International Experience and Cross-Border Mergers

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Abstract

Does experience facilitate cross-border mergers? I show that firms are more likely to conduct a cross-border merger when they have a current director with cross-border deal experience gained during prior service on another firm's board. First-time cross-border mergers are more successful when firms initiating them have a director with cross-border deal experience. Cross-border acquirers are more likely to buy targets headquartered in the specific country where a director has international merger experience. This effect is most pronounced for acquisitions of targets headquartered in unfamiliar foreign environments, and least pronounced at firms with cross-border experience gained through a prior international merger.

The past three decades have witnessed a dramatic expansion in international deals: In 1980 only one in ten acquisitions involved foreign targets, but within 20 years this number had grown to one in three, with cross-border mergers and acquisitions accounting for more than 80% of foreign direct investment.[1] However, information frictions associated with global M&A markets and individual foreign economies can inhibit these transactions; differences in the institutions, norms, legal environments, and market structures of foreign national environments can impede the search for a suitable target, while cultural or geographic distance, along with differences in reporting practices and national governance regulations, can hinder negotiations (e.g. Erel, Liao, and Weisbach (2012)). It is thus not surprising that most cross-border mergers are initiated by firms that have conducted one before.

At the same time, the business press literature suggests that experienced directors can help firms overcome frictions associated with international investments. For example, David Johnson, former CEO of Campbell Soup, wrote, "For a company that has (or should have) global ambition, a board whose members lack truly global business expertise ... can be a considerable handicap," (Johnson, 1996).[2] Nevertheless, there is mixed quantitative evidence regarding an individual director's ability to meaningfully influence firm aggregates such as profitability or overall competitiveness, thus raising doubts about whether directors' human capital meaningfully influences particular corporate initiatives such as mergers and acquisitions (e.g. Duchin, Matsusaka and Ozbas (2010)).

This paper studies whether exposure to cross-border M&A experience influences a firm's decision to conduct a cross-border merger by examining the service histories of nearly thirty thousand corporate directors to see whether a firm has exposure to cross-border merger experience through a current director who gained it during prior service on another firm's board (henceforth "director experience").[3] The main empirical analysis is organized around five predictions arising from a

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[1] "Mergers," "acquisitions," and "M&A" will be used interchangeably throughout the paper.

[2] Similarly, Charan (1998), p. 73, quotes an anonymous CEO who said, "For several years now I've been telling the board that ... we have to expand internationally. But because few of them have direct international experience, instead of asking how we're going to be successful globally ... they're sitting back and worrying." See also Ward (2000) pp. 32-34, Conger, Lawler, and Finegold (2001) pp. 36-43, Shultz (2007) pp. 26-51 and Bowen (2008) pp. 136-137.

[3] This paper's focus on directors allows for credibly estimating the causal link between experience and a firm's first cross-border merger. An alternative empirical approach would focus on the potential influence of outside consultants in advising aspects of the cross-border dealmaking process, but while the influence of such parties is undoubtedly present, the difficulty of plausibly identifying a causal relationship in their case poses serious econometric concerns, particularly given that all firms can hire consultants to advise any specific potential deal. As discussed in Section I,

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simple model of investment choice under imperfect information.[4] I first document that firms with exposure to director-level cross-border deal experience are 63% more likely to initiate their first cross-border merger. I then show that director experience has a lower impact on the propensity to conduct a cross-border merger when a director's current firm has previously initiated a cross-border merger, consistent with the hypothesis that director experience can be an alternative way for firms to mitigate border-frictions.

By restricting the sample to announced cross-border mergers, I conduct exercises providing evidence that director experience facilitates better cross-border acquisitions. I show that stock markets react favorably to announcements of cross-border mergers by first-time acquirers with an experienced director, and that this effect disappears for firms that have previously initiated an international merger. I also study completion rates for announced cross-border mergers, which is an attractive metric since announced cross-border mergers are much more likely to fail relative to their domestic counterpart, and since this is particularly so for first-time international acquirers.[5] I find that deal completion rates are 2.6% higher when first-time acquirers have an internationally-experienced director. At the same time, the effect of director experience on deal completion is much lower when estimated for firms with a prior cross-border deal record, again consistent with the view that directors' cross-border merger experience is most influential at firms that have not previously initiated a cross-border merger.

Fifty-two percent of cross-border acquisitions initiated by firms with director experience involve purchases of targets in the *specific* country about which the experienced director has deal experience, consistent with the perspective that cross-border M&A experience entails both country-specific and

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the existence of external cross-border merger facilitators need not eliminate directors' potential influence.

Another alternative empirical approach would be to examine whether a firm's own prior cross-border deals influence its future cross-border acquisition behavior, yet this approach is problematice given difficulties associated with interpreting the observed correlation between past and future deals, while at the same time not allowing for tests of the effect of experience on first-time cross-border acquirers.

[4]An important qualification of the results presented in this paper arises from unobservability of the board-level decisionmaking process (Schwartz-Ziv, Miriam and Michael Weisbach (2011)). In the present context, the specific mechanism behind the director experience effect cannot be conclusively determined (e.g. whether director experience is more important for target search or for obtaining board-level buy-in for profitable investments), though as we will see, the empirical exercises provide support for the view that director experience facilitates better cross-border mergers. Section I.B discusses these possibilities in greater detail.

[5]In my sample, cross-border mergers announced by first-time acquirers are are roughly eight times less likely to conclude successfully relative to domestic mergers and 60% less likely to conclude successfully relative to cross-border mergers announced by firms that have initiated a cross-border merger before.

overall international components. To explore this possibility, I construct a country-specific analogue of the main director experience measure and show that country-specific cross-border merger experience raises a firm's propensity to acquire in that particular country by 159% percent. This effect is then shown to be distinct from the overall effect of director experience documented above. I also show that the effect of director experience on target country choice is indistinguishable from zero when the director's current firm has acquired a target there before, again providing support for the perspective that experience obtained from directors can be a substitute for experience obtained through learning-by-doing.[6]

The literature on foreign market entry has argued that cross-border frictions are a large deterrent when two countries are culturally, legally, and economically dissimilar. I collect country-level data on contract enforcement, language backgrounds, political stability, property rights, legal origin, and barriers to investment and use these to demonstrate that cross-border merger experience does indeed have the largest impact when countries are dissimilar, relative to the acquirer's home country (the U.S.).

A potential caveat for interpretation arises from the possibility, suggested by the business press literature, that management and boards actively recruit experienced directors specifically to facilitate the firm's first cross-border acquisition.[7] The theoretical model in this work shows that the presence of such "skill recruitment" would reinforce the main causal channel, because firms in need of cross-border merger experience would most frequently hire directors to obtain their experience.[8] I conduct two exercises to see whether there is evidence for this channel in the data. First, its existence predicts relatively frequent experienced director hires by first-time potential cross-border acquirers, and I document that this is not the case. Second, I exploit the fact that a firm can obtain director

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[6] It is natural to expect that there is less overlap at the global level, since director experience and experience gained through a prior deal could easily refer to different countries in that case.

[7] For example, Conger, Lawler, and Finegold (2001), p. 40, lists experience with international markets and national economies as one of twenty skill characteristics to be considered when recruiting new directors. Similarly, Dean and Kenny (1999) quote Paul Goddard, CEO of Neurex (a biopharmaceutical products company located in California), as saying, "If you are judicious about it, you can borrow missing expertise from the market-place, by recruiting directors who have a key skill you need." (See also Ward (2000) pp 32-34, Shultz (2007) pp. 26-32 and Bowen (2008) pp. 136-142.).

