embezzlement between 1 January 1995 and 31 December 1999. The time period is purposely lengthy because it sometimes took years to discover asset taking that had begun taking place during the intense period of the Mexico crisis. A second variable simply measures whether regulators, law enforcement or minority shareholders accused the firm's controlling owner and/or senior manager of illegal asset taking. While a continuous measure of the amount of assets taken would be desirable, several cases described in Appendices III and IV are still under investigation as part of a Mexican legal proceeding. Sufficiently precise figures are not available. For that reason alone, this analysis relies on absolute measures of whether asset taking allegedly took place.

Another variable for legal asset taking equals 1 if a firm's controlling owner and/or senior manager was publicly accused by minority shareholders, law enforcement and/or public regulators with legal asset taking. As described in detail in Appendix IV, legal asset taking is defined as the taking by controlling shareholders and/or senior managers of substantial funds for themselves in ways that are not clearly proscribed in Mexican law and that were not consistently punished in Mexico. Legal asset taking, for example, can involve secret loans from the firm to a private entity owned by the controlling shareholder, or it can involve gross financial mismanagement in which large sums disappear from the firm's balance sheet. A final dummy variable is set equal to 1 if a firm or its insider was accused of any type of asset taking.

The study proceeds to measure whether each firm received fresh capital from the public equity or debt markets following the crisis. I calculate the total amount of resources that a firm received through equity, publicly held debt (including industrial debentures) or syndicated loans from the capital markets in the five years (1995-99) after the Mexico crisis. The five-year time period is chosen because it may often take a period of several years for a firm to build a track record of good corporate governance. The variable is defined separately in three separate ways:

in a time-discounted form that controls for annual changes in the U.S. CPI, in its undiscounted form, and in a discounted form that controls for annual changes in the Mexican CPI. Separately, a dummy variable is set equal to 1 if a firm received any resources as defined above during 1995-1999. Sources include the Mexico Stock Exchange, *Reforma*, *El Norte*, *El Financiero*, *Sourcemex Economic News & Analysis on Mexico*, *Mexico Corporate Monthly*, *LatinFinance*, *Forbes*, *Dow Jones International News*, *Wall Street Journal*, *Wall Street Journal Europe*, and company annual reports and press releases.

C. Principal Independent Variables

Mexican firms rented the U.S. legal jurisdiction through the four types of ADRs.¹⁰ Firms that were not raising fresh capital on the U.S. equity market chose between a Level I and a Level II ADR. The Level I ADR trades on the over-the-counter (OTC) market, with bid and ask prices published daily by the National Daily Quotation Bureau in the pink sheets. The Level I ADR may potentially place a firm under the microscope of large institutional investors, but it does not offer any legal protection to investors. The Level II ADR, in contrast, comes under the permanent jurisdiction of the U.S. SEC. The firm must list its shares on one of the three main U.S. exchanges (NYSE, NASDAQ or AMEX) and follow the strict listing requirements of those exchanges. The firm must reconcile its financial statements to meet U.S. accounting standards (called U.S. GAAP) and must deliver detailed and accurate financial information to the SEC (Rock 2002). The firm's senior managers and directors are liable in U.S. courts for any material misstatements or other securities law violations.

Mexican firms that wanted to raise new capital on the U.S. equity market chose between a Rule 144a ADR and a Level III ADR. Firms that want to avoid SEC oversight can use Rule 144a (a special SEC rule passed in 1990) to place their shares privately to a select group of Qualified Institutional Buyers (QIBs). These QIBs include Fidelity, Alliance Capital, and Janus.

The other option is to issue a Level III ADR, for which the SEC requires a full reconciliation of the firm's financial statements with U.S. GAAP. The firm faces U.S. legal liability and sells its new shares on the NYSE, NASDAQ or AMEX.

The first pair of independent variables measures whether the firm had a listed or unlisted ADR prior to September 1994.¹¹ For detailed and accurate information on every firm with an ADR, a combination of company filings and a Citibank database covering all information supplied by the various depository banks on their ADRs was utilized. This study differentiates in the econometric analysis between Level I/Rule 144a ADRs that carry little, if any, legal protection for investors and Level II/Level III ADRs that offer such protection. A dummy variable equals 1 when a firm had a listed ADR (Level II or Level III) prior to 30 September 1994. A second dummy variable equals 1 when the firm had an unlisted ADR (Rule 144a or Level I) prior to 30 September 1994.

D. Control Variables

The next set of variables measure other important firm characteristics that could explain variation in the dependent variables. Political connectedness may be an important firm characteristic affecting performance. Fisman (2001) showed that as much as a quarter of the market capitalization of some Indonesian firms was derived from their ties to the Suharto government. Schneider (2002) showed in the case of Mexico that an elite group of businessmen belonging to the *Consejo Mexicano de Hombres de Negocio* (Mexican Council of Businessmen, or CMHN) was granted special access to the Mexican president. The CMHN until the last election even enjoyed limited veto power over the selection of the ruling party's presidential candidate. Lopez-de-Silanes and Zamarripa (1995) provided empirical evidence showing that auction winners in the Mexican privatization of government-owned banks received an average discount of 20 percent on the book value of assets because the auctions were not fully

competitive. The evidence at least suggests the possibility that politically connected firms received billions of dollars in rents prior to the Mexico crisis. While the CMHN supposedly represents only the largest firms, a check of the membership list as of 31 December 1993 showed that several of the largest firms in Mexico were not represented and that some businessmen from medium-sized firms had won the secret vote necessary for membership.

A dummy variable for political connectedness equals 1 for those firms whose owner and/or senior executive was represented in the CMHN. I include only firms in which the largest part of the representative's wealth was invested. Data on CMHN membership came from Schneider (2002). Information was obtained from company 20-F filings and interviews with market analysts to determine where the largest part of the representative's wealth was invested.

Another variable equals 1 if a foreign entity owned more than 10 percent of the firm. The data came from company filings and from interviews with senior managers.

The next dummy variable equals 1 if a firm and/or its controlling shareholder owned at least a 10 percent stake in a separate Mexican banking institution. Although the Mexican banking system largely failed after the crisis, not all banks in the sample collapsed. The government took over many banks, but before the government offered a bailout of the sector, several insiders had used money from their non-banking firms to prop up their ailing bank. For measuring this variable, I use data from company filings and interviews with managers.

Next, I include four control variables that measure each firm's financial condition, size, sources of finance, and export orientation. Data for each of these four variables came primarily from the MSE. First, I measure each firm's short-term foreign liabilities divided by total liabilities for the year 1993. This variable is almost perfectly collinear with another variable that measures a firm's total foreign liabilities divided by total liabilities for the year 1993. Since I want to focus on the effect of costly, short-term dollar-denominated debt, I choose to drop the

other variable. Second, to focus on a firm's overall indebtedness, I measure each firm's total liabilities divided by total assets for the year 1993. Third, to focus on export orientation, each firm's foreign sales are divided by Mexican national sales for the year 1993. Fourth, to focus on firm size, I take the natural log of each firm's 1993 total assets. Fifth, to focus on industry effects, I apply John Campbell's (1996) method and include dummy variables for 10 of 11 industrial sectors, with the consumer durables dummy being dropped.

Lastly, in the section on robustness checks, I include an additional control variable for firm quality. In testing the effectiveness of an institutional strategy, I argue that it is essential to try to control for the underlying quality of the firm. Otherwise, one might worry whether institutional strategy is itself a proxy for underlying firm quality. To solve this problem, I then include a forward-looking measure of firm quality taken before the economic downturn began. From 1993-1995, Baring Casa de Bolsa was recognized in the *Institutional Investor's* "All Latin America Research Survey" and in *Globalfinance* magazine as having the best research strategist and one of the best research teams in Mexico. A January 1992 publication from Baring Casa de Bolsa gave detailed buy, sell, and hold recommendations on Mexican firms. I confirmed through archival research that the same firms being recommended by Baring Casa de Bolsa were also being recommended by the Research Department at Grupo Financiero Banamex-Accival. A dummy equals 1 for those firms that received a buy or core-holding recommendation.

IV. ASSET TAKING

A. Lack of Deterrence

The legal bonding hypothesis proposes that ADRs deter all major forms of asset taking by foreign insiders. Therefore, since the hypothesis predicts the deterrence of all large-scale

asset taking by cross-listed Mexican firms and their insiders, I focus the analysis on whether or not there was deterrence.

First, as shown in Table III, eight firms had their insiders take firms' assets illegally and leave Mexico for at least a year. Leaving one's own firm and exiting Mexico for a period of up to several years is the most perfectly observable action of all the asset taking measures. Of those eight firms, three had listed ADRs, three were directly part of a financial group with a listed ADR, and two had unlisted ADRs. Of these cases, it is most interesting to note that some of the insiders would select the United States and Canada as their hiding places. If the foreign insiders feared the U.S. legal jurisdiction, then it is certainly surprising that they would choose to hide in the U.S. legal jurisdiction. It is also interesting to note that only insiders in the financial services and transportation sectors took assets illegally and fled the country. Although there are not enough instances of this type of asset taking to use multivariate analysis, the important observation is that all eight of the firms either had ADRs or were tied to firms with ADRs. Three of the firms had listed ADRs directly.

Next, I examine all cases of illegal and legal asset taking by Mexican insiders. The data are shown in Tables IV and V, and the results show that the insiders of cross-listed firms were alleged to have stolen hundreds of millions of dollars. The severity of this asset taking by Mexican insiders is the strongest empirical refutation of the legal deterrence hypothesis, which emphasized that ADRs would deter all major forms of asset taking. As summarized in Panel A of Table II, 11 firms had insiders accused of engaging in illegal asset taking, and 20 firms had insiders accused of engaging in legal forms of asset taking. Of these 11 firms whose insiders were accused of engaging in illegal asset taking, two firms had a listed ADR directly and six firms had an unlisted ADR. Of the 20 firms whose insiders were accused of engaging in legal asset taking, six had a listed ADR and eight had an unlisted ADR. In both groups there were

others firms that were directly tied by common controlling ownership to firms with listed ADRs. The evidence clearly shows that ADRs failed to deter some Mexican insiders from engaging in forms of large-scale asset taking.

As a side note, the hypothesis is tested by looking very simply at whether ADRs served as a complete stopgap against insider asset taking, but going beyond the strongest predictions of the legal deterrence hypothesis, it would also be interesting to know the marginal effect of a listed ADR on deterrence. The challenge in being able to carry out this additional test is that in contrast to what the legal bonding hypothesis states, game theory cannot easily predict whether ADRs should deter or encourage asset taking during a crisis. First of all, Lins, Strickland and Zenner (2001) showed that ADRs relieve firms of cash constraints, and the theoretical model in Johnson, Boone, Breach and Friedman (2000) predicts that an insider of a firm sitting on liquid resources would be even more tempted to steal those liquid resources and earn higher returns in his personal account once a macroeconomic crisis began. The temptation would be even stronger in a country without a history of strong rule of law. This would mean that an ADR may actually increase the probability of insider asset taking during an economic downturn. At the same time, firms with ADR are believed by Coffee (2002b) and others to receive heightened scrutiny by regulators, shareholders and private plaintiffs' attorneys. If correct, then any extra scrutiny should also make it more likely that asset taking by insiders of firms with ADRs would be discovered. Of course, as this paper will show, the literature's belief in the heightened scrutiny of firms with ADRs appears to have been overstated. It is one thing for ADRs to provide better information about earnings forecasts during good times, but it is quite another thing for ADRs to be able to facilitate the discovery of hidden asset taking that is absent from an SEC-mandated report. Nevertheless, theory presents no clear predictions about whether the temptation to steal outweighs the insider's belief about U.S. legal penalties, and in the Mexican

case a differences-in-differences approach is not feasible because most of the firms with ADRs listed less than one year and a half before the crisis began. For that reason, a probability finding that Mexican firms with ADRs are more likely to engage in asset taking is vulnerable to the counterclaim that ADRs simply facilitate the discovery of asset taking. I do not base any of the study's conclusions on the marginal probability results, although as I will explain, the results suggest that in the Mexican case, ADRs actually increased the probability of asset taking by insiders. At the time of raising capital on the NYSE and NASDAQ, the Mexican firms offered an unparalleled amount of disclosure, and yet the ongoing illegal asset taking by some insiders through related-party transactions was never detected in the one year and a half prior to the crisis.

The estimation results are reported in Table VI, and the coefficients show the change in the probability of asset taking for an infinitesimal change in each of the continuous independent variable, and for an absolute change in each dummy variable. There are no collinearity problems, and a correlation matrix is present in Panel C of Table II. As shown in the full model in Column 2, having a listed ADR was associated with a 22.13 percent greater likelihood ($p < .05$) of having an insider engage in any type of asset taking. As shown in the full model in Column 6, having a listed ADR is associated with a 19.76 percent greater likelihood ($p < .05$) of having an insider engage in illegal asset taking. Moreover, as shown in the full model in Column 8, having a listed ADR is associated with a 23.29 percent greater likelihood ($p < .05$) of having an insider engage in legal asset taking.¹²

For several reasons, ADRs did not provide the detection power necessary to reveal the large-scale asset taking in the Mexican cases discussed in this paper. First, the revelations of massive asset taking came as the Mexican Finance Ministry and Mexico's National Banking Commission first found in September 1994 that a non-listed firm called Grupo Financiero Banco Cremi-Union, S.A., had been effectively looted of \$200 million by its chairman. The

government then looked into the entire banking sector and found that several banks (including most without listed ADRs) had insiders engaged in large-scale theft and even looting. The plaintiffs' case in the U.S. followed the revelations of Mexican banking regulators—not the reverse—and one of the first plaintiffs was himself a prominent plaintiffs' attorney who happened to have lost personal wealth through owning shares of Banpais. The plaintiffs' complaint did not even mention the looting of Banpais that the Mexican banking regulators themselves found in Banpais and other banks. It was the National Banking Commission that seized non-listed Grupo Financiero Banco Cremi-Union, then Banpais, and then a series of other banks without listed ADRs. When an insider steals anything approaching \$200 million (or even any amount over a whole year's earnings) from a small-sized bank, the looting will likely be discovered--and in fact was discovered quickly—by customers, banking regulators, and Mexican minority investors with or without the bank having an ADR. In the case of the airline industry, the government also regulated the industry and the government together with leading bank creditors discovered that the same executive who had for years reportedly paid tens of millions of dollars to the ruling party had stolen tens of millions of dollars from the firm.

Many of the remaining of the case records described in Tables IV and V focus on Mexican revelations that were directly discovered by either industry regulators, Mexican customers, nonaffiliated banks serving as lead creditors, or else close business partners of the Mexican insiders who were themselves unwitting victims of the asset taking. Nowhere in the case histories is there any evidence that the U.S. listing played a decisive, let alone significant, role in detection. In the cases of legal asset taking, sometimes the insiders blocked public takeover attempts or forced their shareholders to accept costly securities exchanges. For those types of asset taking, the insider does everything in public view and detection is not an issue. If these companies had no cross-listings, the direct losses to close Mexican business partners,

customers, and ruling party politicians would have remained. For example, Abaco Grupo Financiero had an unlisted ADR, but that made no difference for detecting the fact that the chairman was accused of directly stealing money from customers' accounts in a fixed-income fund. It is difficult to point to a single case that could have been discovered by reading the firms' required SEC filings or merely by the fact that the firm had U.S. institutional investors among its many minority shareholders. Nevertheless, these econometric results should be taken with a modicum of caution, given the potentially real, yet overwhelmingly unlikely possibility that they can be attributed to the detection power of ADRs.

The primary theoretical question of interest is whether having a listed ADR deterred large-scale violations of U.S. law. The answer, as reported in Tables III, IV and V is unequivocally no. Mexican insiders engaged in numerous and large-scale asset taking despite the fact that they had bonded themselves and their firms through a listed ADR.

V. U.S. INSTITUTIONAL RESPONSE

The SEC has done little to punish Mexican controlling shareholders who engaged in illegal asset taking. First of all, the SEC's only punishment of Mexican firms since the crisis has been to approve delisting them from a major exchange. It has chosen, together with the NYSE, to delist six Mexican firms, these being Altos Hornos de México, Grupo Sidek, Banpais, Grupo Mexicano de Desarrollo, Grupo Financiero Serfin, and Bufete Industrial. Two individual series of Grupo Iusacell shares were delisted due to the low number of shares in public hands, and the share series were then reorganized and sold to what is now Verizon Communications. Interestingly, only Banpais was among the firms whose controlling shareholder was charged in Mexico with illegal asset taking, and the NYSE made its decision separately on the objective

grounds of Banpais' failure to meet the objective NYSE listing criteria relating to the firm's share price, stockholder equity, and market capitalization.

A search in Lexis of all U.S. federal and state court cases in the last six years showed that not one of these Mexican firms has been charged by the U.S. government with wrongdoing under the securities laws. This study also found that there has only been one private civil case involving a Mexican firm for violations of the U.S. securities laws, and that case was filed shortly before the Mexican crisis began. What is most interesting about that case is that the Mexican insiders allegedly proceeded to loot the firm months after that case was launched against them. As shown in Table VII, the fear of the U.S. plaintiffs' bar (Coffee 2002) did not deter the Mexican insiders from engaging in large-scale asset taking.

There have been other isolated disputes over contract dispute and other matters that do not fit the criteria set out above.¹³ For example, in May 2001 the SEC charged two groups of Mexican investors with illegal insider trading of U.S. listed firms. The SEC did not charge these Mexican investors with any wrongdoing with their own Mexican firms. Nor has the SEC taken any legal action directly against the Mexican firms that these investors control. Moreover, there has not been a single U.S. case where either the government or a private party sought redress for the same illegal asset taking that was an indictable crime in Mexico. Although the SEC has (sometimes) enforced the law against securities fraud for U.S. firms, the SEC has taken no action to recover any of the billions of dollars taken from investors in U.S.-listed Mexican firms.

VI. LEGAL ACTION TAKEN AGAINST ALL CROSS-LISTED FOREIGN FIRMS

Most importantly, further comprehensive evidence shows that the lack of SEC action against Mexican firms is matched by the rarity and overall ineffectiveness of SEC action against

U.S.-listed foreign firms as a whole. Recent studies on corporate governance and legal institutions have shown repeatedly that illegal asset taking is a constant and festering problem that potentially afflicts all countries, but that it most severely afflicts those countries with weak legal institutions.¹⁴ Assuming that the past findings have some merit, one would predict that the SEC has had a definable record of punishing violations by U.S.-listed foreign firms.

To determine the SEC's record, I first searched all SEC litigation releases between 1 January 1995 and 30 June 2002 for actions taken against firms with cross-listings on one of the major U.S. exchanges. As a robustness check, I conducted research interviews with 115 plaintiffs' attorneys in June, July and August 2002, and these interviews were used to crosscheck and identify any remaining SEC enforcement actions. The number of attorneys interviewed represented the most active attorneys in the area of securities law from all major offices of all prominent law firms. Several of the attorneys interviewed had 30 years of related experience and could recall the earliest cases involving cross-listed firms. As an additional robustness check, I searched the entire SEC web site (including administrative proceedings) by the names of all companies ever targeted as securities law violators by private plaintiffs. As shown in Table VIII, in that six-and-a-half-year-long period the SEC took legal action against just 13 cross-listed foreign firms. Remarkably, despite the widespread illegal asset taking that was part of the Mexico crisis, the Asia crisis, and the Russia crisis, the SEC took no legal actions against a cross-listed foreign firm from an emerging market during that period.¹⁵ Not a single legal action was taken against cross-listed firms domiciled in countries such as Mexico, South Korea, Brazil, and Russia that have undergone a crisis.¹⁶

The record in Table VIII also shows that the SEC had mixed, if not poor, success in prosecuting the small number of foreign companies and their insiders that the SEC did in fact pursue. In the Baan case, the SEC received a \$400,000 fine from the company's auditor and

business associate, but had not yet prosecuted any of the company's senior executives for fraud in the two-year-old case. In the MTC Electronic Technologies case, the insiders were living abroad and had ignored the large judgment against them. In the ACLN case, the company was charged by private plaintiffs with massive financial fraud, but the SEC has done nothing more than temporarily suspend trading in the firm for 10 days. In the International Nesmont case, the court accepted that two of the main insiders would be unable to pay damages. In the Montedison case, despite the fact that the company had allegedly engaged in \$398,000,000 in false reporting, the SEC accepted a settlement payment of just \$300,000 with no admission of wrongdoing. In the Veba case, despite the harm of the company's lies about its upcoming merger, the SEC agreed to settle the case for no more than a commitment by the company not to violate the securities laws again in the future. In the Insignia Solutions case, the SEC settled the case of massive fraud with an agreement that the company cease and desist from further violations of the federal securities laws. The SEC did not recover any shareholder losses in that case. In the Sony case, despite massive charges of financial fraud, the SEC recouped only a \$1 million fine together with a cease and desist order and changes in the company's financial reporting practices. Private plaintiffs were left on their own to recover some of their losses. In the Pathe case, despite reports of hundred of millions, if not billions of dollars, in shareholder losses, the SEC settled the case for nothing more than a cease and desist order. In the Objective Invest Holding and Sea Containers cases, the SEC recovered insider trading profits in the single-digit millions of dollars from insiders, and the remaining cases (Luxottica and Livent) are ongoing. Clearly, the overall track record of the SEC in these cases is mixed, with no direct evidence that shareholders ever recovered a significant percentage of their losses through SEC action in these cases.

It is important to note the types of case that are excluded from the analysis in this study. First, the SEC has prosecuted foreign nationals (including Mexican nationals) for insider trading

in U.S.-domiciled and U.S.-listed firms, and has recently in May 2002 prosecuted a Mexican businessman named Jose Zollino for his alleged \$325 million fraud connected to his U.S.-domiciled and SEC-registered brokerage firm. The SEC does also have a track record of seeking redress against foreign entities (often phantom entities) and foreign nationals for selling fake or otherwise fraudulent securities directly to American individual investors (such as through an Internet Ponzi scheme). In one recent case in July 2002, the SEC prosecuted a company for Internet fraud that was incorporated in Nevada but with headquarters in Australia, and this bizarre case and any similar cases are excluded because the incorporation is in the U.S. and, separately, because the firm was not listed on a major U.S. exchange. Those illegal acts are easier to detect because either an American citizen is directly robbed of their money, or else one of the American stock exchanges is able to monitor unusual insider trading in one of its own U.S.-listed companies. Yet although the data shows that the SEC began taking action in such cases, the data is not always available to show whether the SEC was ultimately successful in taking possession of the stolen assets.

Those cases are purposely excluded from this paper because the focus is on testing the literature's prevailing theory of legal bonding that applies solely to cross-listed foreign firms. Moreover, securities fraud cases focused against U.S.-domiciled and U.S.-listed firms or insider trading in those U.S.-domiciled and U.S.-listed firms are excluded even if the U.S. firms had cross-listed foreign firms or foreign nationals as controlling shareholders. If the foreign national was charged with insider trading in a U.S.-domiciled firm, I do not include the case even if the foreign national happened to have some affiliation with a cross-listed foreign firm. Also, ostensibly American firms such as Global Crossing and Tyco that took advantage of the Bermuda corporate income tax loophole are excluded from the analysis. Given their strong ties to the U.S. through their primary executive offices, these firms do not present the same legal

issues as discussed in the literature on cross-listings and legal bonding. The same criteria apply to the private plaintiffs' cases that will be discussed later.

I next sought to determine whether the SEC had ever in its history prior to 1995 been a strict enforcer of legal violations committed by foreign listed firms and their insiders. The answer is that throughout its history the SEC has rarely taken action against foreign listed firms or their insiders for violations of the federal securities laws. I conducted a search of all SEC litigation releases since 1933 by keywords "depository receipt" or "ADR" or the individual names of all U.S.-listed foreign firms targeted by private plaintiffs. As a robustness check, I searched the entire SEC web site (including administrative proceedings) by the names of all companies ever targeted as securities law violators by private plaintiffs. This search found only two additional cases against a foreign firm with a cross-listing. One 1984 case against Canadian firm ITC involved that firm's violation of the registration and anti-fraud provisions of the Federal Securities Act. The other 1984 case involved the Canadian firm Grandma Lee's and its insider's selling of unregistered securities in the United States. In the interviews conducted with most of the private plaintiffs' attorneys, I was able to seek information on whether the SEC had acted informally or formally in their cases. The only cases that were named were the ones in Table VIII plus the recent Asia Pulp & Paper case, where the SEC is believed to have held back approval in 2000 for a proposed exchange that would have reduced the company's outstanding debt. Whether the SEC acted informally based on corporate governance grounds is unknown. Overall, the interviews with plaintiffs' attorneys suggested that any informal action by the SEC in favor of their clients was uncommon, or otherwise unknown.

I next conducted an extensive search for published and unpublished civil court cases that involved private plaintiff actions against cross-listed foreign firms between the enactment of the Securities Act of 1933 and the Securities Exchange Act of 1934 and 30 June 2002. First, I used

Lexis to search for securities cases involving U.S.-listed foreign firms, and then upon finding that the number of cases found on Lexis excluded a large number of very recent and unpublished cases, I moved on to search for cases on Stanford Law School's Securities Class Action Clearinghouse database (which covers the years 1995-2001). Then, I spent part of June, July and August 2002 attempting to interview the entire population of private plaintiffs' attorneys who had ever worked on a securities case involving a cross-listed foreign firm. First, I contacted the attorneys listed on the complaints and court decisions, and then I also contacted the many attorneys that were identified through referrals. After two months, I was able to interview 115 attorneys. Through this exhaustive interview process combined with the earlier database searches, I identified the published and unpublished cases listed in Appendix III.¹⁷

Clearly, the U.S. securities laws do enable both the SEC and private plaintiffs to sue foreign firms for securities fraud. The two key laws have been the Securities Act of 1933, which "prohibits fraudulent or deceptive practices in any offer or sale of securities" (Ratner and Hazen 2002, 10), and the Securities Exchange Act of 1934, which created the SEC, provided for disclosure requirements, and prohibited "manipulative or deceptive devices or contrivances" related to the purchase or sale of securities (Ratner and Hazen 2002, 10-11).

Although some judges have tried to dismiss cases involving cross-listed foreign firms for lack of jurisdiction, the cases described in Appendix III show that plaintiffs clearly have standing when a foreign firm has entered the U.S. capital markets through a cross-listing. Starting in the late 1960s, the courts began formalizing rules enabling large class actions against firms and their insiders for violations of the federal securities laws (Klein and Coffee 2000, 156). In 1988, the U.S. Supreme Court embraced the "fraud on the market" theory, by which an individual who purchases securities can be injured by a company's misrepresentation even if that person was unaware of the misrepresentation at the time she traded (Klein and Coffee 2000, 156). In 1988,

the U.S. Supreme Court also held that any misrepresentation or omission could be considered legally “material” if “there is a substantial likelihood that a reasonable investor would consider it important” for making an investment (Klein and Coffee 2000, 157). In 1990, Congress increased the SEC’s power both by allowing the SEC to issue cease-and-desist orders against firms in violation of the securities laws, and to impose fines or order disgorgement of ill-gotten gains in administrative proceedings (Ratner and Hazen 2002, 18).

Private plaintiffs seeking redress against U.S.-listed foreign firms have most often appealed to Securities Exchange Act Rule 10b-5. This rule adopted by SEC to enforce the Securities Exchange Act prohibits a wide range of fraud: The rule states:

“It shall be unlawful for any person, directly or indirectly, by the use of any means of instrumentality of interstate commerce, or of the mails, or of any facility of any national securities exchange,

“(a) to employ any device, scheme, or artifice to defraud,

“(b) to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of circumstances under which they were made, not misleading, or

“(c) to engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security” (Ratner and Hazen 2002, 139).

Nevertheless, the prior literature has not done enough to emphasize the numerous legal and institutional obstacles that private plaintiffs face in being able to prosecute a civil case successfully against a cross-listed foreign firm. The U.S. Supreme Court has ruled that no insider may be found guilty of violating Rule 10b-5 if the plaintiff has not shown that the insider acted with “scienter.” This decision has left some discretion to U.S. federal judges to decide whether a plaintiff has shown that the insider acted willfully, or else recklessly ignored the illegality of her actions (Ratner and Hazen 2002, 143). In several of the cases listed in Appendix III, the judges went on record as stating that the plaintiffs had failed to show “scienter.” Often, in practice, the plaintiffs must come up with internal documents from inside the company

showing that the insiders knew that what they were saying to the public was deceptive. Even in U.S. cases, few plaintiffs have been able to shoulder that kind of internal company evidence.

A further legal challenge to plaintiffs came with the 1995 passage of the Private Securities Litigation Reform Act (PSLRA) by the U.S. House of Representatives and U.S. Senate over President Bill Clinton's veto. Already under Rule 9(b) of the Federal Rules of Civil Procedure, plaintiffs were required to detail their allegations of fraud "with particularity," and a federal district court judge retained some discretion to decide whether the plaintiffs' allegations met this standard. By passing the PSLRA, a two-thirds majority of Congress decided that where legal liability requires "proof that the defendant acted with a particular state of mind, the [plaintiff's] complaint shall ... state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind" (Ratner and Hazen 2002, 142). Thus, the PSLRA raised the standard of specificity that plaintiffs must meet, and the PSLRA also ordered the judge to block the plaintiff from gaining discovery of documents and witnesses while a defendant's motion to dismiss is pending. Foster, Dunbar, Martin, Juneja and Allen (2002, 24) show that the proportion of overall securities fraud cases ending in dismissal has since increased.

The combination of a heightened pleading standard with a restriction of plaintiffs' discovery clearly makes it more difficult to go after cross-border asset taking than the previous literature on legal bonding has acknowledged. Moreover, some federal courts have gone further and required that the plaintiffs prove that their loss was a direct result of the misrepresentations of the defendant (Ratner and Hazen 2002, 150). Foreign insiders were already difficult to pursue because they can try to hide in a foreign legal jurisdiction, and these U.S. procedural hurdles have only made more difficult to pursue foreign insiders.

Another empirical fact highlighted in Appendix III, which has not been acknowledged by the literature on legal bonding, is that foreign shareholders who purchase shares in U.S.-listed

foreign firms on their home exchange have often been excluded by U.S. federal judges from legal protection. The belief in the literature was that once a foreign firm lists its shares in the U.S., all minority shareholders receive some measure of protection. While some U.S. judges have allowed class actions to include foreign shareholders who purchased on foreign exchanges, often the judge has ruled on the legal principle of *forum non conveniens* that it would be legally more convenient for the foreign shareholders to stay in their home legal jurisdiction, no matter how weak those legal institutions at home may be. For example, there is an ongoing debate among federal judges about whether Canada presents a suitable forum.

A further challenge to outside shareholders is that the U.S. legal institutions have made it difficult if not impossible to prosecute derivative actions against foreign companies. As Klein and Coffee explain, "If a corporate official violates any of the duties he or she owes to the corporation, American law recognizes the right of a shareholder to sue in the corporation's behalf to redress this injury" (2000, 196). The literature on ADRs has overlooked the fact that derivative actions are based on the state law of the company's place of incorporation, and that U.S. courts (even at the federal level) have thrown out attempts to seek derivative action against a foreign insider for violation of fiduciary duty. One famous case was *Batchelder v. Kawamoto* (147 F.3d 915), where the American plaintiffs sued an insider of U.S.-listed Honda Motor Company on behalf of the Honda corporation. The U.S. federal judge ruled that any derivative action was based on Japanese law and would have to be adjudicated in Japan. In an interview with the author, the lead plaintiff's attorney explained that such a Japanese derivative action would be lengthy and costly, and therefore was not pursued.

The literature on corporate governance has emphasized the problems faced by company insiders engaging secretly in transfer pricing and other types of tunneling. This type of tunneling would be best dealt with through derivative actions on behalf of the corporation. Yet the

literature on cross-listings and legal bonding has overlooked the fact that derivative actions against foreign companies are difficult, if not impracticable, in the U.S. legal jurisdiction no matter whether the foreign company has a U.S. stock listing or not. Licht (1998) similarly showed through careful legal scholarship that the federal securities laws are weak in dealing with self-dealing and other insider governance scandals. This institutional incompleteness is the result of a doctrinal distinction between state corporate law (which fails to cover cross-listed foreign firms) and federal securities law. One recent federal 10b(5) case launched by plaintiffs against the insiders of Asia Pulp and Paper includes a claim of tunneling, but the case is also based on the more standard Rule 10b(5) claim of false statements about the company's hedging losses. The evidence from past cases and from interviews with 115 attorneys shows that while it is possible to include an individuals' theft from a corporation as part of a 10b(5) case, it presents legal obstacles and would be more appropriate as a derivative case. Yet as the federal judge ruled in the Honda case, the purchaser of an ADR may lack the legal right to pursue a derivative action in the U.S. courts.

The evidence on all securities fraud cases in the U.S. shows that recovery rates are a fraction of the dollar amount lost in the median case. Simmons (1996) found in her Ph.D. dissertation that the median settlement as a percentage of estimate damages to have been just 7.2 percent in the four years (1991-1994) before passage of the PSLRA. Simmons and colleagues at Cornerstone Research (2002) later found that the median settlement percentage dropped to an even lower 5.1 percent in the six years after passage of the PSLRA (22 December 1995 through 31 December 2001). Using a slightly different methodology for calculating estimated damages, Foster, Martin, Juneja and Dunbar (1999) from the economic consulting firm National Economics Research Associates reported similar results. Foster et al included settlements from 1991 to June 1999, and they found that the median settlement rate over the entire period was just

5.82 percent. Foster et al (1999) and the later Cornerstone (2002) each do economic research for corporate defendants. I interviewed two of the most prominent economic consultants who calculate estimated damages for plaintiffs' attorneys, and the two economic consultants each believed that the defense-oriented consultants are biased towards overestimating plaintiffs' damages. Based on their years of experience, one estimated the true median settlement percentage to be at 10 percent while the other placed it at 15-20 percent.

While estimating damages depends on the parameters included in the event study analysis, the difference between the lower-end and higher-end estimates is reported in Bajaj, Mazumdar and Sarin (2000), who find that the plaintiff-style estimate is 16.66 percent and the defendant-style estimate is 4.96 percent for the *average* settlement between 1988 and 1999. Bajaj et al (2000, 24) further find the average plaintiff recovery rate falls steeply once the estimated damages measured conservatively rise above \$10 million (which is the case in 637 of the 807 settlements covered during that period). They find that the average recovery rate is 14.21 percent for cases with estimated damages measured conservatively at between \$10 and \$49.99 million dollars; 7.87 percent for cases with estimated damages measured conservatively at between \$50 and \$99.99 million dollars; and 4.25 percent for cases with estimated damages measured conservatively at over \$100 million.

Even considering for a moment a world where the median settlement recovery was an unrealistically high 50 percent, the system of infrequent and ineffective SEC enforcement combined with 50 percent recovery would be far less effective than Coffee (2002b) has suggested. First of all, the plaintiff typically has to share 25-33 percent of the settlement as payment to her attorneys' for hours worked and direct costs. Furthermore, any settlement should be listed as income on a plaintiff's tax form and therefore return to the government any capital gains credits the plaintiff previously received. In most private plaintiff cases reported in this

study, the individual insider rarely pays and is instead bailed out by the firm or the firm's insurance policy. If the plaintiffs are still shareholders of the firm, then they are in a sense having to take money from their own ongoing investment in the company's future earnings to compensate themselves for the insider's individual fraud. Foreign insiders in the cases reported in this paper are almost never jailed, let alone forced to use their own funds to pay a settlement. A system in which defendants must hire the equivalent of expensive private police is far from a strong institutional system. Klein and Coffee explained in the case of domestic derivative cases that there are perils to this type of private justice for hire known as collusive settlements (2000, 197). The costs of a strong state agency and of strong state enforcement would be shared at lower cost by all taxpayers, and the protection of strong state law enforcement extends to the larger population. It is only in a truly second-best world where the plaintiffs' attorneys are the essential, but far less than fully effective, private police for hire.

The evidence also shows that the SEC has historically taken only a small number of legal actions against foreign firms. A key finding of this study is that the SEC has not been able and/or willing to be the world's governance enforcement agency. The commission does not maintain foreign offices, and it instead relies on the cooperation of foreign law enforcement agencies.¹⁸ Some foreign regulatory agencies are simply incapable or unwilling to cooperate with the SEC.

As a result, the main lesson to be drawn from this analysis is that the rules of the game are different in practice than they are as formally established. Some rules simply cannot be strictly enforced across borders, while the enforcement of other rules may require large resource investments. To understand institutions, one has to carefully analyze both the formal rules and the informal application of those rules. Often the informal application of legal institutions is not what would be predicted by an isolated analysis of formal institutions. Even in the U.S., which

is ranked in the literature as having some of the strongest and most complete legal institutions in the world, institutions do not always work in practice as they are ostensibly designed to function.