[8] Section III.B of the online appendix formally distinguishes the skill recruitment channel from omitted variables bias and shows that the presence of skill recruitment is consistent with econometric identification of average treatment effects at firms where director experience is present.

experience by hiring a new director or when a current director gains experience through concurrent board service at another firm. The presence of skill recruitment plausibly operates only through new hires, while also predicting a differential effect of experience in this case relative to experience gained through concurrent service, yet I find no statistically measurable difference between the two. This is not surprising given constraints on hiring posed by directors' tenure and the breadth of characteristics for which directors are valued, both of which constrain the extent to which management and boards are willing to hire directors in order to accomplish specific investment projects.[9] It thus may be more plausible to believe that directors, after being hired, tend to support investment projects about which they have expertise.

Though non-random director placement arising from cross-border experience recruitment is shown to be consistent with a causal link between director experience and cross-border mergers, other unobserved factors simultaneously correlated with director placement and cross-border merger activity could be present, leading to bias in the estimated causal effect.[10] The remainder of the paper conducts tests to assess the potential influence of such factors. For example, I follow Dunchin, Matsusaka, and Ozbas (2010) by obtaining plausibly exogenous variation in board structure, and use this variation to examine the relationship between director experience and cross-border mergers. These econometric exercises provide estimates similar to, and larger than, the main estimates, indicating that endogeneity is unlikely to account for the main results while also raising the possibility that including additional variables accounting for alternative hypotheses would likely lead to *larger estimated* estimates of the impact director experience has on cross-border mergers.

As a second test, I focus on a general form of endogeneity emphasized by the theoretical and empirical literatures on corporate boards, wherein optimal board structure is a function of firm-level characteristics.[11] To assess the potential role of such omitted persistent unobservables, I construct

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[9]Valued characteristics include independence, diversity, social connections with the CEO and management, industry connections, business credibility, favorable disposition toward the company's strategic philosophy, along with marketing, audit, academic, or operational expertise, among others (e.g. Nadler, Behan, and Nadler (2006), Adams, Hermalin and Weisbach (2010)).

[10]See Section III.B of the online appendix. "Endogeneity" or "omitted variables bias," could arise from unobserved firm-specific factors jointly correlated with director placements and cross-border acquisitions, as might occur if, for example, firms in internationally-acquisitive industries also happened to hire internationally-experienced directors, though this particular case is difficult to square with the finding that the effect of experience on cross-border mergers is unaffected by whether it was obtained through a director hire or from multiple simultaneous board seatings.

[11]This possibility arises because board structure is the predicted outcome of a firm-specific optimization problem

a separate indicator variable for each firm and firm-country pair in the sample and include these in the main estimating equations. Controlling for these factors leads to estimates similar to or larger than the main estimates, again suggesting that the specific form of endogeneity present in this paper is associated with a downward-bias in the estimated effect of director experience.

I further assess the influence of time-varying omitted variables by implementing a method developed by Altonji, Elder, and Taber (2005) and Bellows and Miguel (2009), which calculates how much larger the influence of omitted variables would need to be in order to account for the observed effect of director experience on cross-border mergers. Estimation results obtained from this procedure indicate that the influence of omitted variables would need to be extraordinarily large to have a meaningful effect on the parameter estimates, while at the same time showing that the direction of omitted variables bias again involves a negative joint correlation with director experience and the propensity to conduct a cross-border merger, indicating that explicitly controlling for omitted variables would lead to an increase in the estimated impact of director experience. Taken along with the previous results about the direction of omitted variables bias, this finding suggests that the estimates obtained in this paper provide lower bounds on the true effect of director experience on the propensity to enter the global M&A market.

The paper concludes with an additional robustness test checking for the presence of an alternative causal channel predicting that firms with an unobserved predisposition to execute international acquisitions will more often hire directors with any M&A experience, be it cross-border or domestic.[12] However, it is not borne out in the data: only international merger experience has predictive power for the propensity of a firm to initiate its first cross-border merger.

The findings in this paper contribute to several literatures. First, they add to our understanding about determinants of cross-border mergers and acquisitions. Studies in this literature have shown that country-specific factors (e.g. relative valuations, distance, or economic integration) influence bilateral cross-border and acquisition flows (Head and Ries (2008), Ahern, Daminelli, and Fracassi

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whose solution depends on characteristics such as profitability, industry location, and CEO agency conflicts, among others (Hermalin and Weisbach (2003) and Adams, Hermalin, and Weisbach (2010)). For example, since one of a director's responsibilities is to monitor management, firms located in industries that use managerial capital relatively intensely may require a larger number of independent directors, and firms in these industries may, for some other reason, be more likely to initiate international acquisitions.

[12]Two other robustness tests, presented in the online appendix, address time-varying omitted variables bias with matching estimators and check for sensitivity of the main results to potential undersampling in earlier time periods.

(2010), Erel, Liao, and Weisbach (2012)). My use of director-level cross-border deal experience provides evidence that the impact of firm-level impediments to cross-border mergers can be as influential as aggregate factors, particularly for firms not having previously conducted global M&As.[13]

This paper also contributes to the general debate about the role played by directors in major corporate decisions.[14] While the business press and management literatures have argued that directors can play a crucial role in the setting of corporate strategy, a number of authors questioned the extent of directors' influence, particularly with respect to monitoring management or influencing firms' day-to-day activities (e.g. Mace (1971)). By presenting evidence that a specific form of human capital - international merger experience - promotes cross-border mergers, this work provides support for the perspective that directors can have an impact on major corporate initiatives.

The paper is organized as follows. Section I provides a background on the boards of directors and mergers and lists the main empirical predictions derived from the theoretical framework developed in the online appendix.[15] Section II presents the main empirical exercises and Section III addresses director selection and presents robustness checks. Section IV offers concluding remarks.

I. Background and Predictions

A. Background on Directors and Acquisitions

While the extent of board members' active involvement in the day-to-day activities of the firm, such as monitoring management, is questionable, directors often report that influencing major corporate initiatives is a substantial component of their responsibility to firms. By virtue of their sheer size, acquisitions are among the most significant investment projects firms ever undertake[16], so it is not surprising that firms' own reports submitted to the Securities and Exchange Commission

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[13]There are also studies showing that country-level proxies for international investment frictions are positively correlated with cross border acquisitions (e.g. Head and Ries (2008)). While it is true that there are likely to be greater information frictions between countries with different observable characteristics, the interpretation of these characteristics is unclear since they are determined endogenously in economic equilibrium along with a variety of economic, legal and cultural factors which in turn determine acquisition flows.

[14]Section I.A discusses this issue in more detail.

[15]The online appendix is available at www.calebstroup.net/research

[16]M&A transactions generally require board action for approval, and the Korn/Ferry annual board survey cited in Conger, Lawler, and Finegold (2001), reports that directors spend more time on "major decisions such as mergers or acquisitions" than on any other strategic issue (Committee on Corporate Laws 5th Edition, p. 48).

(SEC) regularly report a significant role played by directors during the deal process.[17] At the same time, these reports require empirical validation since there exists a clear incentive to inflate public perceptions about their contribution to outcomes.

The literature on boards emphasizes three channels through which directors can influence firm decision-making. First, directors can influence corporate initiatives directly through the board as a whole or through the special committees on which individual directors sit (Stiles and Taylor (2001), Huse (2007), Adams and Ferreira (2007), Harris and Raviv (2008), Baranchuk and Dybvig (2009), Finkelstein, Hambrick and Cannella (2009)).[18] Second, the board may draw on individual directors' experience when advising management, and this advisory role is listed as one of the top five board member responsibilities by both the Business Roundtable and the American Law Institute (Song and Thakor (2006), Adams and Ferreira (2007)).[19] Finally, management may offer strategic proposals that are relatively more likely to be approved by the board, who have legal responsibility as fiduciary agents to shareholders (e.g. Hermalin and Weisbach (1998), Almazan and Suarez (2003), Graziano and Luporini (2003), Raheja (2005), Dominguez-Martinez et al. (2008)).[20]

These three channels are indistinguishable in the context of the present application, so I now take as given the possibility that directors influence major investments and discuss how they might influence cross-border merger decisions, though it should be kept in mind that since board activity is not publicly available, the specific experience channel is not observable in the data. Directors may play a role during the search, negotiation, and integration phases of the deal process. Special committees, often comprised solely of directors, can coordinate target search and in doing so eval-

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[17]For example, the joint proxy statement (14D-9) submitted to the SEC by National Medical Health Card Systems (NMHC, a healthcare company that offers prescription benefit management services to plan sponsors) and SXC Health Solutions Corporation (another prescription benefit management services corporation) in regard to SXC's acquisition of NMHC, reports that prior to the decision to acquire NMHC, the SXC board of directors held meetings to explore acquisition opportunities. In November 2007, they held a meeting to discuss a possible acquisition of NMHC in particular, where the board authorized management to explore this possibility in greater detail. The board then established a special committee comprising four directors to oversee the acquisition process. This committee met eight times over the next ten weeks to review and discuss with management the plans that eventually led to the March 31, 2008 public announcement that SXC intended to acquire NMHC.

[18]John Shulansky, quoted in Ward (2000), p. 75, states, "a majority of (board) work is now done at the committee level."

[19]For example, an anonymous director said "Directors are sounding boards for management. They contribute their opinions as to general policy, and their judgement whenever a problem comes up," (Lorsch and MacIver (1989), p. 64).

[20]For example, a proposed acquisition of Quaker Oats by Coca-Cola drafted by then CEO Doug Daft was ultimately rejected by the board of directors ("Coke Breaks Off Talks to Acquire Quaker - Move Is a Blow to Chairman, A Sign of the Board's Active Oversight Role," *Wall Street Journal*, November 20, 2000).

uate recommendations made by management, external consultants, and internal specialists. After identifying an individual target firm, potential acquirers must approach the target's management and negotiate deal terms, including the purchase price and integration-relevant aspects of the deal to be written into the merger agreement.[21] Directors with deal experience in the target's home country may be better positioned to successfully negotiate these terms since they have access to more information about the outside options of both their own firm and the target.

Integration is typically more difficult for cross-border deals. One in twenty are abandoned after public announcement compared to one in a hundred for domestic deals.[22] Furthermore, announced deals by first-time cross-border acquirers fail sixty percent more often relative to deals announced by firms that have announced a cross-border merger before. Deals can fail because of an inability to successfully renegotiate after new information has become available after public announcement, so success may depend on boards' ability to anticipate potential adverse changes and incorporate them into the merger agreement (Hotchkiss and Song (2005)). Cross-border mergers also fail because of intervention by competition authorities in the target's home country. Directors with international deal experience may be better positioned to anticipate resistance from competition authorities or to negotiate concessions if such resistance occurs. Failures are costly because they involve a loss of fixed costs associated with search and negotiation, as well as financial costs associated with hiring legal, accounting and investment bank services. Failures also release private strategic information to the target's management, to the extent it is transmitted during the negotiation phase (Davidson, Dutia and Cheng (1989), Bainbridge, (1990), Officer (2003)).

Since they can be hired on a deal-to-deal basis, the influence of outside consultants such as investment banks is undoubtedly present, yet there are reasons to believe that consultant and director experience play different roles, particularly during the initial phases of the deal process such as obtaining board and management buy-in to explore potential cross-border mergers. Similarly, the literature on directors suggests that board members can have a comparative advantage in the setting of broad corporate strategy. The theoretical and empirical literatures on acquisitions emphasizes

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[21] These might include terms about the relationship of existing target management with the combined company in the event that these individuals are not fired, which product lines or research endeavors to continue, or the strategic direction of the business entities after the merger has been completed, among others.

[22] Author's calculations using M&A data drawn from SDC Platinum (Described in Section III.A).

asset complementarities between firms as drivers of acquisition activity; in other words, the ability to assess possible synergies likely requires non-public information about the acquirer's operations and strategy, and directors in particular have access to a large set of non-public information about their own firms.[23] At the same time, consultants often advise an acquiring firm's competitors, and non-public information about the acquirer's fundamentals, corporate plans, and acquisition strategy is a source of technology rents, so providing such information could lead to an erosion in the acquirer's competitive position (Verrecchia (1990)). Even if such transfers of proprietary information occur rarely, the possibility of competitive loss may prevent directors and management from communicating relevant strategic information to actors outside the firm.[24]

B. Theoretical Predictions

The main empirical analysis tests five predictions arising from the theoretical model (presented in Section I of the online appendix). These predictions are empirically relevant, since evidence in their favor would narrow the set of plausible alternative hypotheses to be considered in Section III.

The intuition for the model is as follows. To conduct a cross-border acquisition, firms must take a variety of actions associated with target search, deal negotiation, and integration, in an environment of uncertainty associated with border frictions. Taking an imperfect information set as given, firms take the best deal-related actions, and those with an experienced director observe more precise signals, capturing a higher share of potential cross-border deal returns in expectation. This raises the relative attractiveness of any cross-border merger, particularly so for an acquisition of a target headquartered in the specific country about which the experienced director has M&A experience. For a firm having previously acquired a foreign target in some country, the presence of information overlap mutes the impact of director experience, predicting a lower impact of director experience on the propensity to conduct cross-border deals for such firms. Similarly, experience is predicted to have the largest impact on cross-border acquisition patterns when information frictions exist between

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[23]See, for example, Fisher and Lande (1983), Rhodes-Kropf and Viswanathan (2004), Rhodes-Kropf and Robinson (2008) and Toxvaerd (2008).

Section 4 of the Horizontal Merger Guidelines issued by the U.S. Department of Justice and the Federal Trade Commission states, "efficiencies are difficult to verify and quantify, in part because much of the information relating to efficiencies is uniquely in the possession of the merging firms."

[24]This recently occured when a consultant leaked information about Advanced Micro Devices' planned acquisition of ATI Technologies in 2006 ("Guilty Plea in Galleon Insider Trading Case," *The New York Times*, October 23, 2011).

the acquiring firm and the target firm's economic environment. These insights are formalized in the following predictions:

Prediction 1: *Firms are more likely to initiate a cross-border acquisition when at least one of their directors has cross-border merger experience.*

Prediction 2: *Initiated cross-border mergers are more likely to be successful when at least one of the acquiring firm's directors has cross-border merger experience.*

Prediction 3: *Firms are more likely to initiate a cross-border acquisition of a target headquartered in the specific country where the experienced director has cross-border merger experience.*

Prediction 4: *The impact of director experience on cross-border merger patterns will be lower for firms that have previously conducted a cross-border merger.*

Prediction 5: *The impact of director experience on a cross-border merger will be largest when the experience is about transactions in unfamiliar countries.*

II. Main Empirical Analysis

A. Data and Experience Measure

Information on announced cross-border mergers and acquisitions is drawn from Thomson's *SDC Platinum* database between January 1, 1980 and December 31, 2008, and is filtered by the following criteria:

- The acquirer is a publicly-listed S&P 1500 firm.

- The acquirer bids for 20% or more of the target's shares.

- The acquirer would obtain a majority of the target's shares through the deal.

- The deal value is greater than $1 million.