VII. RESOURCE ATTRACTION

One last subject for review is whether the market punished transgressions even when the government did not. And did the market reward the firms that did not engage in any form of asset taking? The answer to both questions is yes.

A. A Simple Model of Reputational Bonding Through ADRs

This simple model is a modification of the Diamond (1991) model for reputation building that is adapted to the world of foreign firms and cross-listings. The Diamond (1991) model originally served to explain the crucial importance of reputation in debt markets, but a simplified version of the model can be applied here to explain why foreign firms are able to achieve reputational bonding through their U.S. cross-listing even if the U.S. laws are not enforced.

There are three groups of firms and a group of outside investors in this model. All are risk neutral. Firms of Type G have one safe, positive net present value project each period which for every dollar invested returns $G > R$ at the end of the period. Firms of Type B have one excessively risky, negative net present value project each period. They can invest one dollar, and with probability $\Pi < 1$, the project returns B (where $\Pi B < R$ and $B > G$); with probability $1 - \Pi$, it returns zero. Risky projects tempt the managers of Type B to engage in asset taking during bad economic times, and therefore, risky projects are associated with asset taking during bad economic times. Finally, Type BG firms are allowed to decide each period whether they want to be B or G through a single choice, denoted by a_t , between either $a_t = g$ (the safe project) or $a_t = b$

(the excessively risky project). Each investor receives a resource endowment at the beginning, and outside investors retain access to a riskfree investment returning R units each period.

The initial population of firms contains a proportion f_G of type G's, f_B of type B's, and f_{BG} of type BG's. Only the proportions are public information. At periods other than $t = 1$, there will be a track record, Ω_t , of each firm that will condition outside investors' beliefs about firm type. For purposes of analysis, finite T allows use of backward induction.

Firms with a given track record promise outside investors the lowest return each period that offers outside investors an expected return of R , after including the investors' costs C of monitoring. In the final period, T , a firm offers a return on outside investment higher than this minimum only if that increased the probability of receiving outside investment. It is a sequential equilibrium for all firms to offer $r_t = R$. An agreement between the firm and the outside investor specifies the cutting off of all future outside investment if a firm shows a return less than r_t . Otherwise, the agreement specifies continued granting of outside resources if the firm pays r_t .

First, type BG firms face the following incentive problem in the final period. In the final period, $t = T$, type BG firms will select risky projects if and only if the expected end-of-period payoff from selecting risky projects, $\Pi(B - r_t)$, exceeds the payoff from safe projects, $G - r_t$. Safe projects are selected if and only if the return r_t is low enough: $r_t < (G - \Pi B)/(1 - \Pi) = A_T$. The return is a decreasing function of the firm's reputation for not expropriating outside investors, and thus firms with a better reputation can afford to offer lower r_t ex ante.

It is assumed that even at the riskless rate of interest, $r_t = R$, type BG firms with a single-period horizon would select risky projects (where $A_T > R$). Reputational incentives are then important in motivating BG firms to select $a_t = g$. Because type BG and type B firms will select risky projects at the final date T , no investor will provide resources without any firm having a U.S. cross-listing at date T unless firms have a sufficiently high probability of being type G given

their track record. Let V_{t+1} equal the value to a type BG of making decisions to pursue safe projects in all periods. The payoff from choosing a safe project at t is $G - r_t + V_{t+1}$, and the payoff from choosing a risky project is $\Pi(B - r_t + V_{t+1})$, implying that safe projects are selected if and only if $r_t < A_T + V_{t+1} = A_t$. The reputational capital that is lost on asset taking is V_{T+1} .

Since the present value of future rents, V_{t+1} , is increasing in the positive reputation of the firm, BG firms find that only with an earned reputation and a long horizon will they select safe projects. Safe projects are chosen without ADRs at date t ($a_t = g$) only if the net cost of paying a return is sufficiently low ($r_t - V_{t+1} \leq [G - \Pi B]/[1 - \Pi] \equiv A_T$) or if the payoff from choosing a safe project in all periods is sufficiently high ($V_t^g \equiv d[G - r_t + V_{t+1}] \geq d[\Pi(B - G)/(1 - \Pi)] = VA$).

Next, consider the case where the outside investor can select firms that have bonded themselves through U.S. cross-listings. Assume for a moment that an outside investor is able to detect the selection of the risky project: the action $a_t = b$. Only type BG firms are tempted by moral hazard because the other types do not have profitable opportunities to engage in such devices. Monitoring will catch a firm taking action $a_t = b$ only if it is a type BG. For a fixed cost, a period t outside investor can monitor the random variable m_t that might catch a firm choosing the risky project. If the firm is a type B or G or is a type BG choosing safe projects, monitoring delivers the realization $m_t = 0$ for sure (because the action $a_t = b$ is not taken by these types). The distribution of m_t given a type BG borrower who has selected risky projects, $a_t = b$, is $m_t = b$ with probability P and $m_t = 0$ with probability $1 - P$. Note that here monitoring could mean active observance of firm insiders through SEC filings, but it could also mean something more subtle such as giving a firm a slightly larger amount of money than its competitor and then watching existing public sources to see if the insider passes the test of an emerging market crisis. Investors will prefer to invest in cross-listings for any minimally positive value of P . Therefore, the monitoring effectiveness of ADRs might not be strong, and certainly might not be strong

enough to detect the asset taking described in this paper. Yet any incremental monitoring value of ADRs allows for the market to grow.

Now assume that cross-listings have purely informational value, if anything, but no legal deterrent value. Without some reputational incentive, cross-listings by themselves would not induce type BG firms to select safe projects. In that case, even if there was a return at the riskless rate that covers monitoring costs C (thus, a face value of $R + C$), type BG firms would select risky projects (both $A_T < R$ and $I_T < R + C$). Because only type G firms would select safe projects at date T , outside investors will lend only to firms with a sufficiently large probability of being a type G. Firms whose insiders are found taking assets or who are otherwise caught selecting risky projects (and reveal that they are not type G) see their outside resources permanently cut off. If no outside investor will provide resources at the last period, backward induction implies that each earlier period is the “last” period. Only a firm with a perfect record of never having its insiders found expropriating can receive additional outside resources on a given date. All firms that are caught when monitored are revealed to be type BG, and a fraction π of the remaining types B and BG (if $a_t = b$) are weeded out each period.

Consider how the BG firms will act when they all have ADRs. Let V_{t+1} equal the present value of rents of a type BG that makes optimal decisions from $t + 1$ to T given a record up to date t of never expropriating. If a risky project is selected, the firm is caught with probability P , and the firm cannot receive outside resources in the current period or in any future period: the payoff is zero. With probability $1 - P$, monitoring is uninformative, and $m_t = 0$. Conditional on $m_t = 0$, the firm has a probability of paying the return of Π and of expropriating of $1 - \Pi$. The expected end-of-period payoff from a risky project, $a_t = b$, is $(1 - P)[\Pi(B - r_t + V_{t+1})]$.

If a safe project, $a_t = g$, is chosen, then the firm will neither expropriate nor have monitoring reveal $m_t = b$. The payoff at the end of the period is $G - r_t + V_{t+1}$. The type BG will

select $a_t = g$ if and only if $(1-P)[\Pi(B - r_t + V_{t+1})] \leq G - r_t + V_{t+1}$, or $r_t \leq [G - \Pi(1 - P)B]/[1 - \Pi(1 - P)] + V_{t+1} = I_T + V_{t+1} \equiv I_t$.

Here, reputation reinforces and otherwise substitutes for legal deterrence: $I_t > I_T$. Even minimal monitoring by investors provides incentives for firms of low reputation (higher value of r_t) when reputation matters and when there exist future opportunities for receiving outside resources. Conversely, since the accepted r_t was earlier defined to always equal or exceed R , any increase in R that results from an economic shock has the effect of leading a larger number of BG firms to engage in asset taking.

The value of current and future rents, $V_t^g = d(G - r_t + V_{t+1})$, must exceed $\Pi(1 - P)(B - G)/[1 - \Pi(1 - P)] \equiv VI$ for reputational binding to provide strong incentives for good governance. As time passes, a firm's track record and reputation change. The more times a firm extends a perfect track record, the higher its conditional probability of being a type G because the number of type G's with a perfect record stays constant and the number of type B's with a perfect record declines. The number of type BG's with a perfect record either declines (if risky projects are chosen) or stays constant (if safe projects are chosen).

As a result, this simplified version of the Diamond (1991) model predicts that a combination of cross-listings and an economic shock provides a means of identifying which are the BG firms and weeding them out. The remaining population of firms with ADRs will have a larger percentage of type G firms, and as a result the model predicts that these firms that survive an economic shock and continue to play the game will receive the most future resources.

B. The Empirical Evidence for Reputational Bonding from the Mexican Case

Next, I show empirical evidence from the Mexican case that supports the above theory of reputational bonding through listed ADRs. I have compiled an exhaustive database of all public

debt and equity capital raisings by Mexican firms between 1 January 1995 and 31 December 1999. All public debt capital raisings have to be registered with the Mexico Stock Exchange (MSE). I purposely included all debt capital raisings of any type, including industrial debentures and banker's bonds. All domestic equity raisings are also registered with the MSE. I matched the data from the MSE on public debt and domestic equity capital raisings with data from a Citibank database on foreign equity capital raisings by Mexican firms. The data was crosschecked with the BONY public ADR database, each of the periodicals named above in this paper's Data section, and each company's own annual reports and financial releases. In order to facilitate comparison across firms, I first converted all peso-denominated capital raisings into U.S. dollars using the exchange rate that operated on the exact day that the capital raisings were realized. The amounts were then converted into 1995 constant dollars by discounting the 1996-99 data for changes in the U.S. consumer price index.¹⁹ Because the numbers ranged from the millions to the tens of billions of dollars, I took the log of that final number.

The first significant finding is that only one firm whose insiders engaged in illegal asset taking received additional outside public resources after the asset taking became public. That exception was Aerovía de México, which received resources after a government takeover.

The second major finding, shown in Table IX, is that firms with ADRs that did not engage in either illegal or legal forms of asset taking were more likely to receive outside resources and in fact received a significantly larger amount of outside resources in the five years following the crisis. As shown in the full model in Column 2, having a listed ADR adds a 83.81 percent greater probability ($p < .05$) of receiving outside resources from the capital markets within five years of the crisis, while none of the firms with listed ADRs whose insiders were accused of engaging in illegal asset taking received resources. Moreover, as shown in the full model in Column 5, having a listed ADR and not having engaged in any form of asset taking is

associated with receiving significantly more resources in the five years after the crisis ($p < .05$). This OLS regression is performed on firms having received at least \$1 of outside resources. There are no multicollinearity problems, and there are no other econometric problems driving the results.²⁰ The evidence suggests that market-based incentives for creating a reputational asset may have led Mexican firms to follow rules that they were not forced to follow.

The results are not just statistically significant, but also economically significant as well. As shown in Column 5, one sees that a listed ADR when combined with no history of governance scandals has the effect of increasing a firm's outside resource attraction by 0.7101 log points. This means that with a listed ADR and no history of governance scandals, a firm already at the 50th percentile of outside resource attraction would see its inflows increase from \$153 million to \$630 million. For a firm that is already at the 25th percentile of outside resource attraction, the amount would increase from \$58 million to \$296 million. It is also worth noting that the median size of Mexican firms with listed ADRs and unlisted ADRs was virtually the same at the beginning of the period. Even when controlling for firm size, the positive effect of the listed ADR is significantly greater than the positive effect of the unlisted ADR.²¹

The results passed through a series of robustness checks for both versions of the dependent variable. I confirmed that the results were robust to using varying definitions of the dependent variable, including the square and cube of the log of total resources received, the log of total resources received in its undiscounted form, and the log of total resources received discounted for annual changes in the Mexican Consumer Price Index.²² The results were robust to using different definitions of firm size, including the square and cube of total assets and the log values of those measures. When the firms in the financial sector are excluded from the full sample, the listed ADR result in Column 6 continues to be statistically significant ($p < .10$). I confirmed that debt, export orientation, short-term dollar-denominated debt, and the interaction

between short-term dollar-denominated debt and export orientation are not underlying variables driving the ADR results. All appendices are available from the author.²³

Lastly, as a final test of reputational bonding, I ran a proportional hazards model and controlled for unobserved heterogeneity. In order to show that cross-listings directly benefit firms, one must control for unobserved heterogeneity. Otherwise, the benefits of a cross-listing could be attributed solely to underlying firm quality. In a panel setting, one can observe firms' propensities to attract outside resources at different points of time. The problem with running the regression as a yearly panel is that some firms acquire outside resources in year x and may not require additional resources for another year or more. This is analogous to the "lumpy investment" problem that Whited (2002) analyzed for U.S. firms and their internal investments.

Following the example of Whited (2002), I therefore used a hazard model to test for the rate at which Mexican firms received outside resources. In order to control for unobserved firm heterogeneity, I corrected all standard errors for clustering at the firm level. Similar to the method used in Whited's study, I defined as a "resource event" every time a Mexican firm received a ratio of outside resources to prior-year firm size that was larger than the median ratio for that firm's industry during the 1995-1999 period. Alternatively, a "resource event" was defined as whenever a Mexican firm received a ratio of outside resources to prior-year firm size that is larger than the average ratio for that firm's industry during 1995-1999. Since the average is larger than the median, the latter test is a more restrictive one focused on the largest infusions of outside investment. Nearly all of the significant control variables from earlier regressions were available to be included in this longitudinal analysis.²⁴

The results are shown in Table 10, and the results lend further support to the reputational bonding hypothesis. As shown in Panel 3, it is evident that having a listed ADR and not being accused of any governance scandal increased the rate by 75.14 percent at which a firm received

large outside investments greater than the median ratio to firm size for its industry. Similarly, as reported in Panel 6, having a listed ADR and not being accused of any governance scandal increased the rate by 108.73 percent at which a firm received outside investments greater than the average ratio to firm size for its industry. All of the results for listed ADRs are statistically significant. Moreover, the hazard model shows evidence of a separating equilibrium. If a firm had a listed ADR and was accused of a governance scandal, the rate at which that firm acquired additional outside resources fell to zero.

It should be noted why the market incentive alone should not be expected to have totally eliminated asset taking. Bebchuk (1992) described “special distributive issues” in which the manager directly gains more from an antitakeover provision than the company and outside shareholders lose. In the Mexican case, the insiders may have directly benefited less from building the reputational asset than did the firm and its minority shareholders.

Nevertheless, the results suggest that firms did face a reputational penalty from illegal asset taking that was far more severe than any punishment they received from the American legal institutions. This result broadly supports the earlier findings of Karpoff and Lott (1993), and of Badrinath and Bolster (1996), who respectively found that the market punished firms for environment violations and for corporate fraud far more severely than the government did. Banerjee and Duflo (2000) showed, in turn, that positive reputation effects enable many Indian software firms to achieve more favorable and flexible contracts with outside clients. The reputational asset found here is also related to that derived in Gomes’ (2000) formal game-theoretical model, where insiders have a personal financial incentive (in terms of their ability to sell their own shares at the highest price) to build and protect a reputational asset. The present analysis, in turn, suggests that the prospect of future capital raisings is another incentive for insiders to respect minority shareholder interests.

VIII. CONCLUSION

This study reveals how and to what extent formal institutions or rules of the game can have one meaning on paper and quite another in practice in the field of corporate governance. To understand the effect of institutions on micro-level firm action, this study suggested that it is necessary both to study how the institutions are written and how they are implemented.

From a macro-level institutional design perspective, ADRs are far from a complete substitute for strong foreign law enforcement in preventing fraud, theft, embezzlement and legal asset taking. Listed ADRs did not always serve as an effective bonding mechanism for deterring malfeasance. If listed ADRs had been an effective bonding mechanism, the controlling shareholders of several firms with listed ADRs would not have decided to risk U.S. liability and take so many assets out of their firms for their own personal use.

Issuing an ADR is, however, a powerful tool for firms in attracting outside resources. If firms with ADRs follow the law because they are seeking to create a reputational asset, then future research can focus on the mechanism through which such a reputational asset is created in different institutional contexts. One question is whether issuing an ADR is the most efficient way of creating a reputational asset, or whether better options exist.

In conclusion, this study provides evidence for the argument that institutional analysis requires a comprehensive examination of whether the formal rules differ significantly from the rules that are enforced in practice. Pistor, Raiser and Gelfer (2000) showed that while transition economies may import foreign laws, the de facto implementation of the legal framework is weak and incomplete. Kogan, Khanna and Palepu (2002) showed how related pairs of countries have imitated each other's formal governance laws without having converged in de facto corporate

governance practices. This study, in turn, shows that American governance rules affecting U.S.-listed foreign firms are much stricter in formal writing than they are in practice.

Besides courts, alternative enforcement mechanisms may also explain why firms choose to follow formal rules they are not coerced to follow. In this study, the market punished firms much more harshly than did the SEC (which usually did not punish these firms at all). The market also gave firms a positive incentive (in the form of future resource flows) to follow the law. In the U.S. just as in emerging markets, institutional analysis requires that a distinction be made between the formal rules of the game and the informal rules and enforcement mechanisms that firms are forced to abide by in practice.

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¹ Authors have provided evidence that weak legal institutions hindered financial development for firms in many countries across the globe. Weak rule of law was associated with small equity markets, few publicly listed firms, small size of publicly listed firms, small valuation of firms relative to their assets, smaller dividend payouts made to minority investors, a lower correlation between investment opportunities and actual investments, and fewer initial public offerings (IPOs). See La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1997; 2000a; 2000b); Kumar, Rajan, and Zingales (2001); Claessens, Djankov, Fan, and Lang (2002); and Wurgler (2000).

² A complementary set of studies has shown that weak financial development leads subsequently to slower economic growth. See Beck, Levine, and Loayza (2000); Demirguc-Kunt and Maksimovic (1998); King and Levine (1993); Levine (1999); Levine and Zervos (1998); Morck, Yeung, and Yu (2000); Rajan and Zingales (1998); Wurgler (2000); and Schumpeter (1911).

³ See Milhaupt (1998); Roe (1996); and Bebchuk and Roe (1999).

⁴ See 17 C.F.R. §229.403(a) (2000).

⁵ There were approximately 382 litigation releases issued by the SEC in 1999, approximately 407 litigation releases in 1998, and approximately 396 litigation releases in 1997. The vast majority of the actions were taken against American individuals and companies based in the U.S. A small percentage of these litigation releases were extensions of earlier SEC actions, and so the number of independent legal actions was smaller. The data show that despite relatively strong U.S. legal institutions, firms and individuals often engage in malfeasance during even good economic times.

⁶ See the list of ADR companies on file at www.adr.com and www.bony.com/adr.

⁷ I tested a long list of possible instruments, including political connectedness, export orientation, leverage, size, and prior access to foreign capital. I found that not a single one of these instruments had any explanatory value in predicting which Mexican firms cross-listed before the 1994-95 economic downturn. Moreover, it is no accident that the prior ADR literature has never identified the determinants of cross-listing in a systematic study. Most, if not all, instruments that one could list as possibilities are invalid because they also have a direct effect on later firm performance. The endogeneity issue is less of a problem for this present analysis because I find that cross-listings actually increased the probability of governance scandals. The prior ADR literature had predicted that only the highest-quality firms issue cross-listings. This study does not find evidence that the highest-quality firms issued cross-listings. Even the firms that were cross-listed and did not have a governance scandal were not necessarily among the highest-quality firms when one measures ROA and market value creation. All appendices are available from the author at jsiegel@mit.edu.

⁸ Banca Quadrum and Servicios Financieros Quadrum were actually the same firm going through a reorganization and name change at the time of the 1994-95 crisis. Banca Quadrum, the listed parent firm that emerged from the reorganization, was included in the sample.

⁹ Mitton (2002) used a similar method for defining the start of the 1997-98 Asia crisis.

¹⁰ As stated earlier, firms also have the option of listing their shares directly on a U.S. exchange. There were no examples of a Mexican-domiciled firm that had gone that route, although Panamerican Beverages is a company based in Miami that has part of its business interests in Mexico.

¹¹ For this study I have included Hylsamex, a firm that had submitted its financial information to the public and that had received approval for its unlisted ADR just prior to the crisis. Hylsamex's shares did not begin trading in the U.S. until four weeks after the crisis began. I confirmed that inclusion of this firm did not substantively affect any of the results. Bancomer, which originally had an ADR on its own, saw its Mexican listing folded into that of its parent firm Grupo Financiero Bancomer.

¹² It should be noted that as a robustness check, the financial sector firms were excluded from the analysis in Column 4. The data loss for the subgroup of listed ADR firms is considerable. As a result, the listed ADR variable

loses its statistical significance, while the unlisted ADR remains statistically significant because of the larger number of remaining firms with unlisted ADRs. As a further robustness check, I investigated whether the combination of having foreign-currency-denominated debt and a low export orientation was driving the results. A dummy was set equal to 1 for firms that had over 30 percent of their debt in short-term foreign currency and less than 30 percent of their sales derived from exports. The interaction variable was not statistically significant, and furthermore, there is no statistically significant difference between firms with listed ADRs and all other firms on this measure. The appendices are available from the author.

¹³ There was one case brought by a U.S. affiliate of BBV Argentaria against the parent of Altos Homos de México, but that case was for contract infringement and had nothing to do with the treatment of outside resource providers. Grupo Financiero Bancomer was sued in the U.S. for being negligent in its duties as trustee of a series of bonds issued by Grupo Sidek.

¹⁴ See Johnson, La Porta, Lopez-de-Silanes and Shleifer (2000); Friedman and Johnson (2000); Bertrand, Mehta and Mullainathan (2002); Blass and Grossman (1996); and Blass, Yafeh and Yosha (1998).

¹⁵ The agency did take legal action against a larger number of fraudulent foreign entities (including primarily fraudulent investment product schemes) that were not listed on a U.S. exchange but had committed wrongdoing inside the U.S. legal jurisdiction or had been controlled by U.S. nationals. Between 1 January 1995 and 30 June 2001 the SEC took 54 legal actions that fit that definition.

¹⁶ It is worth emphasizing that this study purposely excludes cases against foreign nationals who were found guilty of insider trading in U.S.-domiciled companies. This analysis also excludes the action taken by the SEC against U.S.-domiciled Credit Suisse First Boston Corporation for kickbacks it received in exchange for giving certain brokerage customers privileged access to the El Sitio IPO. The target was a U.S.-domiciled broker, and the SEC made no allegation that El Sitio was involved in the alleged securities fraud. Private plaintiffs, it should be noted, have separately made their own accusations against El Sitio, a cross-listed Argentinean firm. Lastly, the analysis excludes the unusual 1999 cases involving Amway Asia and Amway Japan that were dismissed without prejudice in California state courts. There, even though the cross-listed firms were legally domiciled abroad, the owner accused of improper conduct was the U.S. firm Amway.

¹⁷ With the same criteria set out above, I included cases that involved cross-listed foreign firms and their insiders for securities fraud connected to the foreign firm. By this standard, once case involving the Australian firm Ferrovanadium was excluded because it did not have a listing on a major U.S. exchange.

¹⁸ See Licht (2000) who emphasizes that bilateral MOUs between the SEC and foreign regulators are non-binding.

¹⁹ The data on the U.S. CPI came from the Bureau of Labor Statistics, U.S. Department of Labor.

²⁰ I corrected for heteroskedasticity using robust standard errors. Multicollinearity is not a problem, since the average variance inflation factor is 2.23, and the maximum variance inflation factor is 6.76. Neither number is considered to be too high. Omitted variables do not appear to be driving the results. Using two versions of the Ramsey test, I found that one version using powers of the fitted versions of the dependent variable showed significant evidence of omitted variables ($p = .0029$) while the other version using powers of the fitted versions of the independent variables did not ($p = .3006$). Most importantly, visual inspection of residual plots did not show a clear pattern, and that suggests that omitted variables are not driving the results. I also find that the results are not highly sensitive to measurement error. All of the remaining non-industry variables in the model can simultaneously have measurement reliability as low as 0.75 (indicating a 25 percent measurement noise to total variance ratio), and the results would not be materially affected. Most variables can have an even much lower reliability individually before the results are materially affected. Therefore, measurement error is not a serious concern.

²¹ The median size in 1993 for Mexican firms with unlisted ADRs (natural log of assets = 20.73) is virtually identical to the median size for those with listed ADRs (natural log of assets = 20.71). That is because several of Mexico's largest firms were represented in the unlisted ADR group.

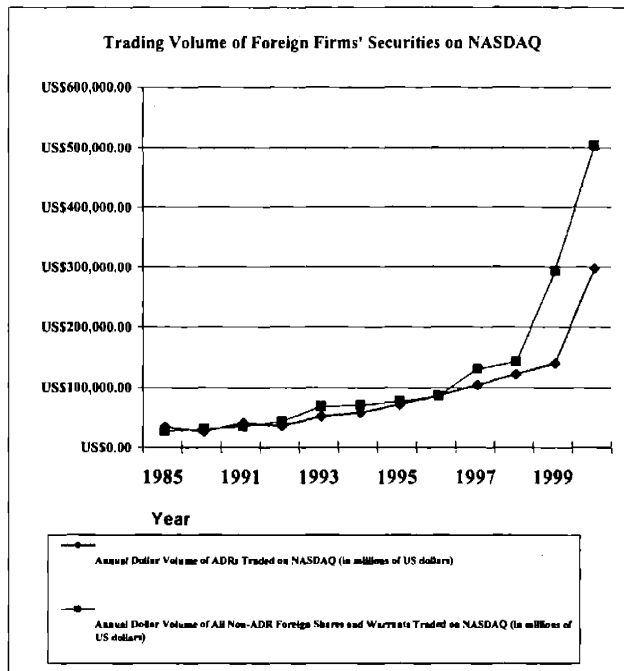
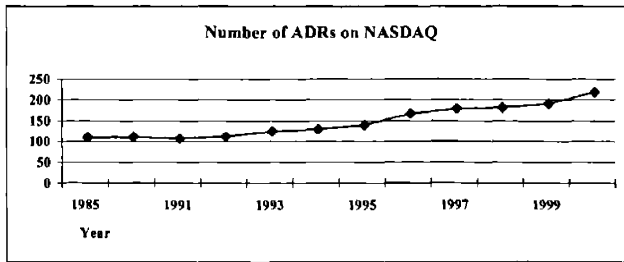
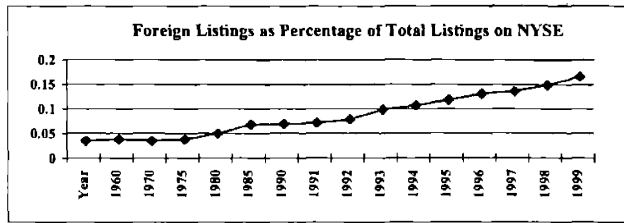
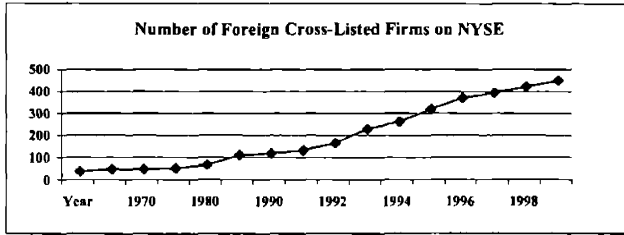
²² The Mexican CPI data came from Mexico's National Institute for Statistics, Geography and Computing (INEGI).

²³ The author can be reached by e-mail at jsiegel@mit.edu.

²⁴ With the available longitudinal data, I was able to control for industry, political connectedness, foreign-denominated leverage, leverage, firm size and export orientation. Bank ownership is no longer a variable of interest because most of the banks went bankrupt in 1995. The data on foreign ownership is not complete enough to be able to use in the panel setting, and in any case, it was not a significant variable in the earlier regressions on the amount of resources received. Lastly, the variable on Baring-recommended firms from 1992 loses its meaning over time. Moreover, it is better to control for unobserved firm heterogeneity by correcting the standard errors for clustering at the firm level. This is exactly what was done in all the models in Table 10.

Figure I

These graphs show the growth of foreign cross-listings on the major U.S. exchanges.



Sources: Macey and O'Hara (2002), www.marketdata.nasdaq.com

Table I: The Variables

This table describes the variables collected for all 183 firms that had an equity listing on the Mexican Stock Exchange as of September 1994. The first column gives the name of the variable. The second column describes the variable and provides sources from which the variable was collected.

Variable	Description
Firm's controlling shareholder and/or senior manager took assets illegally and fled Mexico	A dummy variable equals 1 for illegal asset taking when a firm's controlling owner and/or senior manager allegedly took assets illegally and then was publicly confirmed as having fled Mexico for a period of at least a year. These controlling owners and/or senior managers were all eventually accused by Mexican law enforcement of theft, fraud or embezzlement between 1 January 1995 and 1 January 2000. Sources: <i>Reforma</i> , <i>El Norte</i> , <i>El Financiero</i> , <i>Sourcemex Economic News & Analysis on Mexico</i> , <i>Forbes</i> , <i>Dow Jones International News</i> , <i>Wall Street Journal</i> , <i>Wall Street Journal Europe</i> , <i>Mexico Corporate Monthly</i> , <i>LatinFinance</i> , Company Annual Reports and Press Releases, Mexico Stock Exchange
Firm's controlling shareholder and/or senior manager was accused of illegal asset taking	A dummy variable equals 1 if a firm's controlling shareholder and/or chief executive was accused by law enforcement, regulators or minority shareholders of theft, fraud or embezzlement between 1 January 1995 and 1 January 2000. The dummy variable equals 0 otherwise. Sources: <i>Reforma</i> , <i>El Norte</i> , <i>El Financiero</i> , <i>Sourcemex Economic News & Analysis on Mexico</i> , <i>Forbes</i> , <i>Dow Jones International News</i> , <i>Wall Street Journal</i> , <i>Wall Street Journal Europe</i> , <i>Mexico Corporate Monthly</i> , <i>LatinFinance</i> , Company Annual Reports and Press Releases, Mexico Stock Exchange
Firm's controlling shareholder and/or senior manager was accused of legal asset taking	<p>A dummy variable equals 1 if a firm's controlling shareholder and/or chief executive was accused by law enforcement, regulators or minority shareholders of legal asset taking. I found that 13 different types of legal asset taking took place in Mexico after the 1994/95 crisis. A dummy variable equals 1 if the insiders were accused of having engaged in at least one or more of these 13 types of legal asset taking. The dummy variable equals 0 otherwise. These 13 types of legal asset taking were as follows:</p> <ol style="list-style-type: none">(1) The controlling shareholders purchased inputs from another entity they control at noticeably above market prices and without full disclosure to shareholders;(2) The controlling shareholders loaned the firm's money to an outside entity owned by one or more of the controlling shareholders at below market cost, and they did this without full disclosure or approval from shareholders;(3) The controlling shareholders paid themselves one-time excessive management fees without full disclosure and without approval from shareholders;(4) The controlling shareholders used dilutive share issues to forcefully decrease minority shareholders' control,(5) The controlling shareholders used outside investor's capital surreptitiously to manipulate the firm's short-term share price for the benefit of the controlling(6) The controlling shareholder surreptitiously transferred millions of dollars of the firm's money into the hands of the ruling government party without informing even the board of directors;(7) The controlling shareholders used illicit means to block a takeover bid even after the firm had gone bankrupt;

Variable	Description
Firm's controlling shareholder and/or senior manager was accused of legal asset taking, cont.	<p>(8) The controlling shareholders were accused by public regulators of destructive and gross financial mismanagement which led to the reduction in the value of minority shareholders' equity;</p> <p>(9) The controlling shareholders transferred the firm's capital to recapitalize a bank or other bankrupt entity owned by the firm's controlling shareholders;</p> <p>(10) The controlling shareholders of a financial firm were accused with civil breach of fiduciary duty relating to bank trust accords and put the financial firm at risk of large</p> <p>(11) The controlling shareholders tried to sell the firm to an outside buyer, but decided without shareholder approval to bar all minority shareholders from participating in the deal;</p> <p>(12) the controlling shareholders attempted to use the firm's assets to purchase another firm surreptitiously without full disclosure to even the board of directors; and</p> <p>(13) the senior managers were dismissed after defrauding the firm of millions of dollars, but it was unclear whether their conduct was actually illegal under Mexican law.</p> <p>Sources: <i>Reforma</i>, <i>El Norte</i>, <i>El Financiero</i>, <i>Sourcemex Economic News & Analysis on Mexico</i>, <i>Forbes</i>, <i>Dow Jones International News</i>, <i>Wall Street Journal</i>, <i>Wall Street Journal Europe</i>, <i>Mexico Corporate Monthly</i>, <i>LatinFinance</i>, Company Annual Reports and Press Releases, Mexico Stock Exchange</p>
Firm's controlling shareholder and/or senior manager was accused of any type of asset taking	A dummy is set equal to 1 if the insider was accused of any the illegal or legal types of asset taking described above
Firm received resources in the form of equity, publicly held debt, or syndicated loans during 1995-1999	A dummy is set equal to 1 if a firm received resources through equity, publicly held debt (including industrial debentures), or syndicated loans from the capital markets between 1 January 1995 and 31 December 1999. Sources: Mexico Stock Exchange, <i>Reforma</i> , <i>El Norte</i> , <i>El Financiero</i> , <i>Sourcemex Economic News & Analysis on Mexico</i> , <i>Forbes</i> , <i>Dow Jones International News</i> , <i>Wall Street Journal</i> , <i>Wall Street Journal Europe</i> , <i>Mexico Corporate Monthly</i> , <i>LatinFinance</i> , Company Annual Reports and Press Releases
Amount of outside resources received from the capital markets during 1995-1999	I count how much a firm received from the capital markets through equity, publicly held debt (including industrial debentures), and syndicated loans between 1 January 1995 and 31 December 1999. All funds are converted into U.S. dollars using the rate that was in effect on the day the capital raising was realized. The funds are converted into 1995 constant dollars by discounting the 1996-99 figures for changes in the U.S. Consumer Price Index. Then I take the log of the total amount raised between 1995-99. Sources: Mexico Stock Exchange, <i>Reforma</i> , <i>El Norte</i> , <i>El Financiero</i> , <i>Sourcemex Economic News & Analysis on Mexico</i> , <i>Forbes</i> , <i>Dow Jones International News</i> , <i>Wall Street Journal</i> , <i>Wall Street Journal Europe</i> , <i>Mexico Corporate Monthly</i> , <i>LatinFinance</i> , Company Annual Reports and Press Releases
Firm has listed ADR	A dummy variable equals 1 when the firm issued either a Level II or a Level III ADR prior to September 1994.
Firm has unlisted ADR	A dummy variable equals 1 when the firm issued either a Rule 144a or Level I ADR prior to September 1994. Sources: Company filings, Citibank, J.P. Morgan, Bank of New York

Variable	Description
Firm has owner seated in the CMHN	A dummy variable equals 1 if a firm was represented in the Consejo Mexicano de Hombres de Negocio (Mexican Council of Businessmen, or CMHN) prior to January 1994. Schneider (2000) reports that the CMHN was the single most influential business lobbying organization in Mexico, and that the CMHN was even given the opportunity to veto presidential candidates offered by the PRI. For this dummy variable, we only include firms whose owner-manager on the CMHN had a majority of his estimated wealth invested in that firm. Sources: Schneider (2000), Company 20-F filings, and interviews with Mexican senior managers
Foreign firm ownership (at least minority) pre-crisis	A dummy variable equals 1 when the firm was at least 10% owned by a foreign firm prior to September 1994. Sources: Company filings and interviews with Mexican senior managers
Firm owned a 10% share in a bank pre-crisis	A dummy variable equals 1 when the firm owned at least a 10% ownership stake in a bank prior to September 1994. Source: Company filings
Recommended by Baring Research Group for being a High-Quality Firm	A dummy variable equals 1 if a firm if it received a "buy" or "core holding" recommendation from the research group at Baring Case de Bolsa in a publication delivered to foreign institutional investors in January 1992. This publication made forward-looking estimates of the quality of Mexican firms. Sources: 1992 Report from Baring Casa de Bolsa
Short-term foreign liabilities/Total liabilities	I divide a firm's 1993 short-term foreign liabilities by its 1993 total liabilities. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Total liabilities/Total assets	I divide a firm's 1993 total liabilities by its 1993 total assets. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Foreign sales/National sales	I divide a firm's 1993 foreign sales by its 1993 total sales. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Log of assets	I take the natural log of a firm's 1993 total assets. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Petroleum industry (PET)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 13 or 29. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Finance/real estate industry (FRE)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 60, 61, 62, 63, 64, 65, 66, 67, 68 or 69. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Consumer durables industry (CDR)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 25, 30, 36, 37, 50, 55 or 57. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Basic industry (BAS)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 10, 12, 14, 24, 26, 28 or 33. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings

Variable	Description
Food/tobacco industry (FTB)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 1, 20, 21 or 54. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Construction industry (CNS)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 15, 16, 17, 32 or 52. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Capital goods industry (CAP)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 34, 35 or 38. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Transportation industry (TRN)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 40, 41, 42, 44, 45 or 47. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Utilities industry (UTI)	A dummy variable equals 1 if the firm's main business had two-digit SIC Codes 46, 48 or 49. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Textiles/trade industry (TEX)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 22, 23, 31, 51, 53, 56 or 59. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Services industry (SVS)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 72, 73, 75, 80, 82 or 89. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings
Leisure industry (LSR)	A dummy variable equals 1 if the firm's main business had two-digit SIC Code 27, 58, 70, 78 or 79. Sources: Mexico Stock Exchange, <i>Anuario Financiero</i> 1993, Company filings

Table II
Summary Statistics

Panel A. Dependent Variables

Variable	Obs	Mean	Std. Dev.	Min	Max	Population Number
Asset Taking						
[1] Firm's owner and/or senior manager engaged in illegal asset taking and fled Mexico	183					8
[2] Firm's owner and/or senior manager was accused of any type of asset taking	183					24
[3] Firm's owner and/or senior manager was accused of illegal asset taking	183					11
[4] Firm's owner and/or senior manager was accused of legal asset taking	183					20
Outside Resources						
[5] Received outside resources through equity, bonds, or syndicated loans in the five years after the crisis	183					80
[6] Log of the amount of outside resources a firm received within five years, conditional on the firm having received resources	80	8.06	1.08	2.93	9.71	

Table II
Summary Statistics

Panel B. Independent Variables

Variable	Obs	Mean	Std. Dev.	Min	Max	Population Number
Role of ADR						
[7] Firm has ADR	183					58
[8] Firm has listed ADR	183					23
[9] Firm has unlisted ADR	183					35
Control Variables						
[10] Firm has owner seated in the CMHN	183					37
[11] Foreign firm owns at least 10%	183					15
[12] Firm owned a 10% share in a bank pre-crisis	183					30
[13] Recommended by Baring Research Group for being a High-Quality Firm	99					10
Financial Controls						
[14] 1993 Short-term foreign liabilities/Total liabilities	183	0.15	0.18	0.00	0.76	
[15] 1993 Total liabilities/Total assets	183	0.49	1.10	0.00	14.86	
[16] 1993 Foreign Sales/National Sales	183	0.15	0.65	0.00	7.72	
[17] 1993 Log of assets	183	19.81	1.72	15.60	23.78	
Industry Controls						
[18] Petroleum industry (PET)	183					1
[19] Finance/real estate industry (FRE)	183					50
[20] Consumer durables industry (CDR)	183					21
[21] Basic industry (BAS)	183					28
[22] Food/tobacco industry (FTB)	183					28
[23] Construction industry (CNS)	183					16
[24] Capital goods industry (CAP)	183					5
[25] Transportation industry (TRN)	183					3
[26] Utilities industry (UTI)	183					4
[27] Textiles/trade industry (TEX)	183					19
[28] Services industry (SVS)	183					3
[29] Leisure industry (LSR)	183					5

Table II

Panel C. Correlation Matrix. (See Panels A and B for the key.)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
[1]	1.000																
[2]	0.550	1.000															
[3]	0.807	0.682	1.000														
[4]	0.426	0.927	0.528	1.000													
[5]	0.027	0.147	-0.055	0.132	1.000												
[6]	0.017	0.067	0.017	0.088		1.000											
[7]	0.142	0.257	0.199	0.271	0.299	0.330	1.000										
[8]	0.000	0.146	0.033	0.174	0.264	0.232	0.557	1.000									
[9]	0.168	0.182	0.208	0.174	0.132	0.157	0.714	-0.184	1.000								
[10]	0.092	0.207	0.087	0.246	0.269	0.420	0.330	0.137	0.274	1.000							
[11]	-0.118	-0.063	-0.147	-0.038	-0.021	0.087	0.093	0.023	0.091	0.074	1.000						
[12]	-0.095	0.047	-0.117	0.072	0.205	0.079	0.047	0.233	-0.140	0.108	0.138	1.000					
[13]	-0.051	-0.093	-0.064	-0.087	0.176	0.261	0.250	0.199	0.128	0.298	0.037	0.218	1.000				
[14]	-0.069	0.040	-0.063	0.084	0.015	0.029	0.060	0.012	0.061	0.087	0.143	0.035	-0.011	1.000			
[15]	-0.007	0.201	0.004	0.208	0.090	0.130	-0.045	-0.020	-0.037	0.124	0.088	-0.034	-0.024	0.105	1.000		
[16]	-0.006	-0.043	-0.021	-0.033	0.089	-0.103	-0.026	-0.009	-0.024	0.000	0.036	-0.025	-0.031	0.285	0.002	1.000	
[17]	0.165	0.195	0.195	0.157	0.401	0.440	0.345	0.230	0.215	0.322	0.049	0.093	0.270	-0.113	-0.001	-0.005	1.000
[18]	-0.016	-0.029	-0.020	-0.027	-0.065		0.109	-0.028	0.152	-0.037	-0.041	-0.033	-0.018	-0.006	0.024	-0.007	-0.039
[19]	0.229	0.089	0.184	0.010	-0.021	0.096	-0.154	-0.121	-0.080	-0.095	-0.224	-0.238	-0.147	-0.500	-0.038	-0.142	0.186
[20]	-0.077	-0.038	-0.095	-0.022	-0.075	-0.206	-0.135	-0.085	-0.088	-0.096	0.205	0.026	-0.011	0.364	-0.031	0.229	-0.250
[21]	-0.091	0.015	-0.051	0.037	0.023	-0.024	-0.061	-0.024	-0.052	0.013	0.194	0.140	0.031	0.192	0.167	0.133	0.013
[22]	-0.091	-0.120	-0.113	-0.105	0.023	0.059	0.037	0.068	-0.014	0.164	0.051	0.140	0.165	0.041	-0.061	-0.085	0.090
[23]	-0.066	-0.063	-0.082	-0.051	0.117	-0.058	0.163	0.174	0.046	0.037	-0.035	0.072	0.096	-0.019	-0.017	-0.035	0.043
[24]	-0.036	0.133	0.226	0.150	-0.013	0.025	0.102	-0.064	0.174	-0.001	-0.093	-0.074	-0.040	-0.007	0.001	0.001	0.027
[25]	0.393	0.205	0.313	0.224	0.060	0.065	0.190	0.081	0.156	0.149	-0.072	0.059	-0.031	0.093	0.038	0.065	0.090
[26]	-0.032	0.053	-0.040	0.063	0.170	0.163	0.219	0.394	-0.073	0.111	0.093	0.035	0.128	0.011	-0.019	-0.018	0.124
[27]	-0.073	-0.026	-0.090	-0.010	-0.083	-0.052	-0.001	-0.075	0.062	-0.082	-0.020	-0.006	-0.082	0.040	-0.023	-0.057	-0.146
[28]	-0.028	-0.050	-0.034	-0.046	-0.114		-0.088	-0.049	-0.063	-0.065	-0.072	-0.057	-0.031	-0.060	-0.013	-0.007	-0.156
[29]	-0.036	-0.055	-0.044	-0.060	-0.013	-0.085	0.030	-0.064	0.089	-0.001	-0.093	-0.074	-0.040	0.091	-0.012	-0.025	-0.115

Note: Three cells are blank because there was correlation to perform. All firms that received resources had the same value on the dummy variable no matter how much they raised. Also, the one firm in the petroleum industry and the three firms in the non-financial services industry did not receive outside resources.

Table III

These firms had insiders who were confirmed by law enforcement, shareholders and regulators as having illegally taken assets and having fled Mexico.

Firm	Firm has ADR or is tied to firm with ADR	Insider's Chosen Destination
Abaco Grupo Financiero, S.A. de C.V.	Listed ADR	Suburb of Vancouver, British Columbia, Canada*
Aerovias de Mexico, S.A. de C.V.	Listed ADR	Switzerland
Banco Mexicano, S.A.	Owned by Grupo Financiero Invermexico, which had unlisted ADR	San Antonio, Texas, USA
Banpais, S.A.	Listed ADR	San Diego, California, USA
Corporacion Mexicana de Aviacion, S.A. de C.V.	Unlisted ADR	Switzerland
Grupo Financiero Asemex Banpais, S.A. de C.V.	Owned Banpais, which had Listed ADR	Spain
Grupo Financiero Invermexico, S.A. de C.V.	Unlisted ADR	San Antonio, Texas, USA
Grupo Financiero Mexival, S.A. de C.V.	Partner Firm with Banpais, which had Listed ADR	Spain

Note: These eight cases involved five Mexican individuals, and that is why the same destination appears twice in some cases.

*: The chief insider was arrested in Nuevo Leon, Mexico, but one of the chief codendants and a director of the financial group was recently arrested in May 2001 in Canada by way of a Mexican extradition request.

Table IV

This table provides details on the accusations of illegal asset taking.

Firm	Brief Summary of the accusations of Illegal Asset Taking	Year in which the Illegal Asset Taking Took Place	Those Bringing Forward the Accusation	What Subsequently Happened to the Firm and the Firm's Owner/Senior Manager
Abaco Grupo Financiero, S.A. de C.V.	<p>Jorge Lankenau convinced many of Abaco's customers, shareholders and other investors to buy into a high-yield bond fund that would return more than 10% a year in dollars. Mr. Lankenau raised \$170 million for the fund, called Scottie Holdings Corp., registered in Montevideo, Uruguay. But instead of purchasing bonds, regulators say Mr. Lankenau invested \$130 million in Abaco Confia stock, which he expected to soar once he resolved his capitalization problems. Another \$40 million was invested in an Atlanta land deal. After regulators at Mexico's National Banking and Securities Commission (CNBV) learned about Scotte Holdings, minority shareholders tried to pull their money out of the fund. To back up the redemptions, Lankenau allegedly stole \$80 million from Abaco's Banca Confia to put in the fund. After regulators caught him for a second time, Lankenau allegedly put \$75 million of that \$80 million back into Banca Confia. Another \$5 million disappeared, and regulators suspected that Lankenau actually stole the \$5 million plus an undetermined percentage of the initial \$170 million. A codefendant and former Mexican politician named Jose Raul Monter Ortega was a director and stands accused of participating directly in a major part of the fraud.</p>	1996-97	Customers, Minority shareholders and Mexican regulators	<p>Lankenau has been under house arrest since November 1997 on charges of fraud and embezzlement, and Monter Ortega was only recently arrested in Canada in May 2001 through a Mexican extradition request. Mexico's National Banking and Securities Commission (CNBV) was the first to investigate the charges. The CNBV ordered the sale of Abaco's Banca Confia to Citibank at a firesale price of \$45 million together with a commitment to recapitalize the bank with an infusion of \$120 to \$130 million in fresh capital. Both the Mexican Stock Exchange and the New York Stock Exchange subsequently delisted Abaco Group Financiero.</p>
Aerovias de Mexico, S.A. de C.V.	<p>Executive Gerardo de Prevoisin Legorreta allegedly embezzled \$61 million at the start of the Mexico crisis from the parent company of the Aeromexico and Mexicana airline carriers.</p>	September, 1994	Minority shareholders and Mexican law enforcement	<p>Gerardo de Prevoisin Legorreta was arrested in Zurich, Switzerland, in August 1998. He was brought to Mexico, spent time in prison, and then was allowed bail in April 2001.</p>

Firm	Brief Summary of the Illegal Stealing	Year in which the Illegal Asset Taking Took Place	Those Bringing Forward the Accusation	What Subsequently Happened to the Firm and the Firm's Owner/Senior Manager
Banco Mexicano, S.A.	Senior executive Salvador Madero Madrigal allegedly stole \$8 million from Grupo Financiero Invermexico, the parent company of Banco Mexicano.	1995	Minority shareholders and Mexican law enforcement	Salvador Madero Madrigal was arrested in San Antonio, Texas. Regulators ordered that the bank be sold to Banco Santander Central Hispano of Spain.
Banpais, S.A.	Ramiro Solis Suarez, ex-president, and Angel Isidoro Rodriguez Saez, ex-owner, each stand accused of stealing more than \$70 million.	1995	Minority shareholders and Mexican law enforcement	Ramiro Solis Suarez, ex-president of Grupo Financiero Banpais, was arrested in San Diego in January 1999 on multimillion-dollar fraud charges. Solis' former boss at Banpais, bank owner Angel Isidoro Rodriguez Saez, was arrested in June 1998 in Spain but remains free in Mexico awaiting trial by the federal Attorney General's office. Mexican bank regulators ordered that Banpais be sold to Grupo Financiero Banorte in August 1997.
Corporacion Mexicana de Aviacion, S.A. de C.V.	Executive Gerardo de Prevoisin Legorreta allegedly embezzled \$61 million at the start of the Mexico crisis from the parent company of the Aeromexico and Mexicana airline carriers. He fled to Zurich, Switzerland, and remained there for four years before being arrested.	September, 1994	Minority shareholders and Mexican law enforcement	Gerardo de Prevoisin Legorreta was arrested in Zurich, Switzerland, in August 1998. He was brought to Mexico, spent time in prison, and then was allowed bail in April 2001.
Grupo Financiero Asemex Banpais, S.A. de C.V.	Ramiro Solis Suarez, ex-president of Banpais, allegedly stole \$8 million. Angel Isidoro Rodriguez Saez, the owner of the bank and parent financial group, allegedly stole approximately \$80 million.	1995	Minority shareholders and Mexican law enforcement	Financial group owner Angel Isidoro Rodriguez Saez was arrested in June 1998 in Spain on multi-million dollar fraud charges.

Firm	Brief Summary of the Illegal Stealing	Year in which the		What Subsequently Happened to the Firm and the Firm's Owner/Senior Manager
		Illegal Asset Taking Took Place	Those Bringing Forward the Accusation	
Grupo Financiero Invermexico, S.A. de C.V.	Senior executive Salvador Madero Madrigal allegedly stole \$8 million from Grupo Financiero Invermexico, the parent company of Banco Mexicano. A \$50 million loan from Grupo Financiero Invermexico was also found in the Swiss bank account of Raul Salinas, the brother of former Mexican President Carlos Salinas.	1995	Minority shareholders and Mexican law enforcement	Salvador Madero Madrigal was arrested in San Antonio, Texas. Both the Mexican Stock Exchange and the New York Stock Exchange subsequently delisted Grupo Financiero Invermexico. Regulators sold the group to Banco Santander Central Hispano of Spain.
Grupo Financiero Mexival, S.A. de C.V.	Angel Isidoro Rodriguez Saez, already the controlling shareholder of Grupo Financiero Mexival, decided to purchase Banpais and create Grupo Financiero Asemex Banpais in September 1993. Funds from Mexival were used to purchase Banpais, and he later allegedly stole at least \$80 million in 1995.	1995	Minority shareholders and Mexican law enforcement	Financial group owner Angel Isidoro Rodriguez Saez was arrested in June 1998 in Spain on multi-million dollar fraud charges.
Grupo Sidek, S.A. de C.V.	Jose and Jorge Martinez-Guitron, who are brothers, cofounders, and joint executives of Sidek, were removed from company management after being accused by minority shareholders of a diverse range of illegal transactions that partly bankrupted the large business group. The entire Sidek business group had reported \$744.5 million in revenues and \$148.5 million in net profits in 1993. The exact value of the illegal transactions is unknown, but the illegal transactions allegedly held lead to the effective bankruptcy of the entire business group.	1995	Minority shareholders, Mexican creditors, and Mexican regulators	Jose and Jorge Martinez-Guitron, the two brothers that founded the Sidek conglomerate, were removed from management.

Firm	Brief Summary of the Illegal Stealing	Year in which the Illegal Asset Taking Took Place	Those Bringing Forward the Accusation	What Subsequently Happened to the Firm and the Firm's Owner/Senior Manager
Grupo Simec, S.A. de C.V.	<p>The controlling owners, Jose and Jorge Martinez-Guitron, were accused by minority shareholders, creditors and regulators with having conducted a diverse range of illegal transactions. The entire Sidek business group had reported \$744.5 million in revenues and \$148.5 million in net profits in 1993. The exact value of the illegal transactions is unknown, but the illegal transactions allegedly helped lead to the effective bankruptcy of the entire business group.</p>	1995	<p>Minority shareholders, Mexican creditors, and Mexican regulators</p>	<p>Jose and Jorge Martinez-Guitron, the two brothers that founded the Sidek conglomerate, were removed from management.</p>
Grupo Situr, S.A. de C.V.	<p>The controlling owners, Jose and Jorge Martinez-Guitron, were accused by minority shareholders, creditors and regulators with having conducted a diverse range of illegal transactions. The entire Sidek business group had reported \$744.5 million in revenues and \$148.5 million in net profits in 1993. The exact value of the illegal transactions is unknown, but the illegal transactions allegedly helped lead to the effective bankruptcy of the entire business group.</p>	1995	<p>Minority shareholders, Mexican creditors, and Mexican regulators</p>	<p>Jose and Jorge Martinez-Guitron, the two brothers that founded the Sidek conglomerate, were removed from management.</p>

Table V

This table provides details on legal asset taking.

Firm	Summary	Sources
Abaco Grupo Financiero, S.A. de C.V.	Chairman Jorge Lankenau was accused of using minority investors' capital intended for a high-yield fixed-income fund instead to manipulate the share price for the benefit of controlling shareholders	Wall Street Journal (11/19/97)
Aerovias de Mexico, S.A. de C.V.	Chief executive Gerardo de Prevoisin was accused of making massive donations in the tens of millions of dollars to the ruling party with the firm's money. These donations were legal and undisclosed.	Sourcemex Economic News & Analysis on Mexico (8/23/95) Wall Street Journal (6/26/2000)
Altos Hornos de Mexico, S.A.	Alonso Ancira, President of AHMSA, did not allow minority shareholders to consider a legitimate takeover by Grupo IMSA. Ancira had already been accused of bankrupting the company through questionable use of funds raised in the debt markets.	Reforma (4/26/1996), Reforma (11/1/99)
Banpais, S.A.	Controlling shareholder Angel Isidoro Rodriguez Saez was accused of effectively bankrupting his bank through deliberate financial mismanagement. The government took the bank out of his hands on the grounds of financial mismanagement.	Wall Street Journal (4/24/2000)
Consorcio G Grupo Dina, S.A. de C.V.	Controlling shareholder Raymundo Gomez Flores was accused of engaged in undisclosed related-party deals that enriched himself at the expense of outside investors. Before the crisis, he had allegedly engaged in money laundering. After the crisis, he was accused of having engaged in legal expropriation of minority investors.	Sourcemex Economic News & Analysis on Mexico (8/23/95)
Corporacion Mexicana de Aviacion, S.A. de C.V.	Chief executive Gerardo de Prevoisin was accused of having made illegal and undisclosed donations to the ruling party with the firm's money.	Wall Street Journal (12/10/97)
Cydsa, S.A.	Controlling shareholder Tomas Gonzalez allegedly recapitalized his bank with funds from Cysa without approval from minority shareholders. He allegedly allowed the debt position of Cydsa to deteriorate while bailing out Grupo Financiero Serfin, a financial group would later be taken over by the government.	

Firm	Summary	Sources
Fomento Economico Mexicano, S.A. de C.V.	Controlling shareholders allegedly forced minority shareholders to allow the controlling shareholders to swap illiquid shares in a holding company for new New York Stock Exchange depository shares. This exchange gave minority shareholders a modest dividend increase, but force the minority shareholders to accept a sharp reduction in the voting power of their shares to 19.2% from 49%. Institutional investors raised loud objections, but they stated that they had no exit option. If they didn't accept the controlling shareholders' demands, the institutional investors would get stuck with a type of FEMSA share that rarely traded and that traded at a sharp discount. The institutional investors were unable to engage in collective action and defeat the offer.	Wall Street Journal Europe (5/11/98)
Grupo Casa Autrey	In June 1999, Grupo Casa Autrey had accumulated debt surpassing \$200 million. Half of that debt had allegedly been given (often without full disclosure to minority shareholders) to two outside entities owned by Autrey family. The Autrey family allegedly took \$100 million out of Grupo Casa Autrey and loaned the money to finance Debir, a vehicle distribution company, and Principa, which has a 26 percent share in Satelites Mexicanos (Satmex).	El Financiero (8/26/99)
Grupo Elektra, S.A. de C.V.	Chairman Ricardo Salinas Pliego had the retail chain purchase a 15% stake in the then-struggling and private TV Azteca, in which he and his family owned around 35%. Minority shareholders in Elektra strongly objected to the transaction.	Forbes (11/1/99)
Grupo Financiero Asemex Banpais, S.A. de C.V.	Controlling shareholder Angel Isidoro Rodriguez Saez was accused of having effectively bankrupted his bank through deliberate financial mismanagement. The government took the bank out of his hands on the grounds of financial mismanagement.	Reforma (4/26/1996), Reforma (11/1/99)
Grupo Financiero Bancomer, S.A. de C.V.	Three U.S. hedge funds went to court in the U.S. and accused Grupo Financiero Bancomer of breach of contract and negligence stemming from its role as trustee for a series of bonds first issued by Grupo Sidek in 1993. The U.S. funds had held around \$21 million in Sidek bonds. A U.S. judge agreed to hear the case after denying a motion by Grupo Financiero Bancomer to dismiss the charges.	Wall Street Journal (11/5/97)
Grupo Financiero Mexival, S.A. de C.V.	Controlling shareholder Angel Isidoro Rodriguez Saez was accused of having effectively bankrupted his bank through deliberate financial mismanagement. The government took the bank out of his hands on the grounds of financial mismanagement.	Reforma (4/26/1996), Reforma (11/1/99)

Firm	Summary	Sources
Grupo Financiero Serfin, S.A. de C.V.	<p>General Electric Co.'s NBC unit filed suit in a Mexican court against Grupo Financiero Serfin SA, Mexico's third-largest banking group, claiming damages of \$300 million for alleged breach of fiduciary duty. Serfin's chief executive put the firm in a difficult legal position by violating a trust agreement it had agreed to oversee between General Electric and TV Azteca. Serfin had earlier handled the IPO for TV Azteca. The controlling shareholders of Serfin had engaged in secret dealings with TV Azteca. Serfin agreed to assist in TV Azteca's efforts to renege on an agreement that TV Azteca had made to sell a large minority stake to NBC through an exercise of warrants.</p>	Wall Street Journal (1/15/97)
Grupo Radio Centro, S.A. de C.V.	<p>The Aguirres, the family that controls Grupo Radio Centro, agreed to sell the firm in July 1998 to AMFEM Inc.'s Chancellor Media Corp under terms that favored the Aguirres. Chancellor, before later reneging on its own agreement, had agreed to buy shares directly from Aguirre's for twice the share price for a total of \$237 million. Minority shareholders were allegedly left out of the transaction, and the objections of minority shareholders were ignored. Minority shareholder's objections were unheeded as Grupo Radio Centro took a 51% stake in an upstart phone carrier in 1997. The company later spun off most of the stake in the phone carrier to a company privately owned by the Aguirre family at an artificially low price. Earlier in 1996, the Aguirre family had used record profits to secretly award themselves management fees and paid no dividend to investors. In 1999, the Aguirres threatened to unilaterally take the company private. Minority investors objected to a transaction that would force them to sell out at a big loss.</p>	Babatiz Torres (1998), Dow Jones International News (11/22/99)
Grupo Sidek, S.A. de C.V.	<p>Controlling shareholders allegedly used transfer pricing and secret deals to expropriate more than \$25 million from companies affiliated with Grupo Sidek. The expropriation reportedly centered around the purchase of land for tourism developments and excess charges on projects done by contractors connected to one of the group's directors. The exact nature of the expropriation was never confirmed, although the senior executives were forced to leave the company after the expropriation came to the attention of creditors and minority shareholders.</p>	Dow Jones International News (4/8/97)
Grupo Simec, S.A. de C.V.	<p>Controlling shareholders allegedly used transfer pricing and secret deals to expropriate more than \$25 million from companies affiliated with Grupo Sidek. The expropriation reportedly centered around the purchase of land for tourism developments and excess charges on projects done by contractors connected to one of the group's directors. The exact nature of the expropriation was never confirmed, although the senior executives were forced to leave the company after the expropriation came to the attention of creditors and minority shareholders.</p>	Dow Jones International News (4/8/97)

Firm	Summary	Sources
Grupo Situr, S.A. de C.V.	<p>Controlling shareholders allegedly used transfer pricing and secret deals to expropriate more than \$25 million from companies affiliated with Grupo Sidek. The expropriation reportedly centered around the purchase of land for tourism developments and excess charges on projects done by contractors connected to one of the group's directors. The exact nature of the expropriation was never confirmed, although the senior executives were forced to leave the company after the expropriation came to the attention of creditors and minority shareholders.</p>	Dow Jones International News (4/8/97)
Grupo Synkro, S.A. de C.V.	<p>Members of the Ballesteros family, who served as owner-managers, were accused of using as much as 40 percent of the firm's annual sales revenues to purchase airplanes and take "luxurious" trips. The firm later became insolvent.</p>	Reforma (7/31/97)
Ladrillera Monterrey, S.A.	<p>Ladrillera Monterrey announced the resignations of 27 senior managers and employees held responsible for the mysterious disappearance of \$7 million. None of the 27 were legally prosecuted.</p>	Reforma (11/1/99)

Table VI

This table presents the results of probit regressions on all asset taking, illegal asset taking and legal asset taking. Each panel presents the results of a probit regression, in which the coefficients show the change in the probability of asset taking for an infinitesimal change in each independent, continuous variable and for a discrete change in each dummy variable. In Panels 1-4, the dependent variable is a dummy that equals 1 when either the firm's controlling shareholder or senior manager was accused of taking part in any type of asset taking. Panels 5-6 show the results of a probit regression in which the dependent variable is a dummy that equals 1 when either the firm's controlling shareholder or senior manager was accused of illegal asset taking. Panels 7-8 show the results of a probit regression in which the dependent variable that equals 1 when either the firm's controlling shareholder or senior manager was accused of legal asset taking. Table I describes all variables in detail. Robust standard errors are shown below the coefficients.

	DV: All Asset Taking		DV: Illegal Asset Taking		DV: Legal Asset Taking			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
	Full Model	Full Model	FRE Firms Excluded	FRE Firms Excluded	Full Model	Full Model	Full Model	Full Model
Firm has listed ADR	0.2178 ** [0.1063]	0.2213 ** [0.1383]	0.1900 * [0.1552]	0.1539 [0.1502]	0.0711 [0.0779]	0.1976 ** [0.2028]	0.2393 *** [0.1064]	0.2329 ** [0.1375]
Firm has unlisted ADR	0.2042 *** [0.0848]	0.2179 *** [0.0894]	0.1357 * [0.0926]	0.1573 * [0.0969]	0.1509 *** [0.0719]	0.0868 * [0.0976]	0.1954 *** [0.0828]	0.1667 *** [0.0730]
Firm has owner seated in the CMHN	0.0972 ** [0.0587]	0.0604 [0.0731]	0.0604 [0.0731]	0.0876 [0.0713]	-0.0120 [0.0158]	-0.0120 [0.0158]	0.1275 *** [0.0614]	0.1275 *** [0.0614]
Foreign firm ownership	-0.0478 [0.0282]	-0.0245 [0.0522]	-0.0245 [0.0522]	-0.0079 [0.0338]	-0.0079 [0.0338]	a	-0.0328 [0.0253]	-0.0328 [0.0253]
Firm owned a bank	0.1865 ** [0.1009]	0.1168 [0.0852]	0.1168 [0.0852]	0.1547 ** [0.0847]	0.1547 ** [0.0847]	a	0.1658 ** [0.0921]	0.1658 ** [0.0921]
pre-crisis	0.2216 * [0.1428]	0.2150 ** [0.1108]	0.2150 ** [0.1108]	0.1896 ** [0.1286]	0.1896 ** [0.1286]	-0.1343 [0.1293]	0.2016 ** [0.1253]	0.2016 ** [0.1253]
Short-term foreign liabilities/Total liabilities	0.0267 *** [0.0010]	0.1948 [0.1498]	0.1948 [0.1498]	0.0839 [0.0921]	0.0839 [0.0921]	-0.0205 [0.0395]	0.0190 *** [0.0071]	0.0190 *** [0.0071]
Total assets	-0.1407 *** [0.0514]	-0.0894 * [0.0488]	-0.0894 * [0.0488]	-0.1093 *** [0.0497]	-0.1093 *** [0.0497]	-0.0518 [0.0432]	-0.1218 *** [0.0471]	-0.1218 *** [0.0471]
Foreign sales/	0.0183 ** [0.0101]	0.0188 [0.0217]	0.0188 [0.0217]	0.0081 [0.0152]	0.0081 [0.0152]	0.0102 [0.0125]	0.0102 [0.0080]	0.0102 [0.0080]
Log of assets	a	a	a	a	a	a	a	a
Recommended pre-crisis as high-quality firm by Baring	No	Yes	No	Yes	No	Yes	No	Yes
All industry controls included	183	164	123	114	183	70	183	164
Joint p-value for the industry controls	0.0745	0.0745	0.2506	0.2506	0.0259	0.0259	0.1623	0.1623
Number of Observations	183	164	123	114	183	70	183	164
Log likelihood	-65.5006	-45.7245	-32.0733	-27.3138	-40.5335	-20.3349	-58.9923	-40.8905
p-value	0.0041	0.0005	0.0086	0.0074	0.0249	0.0000	0.0025	0.0013
Pseudo R-squared	0.0788	0.3303	0.2968	0.3847	0.0849	0.2917	0.0954	0.3484

Asterisks denote significance levels: * indicates significance at the 10% level, ** at the 5% level, and *** at the 1% level.

The letter a denotes the fact that the dummy was automatically dropped from the probit regression when none of the firms with the dummy equal to 1 had insiders accused of asset taking.

Note: The sample size drops from 183 to 164 in Panel [2] because among the nine firms from the petroleum, non-financial services and leisure industries, and among the 10 firms recommended pre-crisis by Baring, none had insiders accused of asset taking. Those firms are automatically dropped from the probit regression when the above variables are included. The sample size in Panel [3] is 123 because 50 firms from the finance/real estate sector are excluded, and because the probit regression automatically drops the 10 additional Baring-recommended firms whose insiders did not engage in asset taking. The sample size in Panel [4] drops to 114 because once all industry controls are included, the nine firms from the petroleum, non-financial services and leisure industries are automatically dropped from the probit regression. That is because none of those nine firms had insiders accused of asset taking. The sample size in Panel [6] drops to 70 because there were no accusations of illegal asset taking against the firms with foreign ownership, the firms that owned a bank pre-crisis, the firms from the petroleum, food and tobacco, construction, utilities, textile/trade, non-financial services, and leisure industries; and the one remaining firm that was recommended pre-crisis by Baring. Also, the two remaining firms from the transportation industry each had insiders accused of illegal asset taking. These firms were all automatically dropped from the probit regression. The sample size in Panel [8] drops to 164 because there were no accusations of legal asset taking against the 10 firms recommended pre-crisis by Baring, or against the nine firms from the petroleum, non-financial services and leisure industries.

Table VII

This table shows the history of SEC legal action and private plaintiff action taken against all U.S.-listed Mexican firms and their insiders for securities fraud connected to Mexican firms between 1 January 1995 and 30 June 2002.

Panel A. SEC Legal Action

SEC Legal
Release Number/
Administrative
Proceeding File

Number	Release Date	Company Name	Notes
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No SEC legal action taken

Note: The SEC took a handful actions against Mexican nationals, who were themselves insiders of Mexican firms, but these SEC actions were connected with insider trading by Mexican nationals in U.S.-domiciled firms.

Panel B. Private Litigation

Year	Case Name	Case Summary	Outcome
1995	Greenfield v. Banpais, S.A., filed October 11, 1994 in the Southern District of New York.	The plaintiffs charged the U.S.-listed Mexican firm and its insiders with material misstatements and/or omissions in violation of the federal securities laws.	The plaintiffs received a \$9.25 million settlement in October 1995.

Note: This case focused on misrepresentation of the firm's loan-loss provisions and overall health by insiders six months prior to the Mexico crisis. This case did not deal with the alleged theft of \$70 million by company insiders that occurred in the months after the case was filed.

Sources: www.sec.gov, Lexis, clerks of the U.S. federal district courts, and interviews with 115 plaintiffs' attorneys

Table VIII: The Rarity and Frequent Ineffectiveness of SEC Action

This table shows the history of SEC legal action taken against all U.S.-listed foreign firms and their insiders between 1 January 1995 and 30 June 2002. This table included the five cases where the SEC sued cross-listed foreign firms in court as well as the one case in which the SEC accepted a formal administrative settlement without going to court.

SEC Legal Release Number/ Administrative Proceeding File Number	Release Date	Country Involved	Company Name	Notes
Securities Exchange Act of 1934 Release No. 46130, Accounting and Auditing Enforcement Release No. 1584; SEC News Digest Issue 2002-124	6/27/2002	Netherlands	Baan	The SEC settled its administrative proceedings with auditor of U.S.-listed Baan for hiding his own personal business ties to the company. The auditor's firm is an affiliated of Ernst & Young. The auditor agreed to pay a \$400,000 civil fine and to provide evidence to his independence in all future Dutch audits presented to the SEC.
Litigation Release Nos. 15631 and 17458; SEC News Digest Issue 2002- 66; Securities Act of 1933 Release No. 7499; Securities Exchange Act of 1934 Release No. 39596	1/29/98 and 4/4/02	Canada	MTC Electronic Technologies	Insiders engaged in false disclosure and accounting fraud. MTC Electronic Technologies is a British Columbian company listed on the NASDAQ. One associate of the company insiders agreed in 1998 through a SEC administrative proceeding to cease and desist from future violations of the securities laws. The insiders were ordered by a U.S. district judge in April 2002 to pay \$33.49 million. The judge also ordered them to avoid all future violations of the securities laws, and barred them from being officers or directors of any public firm. The insiders have been living abroad and have largely ignored the entire case.
Release No. 45579, Press Release 2002-38, SEC News Digest 2002-52	3/18/02	Cyprus, Belgium	ACLN	The SEC suspended U.S. trading of the cross-listed firm's shares after revelations became public that the firm's financial statements were overwhelmingly fraudulent. The trading suspension lasted for the customary 10 days and then was lifted.

SEC Legal

Release Number/
Administrative

Proceeding File Release Country
Number Date Involved

Company Name Notes

Litigation Release Nos. 15419 and 16975; Accounting and Auditing Enforcement Release No. 1385; Accounting and Auditing Enforcement Release No. 940	7/24/97 and 4/26/01	Canada	International Nesmont Industrial Corporation	Insiders fraudulently inflated the Canadian/NASDAQ-listed company's income and assets. In 2001 the insiders were barred from serving as officers or directors of a public corporation and were enjoined against future violations of the federal securities laws. Because the court accepted their inability to pay, the insiders central to the case did not have to pay the judgment against them. Another insider paid a \$35,000 civil fine. The SEC did not recoup outside shareholders' losses in this case.
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Litigation Release No. 16948	3/30/01	Italy	Montedison	Senior management of this Italian firm inflated earnings while they had a listed ADR. Despite the fact that the company had allegedly overstated company income by \$398 million through fraudulent means, the SEC accepted a settlement from the company of just \$300,000 with no admission of wrongdoing. The SEC left it to the Italian courts to recoup the ill-gotten gains of the former company insiders.
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Administrative Proceeding File Number 3-10318 (aka Release 43372)	9/28/00	Germany	E.ON AG (formerly Veba AG)	The cross-listed German firm falsely denied merger discussions that in fact resulted in a merger with another German firm. The firm, without accepting or denying the charge, agreed with the SEC to a cease and desist settlement related to the false denial of merger discussions. The merger between the two German firms had been completed the year before and was not affected by the settlement.
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Litigation Release Nos. 16773, 15010, and 14626	9/27/00, 8/12/96, and 9/6/95	Italy	Luxottica S.p.A.	The SEC sought disgorgement of over \$600,000 plus interest from an insider in the U.S.-listed Italian firm and her associate. Another business partner of those two individuals settled his case with the SEC for a \$1,000,000 payment. One of the board members of the firms had earlier settled his case with the SEC for \$100,000. The insider still being pursued had allegedly learned of the firm's impending takeover of a U.S. firm, and had engaged with associates in illegal insider trading in her employer's ADRs.
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SEC Legal

Release Number/
Administrative

Proceeding File Number	Release Date	Country Involved	Company Name	Notes
Litigation Release Nos. 16251, 16033 and 16022; Securities Act of 1933 Release No. 7629; Securities Exchange Act of 1934 Release No. 40939; Accounting and Auditing Enforcement No. 1097; and more than 15 related releases	8/12/99, 1/21/99, and 1/13/99	Canada	Livent, Inc.	The Canada-based firm and its insiders were charged with eight years of fraud. The company agreed to a cease-and-desist order and agreed to cooperate in the prosecution of the former insiders. Two of the many insiders charged in the case have thus far agreed to pay disgorgement and prejudgment interest. Others have agreed to cease and desist orders, to being barred from practicing their profession before the SEC in the future, and to being barred from serving as officers or directors of a public company. The SEC's investigation is continuing. Separately, the U.S. Attorney's Office for the Southern District of New York has prosecuted criminal cases against four insiders. Two pled guilty to one felony count each, and two others have been charged with 16 felony counts each.
Securities Exchange Act of 1934 Release No. 41409; Accounting and Auditing Enforcement Release No. 1133	5/17/99	Canada	Insignia Solutions PLC	The U.S.-listed Canadian firm was accused of fraudulent financial reporting. The SEC settled the case through an administrative proceeding by which the company agreed to cease and desist from further violations of the U.S. securities laws. The SEC did not recoup any shareholder losses.
Litigation Release No. 15832; Securities Exchange Act of 1934 Release No. 40305; Accounting and Auditing Enforcement Release No. 1061; Accounting and Auditing Enforcement Release No. 1062	8/5/98 and 1/3/96	Japan	Sony	Sony gave inadequate disclosure about the financial condition of Sony Pictures. Sony has an ADR listed on the NYSE. The case was settled through a \$1 million fine paid by the company, a cease-and-desist order, and changes in Sony's reporting practices. The SEC did not recoup losses for outside shareholders.

SEC Legal

Release Number/
Administrative

Proceeding File Number	Release Date	Country Involved	Company Name	Notes
Litigation Release No. 15321	4/9/97	Luxembourg	Objective Invest Holding, S.A.	An insider engaged in illegal insider trading in Olicom, a Danish/NASDAQ-listed company. The insider agreed to settle the case by paying \$386,000 and committing not to violate the federal securities laws in the future. The SEC did not deliver direct relief to outside shareholders in this case.
Litigation Release Nos. 14823 and 14533	2/23/96 and 6/19/95	Bermuda	Sea Containers, Ltd.	Prior to their Swedish firm's tender offer for the Bermuda-based shipping company, insider of the Swedish firm engaged in insider trading. A judge issued a default decision against them some seven years later, ordering the two men to disgorge \$924,088 in trading profits and \$748,220 in prejudgment interest. Private plaintiffs had reached a settlement in their case against these insiders five years before the SEC brought charges and nearly six years before the court took action through a default judgment.
Litigation Release No. 14770; Securities Exchange Act Release No. 36669; Accounting and Auditing Enforcement Release No. 744; Securities Exchange Act Release No. 36670; and Accounting and Auditing Enforcement Release No. 745	1/3/96	France	Pathe Communications Corp.	Firm insiders were charged with responsibility for materially false and misleading disclosures. As a result, they were not forced to pay any fine. They signed a cease and desist order without admitting or denying any illegality. Most of the alleged violations occurred before the summer of 1990, when the U.S. Congress gave the SEC the authority to levy fines for civil violations of federal securities laws. Separately, by October 1999, Credit Lyonnais had paid \$4 million to the government to avoid facing criminal charges for its past association with Pathe insiders.

Source: www.sec.gov

Table IX

This table presents the results of regressions on firms' receiving new resources by equity, publicly held debt or syndicated loans from the capital markets during 1995-99. Panels 1-3 present the results of a probit regression on receiving any outside resources for an infinitesimal change in each independent, continuous variable and for a discrete change in each dummy variable by equity, publicly held debt or syndicated loans from the capital markets within five years of the crisis (1995-99). Panels 4-9 present the results of an OLS regression on the amount of resources received by a firm from the capital market within five years of the crisis, conditional on the firm having received resources. Table I describes all variables in detail. Robust standard errors are shown below the coefficients.

	Probit Model: Probability of Receiving Resources				OLS Model: Amount of Resources Received						
	[1]	[2]	[3]	Full Model	FRE Firms Excluded	[4]	[5] Full Model	[6] FRE Firms Excluded	[7] Mexican CPI	[8] firm size is (1993 assets) ²	[9] firm size is (log(1993 assets)) ²
	Model	Model	Model								
Firm has listed ADR	1.4832 *** [0.3592]	0.8381 ** [0.4136]	0.8681 * [0.4801]			1.0208 *** [0.2598]	0.7101 ** [0.3495]	0.8081 * [0.4181]	0.6793 * [0.3564]	0.7358 * [0.3763]	0.7101 ** [0.3495]
Firm has listed ADR and insiders were accused of illegal asset taking	a	a	a			-1.4148 *** [0.5311]	-0.7249 [0.8344]	-1.2863 [0.9582]	-0.6449 [0.8501]	-0.8616 [0.8583]	-0.7249 [0.8344]
Firm has listed ADR and insiders were accused of any type of asset taking						0.5940 * [0.3097]	0.5582 * [0.2978]	0.8611 ** [0.3567]	0.5940 * [0.3165]	0.4869 [0.3215]	0.5582 * [0.2978]
Firm has unlisted ADR	0.6334 ** [0.2633]	0.5300 * [0.3180]	0.2944 [0.3613]			-0.2292 [0.5340]	-0.2805 [0.7456]	-1.0742 [0.8584]	-0.3286 [0.7635]	-0.4458 [0.7788]	-0.2805 [0.7456]
Firm has unlisted ADR and insiders were accused of illegal asset taking			-7.8905 *** [1.0477]								
Firm has unlisted ADR and insiders were accused of any type of asset taking											
Firm or its insiders were accused of illegal asset taking	-0.2589 [0.6933]	-0.8336 [0.5971]	a			0.5506 [0.4429]	0.2138 [0.6625]	0.7085 [0.7894]	0.2259 [0.6844]	0.2478 [0.6584]	0.2138 [0.6625]
Firm or its insiders were accused of any type of asset taking											
Firm has owner seated in the CMHN	0.4225 [0.2734]	0.4676 [0.3452]	0.4676 [0.3452]			0.4905 ** [0.1869]	0.4905 ** [0.1869]	0.1958 [0.3400]	0.4960 ** [0.1970]	0.7117 *** [0.1944]	0.4905 ** [0.1869]
Foreign firm ownership pre-crisis	-0.5323 ** [0.2685]	-0.6548 ** [0.2897]	-0.6548 ** [0.2897]			-0.1880 [0.3145]	-0.1880 [0.3145]	-0.1935 [0.3376]	-0.0647 [0.3221]	-0.1880 [0.3449]	-0.1880 [0.3145]
Firm owned a bank pre-crisis	0.3078 [0.4078]	0.6861 ** [0.3078]	0.6862 ** [0.3254]			0.1942 [0.4768]	0.1942 [0.4768]	0.0912 [0.5327]	0.2638 [0.4964]	0.1942 [0.4857]	0.1942 [0.4768]
Short-term foreign liabilities/Total liabilities	-0.2125 [0.7032]	-0.3087 [0.6938]	-0.2125 [0.6938]			0.4976 [1.2041]	0.4976 [1.2041]	0.0921 [1.3159]	0.4094 [1.2726]	1.0474 [1.1468]	0.4976 [1.2041]
Total liabilities/Total assets	0.1585 ** [0.0640]	0.2502 ** [0.1180]	0.2502 ** [0.1180]			0.1151 *** [0.0425]	0.1151 *** [0.0425]	0.1295 *** [0.0567]	0.1272 *** [0.0457]	0.0645 [0.0413]	0.1151 *** [0.0425]
Foreign sales/National sales	0.2575 ** [0.1273]	0.2370 ** [0.1197]	0.2370 ** [0.1197]			0.0159 [0.1485]	0.0159 [0.1485]	0.0530 [0.1571]	0.0358 [0.1500]	-0.0201 [0.1500]	0.0159 [0.1485]
Firm Size	0.3708 *** [0.0733]	0.2781 ** [0.1145]	0.2781 ** [0.1145]			0.2395 ** [0.1002]	0.2395 ** [0.1002]	0.3627 ** [0.1600]	0.2423 ** [0.1028]	0.0000 [0.0000]	0.2758 ** [0.1153]
Recommended pre-crisis as high-quality firm by Baring	-0.0842 [0.5570]	-0.0842 [0.5570]	0.0820 [0.5528]			0.2810 [0.3056]	0.2810 [0.3056]	0.2603 [0.3352]	0.2259 [0.3219]	0.4592 [0.3542]	0.2810 [0.3056]
Industry controls included	No	Yes	Yes			No	Yes	Yes	Yes	Yes	Yes
Joint p-value for the industry controls	181	173	124			0.8047	0.8047	0.4922	0.4671	0.4591	0.3463
Number of Observations	0.0003	0.0001	0.0000			80	80	59	80	80	80
p-value	-112.1608	-90.783	-61.9806			0.0018	0.0000	0.0000	0.0000	0.0001	0.0000
Log Likelihood (for probit model)	0.0972	0.2348	0.2722								
Pseudo R-squared (for probit model)											
R-squared (for OLS model)						0.1427	0.4159	0.4756	0.4166	0.3692	0.4159

Asterisks denote significance levels: * indicates significance at the 10% level, ** at the 5% level, and *** at the 1% level. The symbol *a* denotes the fact that none of the U.S.-listed firms whose insiders engaged illegal asset taking received resources as defined in the model. Note: In Panel 1, the sample size drops from 183 to 181 because the two U.S.-listed firms whose insiders were accused of illegal asset taking did not receive outside resources as defined in the model. These two firms were automatically dropped in the probit regression once the interaction variable for cross-listing combined with accusation of illegal taking was included. In Panel 2, the sample size drops from 183 to 173 because the two U.S.-listed firms, the one firm from the petroleum industry, and the three firms from the non-financial services industries received no resources. In addition, the four firms from the utilities industry all received resources as defined in the model. These firms were automatically dropped from the probit regression when all such variables were included in the model. In Panel 3, the sample size dropped to 124 because the finance/real estate firms were excluded from the analysis, because industry firms none of the five firms from the petroleum and non-financial services received resources as defined in the model, because the one remaining U.S.-listed firm did not receive resources, and because all four of the utilities received resources. The probit regression automatically dropped these firms once all these variables were included in the model. In Panel 4, the sample size dropped to 80 because that is the number of firms that received outside resources in the five years after the crisis as defined in Table I. In Panel 6, the sample size dropped further to 59 because the firms from the finance/real estate industry were excluded from the analysis.

Table X

This table presents the results of a proportional hazard model using the Weibull distribution on firms' receiving new resources by equity, publicly held debt or syndicated loans during 1995-99. The "resource event" in Panels 1-3 occurs every time a firm receives an infusion of outside resources controlled for firm size that is above the median for the firm's industry. The "resource event" in Panels 4-6 occurs every time a firm receives an infusion of outside resources controlled for firm size that is above the average for the firm's industry. Table I describes all variables in detail. All standard errors are corrected for clustering at the firm level. Robust standard errors are shown below the hazard ratios.

	Resource Events above Median for Industry		Resource Events above Average for Industry	
	[1]	[2]	[4]	[5]
	main variables	plus main controls	main variables	plus main controls
		full model		full model
Firm has listed ADR	2.9751 *** [0.9488]	2.101656 ** [0.6418]	3.4202 *** [1.2232]	2.8095 *** [1.0578]
Firm has listed ADR and insiders were accused of any type of asset taking	0.0000 *** [0.0000]	0.0000 *** [0.0000]	0.0000 *** [0.0000]	0.0000 *** [0.0000]
Firm has unlisted ADR	3.1702 *** [1.0970]	2.1928 *** [0.6620]	3.235829 *** [1.1121]	2.7684 *** [1.0641]
Firm or its insiders were accused of any type of asset taking	0.3544 * [0.2185]	0.5041 [0.2937]	0.6475 [0.3931]	0.9227 [0.5585]
Firm has owner seated in the CMHN		1.2257 [0.3100]	1.2707 [0.2988]	1.2152 [0.3806]
Foreign liabilities/Total liabilities		1.5745 [0.5668]	5.2483 *** [3.0357]	3.3889 *** [1.4693]
Total liabilities/Total assets		0.1180 *** [0.0707]	0.1602 *** [0.0739]	0.1323 *** [0.0938]
Foreign sales/National sales		1.0244 * [0.0138]	1.0116 [0.0160]	1.0197 [0.0141]
Firm Size		1.7815 *** [0.3535]	1.5936 ** [0.3290]	1.1031 [0.2400]
Industry controls included	No	No	No	No
Number of subjects	177	175	177	175
Number of events	117	117	67	67
Time at risk	259670	257479	259670	257479
Number of Observations	1479	1469	1479	1469
Wald chi2	692.2(4)	564.69(9)	763.7(4)	647.46(9)
Log Likelihood	-291.7565	-269.737	-205.18785	-195.7742
Prob > chi2	0.0000	0.0000	0.0000	0.0000

Asterisks denote significance levels: * indicates significance at the 10% level, ** at the 5% level, and *** at the 1% level.

**Political Connectedness and the Formation of
Cross-Border Alliances:
A Study of Korean Firms and their American, Japanese,
and European Partners (1987-2000)***

ABSTRACT

This study analyzes cross-border alliance matching in the context of weak and/or incomplete governance institutions. While much is known about the growth and reproduction of preexisting interfirm ties, little is known about the fundamental origins of alliances or of the dynamic evolution of global interfirm networks. This study uses exogenous changes in political regime to identify the sources of cooperation over time (1987-2000) involving firms from all industries in a major emerging economy (South Korea) and their partners from across the globe. The Korean firms' investments in domestic political connectedness provided the most consistent and economically significant returns for securing access to cross-border resources and capabilities. At its core, this vast cross-border business network has largely emerged based on the leveraging of longstanding high school and other regional affiliations in South Korea. These results suggest that even following multiple waves of deep liberalization (including Korea's admission to the WTO and the OECD), investing more in marketing and R&D was not a unique enough activity to attract foreign alliance partners. Over time, liberalization combined with democratic accountability and turnover did lead to expanded opportunities for a wider distribution of politically connected firms to access these cross-border resources and capabilities for the first time.

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1. Introduction

The alliance literature has focused on the growth and reproduction of preexisting alliance ties, but with the exception of Stuart (1998) the literature has paid little attention to the fundamental origins of alliance ties. While one's friends and business colleagues today are likely to be one's friends and business colleagues next year (Gulati 1995; Powell, Koput and Smith-Doerr 1996), an interesting and important question is how those friendships and business ties came into being at the creation of the network. Previous studies have focused on the importance of previous direct ties (Podolny 1994; Gulati 1995; Uzzi 1997; Walker, Kogut and Shan 1997) or on common network references (Burt 1992; Burt and Knez 1995; Gulati 1995) in determining the growth of networks.

By focusing greater attention on the fundamental origins of business ties, one can begin to gain a greater understanding of how new business networks function. Pioneering authors in the literature have called for more work in this area (see for example, Fligstein 2001). The absence of work on the origins of alliance ties is particularly noteworthy in the cross-border environment, where there may be fewer prior relationships and reference points that can guide partner selection (particularly when an emerging economy opens up its economy to global competition). To gain new insights, the matching market literature provides a valuable source of theoretical concepts and empirical methods. The common focus of the two literatures on matching behavior suggests that some of the methods applied to marriage markets can be applied to alliances (Cauley de la Sierra 1995; Nootboom 1999). However, this requires comprehensive longitudinal data on the resources and capabilities of a large population of potential partners.

This study employs a new data set that allows application of the matching market approach to model the formation of alliance ties. While the literature on alliance matching has focused on small-sample surveys and single-industry data, the data set covers a broad segment of

the population of Korean firms that were publicly held in 1987 or else became publicly held during the years 1987-2000. Second, the data set includes comprehensive longitudinal data on both the Korean firms and their foreign partners. Third, it includes all cross-border alliances involving these firms during the years 1987-2000.

To focus on the sources of network formation, this study includes measures of social ties between senior managers and government officials, also coded over time. As a means of cleanly identifying the role of these ties, I note the fact that Korea experienced two important regime changes from military rule to civilian democracy, and from dominant-party civilian democracy to opposition rule, during the years 1987-2000. This makes it possible to identify the role of political resources in gaining access to cross-border resources and capabilities. A key feature of these regime changes is that they can be viewed as exogenous from the perspective of business-government relationships despite the clear evidence of corruption in Korean politics.¹

¹ The literature on Korean development and democratic transition has consistently stated that while some Korean firms' union-busting activities and poor treatment of workers may have precipitated the Korean peoples' demand for true democracy (Diamond and Kim 2000; Diamond and Shin 2000; Jeannie Sung-Eun Cho 2000; Jung-Kwan Cho 2000), the Korean firms were at the same time unable to pick the eventual winners of either the 1992 or 1997 presidential elections. Even in 1992, where the first civilian president, Kim Young Sam, represented a conservative political party, he was forced through popular pressure to act against the interests of all leading business elites. In spite of the fact that Kim Young Sam allowed himself to be sponsored before the election by the previous military clique, he was forced through popular pressure to remove himself of all affiliations with that regime once elected. Kim Young Sam not only ordered the prosecution and imprisonment of the two previous presidents (including his sponsor) for sedition and corruption, but also he removed all key governmental and military figures connected to the prior regime, forced all business executives to reveal the true names on their bank accounts, and temporarily imprisoned business executives who had given money to Kim Young Sam's own election campaign for their ties to the previous military regime. Some firms, including the Hanbo Group, clearly made political contributions later on in the Kim Young Administration and received government-directed preferential treatment for business expansion into already saturated industries such as steel. Private money did not determine the successful election of long-time democracy leader Kim Young Sam in a close election that involved a maverick business candidate (see Manwoo Lee's (1995) careful analysis of how Chung Ju-Young's entry threw the election into a final period of uncertainty for Kim Young Sam). If anything, government money may have helped to elect Kim Young Sam in 1992, but yet he turned against his government backers due to popular pressure. Furthermore, private money certainly did not make the difference in the nearly tied election of 1997 (Oh 1999), where the crucial factor in Kim Dae Jung's victory was the public's awareness of Kim Young Sam's failure to prevent the 1997-98 crisis and Kim Dae Jung's alliance with the Chungcheong political leader, Kim Jong Pil. In the election campaign, Kim Jong Pil had the small amount of popular support in his home region necessary to put Kim Dae Jung over the top, but after the election Kim Dae Jung threw out the publicly announced agreement that he had made with Kim Jong Pil to introduce a parliamentary system. Therefore, the elections of 1992 and 1997 can be treated as "earthquakes" that firms could not have brought into being but which shook the foundations of their

Interestingly, this vast cross-border business network has largely emerged based on the leveraging of longstanding high school and regional affiliations in South Korea. High school and other regional affiliations continue to serve as a primary mechanism for building reputation, preserving trust, and allocating scarce political rents in South Korea itself. Multinational firms seek skilled partners, but have shown a frequent interest in sacrificing some skills in exchange for shared access to political rents. In an economy in which capital is often allocated based on high school and regional affiliation, the growth comes from the government's historical postwar investment in a competitive exam-based system for channeling the best human capital to the best regional public high school. Importantly, the Korean government expended resources in supporting the quality of each regional elite high school, which could provide the basis for capitalistic competition across regions. As a former senior manager at Daewoo remarked, "The government created the elite through a competitive examination. This was the basis for our national trust system beyond family" (Interview with author, April 2000). When a political regime fell, a new network of trained entrepreneurs already existed and could benefit from gaining access to cross-border resources for the first time.

A century ago, the Italian social scientists Gaetano Mosca (1939) and Vilfredo Pareto (1966) emphasized the positive economic and social implications that are derived from a "circulation of elites."² The idea is that in any society, a minority of the populations holds disproportionate power and wealth. The stronger societies are those where this minority is selected through meritocracy and where there is a regular renewal in those who constitute that

political connectedness. Social ties based on high school affiliation and regional affiliation can be measured in interaction with regime change to identify changes in the nature of political connectedness.

² Gaetano Mosca wrote in his *Elementi di Scienza Politica* that each society had a minority of its citizens that enjoyed disproportionate economic and political power. Both Pareto and Mosca discussed the benefits of generating a circulation of elites and avoiding entrenchment. Mosca (1966) discussed in greater detail how stable societies are those where recruitment into the ruling class is kept open so that only those individuals with the necessary skills and cultural proximity to the general population are able to exercise power. For further discussion of how Mosca and Pareto viewed elite circulation, see Zuckerman (1977).

minority. Only in such meritocratic societies will the scarce societal resources be channeled to those best equipped to secure the highest returns on those resources. And only then will the majority of the population recognize the fairness of the institutions and see an incentive to invest in their own children's human capital.

What is seen in Korea is evidence of a frequent circulation of elites leading to positive microeconomic outcomes after liberalization. The Korean government in the postwar period designed an education system in which a national examination determined access to the best high schools and universities, and where the government traditionally invested in at least one elite high school in each region.³ In a country characterized by low trust between strangers and across regions, this educational system enabled a meritocratic elite to emerge. In each region, a dense information network based on alumni affiliation with the same high school could serve as a partial substitute for weak rule of law at the country level. Each regional high school network's membership was determined by merit, and through these affiliations members of this network could come to the business center in the Seoul Metropolitan Area and invest in projects together. When a political regime would fall, several competing regionally-based networks already existed to assume economic and political power. Liberalization served to strengthen this process by enabling the preexisting networks to gain new access to additional cross-border resources and capabilities. This meritocratic circulation of elites may be one of the leading reasons for Korean economic growth in the postwar period.

To preview the findings, this study will show evidence that while size and profitability are important determinants of alliance matching, the Korean firms' investments in domestic

³ In the past two decades, some changes to the educational system have been made, and it is not yet clear what the impact of those changes will be. Specifically, the Korean government has made high school entrance in most cities a matter of geographic proximity, and the government has sought to standardize its investment across all regional high schools. University entrance continues to be based in large part on national test scores, although class rank also plays an important role.

political connectedness provided the most consistent and economically significant returns for securing access to cross-border resources and capabilities. Especially when the political connectedness variables were interacted with exogenous changes in political regime, the political connectedness variables were both identifiable and consistently more important than the various firm-quality measures. These results suggest that even following waves of deep liberalization (including Korea's admission to the WTO and the OECD), Korean firms that invested heavily in political connectedness were subsequently more likely to receive outside resources from foreign partners. Over time, liberalization combined with democratic accountability and turnover did lead to expanded opportunities for a wider distribution of politically connected firms to access these cross-border resources and capabilities for the first time.

To understand this process, this paper analyzes the patterns that drive matching behavior. Section 2 provides a review of the relevant literatures on alliances, matching markets, and weak institutions. Section 3 describes why the experience of Korean firms presents a useful test case for applying the matching market framework to international strategy, and it also discusses which resources and capabilities Korean firms may have needed to gain entry into the cross-border matching market. Section 4 describes the data used for studying Korean firms' entry into the cross-border alliance matching market, as well the data used for studying the formation of multiple ties between pairs of Korean and foreign firms. Section 5 describes the model for entry into the matching market as well as the model for the formation of multiple ties conditional on having entered the matching market. Section 6 discusses the results of both models, and Section 7 analyzes the central conclusions drawn from this matching study.

2. Theory

2A. Reviewing the Literature on Alliance Matching

The strategy literature has often mentioned that alliances are analogous to marriage (e.g., Nooteboom 1999). Alliances, like marriage, often fail but are generally believed to be a useful tool for gaining superior long-term firm performance.⁴ Yet the success of the individual alliance may depend on whether the two partners suit each other's strategic needs. For example, Cauley de la Sierra writes in her global alliance management handbook: "Alliances are like marriage. During negotiations, the manager should ask herself: Do I want to marry them?" (1995, 61).

With few exceptions, previous studies have not systematically studied the determinants of alliance matching in a longitudinal panel setting. Gulati and Gargiulo (1999), in testing Gulati's theory of closed networks in alliances, found that firms were more likely to form alliances if they had a prior alliance history between them or if they had prior alliance partners in common. Stuart (1998) found that firms in dense subsegments of the semiconductor industry were more likely to form technology alliances with one another. What is missing from this literature is a systematic analysis of how the alliance ties get created from the beginning, and of how cross-border matches form when few common references are available.

As in the matching market literature, strategy authors have often predicted based on theory or based on small-sample empirical study that the more successful a firm is, the more likely it will establish a cross-border match. Geringer (1988) and Luo (1997) argued that matches would be based on the quality, size and liquidity of the firm. Dacin, Hitt and Levitas (1997) contended that brand name, reputation and quality of human resources would be positively associated with finding a cross-border alliance match. Besides quality, Stopford and

⁴ In the Strategy literature, numerous studies have shown the potential benefits of inter-firm alliance activity. For example, past authors have shown that alliances can support the successful execution of business strategies (Jarillo 1988; Nohria and Garcia-Pont 1991). Alliances have also been shown to facilitate firm growth (Powell, Koput and Smith-Doerr 1996), to improve corporate reputation (Stuart, Hoang and Hybels 1999), to improve organizational learning (Hamel 1991), to enhance survival capability (Mitchell and Singh 1996), and to improve innovation (Hagedoorn 1993).

Wells (1972, 101) earlier showed that some U.S. MNCs sought out local partners who could provide local market access. Beamish (1987, 1988) focused on the political connectedness of the firm in the emerging economy, and while he argued that political connectedness may drive selection in the short term, he also predicted that alliances based on political connectedness will often fail and will completely disappear over time. The time frame for the predicted extinction of political-based alliances was not examined. Similarly, Luo (2000b) argued that while *guanxi* connections in China are indispensable, only matches based on firm-level quality would enjoy long-term success.

Strategy authors have also contended that alliances will be based primarily on similarities among potential partners (Adler and Graham 1989; Büchel, Prange, Probst and Rüling 1998; Florin 1997; Geringer 1991; Harrigan 1985, 1988; Luo, 1995, 1997, 1998, 2000b, 2001; Madhok 1995; Matsusaka 2001; Merchant 2000; Perlmutter and Heenan 1986; Sim and Ali 1998). Beamish (1988) argued that high-quality firms tend to match successfully with other high-quality firms, because otherwise one partner would subsequently become dissatisfied with the output of the other partner. In a separate theory piece, Parkhe (1991) argued that global strategy alliances based on similarity would tend to be more successful except where dissimilarity leads to learning. Parkhe also hypothesized that intercultural distance will be negatively associated with the longevity of alliance matches. Zeira, Newbury and Yeheskel (1997) found in their study of Hungarian cross-border joint ventures that intercultural distance did have a negative effect on joint venture performance. Dussauge and Garette (1995) found, in contrast, that global alliances in the aerospace industry were driven by a simple need to establish economies of scale.

Other authors have argued that cross-border alliances, in particular, will be based on matching different, but complementary capabilities across partners. As Luo (1999) argued, firms find themselves lacking in crucial capabilities and then search for partners that have those

capabilities to offer in a joint venture. Harrigan (1985) put forward a broad view of complementarity, which includes missions, resources and managerial capabilities. While the definition of complementarity has yet to be operationalized in a large-sample longitudinal study, the literature has previously identified political connectedness as a potentially important resource that emerging market firms bring to cross-border alliances (Beamish 1987, United Nations 1989).

Past studies of cross-border alliance matching have largely relied on case studies and small-sample managerial surveys (with the exception of Gulati and Gargiulo 1999), and there is a need for more systematic large-sample analysis of alliance matching over time. Moreover, while the concepts of resource complementarity have been put forward, there have been few efforts to operationalize the concepts and to test the available theory. Even more importantly, few studies have systematically measured firm-level capabilities and the role that they play in determining cross-border alliance matching.

In conclusion, the alliance matching literature has faced three sets of problems that this study set out to begin solving. First, the literature has placed great theoretical emphasis on quality-based matching, but such matching has been weakly defined. Second, there have been few attempts to get beyond case studies and small-sample surveys to more systematically study the importance of quality-based matching. Third, while the literature has done a great deal to study the reproduction and growth of preexisting alliance networks in a systematic manner (Uzzi 1996; Gulati and Gargiulo 1999), few studies have attempted to systematically identify the origins of how these ties were first created. It is also important to stress the importance of developing a better understanding of the cross-border alliance networks that are believed to be of significant and increasing global economic importance. Moreover, by examining alliance networks in a global setting, this global perspective provides an excellent opportunity to measure the influence of social and economic institutions on the formation of new inter-firm ties.

2B. Review of the Matching Market Literature

The matching market literature provides to this study a useful marriage analogy as well as a record of empirical design for studying matching behavior. Gary Becker (1976, 1991) and his colleagues from both economics and sociology have focused on how individuals should best allocate their scarce resources in an implicit market such as the one for marriage. A principal research agenda for both economists (Becker, Landes and Michael 1977) and sociologists (Winch 1958) has historically been to uncover (a) what kinds of people enter matching markets, and (b) whether people find marriage partners based on similarities or dissimilarity in certain key characteristics and resource endowments. This study applies this research agenda to alliance matching by looking at the determinants of entry into the alliance matching market prior to examining the determinants of long-term matching patterns. This study also looks for examples of positive assortative matching, by which firms form alliances based on marked similarities in their characteristics and their resources, in addition to cases of negative assortative matching by which firms form alliances based on marked dissimilarities on key dimensions.

2C. Reviewing the Literature on Weak Governance Institutions

The reason for studying cross-border alliance matches involving firms from an emerging economy is that cross-border alliances may potentially serve as an effective institutional remedy in this context. The literature on law and economics has shown in recent years that institutions matter, and that the institutions in most countries governing the sharing of resources are weak and/or incomplete. When a country has weak rule of law, and when a country lacks a reliable credit-rating agency or other related set of market intermediaries, then one can say that a country has weak resource-sharing institutions. Weak institutions lead to poor macroeconomic

performance (Acemoglu, Johnson and Robinson 2001). Moreover, weak institutions impede the development of firms at the micro level. As a result, countries with weak resource-sharing institutions have fewer firms in industries dependent on outside resources, fewer publicly listed firms, and fewer large firms than other countries, even after controlling for a host of alternative explanations (Claessens, Djankov, Fan and Lang 2002; Kumar, Rajan and Zingales 2001; La Porta, Lopez-de-Silanes, Shleifer and Vishny 1997, 2000a, 2000b; Wurgler 2000).

It is important to realize, however, that cross-border alliances could be a double-edged sword for the foreign partner. On the one hand, politically connected firms enjoy the benefits of government discretion over resource allocation and property rights. Fisman (2001) found through a clever quasi-experiment in Indonesia that as much as a quarter of market valuation could be attributed to political connections. Johnson and Mitton (2003) found that politically connected Malaysian firms enjoyed large rents as result of government-imposed capital controls during the 1997-98 Asia crisis. While politically connected firms may be attractive in the context of weak institutions, a foreign partner may find it risky to affiliate with such firms. The local partner might use its local political savvy to expropriate the foreign firm (Henisz 2000; Henisz and Williamson 1999). Alternatively, if the regime unexpectedly changes, then the preferential property rights can turn into a liability for both the local firm and its foreign partner.

2D. The Focus of This Paper: Alliance Matching in the Context of Weak Governance Institutions

In summary, the focus of this paper is on cross-border alliance matching in the context of weak and/or incomplete governance institutions. The goal is to identify matching patterns using the record of empirical design and the theoretical concepts from the matching market literature. In doing so, this study will operationalize several alternative definitions of firm-level quality and political connectedness.

3. Why Korean Firms' Cross-Border Alliances Are a Useful Test Case

3A. Korean Firms Have Proliferated in an Environment of Weak Governance Institutions

Korean firms represent a useful test case because they have grown often to a global scale in the presence of weak governance institutions. In fact, the further goal of this study is to generate findings about matching patterns that can then be tested for robustness in other emerging markets. As will be argued below, there are important similarities between the social capital and institutional environment in Korea and the social capital and institutional environment in other parts of Asia, Latin America, and Latin Europe.

Korea has much in common with a large number of emerging markets. Among the list of developing countries after World War II, several have since risen to middle-income status, including countries such as Korea, Taiwan, Mexico, and Chile (Amsden 2001). These countries are characterized by their weak system of formal property rights and their historically interventionist governments. Each of these countries have had interventionist states, and yet each of these countries have over time liberalized their economies through the removal of capital controls and by allowing their domestic firms to form alliances with foreign partners as a means of learning advanced technologies and production methods. For example, Tae-Hee Lee (1987) pointed to the implementation of the 1984 Foreign Capital Inducement Act (FCIA) as an important step towards allowing Korean firms to work freely with foreign partners in sharing technology. Cyhn (2002) similarly describes how the Chun Doo Hwan administration (1980-1988) broke with the past to change a set of laws, including the Alien Land Law, to make it easier for foreign firms to buy land and invest in Korea.

Moreover, besides the fact that Korean firms face a set of weak and/or incomplete governance institutions that are common to most other countries, these firms—like their peers across Asia and Latin America--face a challenging social and political environment characterized by low trust and political transition. As Yun-Shik Chang (1991) describes, Korean society is characterized by high trust within social groups and low trust among the broader society. As Fukuyama (2000) notes, Korea's low overall trust levels in the World Values Survey are similar to Latin America and Latin Europe (2000, 328). Korea's multi-tiered system of obligation and commitment that Yun-Shik Chang (1991) studied in great historical breadth is broadly similar to the business environment that Luo (2000a, 2001) and Keister (2000) described for China. As Fukuyama (2000, 328-329) described, strongly familistic societies like Korea's tend to develop a "two-tier system of ethical values," in which there are higher standards of behavior reserved for relationships inside the affiliation network than for other relationships with other compatriots. As one former finance minister stated in an interview, "Business was not so transparent here historically. Therefore, credibility is crucial and social connections may have compensated for the lack of transparency" (Interview with author, May 2000).

Also, Korea is one of the more than 60 democracies born during the "third wave" of global democratization (Huntington 1991; Diamond and Kim 2000; Diamond and Shin 2000), and Korea is one of the dozens of countries that have moved from dictatorship to increasingly competitive democracy (Jeannie Sung-Eun Cho 2000). In Korea, the legislative elections of 1985 gave increased momentum to a reinvigorated opposition movement (Jung-Kwan Cho 2000), which in turn led to the opening of presidential democracy in June 1987, the election of former opposition leader Kim Young Sam as president in December 1992, and the election of dissident Kim Dae Jung as president in December 1997.

One sees a Korean business environment where a large number of firms proliferate despite a weak system of formal property rights. Korean firms have tried several institutional substitutes, including business groups, investments in domestic political connectedness, and the establishment of cross-border ties with foreign partners. This leads me to ask whether experimentation with building cohesive social networks based on educational and regional ties, together with the experimentation with cross-border alliances, has helped Korean firms to attract the outside resources and capabilities they require for development.

3B. Resources Important to Korean Entry into the Cross-Border Matching Market

This study will suggest that investments in technological and marketing capabilities are not the panacea for weak global competitiveness, as many strategy authors have argued. Instead investments in institutional resources may prove more valuable in attracting cross-border alliance partners, even after a country has liberalized to the point of gaining membership in the World Trade Organization and the OECD. Without an analytical understanding of institutional changes, firms may lack the political resources necessary to make themselves attractive to foreign partners.

Importantly, investments in political connectedness carry greater economic significance than investment in many traditional market-based resources and capabilities. Once the economy was liberalized and foreigners were allowed to freely enter and find matches with Korean firms, more and more Korean firms gained access to cross-border resources and capabilities. But they did so in a surprising way. After each democratic turnover in government, a new wave of firms gained access to foreign partners with the help of their political connections.

To understand this process of institutional change, one needs to have a basic understanding of Korean geography, as shown in the map in Figure 1. In summary, the key basis of social networks has been regional affiliation. Rivalry among regional networks has never

been based on any one region having a clear endowment advantage over the other, and the antecedents for this regional rivalry are political, not resource-based (Chung 1985; Man-hum Kim 1989; Chung and Kirkby 2002). Some 1500 years ago, the Three Kingdoms that sat on the Korean peninsula occupied and fought along broadly the same regional lines. Not through resources or technology, but only through a strategic alliance with China, was the Silla Kingdom in the southeast (today's Gyeongsang region) able to conquer the southwestern kingdom (today's Jeolla region) and eventually unite the Korean peninsula into one political unit.