- The acquirer has balance-sheet data available from *Compustat.*

Applying these criteria yields a sample of cross-border acquisitions by U.S. firms of targets in 123 countries. The following tables and figures are located in Section II of the online appendix: list of countries (online appendix Table I), geographic distribution for the 25 most common target

nationalities (online appendix Figure I), cross-border acquisitions by target industry (online appendix Figure II).[25]

Director experience is identified through situations where a potential acquirer has a current board member who gained cross-border acquisition experience during prior service on another firm's board, formally

$$DE_{it} = 1 \text{ if } \left(\sum_{k \neq i} HI_{kt}^{id} * IA_t^{kd}\right) \geq 1, \tag{1}$$

where $HI_{kt}^{id} = 1$ if in year t director d who currently sits on the board of firm i served on the board of firm k in year $\tau \leq t - 1$, and $IA_t^{kd} = 1$ if director d sat on the board of firm k when it announced an acquisition of a foreign target in year $\tau \leq t - 1$.

Figure 1 illustrates. The horizontal lines track years and bolded segments indicate years when director d served on the board of firm k or i, while the hollow diamond indicates that in 1998 firm k acquired a foreign target headquartered in country j. From equation (1), director d is said to have experience executing an international acquisition from 2000 onwards, since she served on the board of firm i subsequent to 1999 while at the same time having served on the board of firm k in 1998 when it acquired a target headquartered in country j.

Figure I

Cross-Border Merger Experience ($\mathbf{DE}_{it}$)

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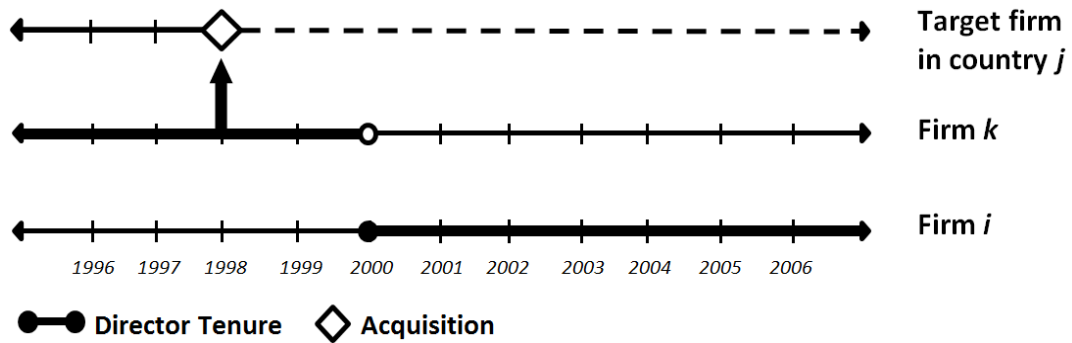
[25] The bulk of targets are in manufacturing and services sectors, with wholesale, retail and construction following in frequency. Firms in primary products industries are the least common acquisition targets.

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Data on directors is drawn from the Investor Responsibility Research Center, Inc. (IRRC) *Director's Database,* which includes all firms listed in the Standard and Poor's (S&P) 1500 and covers approximately 90% of U.S. stock market capitalization. This data was originally collected from annual reports and web sites, and includes the service history of 29,576 directors from 1950-2008 who served on the boards of S&P firms subsequent to 1994. Though the empirical analysis focuses on the international acquisition behavior of firms during the period 1980-2008, experience measures are constructed using acquisition data from 1965-2008, since these are available from SDC.[26]

Table I characterizes director seating patterns. Panel A shows the number of firms where each director served: 78% of directors served on at least two firm's boards, and most directors served at fewer than five firms. Panel B presents the frequency of concurrent seats held, and shows that 81% of board seatings involved a director serving on a single board at a given time. Panel C lists the top 25 countries by incidence of director merger experience. Common acquisition destinations are frequently encountered in director experience. Table II compares firm characteristics across cross-border acquirers and non-acquirers, showing that the former is more likely to have director experience.

B. Experience and the Propensity to Conduct a Cross-Border Acquisition

Are firms with no prior cross-border merger experience more likely to enter the global M&A market if one of their directors has cross-border merger experience (Prediction 1)? Here, I examine this question along with Prediction 4, which asks whether experience is most influential at firms that have not previously conducted a cross-border merger. To study these questions, I extract observations on firms that have not previously initiated a cross-border acquisition and estimate the following equation:

$$\Pr(CB_{it} = 1) = G(\alpha DE_{it} + \beta \mathbf{X}_{it} + \gamma_t + \gamma_m + \varepsilon_{it}), \tag{2}$$

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[26] A source of measurement error arises because director experience from the distant past will be underrepresented in the experience measures, both because more firms have recently been publicly listed and are more likely to be included in the acquisition sample, and because directors serving in earlier years will be underrepresented in the *Director's Database.* Section III.B of the online appendix formally shows that in the present application undersampling leads to an attenuation in the OLS estimates. It is also possible to construct a restricted measure of director experience which guarantees consistent estimates corresponding to a restricted notion of experience. Estimating equations using restricted measures, presented in Section IV.B of the online appendix indicate that the downward bias from undersampling is quantitatively small.

where CB_{it} is an indicator taking a value of unity if, in year t, firm i announces a cross-border acquisition and zero otherwise, $\mathbf{X}_{it}$ is a vector of firm characteristics defined in the previous fiscal year (described below), γ_t are year fixed effects, γ_m are SIC industry fixed effects defined at the 2-digit level and $G(\cdot)$ is the cumulative distribution of the standard normal distribution function.[27] The marginal effect associated with the estimate of α captures the influence of director experience on the probability that firm i enters the global control market in year t.[28]

Estimation results are presented in Table III. All equations report robust standard errors below the coefficient estimates. Column (1) reports a regression of the propensity to initiate a cross-border merger on director experience. The coefficient on DE_{it} is positive and statistically significant. Column (2) introduces control variables: Capital expenditures may substitute for acquisitions, so I include the firm's capital intensity, measured as total capital expenditures divided by total assets. Firm-level credit access or usage is proxied by debt to assets ("Leverage"). More productive firms are more likely to conduct cross-border mergers to transfer intangible technology to the assets of foreign targets (e.g. Rousseau (2006), Neary (2007), Nocke and Yeaple (2008)), so I control for profitability measured with return on assets (ROA).[29] The free cash flow hypothesis suggests that cash-rich firms are likely to deploy these reserves by acquiring other firms (Jensen (1986), Harford (1999)), so free cash flow measured with cash on hand divided by total assets is included. A firm's market-to-book ratio may also proxy for increased investment opportunities or overvaluation, both of which should increase the propensity to initiate acquisitions (Jovanovic and Rousseau (2002, 2008), Harford (2005), Dong et al. (2006)).[30] The number of employees in logarithms is included as a measure of firm's productive capacity ("firm size"). The coefficient estimates on the controls in column (2) take the expected signs, while their inclusion decreases the size of the coefficient on director experience somewhat, and the effect remains positive and statistically significant.

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[27]Estimating this equation using the logit distribution, $F(z) = \exp(z)/[1 + \exp(z)]$, yields similar results. The fact that cross-border acquisitions are rare events leads to downward-bias in estimated binary-response model coefficients. Section IV.A of the online appendix presents nonparametric estimates obtained using matching estimators. These estimates are larger than those obtained in the main analysis, suggesting that downward-bias may be present in the main estimates and that functional form assumptions do not drive the results.

[28]Shumway (2001) shows an equivalence between multi-period binary response frameworks, such as this, and hazard models.

[29]Return on assets is net income divided by total assets.

[30]I measure the numerator of the market-to-book ratio as the value of a firm's common equity at current share prices to which is added the book values of preferred stock and short- and long-term debt.

Column (3) adds industry fixed effects, and their inclusion has little effect on the coefficient associated with director experience. Before proceeding, I quantify the economic impact of the variables in the model by calculating marginal effects at the covariate means (i.e. for an average firm). Director experience is associated with a 63% increase in the propensity to do a cross-border merger. Turning to the control variables, capital expenditures and leverage are unrelated to the probability a firm initiates its first cross-border merger. More productive, more highly valued, and large cash-rich firms are more likely to initiate their first cross-border merger. The probability of becoming an international acquirer increases by 17% in response to a one standard deviation increase in return on assets, increases by 17% in response to a one standard deviation increase in cash intensity, increases by 10% in response to a one standard deviation increase in the market-to-book ratio, and increases by 33% percent in response to a one standard deviation increase in log firm size.

Column (4) examines the effect of cross-border deal experience at firms that have previously conducted one before. This is accomplished by re-estimating the full specification in Column (3) on this subset of firms. In this case, previous cross-border acquirers are more likely to conduct another international deal when they have an experienced director, but the effect is smaller relative to the estimated effect for firms not having previously conducted a cross-border merger. The estimated marginal effect indicates that the predicted propensity to conduct another cross-border deals increases by only 22% in the presence of director experience. The finding of a smaller effect is consistent with the presence of information overlap (Prediction 4), and the additional increase in the probability of conducting a cross-border merger from having director experience could arise because cross-border acquirers (in country j) might gain additional useful information from directors whose cross-border deal experience is about acquiring a target in some other country k. Section II.C explores this issue further.

The results in this section are consistent with a positive role for experience in facilitating cross-border mergers, particularly for first-time international acquirers. The next section examines the underlying channel in more detail by exploring whether director experience is associated with improved international merger outcomes.

C. Experience and Cross-Border Deal Success

This section examines the model's prediction that cross-border mergers are more successful when implemented by firms whose boards have cross-border deal experience (Prediction 2). I do this by first studying the effect of experience on the probability that initiated deals are completed, and then test to see whether markets react more favorably to cross-border deals announced by firms with boards that have cross-border deal experience. Prediction 4 will be examined in both contexts.

C1. Deal Completion

To examine the effect of director experience on deal success, I collect data on deal completion rates from Thompson's SDC Platinum database and estimate the following probit equation on cross-border mergers announced by first-time international acquirers:

$$\Pr(S_{ilt} = 1) = G(\sigma_1 DE_{it} + \beta \mathbf{Z}_{ilt} + \tau_t + \gamma_i + \gamma_l + \varepsilon_{ilt}), \tag{3}$$

where S_{ilt} takes a value of unity if acquirer $i's$ *announced* acquisition of target l in year t is completed successfully and zero otherwise, DE_{it} is an indicator variable taking a value of unity if in period t firm i has a director with cross-border deal experience (defined in equation (1)). τ_t, γ_i and γ_l are year, acquirer and target industry effects defined at the major SIC level, and $\mathbf{Z}_{ilt}$ is a vector of acquirer and deal characteristics shown to influence failure including stock payment (Sudarsanam (1991)), acquirer profitability measured by return on assets and the market-to-book ratio (Slusky and Caves 1991), and deal size measured in logarithms (Hoffmeister and Dyl (1981)). Inclusion of these data restricts the sample to 811 first-time cross-border acquisitions, eight percent of which fail to be successfully completed.

Panel A of Table IV present the estimation results. Column (1) includes controls for capital expenditures, leverage, ROA, cash flow, market-to-book, firm size, transaction value, and stock payment. The estimated coefficient on director experience is positive and statistically significant, indicating that cross-border acquisitions announced by firms whose boards have cross-border merger experience are more likely to be completed successfully. Column (2) adds acquirer and target industry effects, leading to an increase in the estimated effect of director experience, indicating that

firms headquartered in high-failure industries tend both to experience failed cross-border deals and to have directors with cross-border experience, as would be expected given the potential positive influence of experience on success rates. The calculated marginal effect implies that the probability of deal completion rises by 2.6% when the international acquirer has a board with cross-border deal experience.

To explore this result, column (3) estimates equation (3) on announced acquisitions by firms that have previously conducted a cross-border acquisition. Here, the estimated effect of director experience continues to be positive, but the effect is much smaller, with a calculated marginal increase in the probability of deal success of approximately one percent, again providing support for Prediction 4, which states that director experience should matter most for first-time cross-border acquirers.

The next section examines whether markets favor first-time cross-border acquisitions by firms with a director who has cross-border deal experience.

C2. Market Reactions

To study whether markets react more positively to announced cross-border mergers by firms who have an experienced director, I estimate the following regression of abnormal returns around the day of announcements by first-time cross-border acquirers:

$$CAR_{ijt} = \alpha_1 + \alpha_2 DE_{ijt} + \beta \mathbf{Z}_{ilt} + \tau_t + \gamma_i + \gamma_l + \varepsilon_{ilt}, \tag{4}$$

where CAR_{ijt} is the cumulative abnormal return to of an announced cross-border acquisition by acquirer i in year t of a target headquartered in country j, while $\mathbf{Z}_{ijt}$, τ_t, γ_i, and γ_l are defined as in equation (3). I calculate abnormal percentage returns using standard event study methods (e.g., Brown and Warner (1985)) over a three-day window around the deal announcement date as the difference between the potential acquirers' stock return and the return on the equally weighted index created by the University of Chicago's Center for Research in Securities Prices (CRSP).

Panel B of Table IV presents the results. Column (4) estimates equation (4) and produces a positive and statistically significant coefficient on director experience whose magnitude indicates

that cumulative market returns are 3% higher for first-time acquirers with an experienced director. This magnitude is plausible given the high failure rates for cross-border acquisitions documented in the introduction to this paper.

Column (5) explores this result by estimating equation (4) on announced acquisitions of firms that have previously conducted these cross-border mergers. Here, the coefficient on director experience is close to zero and not statistically significant, again confirming the view stated in Prediction 4, that director experience is most influential for first-time acquirers.

Column (6) checks the validity of the event-study approach by re-estimating the main equation (column (4)) using a procedure that explicitly models market returns using data over the 200 days preceding the start of the announcement window (see Brown and Warner (1985)). The results are very similar to the simpler estimates, suggesting that the specific method for computing CAR_{ijt} is not particularly important. Estimates of cumulative abnormal returns using five- and seven-day windows also produce similar results.

D. Country-Specific Experience and Cross-Border Mergers

The previous results have shown that firms are more likely to initiate cross-border mergers when they have a director with international deal experience, yet at the same time more than half of cross-border acquisitions made by firms with an experienced director are investments in the *specific* country about which the experienced director has deal experience. This fact raises the possibility that international deal experience entails overall and country-specific components, as proposed by Prediction 3 of the theoretical model. This specific context will also allow for a more direct test of Prediction 4. The analysis constructs the country-specific analogue of equation (1), DE_{ijt}, which takes a value of one if, in year t, firm i has a current director with international deal experience about acquiring a target headquartered *in country* j, and zero otherwise.[31]

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[31] Formally, $DE_{ijt} = 1$ if $\left(\sum_{k \neq i} HI_{kt}^{id} * IA_{jt}^{kd}\right) \geq 1$. This equation is analogous to equation (1) except that here $IA_{jt}^{kd} = 1$ if director d sat on the board of firm k when it announced an acquisition of a foreign target *in country* j in year $\tau \leq t-1$. This measure can also be described using Figure 1. In the figure, firm k acquired a target in country j in 1998 while director d served on its board, so director d is said to have experience executing an international acquisition of a target in country j from 1999 onwards, so that firm i is considered to have exposure to experience executing an acquisition in country j through director d beginning in 2000.