As in a great number of other countries, where regional affiliation matters, Koreans continue to emphasize regional networks in their associations (Yu 1990). The biggest social enmity has traditionally existed between the Koreans from the southwest (Jeolla region) and the southeast (Gyeongsang region). As would be expected, many fathers from Gyeongsang traditionally never thought of letting their daughters marry men from Jeolla, because people from Jeolla were believed to be untrustworthy and beneath them. The same within-region affiliation and across-group avoidance exists to varying degrees across all Korean regions (Park 2002), although the Seoul metropolitan area has become a melting pot.

In each region, there are powerful elites whose goal is to attend the best regional high school and then to move to Seoul where most of Korean industry is located. Jeolla has its elite regional high school, where entry was based on regional examinations. Similarly, Gyeongsang region, Gangwon region, Chungcheong region, and the Seoul metropolitan area each have their elite high school in which entry was based until recently on regional examinations. Given that ability is spread out randomly, and given that the top elites from each region did enjoy the opportunity to go to the top three universities in Seoul based on a fair national examination, the high school affiliation is a clean measure of social and political connectedness. During nearly one year of field interviews in Seoul, Korean managers repeatedly spoke of how these regional

networks, and regional high school networks, function based on social identification and intra-group punishment. For example, if you cheat a member of your own high school alumni class, you can be cut off from all resources within the group. In the relationship based on common regional high school, one has the potential to access resources and support only if one acts faithfully to group members.

4. Data

4A. The Need to Examine Both Initial Entry into the Matching Market as well as the Formation of Multiple Ties

It is important before introducing the data to emphasize that this study follows the methodology of the matching market literature (and, incidentally, the literature on foreign direct investment) in differentiating between initial entry into the matching market and the formation of multiple ties conditional on initial entry. The first analysis examines which firms “get to go to the dance,” by testing the time it took after the onset of Korean liberalization (here defined as 1987) for a Korean firm to establish its first cross-border alliance. In this first analysis, this study uses a hazard model to measure the time duration that passes until the firm establishes its first alliance, and once the firm establishes its first alliance, it leaves the data set. The data suggested that publicly held Korean firms of all observable types and sizes engaged in alliance-making activities. Therefore, an assumption is that all Korean firms in the sample had at least the real possibility of being able to create a cross-border alliance. It should nevertheless be noted that there might be some Korean firms that tried to create alliances and never succeeded. Also, while it is possible that a few Korean firms may have shunned all types of cross-border alliances, it is nevertheless true that all Korean firms were operating in an environment where weak and/or

incomplete governance institutions made it difficult to access outside resources. It is unlikely that many Korean firms would have categorically avoided all cross-border alliances.

In the second analysis, this study measures the Korean firm's probability of forming a tie with a given foreign firm in a given year conditional on the Korean firm's having established at least one cross-border alliance during the sample timeframe of 1987-2000. So the second analysis focuses on the intensity of alliance activity conditional on a firm "going to the dance."

4B. Data for Studying Initial Entry into the Matching Market

This study focuses on publicly available Korean data on managerial demography together with data on other firm-level characteristics, expenditures and performance. As shown in Table I, the data set on cross-border alliances was collected by pooling all available sources. Alliances here include equity joint ventures, joint production arrangements, joint sales and marketing arrangements, exclusive supply arrangements, joint R&D, and joint financial investment (including the foreign firm's purchase of the Korean firm's shares). Korean firms still continue to report details on their alliances involving any significant foreign sources of equity investment to the Ministry of Commerce, Industry and Energy. For the purposes of the present study, pure technology purchasing agreements and other purely one-time transactions were purposely excluded. Also excluded were cases of outward FDI by Korean firms in other emerging economies such as China where local partners are sometimes used to facilitate entry (Guillén 2003). I have kept track of these alliances in my sample and found that most, if not all, involve cooperative exchange of knowledge and/or finance lasting a number of years. The data from Korean Ministry of Commerce, Industry and Energy was crosschecked with data from the leading Korean business periodicals during the years 1987-2000, as well as with company reports and local and foreign analyst reports that the author hand-collected.

It is important to note here what the data for this paper does and does not accomplish. This study puts the alliances together in a pooled sample, and then looks for patterns that may drive matching behavior across all types of alliances. Based on the individual case evidence gathered, I know that there is a strong diversity of motivations for these alliances. While the alliances have been coded by activity over time, the activity data will be used in a follow-up paper to study the complementarity between a firm's specific motivation for doing a particular type of alliance and its matching behavior. In this paper, by focusing on the pooled sample of alliances, there was a lower likelihood of finding any significant results. The fact that there are many significant results is striking. The results suggest that there are important and fundamental factors driving a diverse set of alliances covering all industries in Korea.

Panels A and B of Table 2 describe the sample population and summary statistics. Out of the 592 publicly held firms in the total sample, there are 106 that established at least one cross-border alliance during the years 1987-2000. As shown in Panel A, the sample has rich variation in firm size, leverage, export orientation, productivity as measured by employee value added, and expenditure on training and R&D. Panel B shows that the affiliations with any single network under analysis in this study range from just 0.69 percent to 8 percent (in the case of Kyunggi High School CEOs and CEOs from the Jeolla region) of the total firm-year observations available for each variable. Korean publicly held firms are primarily in the manufacturing sector, and 77.72 percent of the firm-year observations are from this sector. The other industrial sectors with significant representation among the public held firms include the Construction sector (7.87 percent of firm-year observations), the Wholesale and Retail Sale Sector (5.87 percent), and the Transportation sector (3.66 percent). The correlation matrix in Table 3 shows that there are no significant collinearity problems. Most importantly, Table 3

suggests that firms that were not among the largest Korean firms and that were not affiliated with one of the top 30 chaebols were still able to hire politically connected managers.

The strengths of this data set are its comprehensiveness in terms of attempting to collect data on shared resources and shared activities between alliance partners and its inclusion of both public and privately held firms in the sample. Previous alliance studies in strategy research focused principally on public firms, and this data set shows that in this emerging market most of the alliances involved privately held firms. Therefore, it is important to include data on privately held firms when attempting to understand the determinants of alliance-making activity.

In field interviews, senior managers repeatedly described how important business decisions about who to hire, who to loan money to, and who to invest in collaboration with are made by taking common regional and school ties into account. An advantage of studying Korea is that the data on managerial demography is widely available through three newspaper web sites and the lead credit information agency, Korea Information Service. Data was collected on the regional background, high school, university, university major, age, work history (including government work history), and business association involvement of all senior managers at the General Manager level and above. The data collected on managerial demography is currently limited to a subsample of between 510 and 592 firms, depending on the availability of the particular managerial demography variable. This subsample was chosen to include firms that were publicly held in 1987, together with firms that went public by the year 2000.

Next, to understand the importance of firm quality, this study gathered data on a large number of variables. As described earlier, the prior literature has found that high-quality firms only sought matches with other firms of high quality. That could be based on a common desire for productivity or consistent quality, or it could be for other reasons yet undetermined in the literature. As discussed earlier, the prior alliance literature has lacked a concrete definition of

firm-level quality that can be operationalized. As a first step toward solving this problem, this study proposes using several alternative proxies for firm quality. To understand the quality of a firm's investment opportunities, this study uses a proxy for Tobin's q . To understand the quality of a firm's past operational performance, this study measures operating profits divided by total assets. To understand the quality of a firm's overall productivity, this study used a measure for employee value added (the difference between the revenues from outputs and the cost of inputs). To understand the quality of a firm's technological capabilities, this study measured R&D intensity, as proxied by annual R&D expenditure divided by annual sales. To understand the quality of a firm's human resources, this study measured annual expenditure on human resource training divided by annual sales. Because most Korean firms rarely pursued U.S. patents until the last half of the 1990s, I chose not to calculate patent citation rates for all Korean firms. Those second half of this study does, however, focus on the knowledge stock of the multinational partners and the Korean firms with at least one alliance, using their patent data.

The other time-varying covariates focus on firm size, firm leverage (or indebtedness), business group affiliation, and industry affiliation. This performance and firm characteristics data comes from a database developed by the Korea Information Service (KIS) and similarly used by numerous Korean strategy scholars (e.g., Sea-Jin Chang and Jaebum Hong, 2000). KIS is the leading credit-information agency in Korea, and it provides financial and corporate information to its international subscribers, including Reuters, Datastream, Barra and Meridian. Its data on company performance and characteristics were originally provided by the Korea Securities Supervisory Board (analogous to the U.S. Securities and Exchange Commission), and KIS crosschecks the data through a series of validity checks. For firm size, this study uses the log of total assets, and in turn for firm leverage, this study uses total liabilities divided by total assets. A complete description of the data and data sources is set out in Table I.

4C. Data on Formation of Multiple Ties Conditional on Initial Matching Market Entry

After modeling the correlates of Korean firms' likelihood of having any match, this study next analyzes the formation of multiple cross-border ties by Korean firms. The goal is to gain insights into what determines specific matching behavior, and whether positive assortative matching or negative assortative matching dominates over a range of resources-and-capabilities variables. It is particularly important to understand whether, even after controlling for assortative matching based on resources and capabilities, the political connectedness variables would continue to carry statistically significant explanatory power.

The set of data described below is for MNCs who had established at least one alliance match during the years 1987-2000 with any of the Korean firms in the sample during the years 1987-2000. Building on the earlier section, which simply analyzed whether Korean firms established at least one alliance or not after liberalization, this section looks at the Korean firms' formation of multiple ties with multiple foreign MNCs using characteristics of both sets of firms.

First, to understand whether positive assortative matching occurs based on technological capabilities, this study uses data on R&D expenditure. This variable and all others in the matching analysis are described in Part II of Table 1. The literature on technical change has consistently shown over the past two decades that R&D expenditure explains more of the variation in firm performance than even citation-weighted patent counts.

Therefore, to study the importance of technical capabilities, this study first used R&D expenditure divided by total sales as the key variable. This variable enters the regression separately for the Korean firms and the MNCs, as well as through an interaction term. As an alternative measure, this study also calculated the R&D stock as each firm's four-year R&D

expenditure using a 20 percent annual depreciation rate. Again, the variable enters the regression separately for each set of firms, as well as through an interaction term.

Since citation-weighted patents have been shown to add explanatory power, this study also gathered data on U.S. patenting by all MNCs, and by all Korean firms with at least one alliance. Numerous studies rely on U.S. patents, given the excellent data that is available on them (Hall, Jaffe, and Trajtenberg 2001b), and because the literature suggests that firms have a strong incentive to protect their intellectual property on a global stage through U.S. patenting. Using the Hall-Jaffe-Trajtenberg (2001b) patent citation database, this study first weighted the number of subsequent citations for each individual patent by the average number of subsequent citations received by a patent in the same industry (measured at the "subcat" level) from the same year. This study then constructed a yearly firm value by taking the average of each firm's "subcat"-weighted citation count for patents applied for in a given year. The measure is similar to the one used in Hall, Jaffe and Trajtenberg (2001a). Then, to measure knowledge stock, this study used a 20 percent depreciation rule for past yearly values.⁵ Because these patents rarely received citations in the first three years after patent application, this study used the three-year-lagged values of the knowledge stock index when including the variable. This variable enters the regression separately for each set of firms, as well as through an interaction variable.

Next, this study examined whether there is positive or negative assortative matching based on investment opportunities. Using well-known proxies for Tobin's q , this study measured the effect of investment opportunities for the MNCs, for the Korean firms, and as an interaction term. For the MNCs, using the available data, this study measured the proxy for Tobin's q as market value of equity divided by book value of equity. For the Korean firms,

⁵ I thank Bronwyn Hall for confirming the sensibility of my measure through correspondence in October 2002.

using the available data, this study measured the proxy as $(\text{Total Assets} - \text{Book Value of Equity} + \text{Market Value of Equity}) / \text{Total Assets}$.

This study also tested for whether there was positive or negative assortative matching based on profitability. For both the Korean firms and the foreign MNCs, this study measured operating income divided by total assets. For all regressions, this study then tested for the effect of MNCs' profitability, the Korean firms' profitability, as well as the interaction between them.

Besides matching based on profitability, this study also examined alliance matching based on firm size. Do large MNCs tend to establish matches with small Korean firms, or is there positive assortative matching based on size? To gain insights into this question, this study measured the log of total assets for both the MNCs and the Korean firms. For all regressions, this study then tested for the effect of the MNCs' size, the Korean firms' size, as well as the interaction between them.

Next, this study examined whether matching behavior in the sample is based on leverage. Do MNCs avoid Korean firms that are highly leveraged and/or that carry high debt-to-equity ratios? To find the answer, this study measured total liabilities divided by total assets for both the MNCs and the Korean firms. For all regressions, this study then tested for the effect of the MNCs' leverage, the Korean firms' leverage, as well as the interaction between them.

Because the matching market entry regression had shown the mixed importance of the Korean firms' training expenditure and the importance of the Korean firms' affiliation with a top 30 chaebol, this study included those variables in all matching regressions. To test whether marketing capabilities were determinants of alliance matching, this study gathered additional data for the Korean firms that had at least one alliance. This study calculated annual advertising expenditure divided by sales, and as an alternative measure, this study calculated a four-year stock measure of advertising expenditure using a 20 percent annual depreciation rate.

Unfortunately, most MNCs in the sample do not provide public disclosure of advertising expenditure, and therefore it was only feasible to study the effect of the Korean firms' advertising capabilities.

Lastly, to understand whether assortative matching is based on MNCs' establishing matches with Korean firms to gain political connectedness, this study tested the set of political connectedness variables. The key question is whether political connectedness not only explains when a Korean firm enters the matching market, but also helps to determine how many alliances a Korean firm establishes and when. This study was particularly focused on asking whether or not, even after controlling for assortative matching based on resources and capabilities, the political connectedness variables would continue to carry significant explanatory power.

5. Models

5A. Model of Initial Matching Market Entry

In the first analysis, this study focuses on explaining why Korean firms established their first cross-border alliance or else never established a single cross-border alliance. Therefore, this section is exclusively focused on initial entry into the cross-border network, and a later section will look at the Korean firms' propensity to form multiple ties. The motivation for this section is to gain a better understanding of which firms had basic access to the cross-border alliance network and which firms had none. The motivation for the later section is to understand what factors drove inter-firm matching behavior over time as some Korean firms were able to create multiple cross-border ties.

To understand the relative importance of the underlying factors driving entry into the cross-border matching market, it is necessary to build a multivariate model of alliance

probability allowing for competing risks. To understand matching market entry, this study uses the Cox proportional hazard model because it allows a flexible framework for studying the time duration until entry. The Cox framework allows the underlying hazard to vary freely from year to year, and it also allows the covariates for each individual firm to determine the overall level of its risk of exit. Moreover, this framework makes use of time-varying covariates and allows for firm entry into the sample in years after 1987. In all models, the standard errors are corrected for clustering at the firm level.

The probability of a cross-border alliance tie of the i th firm in year t is given by the following hazard function:

Pr (i established a cross-border alliance tie|surviving without a single new cross-border alliance

$$\text{tie}) = \exp(- a_t - X_{i,t}\beta)$$

where the covariates X for the i th firm are measured in the period of the potential cross-border alliance tie. Given a set of firms at risk of forming a cross-border alliance tie in year t , allowing for right censoring via firm failure or merger, the Cox partial likelihood function for this model in year t is the following:

$$\text{Log } L_p = \sum_{i=1}^N \{ \log \mu_i(t) - \log \sum \mu_k(t) \}$$

where

$$\mu_i(t) = \exp(- X_{i,t}\beta)$$

Following the standard methodology in the applied microeconomics literature, all standard errors throughout this paper are corrected for clustering at the individual Korean firm level.

5B. Model of Multiple Ties Conditional on Initial Matching Market Entry

This study modeled cross-border alliance matching using the following dynamic panel model, in which a variable's positive coefficient indicates that it promotes alliance matching between firms and a variable's negative coefficient indicates that it impedes alliance matching between firms. The panel probit model is:

$$P_{ij}(t) = \Phi(a + bx_{ij}(t) + u_{ij}),$$

where $P_{ij}(t)$ is the probability at time (t) of a Korean firm i and a foreign MNC j announcing an alliance match; $x_{ij}(t)$ is a time-varying vector of covariates characterizing Korean firm i and a foreign MNC j ; u_{ij} is unobserved time-constant effects not captured by the independent variables; and Φ is the normal cumulative distribution function. The goal of this model is to determine which among the individual firm characteristics or the interaction of those firm characteristics is more important in guiding matching patterns. Just as the matching market literature has found that some individual characteristics and some interaction effects tend to produce more marriages, here this study will model how the social connectedness of the Korean firms and the size interaction between the Korean firm and foreign partner tends to produce a greater or lesser likelihood of a specific match. The QAP procedure that would otherwise serve as a robustness check for nonindependence does not work for two-mode cross-border alliance data⁶ because the matrices involve an unequal number of rows (Korean firms) and columns

⁶ I thank David Krackhardt for making the methodological suggestion by correspondence in October 2002 that in spite of the inappropriateness of the QAP procedure for two-mode cross-border alliance data, it should still be

(foreign MNCs).⁷ Therefore, this study followed the example of Stuart (1998) in focusing attention on the alternative Lincoln (1984) test for network autocorrelation. This study found strong confirmation that network autocorrelation is not a problem and is not affecting the results.⁸ As the principal control for unobserved firm heterogeneity, this study followed the standard methodology in the applied microeconomics literature and corrected the standard errors for clustering at the Korean firm level.

6. Results

6A. Results on Initial Matching Market Entry

The results are shown in Tables 4-7, and the first is that size is not a strong determinant of entry into the cross-border alliance matching market. The coefficient is positive and statistically significant in Table 4, but that statistical significance holds in only four of the 10 full-model specifications in Tables 4-7.

possible to control for unobserved heterogeneity. Of course, I retain sole responsibility for the strength or weakness of the methodology I chose in this paper to control for unobserved heterogeneity.

⁷ The QAP procedure is also not relevant to the present analysis for two reasons. First, the original motivation for creating the QAP procedure was a concern about serial autocorrelation in the network, but serial autocorrelation is potentially only a real problem in networks that are far more dense and full of ties than the sparse early-stage network shown in this paper. Second, even in the papers that examined relatively dense business affiliation networks (Gulati and Gargiulo 1999; Khanna and Rivkin 2001), the QAP procedure when implemented did not show any evidence of problems with nonindependence affecting the results. Besides using the Lincoln (1984) test for network autocorrelation, I also tested the model with fixed effects. A fixed-effects model is not feasible using a probit model on the panel. When I experimented with returning to a fixed-effects OLS model, I found that while several of the social tie coefficients continued to be statistically significant, the F tests showed that nearly all of the OLS regressions as a whole were statistically insignificant. This seems due to the fact that of the more than 250 firm fixed-effects, nearly 100 percent were statistically insignificant even while some of the main control variables continued to be significant. This OLS experiment further suggests that nonindependence is not a problem.

⁸ Lincoln (1984) proposed that dyad models should contain a control variable defined for the ij th dyad as the mean of the dependent variable across all dyads that included with firm i or j in the year t , excluding the ij th dyad. This was the variable successfully used in Stuart's (1998) study of alliance matching in the semiconductor industry. When implementing the Lincoln test (1984), all the political connectedness variables from Tables 15-22 retained their importance and significance. It should be noted nevertheless that while the two ministerial experience results remained important and significant, the ministerial experience model with all control variables included was overidentified upon inserting the Lincoln variable. All appendices are available from the author at jsiegel@mit.edu.

Interestingly, leverage, export orientation, employee value added and human resource capabilities are not statistically significant in explaining the rate at which firms establish their first cross-border match. Leverage is always negatively correlated with the establishment of a cross-border match, but it is not statistically significant in nearly every specification. Export orientation is also always negatively correlated with the establishment of a cross-border match, but it is never statistically significant. Employee value added has a largely neutral effect on entry into the cross-border matching market, and it is never statistically significant. Human resource capabilities are highly positive predictors of entry into the cross-border matching market, but they are of mixed statistical significance. R&D intensity is also a positive predictor, but it is often not statistically significant.

Among the control variables, business group affiliation is shown to consistently help Korean firms to access outside resources and capabilities on the global stage. The variable for affiliation with one of the 30 largest chaebols is always highly positive and statistically significant at the .01 level or better. Several authors had earlier shown evidence that members of a business group tend to adopt similar practices or strategies over time (Chang 1995; Guillén 2002, 2003; Martin, Swaminathan and Mitchell 1998). This study suggests that over time the affiliates of the largest business groups were more likely to enter the matching market. When one exponentiates the coefficient in Table 4, one sees that top 30 chaebol affiliation increases the rate of Korean firms' entry into the cross-border matching market by 4.25 times.

Most important is the finding that other than business group affiliation the variables for social and political connectedness are both economically significant and statistically significant predictors of whether or not a firm will enter the cross-border matching market. As shown in Tables 4 and 5, firms with a CEO, Chairman, or other Senior Manager who served as an officer of the Federation of Korean Industry (FKI) are far more likely to establish a cross-border alliance.

After exponentiating the coefficients from each of the hazard models, one sees the profound economic effect of the connectedness variable. For example, after exponentiating the FKI results, one sees that the direct effect of having a CEO or Chairman with FKI experience during the Roh Tae Woo period is to reduce the firm's hazard rate of alliance formation effectively to zero (it multiplies the hazard rate by 0.000000069). In marked contrast, the direct effect of having a CEO or Chairman with FKI experience during the Kim Young Sam period is to increase the hazard rate of first-time alliance formation by 14.71 times. Therefore, the impact of the same social political connectedness variable can be an economically significant asset, or alternatively an economically significant liability, depending on which regime is in power. The coefficients in Panel (2) of Table 4 and Panel (2) of Table 5 are statistically significant at the .01 level.

Using the information from the regressions in Table 4, this study calculated that having a CEO or Chairman with FKI experience went from being a significantly negative direct liability during the Roh Tae Woo period ($\beta = -18.7894$, $p = 0.000$) to being a significantly positive direct asset during the Kim Young Sam period ($\beta = 2.68864$, $p = 0.000$). Similarly, as suggested in Part A of Table 5, this study calculated that firms with a senior manager from FKI clearly enjoyed direct benefits during the Kim Young Sam Administration (1993-1997) ($\beta = 2.5979$, $p = 0.000$). This suggests that the importance of this political connectedness variable increased after democratization. The other interesting set of results in Panel (3) of Table 4 and Panel (3) of Table 5 (Part A, henceforth Table 5A) is that the positive effect of having an FKI officer grew smaller and statistically insignificant during the Kim Dae Jung Administration. This evidence is in agreement with newspaper articles from the period of 1998-2000 (e.g., Yeon 2000), and with the authors' interviews with senior managers. With the beginning of the Asia crisis and the election of Kim Dae Jung, chaebols maintained their prominent role in the Korean economy. Yet their chief business association, FKI, lost influence due to the popular backlash against

chaebol practices, and as a result few high profile businessmen sought election as FKI senior officials in 2000 (Yeon 2000).

The next set of results in Table 5B shows that having a former government minister as CEO or Chairman was significantly associated with establishing a first cross-border alliance. As shown in Panel (2), the direct effect appears positive and significant when one looks at the whole 1987-2000 period ($p < .10$). Interestingly, the direct positive effect of having a former minister occurs during 1987-1992 (the years of President Chun Doo Hwan and Roh Tae Woo) when it increases the hazard rate of entry into the cross-border matching market by 11.55 times ($\beta = 2.446757$, $p = 0.003$), and then turns in a negative direction during the Kim Young Sam and Kim Dae Jung administrations. In fact, the direct effect of having a former minister as CEO or Chairman became significantly negative during the Kim Dae Jung administration ($\beta = -19.09994$, $p = 0.000$). As shown in Table 5C, the results are substantively similar for having a senior manager who was a minister in the national government. Again, this study calculated that the direct effect of having a former minister as senior manager was significantly positive during the 1987-1992 period ($\beta = 2.193404$, $p = 0.003$), then became significantly negative during the Kim Young Sam administration ($\beta = -20.09204$, $p = 0.000$) and the Kim Dae Jung administration ($\beta = -20.17444$, $p = 0.000$). If one tried to argue that government experience were simply a measure of quality, then that would be contradicted by the evidence in Table 5D, which shows that hiring a former government bureaucrat from middle rank or higher as CEO or Chairman was consistently a counterproductive decision. The direct effect of hiring a former official of middle rank or higher is significantly negative during the period of 1987-1992 ($\beta = -40.39059$, $p = 0.000$) as well as during the Kim Dae Jung administration ($\beta = -40.65278$, $p = 0.000$).

This evidence suggests that as a result of the democratic turnover after the December 1992 and December 1997 elections, hiring former ministers from the past regime went from

being a smart business move to being a counterproductive decision. As Jung-Kwan Cho (2000) explained, even though Kim Young Sam and Roh Tae Woo were both from the Southeast, the supporters of Kim Young Sam demanded that the new president replace bureaucrats and even military officials from Roh Tae Woo's regime. To build his party, Kim Young Sam had a natural political incentive to replace the Roh followers with Kim supporters from Kim Young Sam's home base in South Gyeongsang Province. During the period of Chun Doo Hwan and his ally Roh Tae Woo, the elite structure was relatively stable and continuous. Then with the election of Kim Young Sam and Kim Dae Jung, a new set of actors seized political power. As Diamond and Shin (2000) described, Kim Young Sam moved quickly to dismantle the entrenched social network of the previous military authoritarian regimes, and this included the disbanding of the Hana Hoe Club, a secret society in the army whose members held senior positions in the military. While some professional bureaucrats did continue to hold positions in all three administrations, new networks of people from Busan (in the case of Kim Young Sam) and Jeolla (in the case of Kim Dae Jung) enjoyed greater access to political power.

The next set of results in Tables 5E-F show that during the last year of Chun Doo Hwan's administration and the five years of Roh Tae Woo's administration, having a CEO, Chairman or other Senior Manager from the Gangwon region was positively associated with establishing a cross-border alliance. As shown in Panel (3), having a CEO or Chairman from the Gangwon region is positively and significantly associated with establishing a first cross-border alliance during the 1987-1992 period ($\beta = 2.0544$, $p = 0.006$). The Gangwon affiliation has the direct effect of increasing the hazard rate of entry into the cross-border matching market by 7.80 times. As shown in Table 5F, having a senior manager from the Gangwon region is positively and significantly associated with establishing a first cross-border alliance during the 1987-1992 period ($\beta = 1.056044$, $p = 0.078$).

It is interesting that after Kim Young Sam was elected, the Gangwon regional affiliation goes from being a significant asset to a significant liability. The direct effect of the CEO or Chairman's Gangwon regional affiliation is large, negative, and statistically significant during the Kim Young Sam administration ($\beta = -18.68679$, $p = 0.000$). The hazard rate of entry into the cross-border matching market effectively drops to 0. The direct effect of having a senior manager from the Gangwon region is also negative but not statistically significant during the Kim Dae Jung administration ($\beta = -.8614148$, $p = 0.233$). After examining the cabinet composition of the past four Korean presidential administrations, this study found (see Table 6) that officials from the Gangwon region were in fact at the pinnacle of economic policymaking during the Roh Tae Woo administration, but then almost completely dropped from the scene following the elections of Kim Young Sam and Kim Dae Jung.

The 1992 election also had a decidedly negative effect on firms with high school ties to the two presidents, Chun Doo Hwan and Roh Tae Woo. Presidents Chun and Roh were affiliated with Daegu's Kyungpook High School alumni network, and then President Kim Young Sam's administration brought an intraregional change in power. Instead of Kim Young Sam's friends from Busan taking over, the more noticeable change in Table 8 is the disappearance of senior officials from Daegu's Kyungpook High School immediately following the election of Kim Young Sam. The statistical results are shown in Panels (1)-(3) of Table 7A. I calculated that the direct effect of having a CEO or Chairman who graduated from Daegu's Kyungpook High School was highly negative and statistically significant during the Kim Young Sam administration ($\beta = -22.77636$, $p = 0.000$). The Daegu-Kyungpook High School has the deleterious effect of reducing the hazard rate of entry into the matching market effectively to 0.

Next, as shown in Panels (1)-(3) of Table 7B, having a CEO or Chairman from Seoul's Kyunggi High School went from being insignificant to becoming significantly positive during

the Kim Dae Jung administration. Given the fact that Kim Dae Jung's chief opponent in the 1997 election, Lee Hoi Chang, was from Seoul's Kyunggi High School, it was not at first obvious why this should be the case. But then upon closer examination of the Kim Dae Jung roster of ministers and vice-ministers, this study found that his coalition relied on selecting members of the Seoul-Kyunggi High School elite. This study calculated that the direct effect of having a CEO or Chairman from Seoul's Kyunggi High School was positive and highly significant during the Kim Dae Jung administration ($\beta = 1.2403$, $p = 0.020$).

Lastly, the final result in Table 7C is counterintuitive but is easily explained by a close examination of the available evidence. Instead of Kim Dae Jung's election providing an instant boon to firms with CEOs and Chairmen from Jeolla region, the Jeolla affiliation was insignificantly different from zero during Roh Tae Woo and Kim Young Sam, only to turn in a significantly negative direction during Kim Dae Jung. This study calculated that the direct effect of having a CEO or Chairman from Jeolla region was highly negative and highly significant ($\beta = -22.2221$, $p = 0.000$). Most importantly, among the large chaebols from Jeolla, nearly every one was in such financial disarray by the time of Kim Dae Jung's election that none could be saved. Furthermore, once elected, Kim Dae Jung realized that his power base from Jeolla region would never be able to move legislation through the National Assembly. As a result, Kim Dae Jung appointed five individuals from Jeolla, five from Gyeongsang and five from Chungcheong to his unusually diverse cabinet (Arthur 2001). As a result, as shown in Table 9, Kim Dae Jung was not able to dramatically increase the governmental representation of the Jeolla network.

6B. Results on Formation of Multiple Ties Conditional on Initial Matching Market Entry

As shown in Table 10, there is strong evidence of positive assortative matching based on firm size. Smaller foreign firms were significantly more likely to form multiple ties with Korean

firms. The results at the same time show that the smaller the foreign firm, the more likely it was to find a match with a smaller Korean firm. At the same time, the larger the foreign firm, the more likely it was to find a match with a larger Korean firm. The interaction term for size was significant in every specification at the .05 level or better.

Furthermore, matching behavior appears not to be based on other capabilities or investment opportunities, with the exception of ROA. The variables for R&D intensity, the MNCs' patent citation stock, the Korean firms' training intensity, the Korean firms' affiliation with a top 30 chaebol, and the Korean firms' marketing capabilities are not statistically significant. Moreover, the proxies for Tobin's q are never statistically significant. Conditional on having at least one alliance, the Korean firm's ROA is positively and significantly associated with the establishment of multiple cross-border alliance matches. In contrast, conditional on having at least one alliance, MNCs with lower ROA have more cross-border alliances than MNCs with higher ROA. The negative coefficient on the MNC's ROA is also highly significant in every specification. This is evidence of negative assortative matching based on firm-level profitability, although the negative assortative matching occurs in two directions. Less profitable MNCs match more frequently with Korean firms of all levels of profitability, and the more profitable Korean firms match more frequently with MNCs of all levels of profitability.

The social ties variables are consistently important when one controls for regime change in 1992 and 1997. Importantly, political connectedness explains not only the timing of entry into the cross-border alliance matching, as shown in the earlier section, but also when and how many times a Korean firm enters into an alliance.

Using the same model used to produce Panel (6) in Table 11A, this study found that having a CEO or Chairman who served as an officer of FKI was a significantly positive asset during the Kim Young Sam administration ($\beta = 0.4505$, $p = 0.000$). But when compared to the

two earlier administrations, the arrival of the Kim Dae Jung administration had a significantly negative effect on firms whose CEO or Chairman had served as officer of the FKI. In fact, using the same model that produced Panel (6), this study calculated that the direct effect of having a CEO or Chairman who served as an officer of FKI was negative and statistically significant during the Kim Dae Jung administration ($\beta = -0.2850$, $p = 0.000$). Just as in the earlier section, it therefore cannot be the case that the FKI variable is merely a proxy for firm quality. Rather, in periods where the FKI organization has clear ties based on common Gyeongsang regional affiliation to Roh Tae Woo and Kim Young Sam, the coefficient is positive. And in the period of Kim Dae Jung, where the organization was seen as the political enemy of Kim Dae Jung's Jeolla supporters, the coefficient turns in a decidedly negative direction. As shown in Table 11B, the same results appear when one looks at all Korean senior managers in the sample.

Next, using the same data used to produce Panel (5) of Table 12A, this study calculated that the direct effect of having a CEO or Chairman with ministerial experience is slightly negative during the 1987-1992 period of Chun Doo Hwan and Roh Tae Woo ($\beta = -0.1613$, $p = 0.001$), and then became highly negative and significantly negative during the Kim Young Sam administration ($\beta = -4.0619$, $p = 0.000$), only to become positive and highly significant during the Kim Dae Jung administration ($\beta = 0.2393$, $p = 0.000$). As described in the earlier section, Kim Young Sam came into office with a political need to clean out nearly every one of the ministers who had been associated with the prior regime. In contrast, Kim Dae Jung came into office needing to build coalitions after he was elected with experienced bureaucrats. Only by making experience ministerial appointments was he able to get his structural reforms through the state bureaucracy and through the parliament. As a result, firms with ties to these experienced bureaucrats enjoyed political benefits in access to resources. Since the cabinet was regionally balanced, the ties were not significantly based on affiliation to a single region, but instead were

based on having a firm's CEO or Chairman having worked together in the same ministry with a current government minister. As shown in Table 12B, having a senior manager with ministerial experience produced substantively similar results.

Next, as shown in Table 13A, the net effect of the Kim Young Sam administration was significantly negative on firms having a CEO or Chairman with a Gangwon regional affiliation compared to the net effect of the prior Roh Tae Woo administration. Using the data in Table 13A, this study found, however, that the arrival of the Kim Young Sam administration did not significantly decrease the probability of cross-border alliances for these same firms ($\beta = -0.3385$, $p = 0.125$). Nevertheless, using the data in Table 13B, this study found that the arrival of the Kim Young Sam administration did significantly decrease the probability of alliances for firms with a *senior manager* who had a Gangwon regional affiliation ($\beta = -0.4231$, $p = 0.007$). As noted earlier, bureaucrats from Gangwon occupied senior positions in the Roh Tae Woo administration, but then they were swept aside when Kim Young Sam came to power in 1992.

In turn, having a CEO or Chairman from the Jeolla region had a significantly negative effect on cross-border alliance matching until the Kim Young Sam administration. Using the data from Table 14A, this study found that throughout the administration of Roh Tae Woo businessmen from Jeolla were directly disadvantaged. As soon as Kim Young Sam was elected, he realized that he required a multi-regional coalition, and since Kim Dae Jung was his most powerful opposition force, he sought to detract from that force by appointing a bureaucrat from Jeolla as his first prime minister. This study found that the direct effect of having a CEO or Chairman from the Jeolla region significantly increased a firm's probability of establishing cross-border alliance during the Kim Young Sam administration ($\beta = 0.2564$, $p = 0.000$). Moreover, this study found that the direct effect of having a CEO or Chairman from the Jeolla region continued to significantly increase a firm's probability of establishing cross-border

alliances during the Kim Dae Jung administration ($\beta = 0.1731$, $p = 0.010$). As a result, firms from Jeolla appear to have benefited during the Kim Young Sam and Kim Dae Jung administrations.

Lastly, it is quite striking that the Daegu-Kyungpook High School affiliation most important to President Roh Tae Woo explains changes in cross-border matching behavior during both the Kim Young Sam and Kim Dae Jung administrations. Using the data from Table 14B, this study calculated that the direct effect of having a CEO or Chairman who graduated from Daegu's Kyungpook High School was negative and highly significant during the Kim Young Sam administration ($\beta = -0.1488$, $p = 0.017$). This finding matches the result in the earlier section on matching market entry. When Kim Young Sam was elected in December 1992, he did a thorough housecleaning of senior politicians and bureaucrats from Daegu, especially those with ties to Roh Tae Woo. This study also found that the direct effect of having a CEO or Chairman who graduated from Daegu's Kyungpook High School during the Kim Dae Jung administration was positive and highly significant ($\beta = 0.4398$, $p = 0.000$). When Kim Dae Jung was elected, he needed to appoint a cabinet with representation from Roh Tae Woo's home base. What these results have shown is that political connectedness can be a firm's asset or liability depending on whether the regime changes.