The estimation is implemented with the following country-specific analogue of equation (2):

$$\Pr(CB_{ijt} = 1) = G(\delta DE_{ijt} + \beta \mathbf{X}_{ijt} + \gamma_t + \varepsilon_{ijt}), \tag{5}$$

where CB_{ijt} is a firm-country specific indicator that takes a value of unity if in year t acquirer i announces an acquisition of a target headquartered in country j and zero otherwise, γ_t are year effects, $\mathbf{X}_{ijt}$ is a vector of firm and country characteristics defined in the previous fiscal year (described below) including distance between the United States (Washington, D.C.) and the country's capital in logarithms, since international acquisitions typically occur between geographically close countries (Head and Ries (2008)). The logarithm of total FDI inflows to country j proxies for a country's attractiveness as a destination for foreign capital flows. Country j's gross domestic product (GDP) measured in current US dollars is included since inward acquisitions are more common for large countries (Head and Ries (2008)). Since international acquisitions are most common among countries with similar levels of economic development, I also include the logarithm of country j's GDP per capita. Market capitalization as a percent of GDP may proxy for overall stock market liquidity in the target country or for investment opportunities (Di Giovanni (2005)). Asset complementarities can occur when acquirers possess superior access to credit so I include net domestic credit measured in logarithms and the domestic lending rate (Almeida, Campello and Hackbarth (2011)). Finally, resource-intensive countries may be less attractive destinations for international acquisitions, since these transactions typically involve companies in similar advanced industrial categories. Natural resource intensity is measured as a country's natural resource output as a percentage of GDP.

Table V presents the results. Discussion of coefficient magnitudes will be deferred until the full specification in column (3). Column (1) shows the estimated coefficient on country-specific director experience in a regression with no control variables. The estimated coefficient is positive and statistically significant. Column (2) adds the full vector of firm-specific characteristics from equation (2).

Column (3) adds a number of controls to the baseline specification capturing country-specific determinants of international acquisitions. Inclusion of these variables in the specification leads to a magnification in the estimated coefficient on director experience. The country-specific director

experience measure is associated with a 159% increase in the probability acquirer i enters country j. To provide intuition for this magnitude, consider the marginal effect of a one standard deviation decrease in log distance, which is associated with a 137% increase in the probability of target acquisition in country j. For comparison, the most influential control variable is target-country GDP, with a one standard deviation increase being associated with a 211% increase in the probability of an acquisition there. This comparison emphasizes that while cross-border deal experience is a strong determinant of acquisition patterns, aggregate variables exert an important complementary influence.

Column (4) incorporates a measure of overall director experience to complement the country-specific measure, DE_{ijt}. Let DE_{ijt}^{o} take a value of unity if, in a particular year, a firm has a director with international deal experience in a country other than j and zero otherwise. Inclusion of this variable does not decrease the magnitude or statistical significance of the coefficient on country-specific director experience, showing that country-specific experience exerts an independent effect on the propensity to buy a target in that country. At the same time, the coefficient on any international director experience is positive and statistically significant, increasing firm i's acquisition propensity by 93%.

I now examine Prediction 4 in the context of country-specific experience. Here, we are asking about the magnitude of κ in the theoretical model, which captures the additional information effect of director experience for firms that have already obtained experience about a cross-border merger in that country through a previous deal there. To examine this issue, I estimate equation (5) on the full set of firms in the sample, and interact director experience with an indicator variable taking a value of unity if firm i has previously acquired a target in country j and zero otherwise (IA_{ijt}).

Column (5) of Table V presents the estimated coefficients. As before, the coefficient on DE_{ijt} is positive and statistically significant, but the interaction term ($DE_{ijt} \times IA_{ijt}$) is negative and statistically significant, indicating a muted effect of director experience when firms have gained alternative experience through a prior cross-border acquisition in country j. To formally test the significance of the combined effect (the coefficient on DE_{ijt} along with the coefficient on IA_{ijt}), I compute the chi-square statistic for the null hypothesis that these coefficients are jointly zero, i.e. the hypothesis that director experience does not have a statistically distinguishable effect on

acquisitions for firms having already gained country-specific experience through prior acquisitions. The computed statistic is 0.07 and the corresponding p-value is 0.79, as expected, suggesting that κ, the parameter capturing unique information conferred by director experience after netting out experience gained through learning-by-doing, is close to zero.

E. Experience and Unfamiliarity of the Target Country

Does director experience have the most influence on cross-border acquisitions of targets head-quartered in unfamiliar foreign national environments (Prediction 5)? To study this question, I collect country-level measures that proxy for information frictions and the difficulty of conducting a cross-border acquisition in foreign economic environments.

These variables are as follows. The absence of a common language captures the lack of cultural similarity (shared values, beliefs, expectations, customs, jargon, and rituals) and thus the acquirer's difficulty negotiating contracts, exchanging ideas and reaching mutual understanding.[32] These features of the contracting environment are particularly relevant for acquisitions, since they are arranged on an individual basis and often have opaque and complex arrangements (Lazear, 1999). Another measure of economic institutions is contract enforceability, which is included because the acquirer's ability to write a successful merger agreement may be impaired by the difficulty of anticipating and addressing weaknesses in a foreign country's legal system, or because it may be difficult to transact in countries where contracting norms are less transparent.[33] Lack of political stability can be associated with appropriation by military or government officials.[34] To capture differences in legal structures that may necessitate alternative approaches to writing merger contracts, I also include an indicator for the target country's legal origin (La Porta et al. (1997, 1998)). Data on disclosure requirements is included since experience may be more important for valuing potential targets in more opaque reporting environments.[35] Another potential channel through which experience may influence cross-border acquisitions would arise if this experience facilitates entry into difficult-to-

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[32]The common language data comes from Rose (2004).

[33]This data comes from Djankov et al (2003).

[34]This data comes from the World Bank Governance Indicators, available online at http://info.worldbank.org/governance/wgi/index.asp.

[35]This data comes from La Porta et al. (2006).

penetrate markets. To examine this issue I employ indices of barriers to foreign direct investment and investment from the United Nations Conference on Trade and Development (UNCTAD).

For each of these variables, I construct an indicator taking a value of one if the country is dissimilar to the United States and zero otherwise.[36] Since the United States has high quality institutions and business conditions, I define a country to be dissimilar relative to the United States if its institutional or legal score is below the median value for all countries in the sample in a particular year. I then interact this variable with an indicator for whether firm i has exposure to any cross-border acquisition experience in country j and add this interaction to the full specification of equation (5).

Columns (1)-(7) of Table VI present the results. In each instance the unconditional effect of director experience is similar to the estimated effect from Table V. Each of the interaction terms is positive and statistically significant, indicating that experience has a larger impact on the propensity to conduct a cross-border acquisition when it is about countries that may be difficult to enter.

The coefficient magnitudes and calculated marginal effects are similar for the various institutional measures. These indicate that institutional dissimilarity of the target firm's home country, relative to the U.S., is associated with an increase in the probability of acquisition between 14% and 65%, in addition to the effect of experience alone (the first row). In particular, the additional effects are 13% for acquisitions in countries where English is not the primary language, 26% for acquisitions in countries with low levels of contract enforcement, 30% for acquisitions in countries with low levels of political stability, 25% for acquisitions in countries with low levels of property rights, 14% for acquisitions in countries with a different legal origin, 65% for acquisitions in countries with high FDI barriers, and 42% for acquisitions in countries with high investment barriers.