7. Conclusion

In summary, the Korean firms' investments in political connectedness provided the consistently most important returns for securing access to cross-border finance and technology during this period of institutional change. The results in this work show that there is an important connection between how a firm manages its network of affiliations in the domestic

sociopolitical environment and how that firm is able to create relationships in the global environment. These results suggest that following multiple waves of deep liberalization (including Korea's admission to the WTO and the OECD), investing more in marketing and R&D was not a unique enough activity to attract foreign alliance partners. Over time, liberalization combined with democratic accountability and turnover did lead to expanded opportunities for a wider distribution of connected firms to access these cross-border resources and capabilities for the first time.

This study suggests a set of broad implications for the literature on economic sociology and strategy. What is shown here is evidence of a global network being formed over time largely based on exogenously determined affiliations at the local level. In future studies on network creation, it will be interesting to focus great attention on the historically determined nature of local ties, and how those local ties become magnified in an emerging global structure. It is worth focusing future attention on how the macro-level educational and governance institutions in various countries interact with the historically-determined local rivalries to lead to divergent economic and political outcomes. In this particular case, the regional antagonism in Korea might easily have led to economic stagnation if the educational system had not been designed to channel resentment into a desire for educational achievement. When a regionally-based network went too far in using the society's scarce resources for corruption, the society could correct itself through civil action and democratic regime change. Because of the design of the educational system, new elites existed to take the place of the prior elite.

Next, this study presents a set of broad implications for the literature on corporate governance. The prior literature on weak governance has focused attention on legal institutions and has neglected to pay attention to the rule of educational institutions in ameliorating corruption and entrenchment. First of all, it is possible that entrepreneurs choose to invest in

projects not just based on whether a court can protect their property rights, but also based on the social infrastructure that exists for generating new entrepreneurial ideas and for pooling scarce human capital behind new and risky projects. In other words, the meritocratic design of the educational system may play an important role in determining the supply of entrepreneurial ideas at the same time that the legal system plays a role in seeing those entrepreneurial ideas to fruition. In this study, there is evidence suggested of an important interaction between the design of the educational system, the nature of economic liberalization at the country level, and the subsequent creation of the cross-border network. The Korean educational system has served the purpose of creating a circulation of elites based on meritocratic rules of the game. Liberalization has enabled a freer flow of cross-border resources and capabilities to an existing competitive structure. With liberalization came new opportunities for entrepreneurs to grow and develop their firms, but interestingly, liberalization served to reinforce the existing competition characterized by regional affiliation. In future studies it will be interesting to test whether the meritocratic rules of the educational system, in interaction with other governance variables, determine the economic success of a country after liberalization.

Finally, this study presents a series of implications for the field of international strategy. Interestingly, even after deep liberalization, foreign MNCs are choosing politically connected Korean partners for inclusion in global production networks over the Korean firms with the best marketing and R&D capabilities. As the senior manager of a leading U.S. paper manufacturer stated, "Foreigners often do not partner with the best Korean firms. They partner often with B & C players. Alliances and M&A are based on the existence of a 'motivated seller'" (Interview with author, April 2000). That same manager went on to explain how political connections are a resource that Korean firms are often eager to sell on both the global alliance and M&A market. Since the government is in effect a business partner of the local firm (through free loans), this

manager, explained, the government also has an incentive to allow the local firm to build their capabilities through the attraction of foreign knowledge and capabilities. As explained by numerous foreign managers, the neophyte foreign firm coming into Korea does not require an in-depth knowledge of Korean social networks, but quickly discovers through due diligence which Korean partners can offer shared access to cheap finance, R&D subsidies, and other rents.

This vast cross-border business network has largely emerged based on the leveraging of longstanding high school and regional affiliations in South Korea. In other words, the exogenous determinant of a new global production networks may be based on historically determined social divisions at the local level. In this study, high school and other regional affiliations in Korea continue to serve as a primary mechanism for building reputation, preserving trust, and allocating scarce political rents within this national economic structure. And this national structure has had an important influence on the emerging structure of a vast cross-border alliance network that links South Korea to the U.S., Europe and Japan. Multinational firms have not necessarily sought out the Korean partners with the best marketing and R&D capabilities, but have instead largely established matches with partners that share a high school or other regional affiliation with those currently in the Korean government. Most Korean firms, if anything, expanded their investment in R&D and marketing capabilities over this period, but a small group saw greater benefits in terms of accessing cross-border resources from investing heavily in high school and regional networks.

And yet why would this system of political connections lead to the stunning growth rates that Korea enjoyed much of the post-1960 period up through the present time? This business network would likely not have grown to include more entrepreneurs from all of Korea's regions if the government had not designed an educational policy that encouraged the meritocratic distribution of status and reputation across the country. If Korea had not designed a postwar

educational system that promoted exam-based entry to a high-quality public high school in each region, then the historical divisions based on region of birth might have proved destructive instead of productive.⁹ When each regime fell, there would not have been a cohesive business network able to receive the government resources and use them effectively. When a business network became too entrenched and corrupt (as occurred in 1980 and 1997), the economic growth began to dissipate, albeit for a short period of time. In fact, if the government had only invested in high schools in one privileged region, then the long-term economic outcome could easily have been one of stagnation and entrenchment and produced a Korean version of the so-called “Canadian disease” described in Morck, Strangeland and Yeung (1998).

Yet when historically based resentments are socially channeled instead to educational achievement, then these resentments can be turned into motivation for creating firms in a set of industries where another regional network has already proven to be successful. This meritocratic network-based competition can be the underlying source of the procompetitive industrial competition and national growth-oriented business-government relations outlined in Porter (1990) and Amsden (1989, 2001). In future research on firm development across countries, I hope to test for the importance of meritocratic educational systems that invest across multiple regions and localities. The recent law and finance literature has focused attention of property rights as the essential foundation for entrepreneurial investment without examining the importance of educational opportunity as a direct factor for determining the supply of entrepreneurial ideas and investment.

⁹ It is important to note that even this meritocratic system has evolved in the last 20 years to facilitate greater maintenance of quality and access across the full spectrum of Korean schools, instead of just focusing on one elite high school in each region. The move away from exam-based entry in most—but not all--Korean cities came after the citizenry fought for yet further inclusion and equality of opportunity. How these further educational reforms will affect the future of Korean business is still uncertain, but for now the Korean business elite continues to be largely comprised by middle-aged men who passed through the original system.

In the next phase of my research, I will delve deeper into the causal mechanism through which these interconnections of domestic and global environments operate. This paper has not tried to explain the causal mechanism by which political connectedness benefits foreign partners, and that is the topic of future research. This paper has provided some striking results about political connectedness that need to be studied at the next more detailed level of analysis. Interviews with senior Korean managers during the past year have suggested a model focusing on how Korean firms bargain with foreign partners over how much finance and technology the foreign partner is willing to provide and how much control rights the Korean firm is willing to share. Korean managers, as shown in the work of Dukjin Chang (1999), view control rights over an expanding business group network as one of their chief goals. Control rights are privileged in all economies especially as property rights are but weakly enforced by the government and legal system (Dyck and Zingales, 2002). As a result, future research should examine whether Korean firms cultivate political connectedness as a partial substitute for giving up control rights in their negotiations with potential foreign partners.

Multinational firms, which are known to seek cheap finance in foreign markets (Desai, Foley and Hines 2002), may be willing to offer their technology and finance at a lower cost to the Korean firm if the Korean firm can provide them with shared access to governmental actors. Just as Luo (2001) described for China, MNCs are often ineffective in gaining political connectedness on their own, either due to their lack of knowledge of local customs and language, or due to the simple difficulty of entering an entrenched network of social ties without the use of a local intermediary. An earlier literature had suggested that multinational firms avoided local expropriation by host governments if the multinational firms by forming partnerships with a local firm (Bradley 1977). Empirical evidence has also shown that local partners are more likely

to receive a share of equity ownership in countries with high political hazards.¹⁰ By affiliating with a politically connected Korean firm, the MNC may even after liberalization enjoy shared access to governmental actors, and this access can potentially lead to favorable tax treatment, other forms of regulatory easing, and access to cheap finance through Korean banks. As a result, the Korean firms' investment in domestic political connectedness may provide important dividends in being able to attract foreign partners long after the country has liberalized to the point of joining the OECD and the WTO.

Indeed, future work needs to focus on whether multinational firms can design alliances with their Korean partners to in some cases overcome the risks of local partnering that are well documented in the literature. Henisz and Williamson (1999) have convincingly shown that local partnering is a decidedly second-best solution for the multinational firm in the context of political hazards. All things equal, MNCs have clearly been shown to prefer 100 percent ownership of their foreign subsidiaries in the context of political hazards (Henisz 2002). Vernon (1971, 1998) and later Desai, Foley and Hines (2002) have similarly shown U.S. MNCs tend to prefer wholly-owned subsidiaries when given a free choice. Even if the MNC reduces the risk of being expropriated by the host government, Henisz and Williamson (1999) argue convincingly that the risks of being expropriated by the local partner are often too high. A follow-up paper to this study simply asks in what cases political hazards can ever be mitigated through the design of appropriate inter-firm governance structures and resource-sharing agreements. In the context of international R&D alliances, Sampson (2003a, 2003b) has shown that alliances contribute far greater benefits to firm performance when the appropriate governance structures are chosen. In interviews the author conducted in South Korea over a year-long period, local and foreign

¹⁰ For a discussion of local partnering in the context of high political hazards, see Henisz and Williamson (1999). The empirical results on local equity ownership come from Goodnow and Hansz (1972), Scholhammer and Nigh (1984), Gatignon and Anderson (1988), Kogut and Singh (1988), Phillips-Patrick (1991), Agarwal and Ramaswami (1992), Brouthers (1995), and Oxley (1999).

managers often described how successful inter-firm governance arrangements were created through trial and error in the period after liberalization.

If expropriation risk were always an overriding factor and the MNCs could not design inter-firm governance structures to at least partially mitigate that expropriation risk, then it is unlikely that many of the most prominent MNCs of the information economy (for example, Microsoft, Intel and Cisco) would have actually increased their number of cross-border alliances with Korean firms over time. MNCs such as Microsoft, Intel and Cisco may see strategic benefits to partnering with high-quality and/or politically connected local partners that outweigh the expropriation risk. These benefits may include preferential access to factor markets for finance, labor and real estate, as well as the shared creation of knowledge-based assets, either through joint R&D, joint production or joint marketing activities.

One remaining question is why we should see political changes if firms are investing in cohesive networks of connectedness with governmental actors. The answer comes clearly from the revisionist school of Korean economic development (including Eun Mee Kim, 1997; Guillén, 2001), which describes the repression of labor and other social interests necessary to keep an authoritarian business-governmental coalition in power. Once the repression sparks demonstrations (as in 1987), or once the corruption obviously contributes to economic crisis (as in 1997), the time is ripe for a change in political power (Jung-Kwan Cho, 2000).

As a result, new firms may gain access to governmental actors through changing business-government coalitions, and although the formerly connected firms can still enjoy the fruits of their past rents, the cycle of business opportunity can expand to include additional firms. This may be partially the result of the inability of firms to properly diversify their political connectedness. Luo (2001) described how some Chinese firms have had great difficulty in restoring their political connectedness once their high-ranking state benefactor left office. In

future research, I will further examine whether the strength of one's affiliation with a given Korean regional network makes it increasingly difficult to gain even weak affiliation with a rival network for the purposes of diversification. Furthermore, in future research I intend to investigate further how democratic turnover has in fact led to broader access to financial and technological resources among firms.

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Figure 1: Map of South Korea

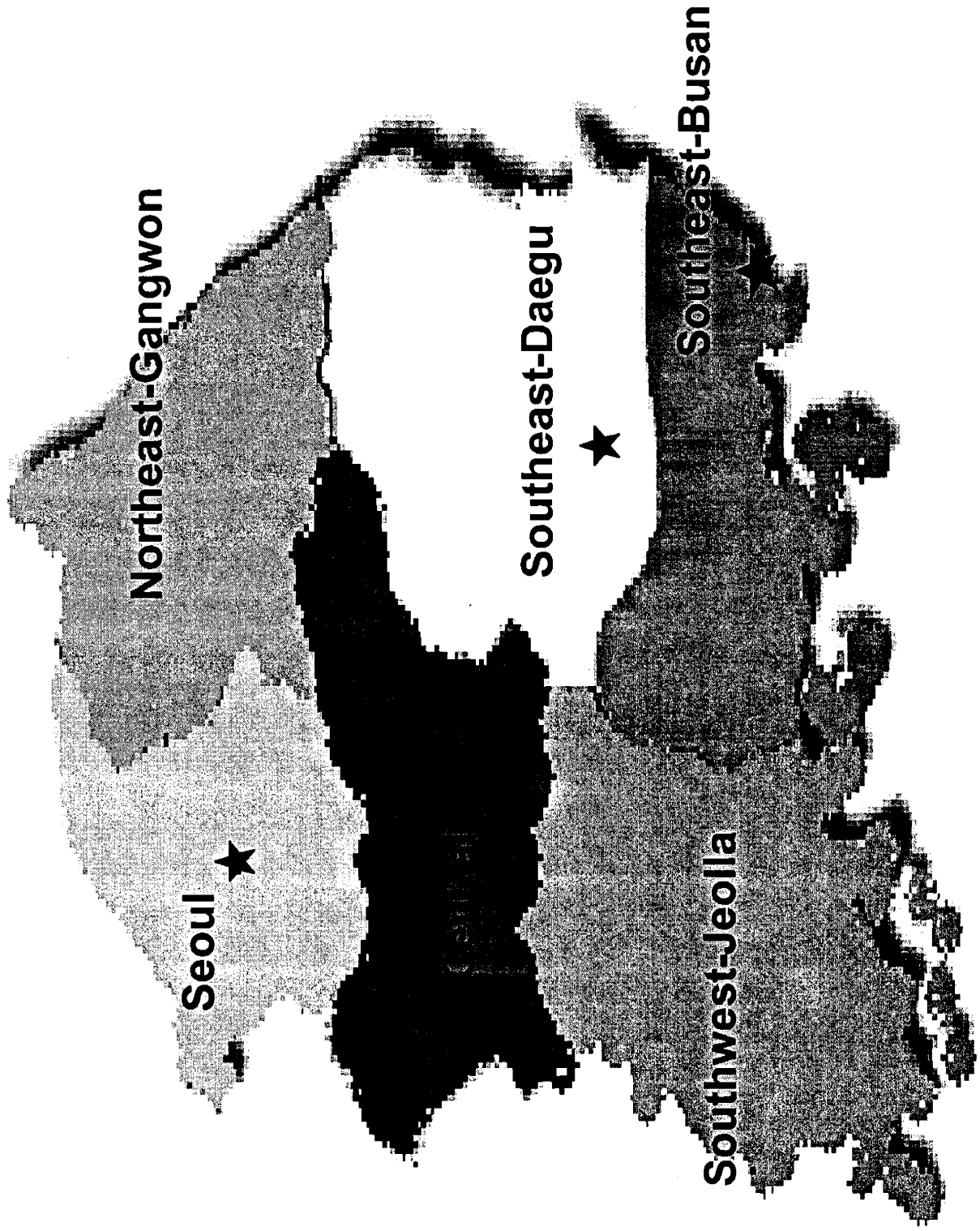


Table 7 - Share Price Returns

The table reports OLS regression results with the annualized log of stock returns for Mexican firms as the dependent variables. Industry dummies are included for those six industries that had 5 or more firms represented in the sample. Robust standard errors appear below the coefficients in brackets. Where noted, the standard errors are corrected for clustering at the business group level. Business group is defined here for every case in which a firm shared a common controlling shareholder.

	(1) 09/94-02/95	(2) 09/94-12/95	(3) 09/94-12/95	(4) 09/94-12/95	(5) 09/94-12/96	(6) 09/94-12/96	(7) 09/94-12/96	(8) 09/94-12/99	(9) 09/94-12/99	(10) 09/94-12/99
	group cluster									
Listing after 1989	0.0763 [0.0862]						-0.1207 *** [0.0459]			-0.2120 *** [0.0619]
Cross-Border Alliance		0.2148 [0.1547]	0.1272 ** [0.0631]	0.1272 ** [0.0620]	0.1826 *** [0.0568]	0.1826 *** [0.0561]		0.1560 * [0.0841]	0.1560 * [0.0837]	
CMHN Representation		-0.0625 [0.0995]	0.0185 [0.0552]	0.0185 [0.0500]	0.1058 [0.0743]	0.1058 [0.0678]		-0.0199 [0.0916]	-0.0199 [0.0923]	
Listed ADR		-0.2836 ** [0.1149]	-0.1938 *** [0.0731]	-0.1938 *** [0.0668]	-0.1015 [0.0784]	-0.1015 [0.0671]		-0.2053 * [0.1179]	-0.2053 * [0.1200]	
Unlisted ADR		-0.1865 [0.1342]	-0.1458 ** [0.0676]	-0.1458 ** [0.0698]	-0.1416 * [0.0766]	-0.1416 [0.0877]		-0.0556 [0.0886]	-0.0556 [0.0911]	
Firm Size		-0.0125 [0.0223]	0.0165 [0.0207]	0.0165 [0.0203]	-0.0367 [0.0274]	-0.0367 [0.0279]		0.0159 [0.0325]	0.0159 [0.0353]	-0.0106 [0.0279]
Foreign-denominated Leverage		-0.6393 * [0.3384]	0.0688 [0.1433]	0.0688 [0.1422]	0.0290 [0.1641]	0.0290 [0.1638]		0.1161 [0.2168]	0.1161 [0.2171]	0.0337 [0.2189]
Leverage		-0.0483 [0.1564]	0.0019 [0.0080]	0.0019 [0.0078]	-0.0550 [0.1717]	-0.0550 [0.1746]		0.0473 [0.2217]	0.0473 [0.2278]	0.1017 [0.2083]
Export Orientation		0.8154 * [0.4224]	0.0818 *** [0.0263]	0.0818 *** [0.0264]	0.0533 *** [0.0105]	0.0533 *** [0.0109]		0.0493 ** [0.0214]	0.0493 ** [0.0212]	0.0371 [0.0252]
Foreign Ownership		-0.0294 [0.1226]	-0.0110 [0.0623]	-0.0110 [0.0604]	0.0251 [0.0552]	0.0251 [0.0549]		0.0515 [0.0906]	0.0515 [0.0854]	0.1402 ** [0.0688]
Ownership tie to a Bank		0.0215 [0.1024]	0.0764 [0.0565]	0.0764 [0.0574]	0.1155 * [0.0618]	0.1155 * [0.0646]		0.0246 [0.0246]	0.0246 [0.0969]	-0.0410 [0.0853]
Joint industry p value		0.1184	0.0016	0.0041	0.1130	0.0239		0.2986	0.2979	0.3620
Observations		96	103	103	93	93		80	80	80
p-value		0.0216	0.0007	0.0000	0.0000	0.0000		0.0000	0.0000	0.0002
R-squared		0.3339	0.3928	0.4637	0.3151	0.3151		0.2017	0.2017	0.2248

Note: The sample size gets smaller as time passes because some stocks lose their liquidity or are no longer listed on the exchange. Asterisks denote significance levels: * indicates significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table 6 - Political Connectedness

The table reports probit estimates of the likelihood that the Mexican firms in the sample have unlisted ADRs. Each panel presents the results of a probit regression, in which the coefficients show the change in the probability of political connectedness for an infinitesimal change in each independent, continuous variable and for a discrete change in each dummy variable. The dependent variable takes on a value of 1 if the firm is politically connected by September 1994 and 0 otherwise. The variables are defined in Section 4 of the text. Robust standard errors are reported below the coefficients.

	(1)	(2)	(3)	(4)
Listing after 1989	-0.1804 ** [0.0890]	-0.2054 ** [0.0935]	-0.1614 * [0.0940]	-0.1510 * [0.0944]
Cross-Border Alliance		-0.0044 [0.1116]	0.0029 [0.1340]	-0.0104 [0.1370]
Listed ADR		0.1620 [0.1176]	0.0283 [0.1105]	0.0000 [0.1175]
Firm Size			0.1310 *** [0.0283]	0.1440 *** [0.0332]
Foreign-denominated Leverage			0.3716 [0.2321]	0.3433 [0.2536]
Leverage			0.0419 ** [0.0186]	0.0506 ** [0.0199]
Export Orientation			-0.0538 [0.0605]	-0.0375 [0.0403]
Foreign Ownership			-0.0080 [0.1140]	0.0068 [0.1217]
Ownership tie to a Bank			0.0144 [0.0981]	-0.0284 [0.1004]
Joint industry p value				0.7684
Observations	122	122	122	120
Log-likelihood	-69.0404	-67.9798	-55.5674	-53.1612
Wald chi2	4.32(1)	6.37(3)	29.54(9)	30.46(18)
p-value	0.0377	0.0947	0.0005	0.0332
Pseudo R2	0.0306	0.0455	0.2197	0.2468

Note: The sample size drops from 122 to 120 in Panel (4) because neither of the two firms in the nonfinancial services industry were politically connected.

Asterisks denote significance levels: * indicates significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table 5 - Unlisted ADRs

The table reports probit estimates of the likelihood that the Mexican firms in the sample have unlisted ADRs. Each panel presents the results of a probit regression, in which the coefficients show the change in the probability of unlisted ADRs for an infinitesimal change in each independent, continuous variable and for a discrete change in each dummy variable. The dependent variable takes on a value of 1 if the firm has an unlisted ADR by September 1994 and 0 otherwise. The variables are defined in Section 3 of the text. Robust standard errors are reported below the coefficients.

	(1)	(2)	(3)	(4)
Listing after 1989	-0.0217 [0.0818]	0.0778 [0.0780]	0.0607 [0.407]	0.1082 [0.0741]
CMHN Representation		0.2797 *** [0.0976]	0.2438 *** [0.1042]	0.2381 ** [0.1256]
Cross-Border Alliance involving Joint Fixed Investment		0.2117 * [0.1314]	0.1396 [0.1444]	0.1980 [0.1678]
Firm Size (log of 1993 assets)			0.0475 ** [0.0222]	0.0523 * [0.0271]
Foreign-denominated Leverage			0.0963 [0.2185]	0.0954 [0.2653]
Leverage			-0.0329 [0.0236]	-0.1046 [0.1532]
Export Orientation			-0.0377 [0.0686]	-0.0324 [0.1142]
Foreign Ownership			0.0938 [0.1109]	0.1478 [0.1362]
Ownership tie to a Bank			-0.2191 *** [0.0494]	-0.1974 *** [0.0561]
Joint industry p value				0.0096
Observations	122	122	122	116
Log-likelihood	-65.6832	-59.6432	-53.9771	-47.1726
Wald chi2	0.07(1)	11.71(3)	25.8(9)	44.45(17)
p-value	0.7892	0.0085	0.0022	0.0003
Pseudo R2	0.0005	0.0925	0.1787	0.2642

Note: The sample size drops from 122 to 116 in Panel (4) because none of the six firms from the utilities and nonfinancial services industries had an unlisted ADR. Asterisks denote significance levels: * indicates significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table 4 - Listed ADRs

The table reports probit estimates of the likelihood that the Mexican firms in the sample have listed ADRs. Each panel presents the results of a probit regression, in which the coefficients show the change in the probability of listed ADRs for an infinitesimal change in each independent, continuous variable and for a discrete change in each dummy variable. The dependent variable takes on a value of 1 if the firm has a listed ADR by September 1994 and 0 otherwise. The variables are defined in Section 3 of the text. Robust standard errors are reported below the coefficients.

	(1)	(2)	(3)	(4)
Listing after 1989	0.1247 * [0.0657]	0.1483 * [0.0678]	0.1516 ** [0.0592]	0.1335 ** [0.0552]
CMHN Representation		0.1196 [0.0891]	0.0138 [0.0764]	-0.0132 [0.0687]
Cross-Border Alliance involving Joint Fixed Investment		0.0408 [0.1136]	0.0143 [0.1107]	-0.0191 [0.0911]
Firm Size			0.0564 *** [0.0209]	0.0534 *** [0.0214]
Foreign-denominated Leverage			0.1627 [0.1956]	0.0693 [0.2245]
Leverage			-0.0012 [0.0166]	-0.0013 [0.0242]
Export Orientation			0.0184 [0.0289]	0.0250 [0.0294]
Foreign Ownership			0.0263 [0.0995]	0.0016 [0.0856]
Ownership tie to a Bank			0.2167 ** [0.1128]	0.1598 * [0.1126]
Joint industry p value	122	122	122	0.2464
Observations				110
Log-likelihood	-56.0135	-54.9263	-47.3114	-37.1283
Wald chi2	2.9(1)	4.65(3)	23.69(9)	36.23(15)
p-value	0.0885	0.1996	0.0048	0.0016
Pseudo R2	0.0270	0.0459	0.1782	0.2426

Note: The sample size drops from 122 to 110 in Panel (4) because none of the 12 firms in the capital goods, utilities, nonfinancial services, and leisure industries had a listed ADR. Asterisks denote significance levels: * indicates significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table 3 - Firm-Level Need for Finance and Growth

The table shows that firms with cross-border alliances and political connectedness were paying lower financial costs and growing sales and assets relatively quickly compared to firms with cross-listings.

Variable	Strategic Choice	Obs	Mean
Total Financial Expense (1993) over Total Sales (1993)	Cross-Listing	20	0.0284
	Cross-Border Alliance	18	0.0109
	Political Connectedness	28	0.0079
	Unlisted ADR	22	0.0127
Total Financial Expense (1993) over Total Assets (1993)	Cross-Listing	20	0.0141
	Cross-Border Alliance	18	0.0035
	Political Connectedness	28	0.0059
	Unlisted ADR	22	0.0070
Total Financial Expense (1993) over Total Liabilities (1993)	Cross-Listing	20	0.0550
	Cross-Border Alliance	18	-0.0060
	Political Connectedness	28	0.0104
	Unlisted ADR	22	0.0027
Sales Growth (1992-1995)	Cross-Listing	18	0.4446
	Cross-Border Alliance	17	0.9648
	Political Connectedness	25	0.2295
	Unlisted ADR	20	0.1641
Asset Growth (1992-1995)	Cross-Listing	19	0.8192
	Cross-Border Alliance	17	0.5874
	Political Connectedness	25	0.8068
	Unlisted ADR	20	0.3870

Table 2 - Cross-Border Alliances

The table reports probit estimates of the likelihood that the Mexican firms in the sample have cross-border alliances. Each panel presents the results of a probit regression, in which the coefficients show the change in the probability of cross-border alliance formation for an infinitesimal change in each independent, continuous variable and for a discrete change in each dummy variable. The dependent variable takes on a value of 1 if the firm has a cross-border alliance by September 1994 and 0 otherwise. The variables are defined in Section 3 of the text. Robust standard errors are reported below the coefficients.

	(1)	(2)	(3)	(4)
Listing after 1989	-0.2186 *** [0.0771]	-0.2262 *** [0.0790]	-0.1702 *** [0.0657]	-0.1537 ** [0.1175]
CMHN Representation		-0.0042 [0.0649]	0.0050 [0.0529]	0.0472 [0.0944]
Listed ADR		0.0377 [0.0919]	-0.0221 [0.0451]	-0.0478 [0.0657]
Firm Size			0.0063 [0.0127]	0.0059 [0.0195]
Foreign-denominated Leverage			-0.1360 [0.1110]	-0.2860 * [0.2167]
Leverage			-0.0668 [0.0909]	-0.1602 [0.1663]
Export Orientation			0.0171 [0.0172]	0.0336 [0.0253]
Foreign Ownership			0.4278 ***	0.4507 ***
Ownership tie to a Bank			[0.1251]	[0.1848]
			-0.0122	-0.0475
			[0.0421]	[0.0638]
Joint industry p value				
Observations	122	122	122	85
Log-likelihood	-46.1742	-46.0809	-29.8217	-25.3861
Wald chi2	9.38(1)	9.88(3)	39.04(9)	44.86(14)
p-value	0.0022	0.0196	0.0000	0.0000
Pseudo R2	0.0955	0.0973	0.4158	0.4215

Note: The sample size drops from 122 to 85 in Panel (4) because none of the firms from the finance/real estate industry, the capital goods industry, the transportation industry, the nonfinancial services industry, or the leisure industry had a cross-border alliance. The dummies were therefore automatically dropped from the probit regression. Asterisks denote significance levels: * indicates significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table 1 - Summary Statistics

The table reports means and standard deviations in parentheses for the full sample of Mexican firms. A subsample of firms has listed ADRs, another subsample has secured political connectedness through their owner's representation on the Mexican Council of Businessmen (CMHN), and another subsample has a cross-border strategic alliance involving joint investment in fixed assets. Firm characteristics are measured at the end of year 1993.

	Full Sample (N=122)	Cross-Border Alliances (N=18)	Listed ADRs (N=22)	Unlisted ADRs (N=28)	Political Connectedness (N=33)
Listed ADRs	0.1803 [0.3860]	0.1667 [0.3835]			0.2424 [0.4352]
Unlisted ADRs	0.2295 [0.4223]	0.3889 [0.5016]			0.4242 [0.5019]
CMHN Representation	0.2705 [0.4460]	0.3333 [0.4851]	0.3636 [0.4924]	0.5000 [0.5092]	
Cross-Border Alliance involving Joint Fixed Investment	0.1475 [0.3561]		0.1364 [0.3513]	0.2500 [0.4410]	0.1818 [0.3917]
Firm Size	20.0596 [1.6602]	20.3634 [1.2939]	20.9809 [1.1719]	20.7476 [1.0949]	21.0919 [1.2348]
Foreign-denominated Leverage	0.1543 [0.1808]	0.1733 [0.1821]	0.1612 [0.1729]	0.1604 [0.1707]	0.1937 [0.1618]
Leverage	0.5076 [1.3336]	0.3062 [0.1631]	0.4493 [0.2036]	0.3857 [0.2612]	0.8207 [2.5302]
Export Orientation	0.1627 [0.7485]	0.2624 [0.6012]	0.1399 [0.3929]	0.1433 [0.3786]	0.1668 [0.3552]
Foreign Ownership	0.2295 [0.4223]	0.7778 [0.4278]	0.2727 [0.4558]	0.3214 [0.4756]	0.2727 [0.4523]
Ownership tie to a Bank	0.1803 [0.3860]	0.2222 [0.4278]	0.4091 [0.5032]	0.0714 [0.2623]	0.2424 [0.4352]

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¹ There were approximately 382 litigation releases issued by the SEC in 1999, approximately 407 litigation releases in 1998, and approximately 396 litigation releases in 1997. The vast majority of the actions were taken against American individuals and companies based in the U.S. A small percentage of these litigation releases were extensions of earlier SEC actions, and so the number of independent legal actions was smaller. The data show that despite relatively strong U.S. legal institutions, firms and individuals often engage in malfeasance during even good economic times.

² See the list of ADR companies on file at www.adr.com and www.bony.com/adr.

³ I tested a long list of possible instruments, including political connectedness, export orientation, leverage, size, and prior access to foreign capital. I found that not a single one of these instruments had any explanatory value in predicting which Mexican firms cross-listed before the 1994-95 economic downturn. Moreover, it is no accident that the prior ADR literature has never identified the determinants of cross-listing in a systematic study. Most, if not all, instruments that one could list as possibilities are invalid because they also have a direct effect on later firm performance. The endogeneity issue is less of a problem for this present analysis because I find that cross-listings actually increased the probability of governance scandals. The prior ADR literature had predicted that only the highest-quality firms issue cross-listings. This study does not find evidence that the highest-quality firms issued cross-listings. Even the firms that were cross-listed and did not have a governance scandal were not necessarily among the highest-quality firms when one measures ROA and market value creation. All appendices are available from the author at jsiegel@mit.edu.

⁴ Banca Quadrum and Servicios Financieros Quadrum were actually the same firm going through a reorganization and name change at the time of the 1994-95 crisis. Banca Quadrum, the listed parent firm that emerged from the reorganization, was included in the sample.

⁵ Mitton (2002) used a similar method for defining the start of the 1997-98 Asia crisis.

⁶ As stated earlier, firms also have the option of listing their shares directly on a U.S. exchange. There were no examples of a Mexican-domiciled firm that had gone that route, although Panamerican Beverages is a company based in Miami that has part of its business interests in Mexico.

⁷ For this study I have included Hylsamex, a firm that had submitted its financial information to the public and that had received approval for its unlisted ADR just prior to the crisis. Hylsamex's shares did not begin trading in the U.S. until four weeks after the crisis began. I confirmed that inclusion of this firm did not substantively affect any of the results. Bancomer, which originally had an ADR on its own, saw its Mexican listing folded into that of its parent firm Grupo Financiero Bancomer.

Table 1
The Variables

Variable Name, Definition and Source

Alliance Partner: A categorical variable set equal to 1 if the Korean firm has joined with a foreign partner to form a strategic alliance during the years 1987-2000. Alliances here include equity joint ventures, joint production arrangements, joint sales and marketing arrangements, exclusive supply arrangements, joint R&D, and joint financial investment (including the foreign firm's purchase of the Korean firm's shares). Set equal to 0 otherwise. **Sources:** Data on joint ventures are from the Ministry of Commerce, Industry and Energy. Data on joint ventures and all other alliances are from Maeil Business Newspaper, Korea Economic Daily, Seoul Economic Daily, Electronic Times, Newway Kyungje, MaeKyung Economy, Economist (Korea), Korea Information Service, Korea Stock Exchange, company web sites, and industry and analyst reports

Independent Variables

Part I: Korean Firms' Entry into the Cross-Border Matching Market

Note: Below, a "Senior Manager" is defined as anyone of *Isa-Daewoo* (General Manager) level or higher in the firm. This measure thus includes the CEO, the Chairman, and every senior manager of *Isa-Daewoo* rank or higher.

Note: For all categorical variables below, if the firm had a given characteristics, the categorical variable is set equal to 1. Otherwise, the categorical variable is set equal to 0.

Firm has CEO or Chairman who served as an officer of the Federation of Korean Industry (FKI): A categorical variable set equal to 1 if the firm had this characteristic. **Sources:** Dong-ah Ilbo people database, Chosun Ilbo people database, Korea Information Service people database

Firm has Senior Manager who served as an officer of the Federation of Korean Industry (FKI): A categorical variable set equal to 1 if the firm had this characteristic. **Sources:** Dong-ah Ilbo people database, Chosun Ilbo people database, Korea Information Service people database

Firm has CEO or Chairman who served as a Minister in the national government: A categorical variable set equal to 1 if the firm had this characteristic. **Sources:** Dong-ah Ilbo people database, Chosun Ilbo people database, Korea Information Service people database

Firm has Senior Manager who served as a Minister in the national government: A categorical variable set equal to 1 if the firm had this characteristic. **Sources:** Dong-ah Ilbo people database, Chosun Ilbo people database, Korea Information Service people database

Firm has CEO or Chairman who served as mid-ranking bureaucrat or higher in the national government: A categorical variable set equal to 1 if the firm had this characteristic. **Sources:** Dong-ah Ilbo people database, Chosun Ilbo people database, Korea Information Service people database

Firm has CEO or Chairman from Gangwon region: A categorical variable set equal to 1 if the firm had this characteristic. **Sources:** Dong-ah Ilbo people database, Chosun Ilbo people database, Korea Information Service people database

Variable Name, Definition and Source

Firm has Senior Manager from Gangwon region: A categorical variable set equal to 1 if the firm had this characteristic. **Sources:** Dong-ah Ilbo people database, Chosun Ilbo people database, Korea Information Service people database

Firm has CEO or Chairman who attended Kyungpook High School in Daegu: A categorical variable set equal to 1 if the firm had this characteristic. **Sources:** Dong-ah Ilbo people database, Chosun Ilbo people database, Korea Information Service people database

Firm has CEO or Chairman who attended Kyunggi High School in Seoul: A categorical variable set equal to 1 if the firm had this characteristic. **Sources:** Dong-ah Ilbo people database, Chosun Ilbo people database, Korea Information Service people database

Firm has CEO or Chairman who is from Jeolla region: A categorical variable set equal to 1 if the firm had this characteristic. **Sources:** Dong-ah Ilbo people database, Chosun Ilbo people database, Korea Information Service people database

Firm Size: Log of Total Assets. **Source:** Korea Information Service

Leverage: Total Liabilities/Total Assets. **Source:** Korea Information Service

Export Orientation: Sales for Export/Total Sales. **Source:** Korea Information Service

Employee Value Added: The firm's annual value added per employee. **Source:** Korea Information Service

Training Expenditure/Total Sales: The firm's annual expenditure on employee training divided by the annual sales of the firm. In this measure, blank Korea Information Service expenditure lines for Training are coded as "0". **Source:** Korea Information Service

R&D Expenditure/Total Sales: The firm's annual expenditure on R&D divided by the total sales of the firm. In this measure, blank Korea Information Service expenditure lines for R&D are coded as "0" and are included in the analysis. **Source:** Korea Information Service

Top 30 Chaebol Affiliation: A categorical variable set equal to 1 if the firm is affiliated with one of the 30 largest chaebols as defined in 2000 by the Korean Fair Trade Commission. **Source:** Korea Information Service

Individual Chaebol Dummies: Separate dummies are included for firms affiliated with one of the 30 largest chaebols as defined in 2000 by the Korean Fair Trade Commission. These chaebols include Anam, Cheil Jedang, Daelim, Daesang, Daesung, Daewoo, Dongah, Dongbu, Dongkuk Steel, Dongyang, Doosan, Haitai, Halla, Hanhwa, Hanjin, Hansol, Hyosung, Hyundai, Iljin, Jinro, Kangwon Sanup, Kohap, Kolon, Kumho, LG, Lotte, Saehan, Sambo, Samsung, Samyang, Shinho, SK, and Ssangyong. **Source:** Korea Information Service

Agriculture and Forestry (Sector A): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Fishery (Sector B): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Variable Name, Definition and Source

Mining (Sector C): A categorical variable set equal to 1 if the firm's main business is in this sector.

Source: Korea Information Service

Manufacturing (Sector D): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Electricity, Gas and Water (Sector E): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Construction (Sector F): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Wholesale and Retail Sale (Sector G): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Lodging and Food (Sector H): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Transportation (Sector I): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Communications (Sector J): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Finance and Insurance (Sector K): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Real Estate and Rental (Sector L): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Service (Sector M): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Public Health and Social Service (Sector N): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Education Service (Sector O): A categorical variable set equal to 1 if the firm's main business is in this sector. **Source:** Korea Information Service

Dummy for President Roh Tae Woo's administration (1988-1992) and the single year preceding it (1987), the final year of President Chun Doo Hwan's administration: A categorical variable equals 1 if the year of the observation is during the last year of President Chun Doo Hwan's administration or the five years of President Roh Tae Woo's administration. Set equal to 0 otherwise.

Dummy for President Kim Young Sam's administration (1993-1997): A categorical variable equals 1 if the year of the observation is during the President Kim Young Sam administration. Set equal to 0 otherwise.

Dummy for President Kim Dae Jung's administration (1998-2000 data available and included in the study): A categorical variable equals 1 if the year of the observation is during the President Kim Dae Jung administration. Set equal to 0 otherwise.

Part II: Determinants of Matching Behavior between MNCs and Korean Firms

MNC's Technical Knowledge Stock, proxied by Patent Citation Stock: Using the Hall-Jaffe-Trajtenberg (2001) patent citation database, first, I weight the number of subsequent citations for each individual patent by the average number of subsequent citations received by a patent in the same industry (measured at the "subcat" level) from the same year. I then construct a yearly firm value by taking the average of each firm's subcat-weighted citation count for patents applied for in a given year. Then, to measure knowledge stock, I use a 20 percent depreciation rule for past yearly values. Because patents in my subsample rarely receive citations in the first three years after patent application, I lag the moving values of the knowledge stock index by three years when including the variable in the regressions.

Source: Hall, Jaffe Trajtenberg (2001)

MNC's Proxy for Tobin's q: Market Capitalization of Common Stock/Book Value of Total Assets.

Sources: Worldscope, Compustat, Anarisuto Gaido Analysts' Guide

MNC's ROA: Operating Income/Total Assets. **Sources:** Worldscope, Compustat, Anarisuto Gaido Analysts' Guide

MNC's Size: Log of Total Assets. **Sources:** Worldscope, Compustat, Anarisuto Gaido Analysts' Guide

MNC's Leverage: Total Liabilities/Total Assets.

MNC's R&D Intensity: R&D Expenditure/Total Sales. **Sources:** Worldscope, Compustat, Anarisuto Gaido Analysts' Guide

MNC's R&D Stock: Four-year R&D Expenditure using a 20 percent annual depreciation rate.

Sources: Worldscope, Compustat, Anarisuto Gaido Analysts' Guide

Korean Firm's Technical Knowledge Stock, proxied by Patent Citation Stock: Using the Hall-Jaffe-Trajtenberg (2001) patent citation database, first, I weight the number of subsequent citations for each individual patent by the average number of subsequent citations received by a patent in the same industry (measured at the "subcat" level) from the same year. I then construct a yearly firm value by taking the average of each firm's subcat-weighted citation count for patents applied for in a given year. Then, to measure knowledge stock, I use a 20 percent depreciation rule for past yearly values. Because patents in my subsample rarely receive citations in the first three years after patent application, I lag the moving values of the knowledge stock index by three years when including the variable in the regressions. **Source:** Hall, Jaffe Trajtenberg (2001)

Korean Firm's ROA: Operating Income/Total Assets. **Source:** Korea Information Service

Korean Firm's Proxy for Tobin's q: (Total Assets-Book Value of Equity+Market Value of Equity)/Total Assets. **Source:** Korea Information Service

Korean Firm's Size: Log of Total Assets. **Source:** Korea Information Service

Korean Firm's Leverage: Total Liabilities/Total Assets. **Source:** Korea Information Service

Variable Name, Definition and Source

Korean Firm's Training Expenditure/ Total Sales: Training Expenditure/Total Sales. **Source:** Korea Information Service

Korean Firm's R&D Intensity: R&D Expenditure/Total Sales. **Source:** Korea Information Service

Korean Firm's R&D Stock: Four-year R&D Expenditure using a 20 percent annual depreciation rate. **Source:** Korea Information Service

Korean Firm's Affiliation with a Top 30 Chaebol: A categorical variable set equal to 1 if the firm is affiliated with one of the 30 largest chaebols as defined in 2000 by the Korean Fair Trade Commission. Set equal to 0 otherwise. **Source:** Korea Information Service

Korean Firm's Advertising Intensity: Korean Firm's Annual Advertising Expenditure / Korean Firm's Annual Sales. **Source:** Korea Information Service

Korean Firm's Advertising Stock: Korean Firm's Four-Year Stock of Advertising Expenditure using a 20 percent annual depreciation rate. **Source:** Korea Information Service

Interaction between MNC's Proxy for Tobin's q and Korean Firm's Proxy for Tobin's q: MNC's Proxy for Tobin's q * Korean Firm's Proxy for Tobin's q

Interaction between MNC's R&D Intensity and Korean Firm's R&D Intensity: MNC's R&D Intensity * Korean Firm's R&D Intensity

Interaction between MNC's R&D Stock and Korean Firm's R&D Stock: MNC's R&D Stock * Korean Firm's R&D Stock

Interaction between MNC's Technical Knowledge Stock, as proxied by Patent Citation Stock, and Korean Firm's Technical Knowledge Stock, as proxied by Patent Citation Stock: MNC's Patent Citation Stock * Korean Firm's Patent Citation Stock

Interaction between MNC's ROA and Korean Firm's ROA: MNC's ROA * Korean firm's ROA

Interaction between MNC's Size and Korean Firm's Size: MNC's Log of Total Assets * Korean Firm's Log of Total Assets

Interaction between MNC's Leverage and Korean Firm's Leverage: MNC's (Total Liabilities/Total Assets) * Korean Firm's (Total Liabilities/Total Assets)

Social Connectedness Variables Listed Above in Part I

Table 2
Panel A: Sample Population and Summary Statistics for Continuous Variables

Sample Population and Dependent Variable		Observations	Median	Mean	Standard Deviation	Min	Max
Total Firm-Year Observations (1987-2000)	4653						
Number of Firms	592						
Number of Firms with Alliances	106						
Continuous Variables	Observations	Median	Mean	Standard Deviation	Min	Max	
Firm Size (log of Total Assets)	4653	7.77	7.82	0.59	6.11	10.33	
Leverage (Total Liabilities/Total Assets)	4653	0.67	0.69	0.34	0.08	8.93	
Export Orientation (Foreign Sales/Total Sales)	3995	0.00	0.13	0.26	0.00	1.00	
Employee Value Added (in thousands of Korean won)	4645	36965.64	47780.63	127760.70	-6436242.00	1501586.00	
Training Expenditure/Total Sales	4653	0.00	0.00	0.07	0.00	4.43	
R&D Expenditure/Total Sales	4652	0.00	0.00	0.01	0.00	0.15	

Table 2

Panel B: Social and Political Connectedness

Social and Political Connectedness Variables	Firm-year observations as a percentage of total
Firm has CEO or Chairman who served as an officer of the Federation of Korean Industry (FKI)	0.76
Firm has Senior Manager who served as an officer of the Federation of Korean Industry (FKI)	0.72
Firm has CEO or Chairman who served as a Minister in the national government	0.7
Firm has Senior Manager who served as a Minister in the national government	0.69
Firm has CEO or Chairman who served as mid-ranking bureaucrat or higher in the national government	1.53
Firm has CEO or Chairman from Gangwon region	1.26
Firm has Senior Manager from Gangwon region	3.47
Firm has CEO or Chairman who attended Kyunggi High School in Seoul	7.98
Firm has CEO or Chairman who attended Kyungpook High School in Daegu	3.4
Firm has CEO or Chairman who is from Jeolla region	8.07

Table 3
Correlation Matrix

	Established Cross-Border Alliance	Firm Size	Leverage	Export Orientation	Employee Value Added	Training Expenditure/ Total Sales	R&D Expenditure/ Total Sales	Top 30 Chaebol Affiliation
Established Cross-Border Alliance Match	1	0.0501	-0.0233	-0.0124	0.0037	0.0495	0.0316	0.0717
Firm has CEO or Chairman who served as an officer of the Federation of Korean Industry (FKI)	0.0587	0.1608	0.0068	-0.0035	0.0664	-0.011	-0.0188	0.1853
Firm has CEO or Chairman who served as a Minister in the national government	0.0552	0.1426	0.0122	-0.036	0.0386	0.0822	0.006	0.0888
Firm has CEO or Chairman who served as mid-ranking bureaucrat or higher in the national government	-0.019	-0.0275	-0.018	-0.0441	-0.013	0.0503	-0.0135	-0.0164
Firm has CEO or Chairman from Gangwon region	0.0418	0.0181	-0.0013	-0.0063	0.0031	0.0353	-0.0014	0.0527
Firm has CEO or Chairman who attended Kyungpook High School in Daegu	-0.0031	0.0388	0.0185	0.0396	-0.021	-0.0687	-0.0338	-0.0341
Firm has CEO or Chairman who attended Kyunggi High School in Seoul	0.0363	0.1204	-0.0027	0.0428	-0.0122	0.0491	-0.0121	0.0281
Firm has CEO or Chairman who is from Jeolla region	-0.0113	0.132	0.0362	-0.0894	0.0548	-0.0264	0.0535	0.0144

Table 4
Alliance Selection: The Importance of CEO/Chairman's affiliation with FKI

In this table, a Cox proportional hazards model is used to calculate the effect of the independent variables on a firm successfully matching with a foreign partner during the 1987-2000 period. For each variable, the coefficient appears with the robust standard error below it in brackets. All standard errors are corrected for clustering at the firm level.

Variable Name	Panel (1)	Panel (2)	Panel (3)
Firm has CEO or Chairman who served as an officer of the Federation of Korean Industry (FKI)	1.7076 ***	1.3828 ***	-18.7894 ***
	[0.4865]	[0.3773]	[0.7806]
Firm has CEO or Chairman who served as an officer of the Federation of Korean Industry (FKI)*Dummy for Kim Young Sam administration			21.4781 ***
Firm has CEO or Chairman who served as an officer of the Federation of Korean Industry (FKI)*Dummy for Kim Dae Jung administration			[1.0232]
			19.1391
Firm Size	0.3773	[0.2633]	0.3953
		[0.2633]	[0.2638]
Leverage	-0.7334	[0.4887]	-0.6298
		[0.4887]	[0.4583]
Export Orientation	-0.3414	[0.5786]	-0.3177
		[0.5786]	[0.5760]
Employee Value Added	0.0000	[0.0000]	0.0000
		[0.0000]	[0.0000]
Training Expenditure/Total Sales	75.9615	[54.0740]	72.7284
		[54.0740]	[55.7533]
R&D Expenditure/Total Sales	38.7157	[21.8726]	39.6726 *
		[21.8726]	[22.0272]
Affiliated with a top30 chaebol	-1.4432	***	1.4476 ***
		[0.4941]	[0.4983]
Time dummy for Kim Young Sam administration			-0.2626
			[0.8844]
Time dummy for Kim Dae Jung administration			0.2602
			[0.8258]
Top 30 Chaebol Fixed Effects	No	Yes	Yes
Industry Fixed Effects	No	Yes	Yes
Number of observations	3413	2968	2968
Number of Firms	511	480	480
Number of Alliances	76	67	67
Time at risk	3602	3136	3136
Log likelihood	-426.9298	-339.95546	-337.98672
Wald chi2	12.32(1)	11.4086.93(24)	108848.32(42)
Prob > chi2	0.0004	0.0000	0.0000

Note: In Panels B and C, dummies for affiliation with Kumho, Daewoo, Gangwon, Seohan, Hainai, Kohap, Daelim, Anam, Hyosung, Samho, the Agriculture and Forestry Industry, the Communications Industry, the Service Industry, and the Public Health and Social Service Industry were dropped automatically because of collinearity.

Table 5
Alliance Selection: The Importance of Political Connectedness

In this table, a Cox proportional hazards model is used to calculate the effect of the independent variables on a firm successfully matching with a foreign partner during the 1987-2000 period. For each variable, the coefficient appears with the robust standard error below it in brackets. All standard errors are corrected for clustering at the firm level.

Variable Name	plus complete list of control variables		plus time and time- interaction dummies	
	Panel (1)	Panel (2)	Panel (3)	
Part A.				
Firm has Senior Manager who served as an officer of the Federation of Korean Industry (FKI)	1.9641 *** [0.3409]	1.6461 *** [0.4958]	0.5685813 [0.9026]	
Firm has Senior Manager who served as an officer of the Federation of Korean Industry (FKI)*Dummy for Kim Young Sam administration			2.0293 [0.9262]	**
Firm has Senior Manager who served as an officer of the Federation of Korean Industry (FKI)*Dummy for Kim Dae Jung administration			0.4485 [1.2039]	
Part B.				
Firm has CEO or Chairman who served as a Minister in the national government	1.4191 ** [0.7160]	1.6795 * [0.8887]	2.4468 [0.8366]	***
Firm has CEO or Chairman who served as a Minister in the national government*Dummy for Kim Young Sam administration			-3.3126 [1.0738]	***
Firm has CEO or Chairman who served as a Minister in the national government*Dummy for Kim Dae Jung administration			-41.5467 [1.6375]	***
Part C.				
Firm has Senior Manager who served as a Minister in the national government	1.5035 ** [0.5884]	0.4259 [1.0441]	2.1934 [0.7347]	***
Firm has Senior Manager who served as a Minister in the national government*Dummy for Kim Young Sam administration			-36.2854 [1.2529]	***
Firm has Senior Manager who served as a Minister in the national government*Dummy for Kim Dae Jung administration			-36.3679 [1.1116]	
All control variables from Table 4 included	No	Yes	Yes	Yes
Time period variables from Table 4 included	No	No	No	Yes
Top 30 Chaebol Fixed Effects	No	Yes	Yes	Yes
Industry Fixed Effects	No	Yes	Yes	Yes

Table 5 continued
Alliance Selection: The Importance of Political Connectedness

Variable Name	Panel (1)	Panel (2)	plus time and time-interaction dummies	Panel (3)
Part D.				
Firm has CEO or Chairman who served as mid-ranking bureaucrat or higher in the national government	-32.0231 *** [0.4655]	-35.4958 *** [0.5399]	***	-36.4229 *** [0.5822]
Firm has CEO or Chairman who served as mid-ranking bureaucrat or higher in the national government*Dummy for Kim Young Sam				-0.2312 [0.4063]
Firm has CEO or Chairman who served as mid-ranking bureaucrat or higher in the national government*Dummy for Kim Dae Jung				0.4043 [0.2555]
Part E.				
Firm has CEO or Chairman from Gangwon region	1.5331 *** [0.5233]	1.6920 *** [0.5484]	***	2.0544 *** [0.7448]
Firm has CEO or Chairman from Gangwon region*Dummy for Kim Young Sam administration				-41.7412 *** [0.7641]
Firm has CEO or Chairman from Gangwon region*Dummy for Kim Dae Jung administration				-0.1208 [1.0519]
Part F.				
Firm has Senior Manager from Gangwon region	0.7078 * [0.3838]	0.3373 [0.4556]	*	1.0560 [0.5987]
Firm has Senior Manager from Gangwon region*Dummy for Kim Young Sam administration			**	-1.9175 ** [0.9213]
Firm has Senior Manager from Gangwon region*Dummy for Kim Dae Jung administration				-0.2406 [0.9159]
All control variables from Table 4 included	No	Yes		Yes
Time period variables from Table 4 included	No	No		Yes
Top 30 Chaebol Fixed Effects	No	Yes		Yes
Industry Fixed Effects	No	Yes		Yes

Table 6

The Representation of Bureaucrat-Politicians from Gangwon region in the National Cabinet

President Roh Tae Woo Administration (February 1988-February 1993)

Name	Position	Appointment Date	until	End of Service
HONG, Sung-Jua	Vice Minister of Trade	1985.01	-	1988.03
CHO, Soon	Head of Economic Planning Board and Deputy Prime Minister	1988.12	-	1990.03
HAN, Seung-Soo	Minister of Trade	1988.12	-	1990.03
LEE, Sang-Yong	Vice Minister of Construction	1991.02	-	1993.03
CHOI, Gak-Kyu	Head of Economic Planning Board and Deputy Prime Minister	1991.02	-	1993.02
RHEE, Yong-Man	Minister of Finance	1991.05	-	1993.02

President Kim Young Sam Administration (February 1993-February 1998)

Name	Position	Appointment Date	until	End of Service
HAN, Seung-Soo	Head of Economic Planning Board and Deputy Prime Minister	1996.8	-	1997.3

President Kim Dae Jung Administration (February 1998-present)

Name	Position	Appointment Date	until	End of Service
CHOI, Jong-Chan	Minister of Construction	1998.09	-	1999.05

Table 7

Alliance Selection: The Importance of Political Connectedness

In this table, a Cox proportional hazards model is used to calculate the effect of the independent variables on a firm successfully matching with a foreign partner during the 1987-2000 period. For each variable, the coefficient appears with the robust standard error below it in brackets. All standard errors are corrected for clustering at the firm level.

Variable Name	Panel (1)	Panel (2)	plus complete list of control variables	plus time and time-interaction dummies
Part A.				
Firm has CEO or Chairman who attended Daegu's Kyungpook High School	-0.1988 [0.6935]	-1.5359 [1.8691]		-1.1708 [2.5983]
Firm has CEO or Chairman who attended Daegu's Kyungpook High School*Dummy for Kim Young Sam administration				-42.6055 [1.1080]
Firm has CEO or Chairman who attended Daegu's Kyungpook High School*Dummy for Kim Dae Jung administration				0.3206 [1.6269]
Part B.				
Firm has CEO or Chairman who attended Seoul's Kyunggi High School	0.5006 [0.3284]	0.4277 [0.4992]		-0.1828 [0.9077]
Firm has CEO or Chairman who attended Seoul's Kyunggi High School*Dummy for Kim Young Sam administration				-0.1923 [1.0000]
Firm has CEO or Chairman who attended Seoul's Kyunggi High School*Dummy for Kim Dae Jung administration				1.4231 [0.9734]
Part C.				
Firm has CEO or Chairman who was born in the Jeolla region	0.1206 [0.3982]	-0.1633 [0.4972]		0.1647 [1.1779]
Firm has CEO or Chairman who was born in the Jeolla region*Dummy for Kim Young Sam administration				0.2665 [1.3065]
Firm has CEO or Chairman who was born in the Jeolla region*Dummy for Kim Dae Jung administration				-42.3868 [1.1770]
All control variables from Table 4 included	No	Yes	Yes	Yes
Time period variables from Table 4 included	No	No	No	Yes
Top 30 Chaebol Fixed Effects	No	Yes	Yes	Yes
Industry Fixed Effects	No	Yes	Yes	Yes

Table 8

The Representation of Bureaucrat-Politicians from Daegu's Kyungpook High School in the National Cabinet

President Roh Tae Woo Administration (February 1988-February 1993)

Name	Position	Appointment Date	until	End of Service
SAKONG,Il	Minister of Finance	1987.05	-	1988.12
PARK,Yong-Do	Vice Minister of Trade	1990.12	-	1993.02
SEO,Yeong-Taik	Minister of Construction	1991.12	-	1993.02

President Kim Young Sam Administration (February 1993-February 1998)

Name	Position	Appointment Date	until	End of Service
None				

President Kim Dae Jung Administration (February 1998-present)

Name	Position	Appointment Date	until	End of Service
LEE,Jung-Moo	Minister of Construction &Transportation	1998.03	-	1999.05
SHIN,Kook-Hwan	Minister of Commerce, Industry, and Energy	2000.08	-	2001.03
LEE, Jung-Jae	Vice Minister of Finance and Economy	2000.08	-	2001.04

Table 9

The Representation of Bureaucrat-Politicians from the Jeolla Region in the National Cabinet

President Roh Tae Woo Administration (February 1988-February 1993)

Name	Position	Appointment Date	until	End of Service
HWANG, In-Sung	Minister of Agriculture and Fisheries	1987.01	-	1987.05
CHOI, Dong-Sup	Minister of Construction	1987.12	-	1988.12
LEE, Han-Ki	Prime Minister	1987.05	-	1987.07
KIM, Sik	Minister of Agriculture and Fisheries	1988.12	-	1990.03
PARK, Seung	Minister of Construction	1988.12	-	1989.07
LIM, In-Taik	Vice Minister of Trade	1988.12	-	1990.12
SHIN, Yun-Sik	Vice Minister of Communications	1988.12	-	1990.12
CHOI, Young-Choul	Minister of Communications	1988.12	-	1989.07
YUN, Kun-Hwan	Minister of Agriculture and Fisheries	1988.02	-	1988.12
JIN, Nyum	Vice Minister of Finance	1990.01	-	1991.02
LEE, Byung-Suk	Vice Minister of Agriculture and Fisheries	1990.12	-	1992.04
SONG, Eon-Jong	Minister of Communications	1990.12	-	1993.02
JIN Nyum	Vice Minister of Economic Planning Board	1991.02	-	1991.05
KANG, Hyon-Wook	Vice Minister of Economic Planning Board	1991.05	-	1992.01
KANG, Hyon-Wook	Minister of Agriculture and Fisheries	1992.03	-	1993.02
HAN, Kap-Soo	Vice Minister of Economic Planning Board	1992.01	-	1993.03

President Kim Young Sam Administration (February 1993-February 1998)

English Name	Position	Appointment Date	until	End of Service
HUH, Shin-Haeng	Minister of Agriculture, Forestry and Fisheries	1993.02	-	1993.12
HUH, Jai-Young	Minister of Construction	1993.02	-	1993.03
HWANG, In-Sung	Prime Minister	1993.02	-	1993.12
KOH, Byung-Woo	Minister of Construction	1993.03	-	1993.12
CHUNG, Jai-Suk	Head of Economic Planning Board and Deputy Prime Minister	1993.12	-	1994.01
KIM, Yang-Bae	Minister of Agriculture, Forestry and Fisheries	1993.12	-	1994.04
KANG, Bong-Gyun	Vice Minister of Economic Planning Board	1994.01	-	1994.12
CHOI, In-Kee	Minister of Agriculture, Forestry and Fisheries	1994.04	-	1995.12
PARK, Sang-Woo	Vice Minister of Agriculture, Forestry and Fisheries	1994.12	-	1995.12
KANG, Oon-Tae	Minister of Agriculture, Forestry and Fisheries	1995.12	-	1996.08
KANG, Oon-Tae	Minister of Agriculture, Forestry and Fisheries	1996.08	-	1996.12
KANG, Bong-Gyun	Minister of Information & Communication	1996.08	-	1998.03
JEONG, Shi-Chae	Minister of Agriculture, Forestry and Fisheries	1996.12	-	1997.08
CHANG, Seung-Woo	Vice Minister of Maritime Affairs and Fisheries	1996.12	-	1998.03
LEE, Hyo-Gae	Minister of Agriculture, Forestry and Fisheries	1997.08	-	1998.03

President Kim Dae Jung Administration (February 1998-present)

English Name	Position	Appointment Date	until	End of Service
PARK, Tae-Young	Minister of Commerce, Industry, and Energy	1998.03	-	1999.05
KIM, Sung-Hoon	Minister of Agriculture, Forestry and Fisheries	1998.03	-	2000.08
KANG, Bong-Gyun	Minister of Finance and Economy	1999.05	-	2000.01
KIM, Dong-Seon	Vice Minister of Information and Communication	2000.02	-	Present
JIN, Nyum	Minister of Finance and Economy	2000.08	-	2001.01
HAN, Kap-Soo	Minister of Agriculture, Forestry and Fisheries	2000.08	-	2001.09
LIM, In-Taik	Minister of Construction and Transportation	2001.01	-	Present
CHANG, Che-Shik	Minister of Commerce, Industry, and Energy	2001.03	-	Present
CHO, Woo-Hyun	Minister of Construction	2001.04	-	Present
CHO, Woo-Hyun	Vice Minister of Construction and Transportation	2001.04	-	Present
AHN, Jung-Nam	Minister of Construction and Transportation	2001.09	-	2001.10

Table 10
Determinants of Alliance Matching

In this table, a probit model is used to calculate the effect of the independent variables on a specific Korean firm successfully matching with a specific foreign partner during each year of the 1987-2000 period. Robust standard errors are shown below the coefficients. All standard errors are corrected for clustering at the Korea firm level.

Variable Name	Panel (1)	
MNC's Patent citation stock	0.0000	
	[0.0039]	
MNC's Tobin's q	0.0009	
	[0.0035]	
MNC's ROA	-0.0016	***
	[0.0002]	
MNC's Firm Size	-1.1702	**
	[0.4640]	
MNC's Leverage	-0.0008	
	[0.0017]	
MNC's R&D Intensity	-0.0192	
	[0.0591]	
Interaction Variable for Tobin's q	0.0016	*
	[0.0009]	
Interaction Variable for R&D Intensity	0.8997	
	[3.7445]	
Interaction Variable for ROA	0.0019	
	[0.0022]	
Interaction Variable for Firm Size	0.1381	***
	[0.0529]	
Interaction Variable for Leverage	0.0004	
	[0.0023]	
Korean firm's ROA	1.6081	***
	[0.5745]	
Korean firm's measure for Tobin's q	-0.1015	
	[0.0812]	
Korean firm's Size	-0.3352	
	[0.2047]	
Korean firm's Leverage	0.0061	
	[0.0376]	
Korean firm's Training Expenditure/ Total Sales	-27.8927	
	[22.4338]	
Korean firm's R&D Intensity	-0.1201	
	[2.6852]	
Korean firm's affiliation with a top 30 Chaebol	0.1075	
	[0.0864]	
Number of observations	59856	
Log likelihood	-761.5266	
Wald chi2	553.13(18)	
Prob > chi2	0.0000	
Pseudo R2	0.0285	

Table 11
Determinants of Alliance Matching: Officer Experience in the Federation of Korean Industry (FKI)

In this table, a probit model is used to calculate the effect of the independent variables on a specific Korean firm successfully matching with a specific foreign partner during each year of the 1987-2000 period. Robust standard errors are shown below the coefficients. All standard errors are corrected for clustering at the Korean firm level.

Variable Name	Panel (1)	plus firm-level control variables and time-interaction dummies Panel (2)	plus Korean firm's Patent Stock and interaction variable for Patent Stock Panel (3)	R&D Stock substituted for R&D Intensity Panel (4)	plus Korean firm's Advertising Intensity Panel (5)	Advertising Stock substituted for Advertising Intensity Panel (6)
Part A.						
Firm has CEO or Chairman who served as an officer of the Federation of Korean Industry	0.0390 [0.1740]	0.4145 [0.1770]	** 0.4148 [0.1787]	** 0.4149 [0.1811]	** 0.4139 [0.1832]	** 0.4181 [0.1825]
Firm has CEO or Chairman who served as an officer of the Federation of Korean Industry (FKI)*Dummy for Kim Dae Jung administration		-0.7072 [0.2282]	*** -0.7028 [0.2337]	*** -0.7067 [0.2347]	*** -0.6946 [0.2807]	** -0.7064 [0.2392]
Part B.						
Firm has Senior Manager who served as an officer of the Federation of Korean Industry (FKI)	0.0323 [0.1575]	0.3858 [0.1622]	** 0.3906 [0.1610]	** 0.3888 [0.1629]	** 0.3874 [0.1635]	** 0.3885 [0.1673]
Firm has Senior Manager who served as an officer of the Federation of Korean Industry (FKI)*Dummy for Kim Dae Jung administration		-0.6936 [0.2274]	*** -0.7035 [0.2296]	*** -0.7017 [0.2343]	*** -0.6991 [0.2394]	*** -0.6999 [0.2642]
All Control Variables from Table 10 Included	Yes	Yes	Yes	Yes	Yes	Yes
Time Period Dummy Included	No	Yes	Yes	Yes	Yes	Yes

Table 12
Determinants of Alliance Matching: Ministerial Experience

In this table, a probit model is used to calculate the effect of the independent variables on a specific Korean firm successfully matching with a specific foreign partner during each year of the 1987-2000 period. Robust standard errors are shown below the coefficients. All standard errors are corrected for clustering at the Korean firm level.

Variable Name	Panel (1)	Panel (2)	Panel (3)	Panel (4)	Panel (5)
Part A.					
Firm has CEO or Chairman who served as a Minister in the national government	-0.2143 [0.1181]	* -0.2153 [0.1225]	* -0.2031 [0.1216]	* -0.2566 [0.1326]	* -0.2200 [0.1234]
Firm has CEO or Chairman who served as a Minister in the national government*Dummy for 1987-1992 period	0.1373 [0.1388]	0.1197 [0.1431]	0.1036 [0.1505]	0.1082 [0.1486]	0.0896 [0.1502]
Part B.					
Firm has Senior Manager who served as a Minister in the national government	0.3043 [0.0693]	*** 0.3192 [0.0697]	*** 0.3407 [0.0556]	*** 0.4130 [0.0909]	*** 0.3405 [0.0572]
Firm has CEO or Chairman who served as a Senior Manager in the national government*Dummy for 1987-1992 administration	-0.0832 [0.1585]	-0.0842 [0.1572]	-0.1122 [0.1646]	-0.1913 [0.1618]	-0.1272 [0.1686]
Firm has CEO or Chairman who served as a Senior Manager in the national government*Dummy for Kim Young Sam	-0.7025 [0.2944]	** -0.7009 [0.2912]	** -0.7123 [0.2847]	** -0.7816 [0.2391]	** -0.7152 [0.2846]
All Control Variables from Table 10 Included	Yes	Yes	Yes	Yes	Yes
Time Period Dummy Included	Yes	Yes	Yes	Yes	Yes

Table 13
Determinants of Alliance Matching: Gangwon Regional Affiliation

In this table, a probit model is used to calculate the effect of the independent variables on a specific Korean firm successfully matching with a specific foreign partner during each year of the 1987-2000 period. Robust standard errors are shown below the coefficients. All standard errors are corrected for clustering at the Korean firm level.

Variable Name	Panel (1)	Panel (2)	Panel (3)	Panel (4)	Panel (5)
Part A.					
Firm has CEO or Chairman from Gangwon region	0.1787 [0.1748]	0.1808 [0.1750]	0.1821 [0.1758]	0.1628 [0.1731]	0.1762 [0.1762]
Firm has CEO or Chairman from Gangwon region*Dummy for Kim Young Sam administration	-0.4885 *	-0.4930 *	-0.5101 *	-0.5021 *	-0.5147 *
Firm has CEO or Chairman from Gangwon region*Dummy for Kim Dae Jung administration	0.2670 -0.2732 [0.2262]	0.2676 -0.2652 [0.2270]	0.2655 -0.2780 [0.2260]	0.2580 -0.2702 [0.2243]	0.2663 -0.2236 [0.2381]
Part B.					
Firm has Senior Manager from Gangwon region	0.0194 [0.2215]	0.0213 [0.2226]	0.0220 [0.2232]	0.0018 [0.2233]	0.0159 [0.2231]
Firm has Senior Manager from Gangwon region*Dummy for Kim Young Sam administration	-0.4402 *	-0.4330 *	-0.4384 *	-0.4238 *	-0.4390 *
Firm has Senior Manager from Gangwon region*Dummy for Kim Dae Jung administration	0.0237 [0.2544]	0.0275 [0.2528]	0.0255 [0.2589]	0.0898 [0.2589]	0.0455 [0.2595]
All Control Variables from Table 10 Included	Yes	Yes	Yes	Yes	Yes
Time Period Dummy Included	Yes	Yes	Yes	Yes	Yes

Table 14

Determinants of Alliance Matching: Other Regional and High School Ties

In this table, a probit model is used to calculate the effect of the independent variables on a specific Korean firm successfully matching with a specific foreign partner during each year of the 1987-2000 period. Robust standard errors are shown below the coefficients. All standard errors are corrected for clustering at the Korean firm level.

Variable Name	Panel (1)	Panel (2)	Panel (3)	Panel (4)	Panel (5)
Part A.					
Firm has CEO or Chairman from the Jeolla region	0.1760 [0.0946]	* 0.1714 [0.0945]	* 0.1701 [0.0963]	* 0.1333 [0.0987]	0.1602 [0.0982]
Firm has CEO or Chairman from the Jeolla region*Dummy for Kim Dae Jung administration	-0.0029 [0.1955]	0.0093 [0.2009]	0.0133 [0.2010]	0.0286 [0.2013]	0.0129 [0.1995]
Part B.					
Firm has CEO or Chairman who attended Daegu's Kyungpook High School	0.3098 [0.0604]	*** 0.3018 [0.0639]	*** 0.3063 [0.0598]	*** 0.3592 [0.0682]	*** 0.3164 [0.0610]
Firm has CEO or Chairman who attended Daegu's Kyungpook High School*Dummy for Kim Young Sam administration	-0.4742 [0.2205]	** -0.4732 [0.2213]	** -0.4779 [0.2172]	** -0.5406 [0.1795]	** -0.4652 [0.2158]
All Control Variables from Table 10 Included	Yes	Yes	Yes	Yes	Yes
Time Period Dummy Included	Yes	Yes	Yes	Yes	Yes

Relationships and Cross-Listings: Evidence from Mexico*

ABSTRACT

This study examines whether cross-listings and relationships in the form of cross-border strategic alliances and/or political connectedness are complements or substitutes for firms from emerging economies seeking external resources. If not all firms cross-list, then some may have alternative strategies for building outsiders' trust and securing outside resources. The results suggest that before liberalization Mexican firms selected alternative strategies besides cross-listings, and that one of these strategies (forming a cross-border alliance) turned out to be more effective. The timing of liberalization is the key shift variable that determines which Mexican firms cross-listed and which firms instead formed cross-border alliances and/or acquired political connectedness. If a firm listed for the first time on the Mexico Stock Exchange before liberalization began in 1989, then that firm was significantly more likely to choose cross-border alliances and/or political connectedness instead of a cross-listing. Firms with alliances and political connectedness did not cross-list because they did not need additional outside finance.

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1. Introduction

The recent literature on corporate governance has shown mostly positive benefits from cross-listings for firms based in countries with weak governance institutions. Cross-listings are believed to promote outsiders' trust and to deliver scarce resources to a small group of firms that issue them (Coffee 1999; Stulz 1999; Reese and Weisbach 2002; Siegel 2003a). These benefits include improved market valuation (Doidge, Karolyi and Stulz 2003; Lang, Lins and Miller 2003) and lower capital constraints (Lins, Strickland and Zenner 2002). Mitton (2002) was the first to test the effect of ADRs as a bonding instrument in an emerging market crisis, and he found that through the intense, initial phase of the Asian Crisis (July 1997-August 1998) firms with ADRs (both listed and unlisted) were valued higher than other firms that had received the same valuation by investors just prior to the crisis. Reese and Weisbach (2002) found that issuing an ADR could help firms to attract outside resources for at least two subsequent years following a U.S. listing. Siegel (2003a) showed that cross-listings lead to improved incentives for many, but not all, firms to build a positive reputation. Mexican firms with cross-listings and a record of good governance during an emerging market crisis received privileged access to outside resources over the long term.