II. Unobserved Heterogeneity

While results documented thus far constrain the set of plausible alternative explanations for the observed relationship between director experience and cross-border mergers, this section conducts

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[36]This approach mitigates challenges associated with low variation in the interacted explanatory variable arising from the fact that country-specific director experience is a rare event.

explicit tests of potential omitted variables bias. Though non-random director placement is a necessary condition for endogeneity bias, in the present application there exists a distinction between forms of non-random placement associated with omitted variables bias with those that are not.[37] Section III.A first looks for evidence of skill recruitment which, if present, would not alter the econometric validity of the estimates, but would change their interpretation (see online appendix III.C). The more serious econometric concern of omitted variables bias - factors not controlled for and also simultaneously correlated with firms' decision to initiate a cross border merger, director placement, and cross-border deal experience - is addressed in Sections III.B-III.E.

A. Skill Recruitment

In this section I examine whether there is evidence that firms actively hire directors with cross-border deal expertise in order to enter the global M&A market. Section I.D of the online appendix shows that skill recruitment reinforces the main experience channel, since it allows experienced directors to be allocated toward firms that most need access to experience, and Section III.B of the online appendix formally demonstrates that econometric identification is consistent with the presence of this channel and formally characterizes how the interpretation of estimated coefficients would change in its presence.[38] Though skill recruitment arises as a salient possibility, its influence is likely constrained by frictions associated with director hires. In particular, directors are hired for a variety of reasons and to fulfill a broad array of duties, and their tenure generally long outlasts the duration of implementation for individual investment projects, so while international experience may be an influencing factor for director hires, it could easily be so only at the margin.

Though motives for director hires are not observed directly, I conduct two tests to assess whether this channel might be an important feature in the data. Skill recruitment predicts more frequent initial hiring of experienced directors among those that have not previously conducted a cross-border merger, so I identify each firm's first appointment of a director with cross-border deal experience

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[37]Section III.B of the online appendix formalizes this distinctinction between standard omitted variables bias, skill recruitment, and determinants of director hires not simultaneously correlated with cross-border deal experience and the decision to conduct a cross-border merger.

[38]Specifically, the presence of skill recruitment would imply that estimated coefficients on director experience capture the average effect of experience on cross-border mergers particularly for those firms where such experience is present (i.e. the average treatment effect on the treated), whereas shutting down this channel would lead to estimates corresponding to the average treatment effect for the overall population (i.e. the average treatment effect).

and test whether such recruitments are more frequent among firms not having previously conducted a cross-border merger.

Column (1) of Table VII regresses initial recruitment of an experienced director on an indicator for whether a firm has previously conducted a cross-border acquisition. The coefficient on this variable is positive, indicating that internationally-experienced firms are more likely to appoint a director with cross-border deal expertise, but this effect dissipates dramatically when year effects are included (column (2)). Inclusion of firm-level controls (column (3)) leads to a further attrition in the effect of a prior cross-border acquisition on recruitment of an experienced director and the computed marginal effect indicates that internationally-experienced firms are approximately 40% more likely to hire a director with cross-border deal experience. This finding might reflect the fact that firms with ongoing international investments are more comfortable hiring directors with cross-border deal experience, or simply that such firms have a sufficient number of cross-border investments to warrant hires of such directors. In either case, the estimated directional effect is difficult to square with the skill recruitment channel.

As a second test, I exploit the fact that firms can be exposed to director experience when they hire a director with international deal experience on the one hand, or when a firm's current director gains experience through concurrent service on another firm's board. The skill recruitment channel can plausibly be at play only in the first case, so I examine whether take-on director experience has a differential impact on the propensity of firms to conduct a cross-border merger, relative to experience gained by existing directors who simultaneously serve on the boards of other firms. To do this, I construct an indicator variable ("appoint"), taking a value of one if the director's cross-border merger experience was obtained prior to his service on firm $i's$ board and zero otherwise. In column (4) of Table VII, this variable is interacted with the main measure of director experience (DE_{it}) in a regression of the propensity that a firm initiates its first cross-border merger. The estimated coefficient on DE_{it} continues to be positive and statistically significant as in Table III, suggesting as before a positive role for director experience, while the interaction term is statistically insignificant with a p-value of 0.45, failing to provide support for a differential influence of experience based on whether or not it was recruited. Though this finding is consistent with the main channel, which predicts that experience will facilitate cross-border acquisitions regardless of the source, it is difficult

to reconcile with the take-on channel. To check this finding, column (5) adds the full vector of controls from column (4) of Table III and finds similar results. Additionally, column (6) estimates the specification from column (4) on the set of firms that have previously conducted a cross-border deal and also yields similar results.

Taken together, these exercises provide support for the view that firms hire directors for a variety of reasons unrelated to cross-border deal experience, and that the observed impact of experience on cross-border mergers is not driven by firms' active recruitment of experienced directors to facilitate their entry into the global M&A market. The next sections assess the scope of potential omitted variables bias.

B. Policy-Induced Director Movements and a Cross-Border Merger

In this section I exploit exogenous variation in board structure arising from mandates imposed by the NYSE, the NASDAQ, and the United States Congress and which are used by recent studies of directors to obtain estimates in the presence of director endogeneity.[39] The Sarbanes-Oxley Act (SOX) was passed by Congress in 2002 and formally adopted by the SEC in 2003, formalizing mandates put in place by NYSE and NASDAQ requiring firms to have a majority of independent directors on the board.[40]

Some, but not all, firms recruited new directors to comply with these mandates. I follow Duchin, Matsusaka, and Ozba (2010) to exploit this plausibly exogenous variation in board structure by first identifying noncompliant firms immediately before implementation of the reforms and, for each firm, identifying the first hire of an independent director immediately after the legislation was passed.[41] DE_{it} is then constructed in the manner as before, except that only experience associated with SOX-

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[39] For example, Link, Netter and Yang (2009) use Sarbanes-Oxley mandates to study the effect of an increase in demand for directors and Duchin, Matsusaka, and Ozba (2010) show that the increase in board independence brought about by the mandates had a causal impact on firm performance.

[40] These rules define director independence similarly as a director who "has no material relationship with the listed company (either directly or as a partner, shareholder or officer of an organization that has a relationship with the company)." This implies, for example, that directors are not considered independent if they also work for a firm that has a business relationship with the firm for whom they serve as a director. Section 301 of SOX defines independent directors as those who do not "accept any consulting, advisory, or other compensatory fee from the issuer" and are not "an affiliated person of the issuer or any subsidiary thereof," in any capacity other than as a director.

[41] In 2001, roughly 70% of boards were dominated by independent directors, but by 2006 this percentage had increased to almost 90%. See Linck, Netter, and Yang (2008) for additional summary statistics about the evolution of board structure.

related hires are included in the measure. I then re-estimate the main equations using these restricted measures of director experience.[42]

Table VIII presents the results for the propensity to execute any international acquisition (equation (2)). Looking across the first row, we see that the effect of director experience continues to be positive and significant as before. Column (2) presents the full specification, and the calculated marginal effect implies a 92% increase in the probability of a first-time international acquisition associated with the presence of director experience, much larger in this case than the main estimates in Table III. This could be because omitted variables are jointly *negatively* correlated with director experience while being positively correlated with the decision to conduct a cross-border acquisition, leading to downward-bias in the estimated coefficients relative to the true values.[43] Similar results maintain for country-specific experience in columns (4)-(6), where additional controls magnify the effect of director experience on first-time cross-border acquisitions and with coefficient magnitudes similar to those in columns (1)-(4) of Table III.