If cross-listings offer mostly positive benefits to firms (and their insiders), then why do only a small minority of publicly listed firms from emerging markets also choose to cross-list? One reason might be that cross-listings reduce the private benefits and corporate control for foreign insiders (Blass and Yafeh 2001; Doidge 2003). Another reason is that there might be alternative strategies that better serve the interests of both foreign insiders and their minority shareholders. This study examines the second explanation by examining what types of firms are more likely to cross-list, and what types of firms are more likely to select alternative strategies

for securing outside resources. The prior literature has focused primarily on the ex post analysis of firm performance, and has shown that firms with existing cross-listings are more likely to be valued higher in the market (Dojidge, Stulz and Karolyi 2003). Because of the focus on ex post performance, as Leuz (2003) compellingly argued, much work remains to disentangle the various causal explanations for whether and why cross-listings succeed.

In addition to cross-listings, other strategies can help firms in environments characterized by weak governance institutions to gain access to outside resources. In fact, as shown in this study, what political connectedness, cross-border strategic alliances, and cross-listings have in common is that each can help a firm gain access to cheap finance. Political connectedness is a mechanism by which firms in emerging economies secure favorable treatment from political actors, and strategic alliances are a mechanism by which these firms secure scarce cross-border finance and technology from foreign partner firms. Because political connectedness may offer the firm both regulatory advantages as well as cheap finance, and because cross-border strategic alliances may offer the firm technology in addition to finance, it is appropriate to ask in this study whether these strategies are substitutes or complements to cross-listing.

In testing for substitution or complementarity between cross-listings and two types of long-term relationships, this study recognizes the dual challenge of controlling for endogeneity and unobserved firm heterogeneity. Otherwise, a skeptic could wonder whether cross-listings have any direct and positive impact on firm performance after controlling for selection, or whether a positive cross-listing result is simply an artifact of underlying firm quality (Blass and Yafeh 2001). No study has found a proper instrument that determines the likelihood of cross-listing across the globe. Blass and Yafeh's (2001) study is the exception, but it focuses on a unique form of young, Israeli high-tech firm that only lists in the U.S. and not in Israel.

The literature has begun to make progress in discerning why some firms choose not to issue cross-listings. A pioneering example is the recent study by Leuz and Oberholzer-Gee (2003). Those authors found that Indonesian firms with prior investments in political connectedness did not issue cross-listings once cross-listings became a viable choice for Indonesian firms after 1990. Cross-listings are an increasingly important phenomenon in the 1990s due to country-level liberalization and changes in the U.S. governance regime designed to attract cross-listings (Karolyi 2003). Leuz and Oberholzer-Gee (2003) argue that politically connected Indonesian firms have likely avoided the corporate transparency associated with cross-listings in order to continue receiving privileged political rents. A firm that receives political rents may not find it beneficial for the full information to become public. The authors also point out that a complementary explanation is that these politically connected Indonesian firms may be able to receive outside finance from the state at low interest rates, and that these firms therefore have no need for cross-listings.

This study takes up these questions and introduces a series of findings related to cross-listings and their alternatives in the Mexican case. This study provides evidence for the argument that many firms in emerging economies do not issue cross-listings because they have more preferable means of accessing outside finance. In fact, if better alternatives exist, then why do any firms issue cross-listings? This study shows that for Mexican firms liberalization affected the choice set for firms that wanted to bond themselves in the eyes of outside resource providers. Before liberalization, cross-border alliances and political connectedness were the preferred modes of accessing finance. Cross-listings were available even before liberalization, but were rarely chosen. After liberalization, these strategies are not reversed, and further, some firms continue to employ alternatives even when cross-listings became more readily available. But for firms coming to the public markets for the first time after liberalization, political connectedness

and cross-border alliances involving joint fixed investment become more costly to acquire. Therefore, Mexican firms coming to the public markets for the first time after liberalization tended to focus instead on the single best available strategy: cross-listings.

First, this study proposes a shift variable that explains the Mexican firms' decision to cross-list and that is exogenous to the long-term performance of the firm. Specifically, the listing of a firm's shares on the home market before or after liberalization is the key variable driving Mexican firms' decision to cross-list. Firms that listed on the Mexico Stock Exchange prior to 1990 were more likely to choose cross-border strategic alliances and/or political connectedness as preferred modes of attracting outside resources. Firms that listed on the Mexico Stock Exchange after liberalization (1990 or later) were significantly likely to issue cross-listings and not to form strategic alliances and/or purchase political connectedness through membership in the Mexican Council of Businessmen (CMHN). In this study, cross-border alliances and domestic political connectedness are two types of "relationships" firms can pursue to secure outside resources, whereas cross-listings are an arm's length approach to building the confidence of outsiders.

Second, based on this exogenous determination of which firms cross-list and which firms select alternative strategies, one can clearly identify the fact that cross-listed Mexican firms actually experienced worse long-term share price returns than firms that focused their strategy on building a cross-border strategic alliance with a single foreign-partner firm. In the five years following the Mexico crisis, cross-listed firms suffered significantly negative share price returns. As shown in Siegel (2003a), this fall in share prices were the result of a significant minority of insiders who engaged in illegal asset taking and left their cross-listed firms as shells of their former selves. In contrast, firms that focused on cross-border alliance enjoyed significantly higher share price returns not during the initial, intense period of the Mexico crisis (September

1994-December 1995), but in fact over the two years and five years after the crisis. Political connections had no significant effect on stock returns at any point following the crisis.

Mexican evidence is instructive because Mexican firms tried cross-listings at the earliest point in time and in the largest numbers among emerging market firms. Moreover, Mexico presents a valuable quasi-experiment because a large number of firms tried cross-listing prior to an emerging market crisis. An emerging market crisis provides an incentive for insiders to expropriate outsiders (Johnson, Boone, Breach and Friedman 2000)¹, and therefore one can test the strength of cross-listings using the Mexico crisis as a quasi-experiment (Siegel 2003a).

2. Mexico as an Institutional Setting

For a number of reasons, the Mexican case provides the right set of conditions for studying cross-listings. First, Mexico is consistently ranked in the governance literature as providing relative weak legal protections for outside investors, and the hypothesis contends that countries such as Mexico have the most to benefit from cross-listings. Mexico has ranked at or near the bottom of the countries surveyed in terms of the quality of its legal institutions affecting outside resource providers (LLSV 1998). Of 49 countries surveyed by LLSV, Mexico tied for the second-worst score for shareholder rights. Its courts have also been rated among the weakest in the world by the country-risk-rating agency, Business International Corporation, and Mexico was tied with the Philippines and Peru for the lowest ranking on the index of creditor's rights among 49 countries surveyed (LLSV 1998).

¹ In fact, Johnson et al argue the switch to "looting" by some insiders is a key factor in exacerbating an emerging market crisis.

Second, if one is looking for how to test the direct impact of cross-listings for emerging market firms, it is important to look at all-too-frequent economic downturns in emerging markets. Of course, firms and individuals break the securities law even during good times, as illustrated by the almost 400 litigation releases issued by the SEC against almost uniformly American defendants in 1997, 1998 and 1999.¹ Yet, as shown by Johnson, Boone, Breach and Friedman (2000), there is theoretical reason to believe that even more is stolen from outside investors during bad economic times. As shown by Park and Lee (2001), and by Lee and Rhee (2002), financial and economic crises are a recurring event in emerging markets. For example, Park and Lee compiled data on 239 currency crises that occurring between 1970 and 1997, including 160 independent crises, from all developing countries that required IMF intervention (2000, 6-7). Many of these currency crises also involved economic crises as well (Park and Lee 2000). At the end of 1994, Mexican firms experienced a crisis after their government became insolvent and asked the Clinton Administration for a multibillion-dollar bailout.

The Mexico crisis had broadly similar effects on Mexican firms as other recent crises had on firms in other emerging markets. What happened in Mexico is in no way unusual. Park and Lee (2001), and Lee and Rhee (2002), found that the Mexico crisis of 1994-95, far from being a meltdown, was a representative case of a crisis involving an economy opening up to foreign trade which saw a rapid fall in GDP followed by a rapid recovery in macroeconomic statistics. Third and most importantly, Mexico can be distinguished by the fact that in 1994 Mexico had the largest number of firms in any emerging market to have tried the cross-listing strategy.² *Teléfonos de México* was the first major issuer from an emerging economy to list on the NYSE in 1991 (Heyman 1999). The evidence suggests that Mexican firms of all observable types and sizes issued cross-listings.³ In contrast, only five firms across five countries affected by the Asia crisis had issued a listed ADR prior to 1997 (Mitton 2002). Lastly, the Mexican crisis was the

first to allow enough time (1995-2002) for the U.S. governance institutions to study the direct, long-term effect of cross-listing on firm performance.

3. Sample and Data

3a. Sample Selection

This paper uses a database of Mexican companies with a Mexican equity listing prior to the crisis of 1994-95. As in Siegel (2003a), I specifically include companies that were listed on the Mexico Stock Exchange (MSE) prior to September 1994.⁴ When focusing on stock returns as the key variable of interest, I follow the example of Leuz and Oberholzer-Gee (2003). I limit the sample to those 122 of 183 firms with liquid stock as defined by the MSE.

3b. Time Period of Interest

The intense period of the Mexico crisis began on 30 September 1994, when the Mexico Stock Exchange's IPC Index finished its plateau and began to fall precipitously.⁵ I will first examine share price performance and governance implications in the intense period of the crisis, as measured by the continuous fall in the stock market (30 September 1994-28 February 1995). This time measurement closely follows that first used in Mitton (2002) and later in Siegel (2003a) and Leuz and Oberholzer-Gee (2003). I go on to measure the share price performance over longer and longer periods after the crisis (December 1995, December 1996, and December 1999). The data therefore covers the immediate period of the crisis, and the long-run five-year period after the crisis.

3c. Dependent Variables

The primary dependent variable is firm performance as proxied by stock returns. Following the example of Leuz and Oberholzer-Gee (2003), I take the annualized log of share price returns as the dependent variable. Using the annualized log is attractive because it allows one to directly compare coefficients across different time periods, and it also comes the closest to meeting the normality assumption. First, I take the total market capitalization of the firm at a particular point time, and then I translate the amount in pesos into dollarized terms. Then I take the log of the dollarized market capitalization before then annualizing the log. I confirmed separately that the same results in this study apply when taking the log of the market capitalization as measured in pesos. The results are also robust to using raw changes in share price as the dependent variable.

The next set of variables measures whether law enforcement agencies, regulators, and/or minority shareholders publicly accused a firm or its insiders of having engaged in asset taking. Sources include *Reforma*, *El Norte*, *El Financiero*, *Sourcemex Economic News & Analysis on Mexico*, *Mexico Corporate Monthly*, *LatinFinance*, *Forbes*, *Dow Jones International News*, *Wall Street Journal*, *Wall Street Journal Europe*, company annual reports, and company press releases. The data comes from Siegel (2003a). A dummy variable equals 1 for illegal asset taking when a firm's controlling owner and/or senior manager allegedly took assets illegally and then was publicly confirmed as having fled Mexico for a period of at least a year. These controlling owners and/or senior managers were all eventually accused by Mexican law enforcement of theft, fraud or embezzlement between 1 January 1995 and 31 December 1999. The time period is purposely lengthy because it sometimes took years to discover asset taking that had begun taking place during the intense period of the Mexico crisis. A second variable simply measures whether regulators, law enforcement or minority shareholders accused the firm's controlling owner and/or senior manager of illegal asset taking. While a continuous

measure of the amount of assets taken would be desirable, several cases described in Appendices III and IV are still under investigation as part of a Mexican legal proceeding. Sufficiently precise figures are not available. For that reason alone, this analysis relies on categorical measures of whether asset taking allegedly took place.

3D. Principal Independent Variables

The primary candidate for an instrumental variable is the timing of liberalization. In Mexico, the election of Carlos Salinas in 1988 and the beginning of his large-scale privatization and financial liberalization in 1989 mark the beginning of liberalization. The literature on Mexican political economy has previously shown that the timing of liberalization occurred based on the Mexican government needing to find a way out of its own debt crisis, and was not precipitated by any change in business-government relations (Camp 2003). It is after 1989 that as part of a broad liberalization program, Mexican firms gained easier access to the global capital markets through cross-listings. Before 1989, cross-listings had been possible and Mexican firm TAMSA had been the first from Mexico to cross-list back in the 1960s. Yet after 1989, the costs of cross-listings were reduced. Teléfonos de México was the first major emerging market issuer on the NYSE in 1991, and after that many Mexican firms followed (Heyman 1999).

The variable of interest is whether a Mexican firm lists on the local market after liberalization (after 1989) or before. A dummy is set equal to 1 if the firm listed on the MSE after 1989, and is set equal to 0 otherwise. The data on listings came from the Mexico Stock Exchange. To be an effective instrument (or in this case an exogenous shift variable), the timing of liberalization must not have an independent effect on subsequent firm performance. I therefore confirmed that the age of the firm (time since firm founding) was not associated with the later results on firm performance. It is implausible to argue that firms listing after

liberalization are fundamentally worse because liberalization should, if anything, reward productive projects previously unfunded due to cronyism. Also, it is implausible to argue that all the good projects had been taken up before liberalization. If anything, the prior literature has suggested that improved capital allocation leads to the competitive funding of possibly better projects after liberalization (Morck, Strangeland and Yeung 1998).

The next set of variables measure other important firm characteristics that could explain variation in the dependent variables. First, a cross-border alliance is here defined as one in which a Mexican firm and a foreign partner firm jointly invest in fixed assets (property, plant, and/or equipment) in the main business of the Mexican firm. The existence of such an alliance was found first through company annual reports and publicly available periodicals, and then later confirmed through interviews with Mexican and foreign managers. Because these joint investments typically involve the joint provision of tens of millions of dollars or more, these joint investments are widely known and can be verified easily through multiple domestic and foreign sources. Sources include *Reforma*, *El Norte*, *El Financiero*, *Sourcemex Economic News & Analysis on Mexico*, *Mexico Corporate Monthly*, *LatinFinance*, *Forbes*, *Dow Jones International News*, *Wall Street Journal*, *Wall Street Journal Europe*, company annual reports, and company press releases.

The key aspect of these alliances is that they involve a “lock-and-key” arrangement in which the foreign partner controls specific complementary assets and/or is needed by the Mexican firm for continual access to technology and/or finance. These arrangements can be successful when the multinational firm retains control over a key upstream or downstream asset (Moran 1973), access to customers (Moran 1973), continued access to cheap finance, and/or a stream of knowledge-based assets necessary for continued production and growth. The international business literature has traditionally thought of alliances as a mechanism for the

U.S., Japanese or European firms to reduce the risk of entering an emerging economy (Stopford and Wells 1972; Vernon 1998).² In this study, cross-border alliances are seen in reverse as an opportunity for the emerging economy firm to gain long-term access to cross-border knowledge and finance.

The reason for focusing on the main business of the Mexican firm is because of the resource dependence that results from joint investment with a single partner in the main business. For example, Alfa is purposely excluded because the firm is not dependent on any single one of its alliance partners in its peripheral activities. These alliances of interest typically involve the shared use of a common brand name and/or technology together with the joint provision of financial resources. Mexican firms with such relationships often receive financial infusions directly from their foreign partners without going to the public capital markets. These alliances also involve extensive monitoring mechanisms, which depending on the alliance may include minority foreign ownership, foreign representation on the board, and the presence of foreign partner representatives at the plant, branch and/or individual retail outlet. It was verified that no single monitoring mechanism is responsible for the results in this study, but that the underlying variable that drives the results is the joint investment in plant, machinery and equipment.

Political connectedness may also be an important firm characteristic affecting performance. Fisman (2001) showed that as much as a quarter of the market capitalization of some Indonesian firms was derived from their ties to the Suharto government, and Johnson and

² Yet the literature has also pointed out the risks in partnering with a locally savvy firm in a jurisdiction with weak legal institutions. In such conditions of bilateral monopoly, past authors predicted that large multinational firms would prefer to own their foreign operations outright (Teece 1983). The cross-border contracting problem becomes all the more severe when the local partner must be trusted with the multinational firm's intangible assets and when the returns on the joint assets are subject to numerous future contingencies (Buckley and Casson 1976; Casson 1979; Hennart 1982). MNCs may agree to own less than a majority stake in the joint asset only in situations where the host government requires it as a condition of gaining access to the market, or otherwise where the local partners bring valuable complementary assets to the operation (Caves 1982). These minority stakes may be explained by the local partners' management skills, the local partners' knowledge of local markets (Caves 1982), their willingness to share the financial risk (Tomlinson 1970; Caves 1982), their ownership of distribution channels (Vernon 1983), the local partners' privileged access to governmental actors (Vernon 1983), and/or their access to cheap bank loans.

Mitton (2003) showed that during the Asia crisis (1997-98) politically connected Malaysian firms received valuable support from the government in form of protective capital controls. Schneider (2002) showed in the case of Mexico that an elite group of businessmen belonging to the *Consejo Mexicano de Hombres de Negocio* (Mexican Council of Businessmen, or CMHN) was granted special access to the Mexican president. The CMHN until the last election even enjoyed limited veto power over the selection of the ruling party's presidential candidate. Lopez-de-Silanes and Zamarripa (1995) provided empirical evidence showing that auction winners in the Mexican privatization of government-owned banks received an average discount of 20 percent on the book value of assets because the auctions were not fully competitive. The evidence at least suggests the possibility that politically connected firms received billions of dollars in rents prior to the Mexico crisis. While the CMHN supposedly represents only the largest firms, a check of the membership list as of 31 December 1993 showed that several of the largest firms in Mexico were not represented and that some businessmen from medium-sized firms had won the secret vote necessary for membership.

A dummy variable for political connectedness equals 1 for those firms whose owner and/or senior executive was represented in the CMHN. I include only firms among the sample in which the largest part of the representative's wealth was invested. Data on CMHN membership came from Schneider (2002). Information was obtained from company 20-F filings and interviews with market analysts to determine where the largest part of the representative's wealth was invested. This involves (a) identifying in which public companies the insider has a controlling stake; and (b) utilizing data from the MSE on the total market capitalization of each public company at the end of 1993.

Mexican firms rented the U.S. legal jurisdiction through the four types of ADRs.⁶ Firms that were not raising fresh capital on the U.S. equity market chose between a Level I and a Level

II ADR. The Level I ADR trades on the over-the-counter (OTC) market, with bid and ask prices published daily by the National Daily Quotation Bureau in the pink sheets. The Level I ADR may potentially place a firm under the microscope of large institutional investors, but it does not offer any legal protection to investors. The Level II ADR, in contrast, comes under the permanent jurisdiction of the U.S. SEC. The firm must list its shares on one of the three main U.S. exchanges (NYSE, NASDAQ or AMEX) and follow the strict listing requirements of those exchanges. The firm must reconcile its financial statements to meet U.S. accounting standards (called U.S. GAAP) and must deliver detailed and accurate financial information to the SEC (Rock 2002). The firm's senior managers and directors are liable in U.S. courts for any material misstatements or other securities law violations.

Mexican firms that wanted to raise new capital on the U.S. equity market chose between a Rule 144A ADR and a Level III ADR. Firms that want to avoid SEC oversight can use Rule 144A (a special rule passed in 1990) to place their shares privately to a select group of Qualified Institutional Buyers (QIBs). These QIBs include Fidelity, Alliance Capital, and Janus. The other option is to issue a Level III ADR, for which the SEC requires a full reconciliation of the firm's financial statements with U.S. GAAP. The firm faces U.S. legal liability and sells its new shares on the NYSE, NASDAQ or AMEX.

The first pair of independent variables measures whether the firm had a listed or unlisted ADR prior to September 1994.⁷ For detailed and accurate information on every firm with an ADR, a combination of company filings and a Citibank database covering all information supplied by the various depository banks on their ADRs was utilized. This study differentiates in the econometric analysis between Level I/Rule 144a ADRs that carry little, if any, legal protection for investors and Level II/Level III ADRs that offer such protection. A dummy variable equals 1 when a firm had a listed ADR (Level II or Level III) prior to 30 September

1994. A second dummy variable equals 1 when the firm had an unlisted ADR (Rule 144a or Level I) prior to 30 September 1994.

3E. Control Variables

Another variable equals 1 if a foreign entity owned more than 10 percent of the firm. The data came from company filings and from interviews with senior managers.

The next dummy variable equals 1 if a firm and/or its controlling shareholder owned at least a 10 percent stake in a separate Mexican banking institution. Although the Mexican banking system largely failed after the crisis, not all banks in the sample collapsed. The government took over many banks, but before the government offered a bailout of the sector, several insiders had used money from their non-banking firms to prop up their ailing bank. For measuring this variable, I use data from company filings and interviews with managers.

Next, I include four control variables that measure each firm's financial condition, size, sources of finance, and export orientation. Data for each of these four variables came primarily from the MSE. First, I measure each firm's short-term foreign liabilities divided by total liabilities for the year 1993. This variable is almost perfectly collinear with another variable that measures a firm's total foreign liabilities divided by total liabilities for the year 1993. Since I want to focus on the effect of costly, short-term dollar-denominated debt, I choose to drop the other variable. Second, to focus on a firm's overall indebtedness, I measure each firm's total liabilities divided by total assets for the year 1993. Third, to focus on export orientation, each firm's foreign sales are divided by Mexican national sales for the year 1993. Fourth, to focus on firm size, I take the natural log of each firm's 1993 total assets. Fifth, to focus on industry effects, I apply John Campbell's (1996) method and include dummy variables for 10 of 11 industrial sectors, with the consumer durables dummy being dropped. Lastly, to focus attention

on financial costs and the need for cross-listings, I collected data from the Mexico Stock Exchange on total financial costs for each listed firm.

4. The Choice of Relationships and Cross-Listings

The summary statistics for all non-industry variables are shown in Table 1. First, the summary statistics suggest that firms do either cross-border alliances or cross-listings, but not both at the same time. Second, the summary statistics suggest that political connectedness and unlisted ADRs are complements, just as in the case of Indonesia (Leuz and Oberholzer-Gee 2003). Interestingly, the firms with cross-border alliances are, if anything, smaller than the firms with listed ADRs, which are in turn smaller than the firms with political connectedness. The firms with cross-border alliances appear less leveraged and more export-oriented compared to the firms with listed ADRs, unlisted ADRs, and political connectedness. The firms with alliances have a higher rate of minority foreign ownership, while the firms with listed ADRs are more likely to own a Mexican bank.

Next, as shown in Tables 2 and 4-6, the timing of liberalization is the key shift variable driving the decision either to form a relationship or to issue a cross-listing. In the regressions that follow, I model the decision to cross-list and the subsequent stock returns using a recursive system of equations. One set of equations uses a probit model to determine the probability of cross-listing or relationship formation as a function of the shift variable and the earlier set of firm characteristics. Another equation uses an OLS model to determine the effect of the strategic choices on long-term stock returns. First, I show that the timing of liberalization is the key shift variable affecting the choice of a cross-listing or a relationship. Then, I show that these strategic choice outcomes are statistically significant determinants of long-term stock returns. As an additional experiment, I follow the recursive structure to its logical end, and I show that the

timing of liberalization is the key variable that can be used to identify positive long-term returns for the firms with alliances and negative long-term returns for the firms with cross-listings.

Firms that list after liberalization—after 1989, in the case of Mexico—are 15.37 percent less likely to have formed a cross-border alliance in the period up to 1994. The coefficient is significant at the .05 level or better. Similarly, as shown in Panel 4 of Table 6, firms that list after liberalization are 15.10 percent less likely to purchase political connectedness ($p < .10$). Conversely, as shown in Panel 4 of Table 4, firms that list after liberalization are 13.35 percent more likely to issue a cross-listing ($p < .05$).

The other variables of interest (firm size, foreign ownership, and ownership tie to a bank) could be endogenous. For example, firms could become significantly larger after they receive large infusions of outside capital through a cross-listing. Minority foreign ownership could be the result of forming a cross-border alliance, not the cause. And firms with cross-listings may find it somehow easier to purchase Mexican banks, based on their access to foreign capital markets. These endogeneity concerns limit the interpretation of these three variables, and so this paper focuses on the one clearly exogenous factor determining whether firms issue cross-listings or form cross-border alliances.

Other interesting results are also found in Tables 2 and 4-6. If a firm lists after liberalization, it is more likely to issue a cross-listing, but not to issue an unlisted ADR. If a firm is politically connected, it is 23.81 percent more likely to issue an unlisted ADR ($p < .05$). As indicated previously, politically connected firms are significantly more leveraged ($p < .05$).

The key question is why firms with cross-border alliances and political connectedness are shown to be substitutes for cross-listings. Either these firms have sufficient outside resources and simply do not require cross-listings, or else they are avoiding the transparency associated with cross-listings (Leuz and Oberholzer-Gee 2003), or both.

The evidence in Table 3 strongly suggests that some firms simply did not need cross-listings. Firms with cross-border alliances and political connectedness paid significantly lower financial costs as a percentage of assets, sales, and total liabilities than did firms with cross-listings. It is remarkable that the financial costs for firms with relationships were often a tiny fraction of those for firms with cross-listings. That is because the firms with relationships were often receiving outside resources at negative real interest rates. Moreover, it cannot be the case that these firms were suffering for the lack of finance. As shown in Table 3, firms with cross-border alliances were able to grow sales at more than twice the rate of firms with cross-listings during the years 1992-1995. Moreover, firms with political connectedness were able to grow assets at essentially the same rate as firms with cross-listings during the years 1992-1995.

It could well be the case that politically connected firms have much to hide, but this study shows that firms with cross-border alliances also avoided cross-listings. As will be described in a later section, these are the same firms that built a positive reputation for corporate governance in the second half of the 1990s. Not a single one of their insiders was ever accused of illegal asset taking during the five years following the 1994-95 Mexico crisis. Especially given the many serious loopholes in formal SEC disclosure for foreign issuers (Licht 2003a), these firms likely had relatively less to fear than other Mexican firms.

As for the politically connected firms, it is likely that they did not need additional outside finance. As shown in Table 6, the politically connected firms are already the most leveraged firms in the sample. It is not surprising, therefore, that if these politically connected firms issued any type of ADR, it would be an unlisted ADR. Just as in Indonesia (Leuz and Oberholzer-Gee 2003), the politically connected often issued unlisted ADRs. As shown in Siegel (2003a), unlisted ADRs are relatively costless to issue but they have not raised a large amount of outside finance for Mexican firms compared to cross-listings. Interviews with Mexican managers also

suggested that unlisted ADRs (even the unsponsored ones of the past decade) might be partially the result of strong lobbying by foreign institutional investors who want to reduce their transaction costs in trading the company's stock. For example, a senior manager of Cifra (now Wal-Mart de México) explained that his company's unlisted ADR came as a means to reduce transaction costs for foreign investors, not as a means to raise finance. He explained:

Cifra launched a sponsored ADR with Morgan Guaranty on the Series V shares. The unsponsored ADR had suffered from high commissions paid to the depositaries. We received a proposal from Morgan Guaranty Bank. There would be no dividend fee to Morgan for Cifra's future dividends. The ADR is based on ratio of 10:1. This reduced the transaction costs for [our] shareholders (Interview with author, July 2000).

Therefore, unlisted ADRs may represent less of a strategic choice for securing outside finance than does a cross-listing. In summary, firms with diverse types of relationships may find sufficient resources through their close partners, and they may simply be refraining from issuing cross-listings because they do not require additional finance.

The question still remains why the firms that list after liberalization are more likely to choose cross-listings rather than cross-border alliances and political connectedness. The evidence on Mexican liberalization strongly suggests that the latter two choices were increasingly costly and even unviable after 1989. Foreign firms found it easier after the Salinas-era reforms to invest in Mexico on their own, and gone were many of the investment restrictions of the 1970s era (Bennett and Sharpe 1979). The literature has recently shown that multinationals may choose politically connected partners when there is a need to do so (Stopford and Wells 1972), but also that they tend to prefer wholly owned subsidiaries when the option becomes available to them (Vernon 1971, 1998; Desai, Foley and Hines 2002).

Therefore, it is not surprising that few cross-border alliances involving joint fixed investment were formed after 1989 since the foreign firms found it suddenly cheaper to invest in Mexico on their own. Not surprisingly, several of the foreign partners that had created alliances

with Mexican firms eventually bought out their Mexican partner. One leading example was the purchase of Cifra by Wal-Mart. In that case, the newly renamed firm (Wal-Mart de México) continues to be listed on the Mexico Stock Exchange, but is now majority owned by Wal-Mart.

Among the other Mexican firms with cross-border alliance partners, two reasons in particular were cited for why they also did not issue cross-listings after liberalization. One reason was the sufficiency of their existing arrangement for securing needed finance. A senior manager of a leading Mexican manufacturer stated another complementary reason: "If [we] got an NYSE or NASDAQ listing, [our partner] would feel like we were competing against [them]. And that would be bad" (Interview with author, July 2000).

And I also interviewed the U.S. and other partners about why they continued with the partnerships even after liberalization. A senior manager at Kimberly Clark stated, "This has been a close technology partnership since the beginning, and Claudio González [the lead partner in Mexico] has been a member of our board... The original arrangement made decades ago was a reaction to Mexican nationalist policy. But the structure worked well, and you don't change what's working well" (Interview with author, December 2000).

Moreover, while continuing to grow after liberalization, the Mexican Council of Businessmen (CMHN) grew at a slower rate. After liberalization, the returns to political connectedness do not fall immediately, as was suggested by Lopez-de-Silanes and Zamarripa's (1995) study on Mexican banking privatization. During the early 1990s-era banking privatization, those with connections may have enjoyed large discounts on privatizations. As shown in Table 3, politically connected firms were able to continue paying some of the best financial terms and growing assets at the fastest rate long after liberalization. As a senior manager of one politically connected firm affiliated with the CMHN stated:

We've been thinking about issuing an ADR for the last couple of years. But we have no need for capital. We receive calls from NASDAQ representatives. During the last couple years, we have listened to a variety of proposals. We've even polled our existing institutional investor base. We asked them if they would be more interested in our company if we had an ADR. And the overwhelming response was no. If they're going to buy, they'll buy through the [Mexico Stock Exchange] (Interview with author, July 2000).

The interview evidence together with the larger empirical evidence in Table 3 strongly suggests that the politically connected firms simply did not need to issue cross-listings. Even a cross-listing would not have given these firms any financial terms that were as attractive as the ones described at the top of Table 3.

And yet after liberalization, the literature has shown that firms will likely see a shrinking pie of political rents (Morck, Strangeland and Yeung 1998). In Mexico, membership in the Mexican Council of Businessmen continued to increase after liberalization, but at a slower rate. As shown in Table 3, for those firms lucky enough to have acquired political connectedness, they were still able to continue receiving outside finance at low cost. And that is precisely the reason why the politically connected firms did not need *also* to issue cross-listings. Yet for firms that may have preferred cross-border alliances or political connectedness, these options became largely unavailable after 1989.

Thereafter, cross-listings became the primary option after liberalization for firms seeking their first large-scale infusion of outside finance. A senior executive in the Mexican brokerage community noted also that after liberalization, New York investment banks moved into Mexico City to try to sell Mexican firms on the benefits of cross-listings. This executive noted: "...More and more Wall Street houses attempted to muscle into the issuing act by trying to convince Mexican companies that the only way to appeal to foreign investors and become 'respectable' was by going the ADR/listing route" (E-mail communication, January 2001). These investment banks, according to this senior executive, found particular success in targeting firms that were

coming to the public equity markets for the first time. Some had existed as private firms for decades, and others had been created shortly after liberalization. What these firms had in common was that none had previously listed on the Mexico Stock Exchange.

5. Governance Implications of Relationships and Cross-Listings

It is striking that unlike the firms with cross-listings, which separated into a group that treat its outside shareholder well through the Mexico crisis and another group whose insiders openly looted their firms (Siegel 2003a), the story is entirely different for firms that focused instead on cross-border alliances. Not a single one of the 18 firms with cross-border alliances engaged in any of the serious forms of illegal asset taking described in Siegel (2003a). None of them had an insider who looted the firm and fled the country permanently, and none had an insider who was accused of illegal asset taking. There is therefore no need to run a regression since the association is absolute.

Even when the alliance variable is included, the cross-listing variable continues to behave in the same way as in Siegel (2003a). Firms with cross-listings were significantly more likely to have insiders who engaged in every form of asset taking. This is consistent with the finding from Siegel (2003a) that legal punishments in the United States neither deterred nor effectively punished Mexican insiders with cross-listings. The additional finding is that perhaps joint foreign investment in property, plant and equipment proved far more effective than cross-listings in deterring large-scale expropriation.

If a foreign firm has its interests aligned with minority shareholders, then those minority shareholders may find it beneficial to “piggyback” on the foreign firm that is investing actively in the Mexican firm. The foreign partner does not need to own a controlling share in the firm, as shown in the Mexican sample. Rather, if the foreign partner is supplying a critical stream of

both finance and technology, then the Mexican insider may find increased incentive to invest in the firm. One might question why the foreign firm does not just collude with the Mexican insider to expropriate all the other minority shareholders. The answer is that, first of all, the foreign firm may have a strong incentive to maintain its reputation in the foreign market because it derives rents from its brand name there. Second, the foreign firm is often itself a minority shareholder and would see the value of its own shares drop in accordance with the illegal expropriation. One thing is clear. When the insider finds a personal incentive to invest inside the firm rather than to expropriate, then the firm has a chance to focus on productive projects and the minority shareholder stands to benefit (Friedman, Johnson and Mitton 2003).

6. Returns to Relationships and Cross-Listings

As reported in Table 7, firms with cross-border alliances enjoyed the most significant increases in share price returns in the one-year, two years and five years after the Mexico crisis. The results are statistically significant, and often highly significant. In contrast, cross-listings had a significantly negative effect on share price returns in the six month, one year, and five year horizon. This can be attributed to the fact that a significant number of insiders engaged in large-scale expropriation and looting (Siegel 2003a). Political connectedness had no significant effect on share price returns through the period. As shown in Table 7, the results continue to be robust when the standard errors are corrected for clustering at the business group level. Group is defined as a set of firms with a common controlling shareholder. I also separately checked to see whether the interaction of cross-border alliance and political connectedness would be significant, but it was not. It is the cross-border alliance variable that has an important and positive effect on long-term stock returns.

To follow the set of recursive equations to their logical end, I again focused attention on the exogenous listing-after-1989 variable. I found that this shift variable, while insignificant in the earliest period of the crisis, was highly significant in the both the medium term and the long term. Listing after 1989 had a significantly negative effect on stock returns in the two-year and five-year time horizon. The results are both significant at the .01 level or better. Moreover, I checked the stock returns through the seven-year point, and although the sample size decreases significantly, these same firms continue to enjoy large increases in market capitalization.

These results show that the listing-after-1989 variable, which is the source of exogenous variation in this paper, played a critical role in driving Mexican firms' decision to cross-list versus decision to form a relationship. I checked that the listing-after-1989 variable could not be explained by alternative means. While the possibility exists that the shift variable is proxying for some unobserved variable, it is clear that none of the usual suspects are driving the variable. For example, listing-after-1989 is not proxying for the age of the firm. Moreover, the exact timing of the listing is not important other than whether it occurred before or after liberalization. It makes no discernible difference for strategic choice or for subsequent firm performance whether the firm listed immediately after liberalization in 1989, or else waited five years until the boom period was coming to an end. Therefore, it is the timing of liberalization that is the source of exogenous variation in this paper.

7. Conclusions

In conclusion, the literature on cross-listings has struggled to find an instrument that could explain the ex ante decision to cross-list in a variety of emerging economies. This study suggests that many firms chose not to issue cross-listings because they had secured better

alternatives. The best alternative of all was a cross-border alliance partner that could deliver both finance and technology to the Mexican firms. An exogenous shift variable (the timing of liberalization) can explain the decision to cross-list by Mexican firms. It is therefore worthwhile to test the effect of this exogenous shift variable in other emerging economies. It may be the case that this particular shift variable has general use. Otherwise, it may be the case that the decision to cross-list depends even more on the local context. Clearly, further research is required.

I find evidence that two different types of relationships are substitutes for cross-listings. The question is why these strategies function as substitutes. In Siegel (2003b), Korean firms were also shown to use political connectedness and cross-border alliances as complements. Few of those Korean firms used cross-listings. The literature has thus far identified that there exist clear substitutes for cross-listings in a diverse range of emerging economies (Leuz and Oberholzer-Gee 2003, Siegel 2003b). This paper suggests that resource sufficiency made cross-listings unnecessary for many firms with prior relationships. This paper also suggests that another group of firms coming to the public equity markets for the first time after liberalization saw cross-listings as the best available strategy for securing outside resources.

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