C. Persistent Unobservables

To further assess the potential influence of unobservables, this section checks for a general form of endogeneity emphasized by the literature on boards of directors: a firm's choice of directors depends on firm type (Hermalin and Weisbach (2003) and Adams, Hermalin, and Weisbach (2010)). In the context of my application, unobserved firm types could be correlated simultaneously with director hiring patterns and acquisition decisions potentially leading to biased estimates.[44]

Since many firm characteristics are persistent (e.g. Mueller (1986), Goddard and Wilson (1999)), I account for arbitrary time-invariant firm and firm-country heterogeneity using a fixed effect methodology that constructs an individual fixed effect for each firm-country pair. Thus, if there are N firms

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[42]Formally, this approach is tantamount to multiplying DE_{it} with an indicator variable taking a value of unity if an initially noncompliant firm hired an independent director immediately after implementation of the legislation and zero otherwise. This indicator variable takes a value of zero in 88% of instances where $DE_{it} = 1$, thus purging these from the sample. Director take-ons after 2005 are excluded, as this was the year after which the regulations were fully phased in.

[43]Further exercises in Sections IV.C and IV.D provide additional evidence about the influence of omitted variables.

[44]For instance, firms that conduct cross-border acquisitions may have a particular international supply network mandating director hires to obtain industry-specific expertise, while at the same time these directors might also tend to have cross-border deal experience.

and M countries, this procedure generates $N \times M$ separate indicator variables. This strategy allows for econometric identification in the presence of a wide variety of persistent omitted firm or firm-country characteristics that may be simultaneously correlated with director experience and acquisition decisions possibly including, for example, persistent international supply chain or network connectedness, governance structures, CEO entrenchment, board size, industry positioning, firm size, profitability and organizational strategy, without requiring explicit measurement of these factors.

Probit fixed effects are identified on an individual basis, which lead to the incidental parameters issue where the number of parameters increases proportionally with the number of firms, preventing consistent estimation. I circumvent this problem by estimating equations (2) and (5) using linear probability models that allow for consistent estimates of the effects of director experience on acquisition patterns with an extremely large number of fixed effects.[45]

Panel A of Table IX presents the estimates. For comparability of marginal effects, columns (1) and (3) re-estimate equations (2) and (5) respectively without inclusion of the fixed effects, and estimates are expressed as the percent increase in the probability of a cross-border merger relative to an average firm. Columns (1) and (2) present results associated with the propensity of potential first-time cross-border acquirers to initiate an international deal. The estimates show that the effect of director experience is positive and significant as before, with the estimated magnitudes being smaller relative to the probit estimates in both cases, possibly because of misspecification arising in the linear probability framework. The focus is on the difference in the estimates between columns (1) and (2), which illustrate that controlling for arbitrary persistent omitted factors leads to a 5% attrition in the estimated effect, indicating that director-firm matching does not play a significant role in accounting for the effect of director experience on cross-border mergers.

The country-specific estimates (presented in columns (3) and (4)) are also positive and statistically significant, and smaller in the linear probability context relative to the main probit estimates. Comparing estimates in the two columns indicates that controlling for persistent firm-country fac-

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[45]This procedure involves computing the pair-specific fixed effects via de-meaning at the firm or firm-country level, which is econometrically equivalent to including a separate indicator variable for each firm or firm-country pair.

An alternative approach proposed by Anderson (1970) is to estimate the joint distribution of $y_i \equiv (y_{i1}, ..., y_{iT})'$ conditional on observable confounders and estimated unobserved heterogeneity, as well as $\rho_i \equiv \sum_{t=1}^{T} y_{it}$, using conditional maximum likelihood to obtain parameter estimates. For efficient estimation, this method requires significant within-group variation in y_{it} which is absent in rare events studies such as this one.

tors leads to an *increase* in the estimated effect of director experience, providing additional support for the finding in Section III.B that the form of endogeneity present in the current application is associated with a downward-bias in the effect of director experience, relative to the true effect.

The next section supplements the findings from Section III.A by gauging the potential impact of time-varying omitted factors.

D. Time-Varying Unobservables

This section quantifies the potential role of time-varying omitted factors by employing a technique utilizing the insight that the amount of selection on observables conveys information about the amount of selection on unobservables (developed in Altonji, Elder, and Taber (2005)), and determines the magnitude of omitted variable bias required to account for the effect of director experience on cross-border mergers.[46]

The formal statistic is derived without making assumptions on the distribution of errors, and is given by $\hat{\beta}^f/(\hat{\beta}^r - \hat{\beta}^f)$ where $\hat{\beta}^r$ is the estimated coefficient from a regression with a restricted set of controls and $\hat{\beta}^f$ is the estimated coefficient from a regression with the full set of controls. Bellows and Miguel (2005) show that this ratio consistently measures how much greater the degree of selection on unobservables must be, relative to the degree of selection on observables, to fully explain the main effect. Likewise, a number greater than zero, say four, indicates that selection on unobservables must be at least four times greater than selection on observables to completely attribute the main effect to selection. Negative numbers indicate the presence of negative selection bias.

Panel B of Table IX presents calculated statistics for the fixed effects models using various restricted sets of time-varying controls. The inclusion of firm and firm-country fixed effects in these

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[46] All that is required for this procedure is that the amount of selection on observables be at least as large as the amount of selection on unobservables. Altonji, Elder and Taber (2005) argue that this assumption is no more implausible than standard OLS assumptions. There are two reasons for this. First, observable covariates are not selected randomly but are instead chosen specifically to reduce bias in the baseline equation. This means that observables are positively selected to account for selection, unlike randomly chosen unobservables. Second, the literature on M&A has shown that acquisition activity is associated with a large idiosyncratic component, so in my specification, ε_i reflects substantial idiosyncratic variability in acquisition gains for a particular firm or firm-country pair in a given year. As Altonji, Elder and Taber (2005) formally show, this lowers the degree of selectivity on unobservables relative to observables.

regressions removes time-invariant heterogeneity, so that the statistic provides information about the potential influence of time-varying omitted variables alone.

Columns (1) and (2) focus on any international acquisition by potential first-time acquirers. In column (1), the restricted set contains only year and firm effects, whereas column (2) adds past acquisition to the restricted set of controls. The estimated statistic takes on values of negative 51 and negative 54 respectively, indicating that once time-invariant firm-specific factors have been accounted for, time-varying omitted variables bias would need to be about fifty times more influential than observables to account for the main effect, suggesting as before that omitted variables bias does not play an important role in explaining the correlation between director experience and cross-border mergers. At the same time, the negative statistic values confirm the previous findings of negative omitted variables bias.[47] Columns (3), (4) and (5) present analogous estimates using country-specific variables and show that negative selection continues to be present using this approach as well.

E. Domestic and Cross-Border Deal Experience

I conclude by examining an additional alternative hypothesis wherein *domestic* deal experience, which is correlated with international deal experience, could explain the observed correlation between director experience and cross-border acquisitions. This would occur if international acquisition-prone firms are more likely to have directors with domestic or international deal experience. To test for this, I collect data on domestic acquisitions and construct the domestic analogue of DE_{it}, which measure takes a value of one for a firm if it has a current director with experience executing a domestic acquisition and zero otherwise.

In Table X, I re-estimate columns (1)-(3) from Table III using the domestic measure to see whether it has explanatory power for the propensity of a firm to conduct its first cross-border merger. Looking across the first row, the effect of domestic director experience does not have a statistically-measurable effect on cross-border acquisitions, failing to provide evidence that cross-border acquisition experience reflects overall acquisition experience.

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[47]Similar results obtain using alternative restricted covariate sets.

III. Conclusion

This paper investigates the role of directors' international M&A experience on cross-border merger patterns, and provides evidence that experience with the global M&A market and deal-making in particular national environments facilitates these transactions. Controlling for firm, country, and firm-country fixed effects, as well as a variety of firm- and country-level time-varying controls while also obtaining exogenous variation in board structure arising from a legal intervention, I find that director experience exerts a large and robust influence on a firm's propensity to enter the global M&A market and its choice of country to enter via acquisition. These effects are particularly strong for first-time international acquirers and for acquisitions of foreign targets headquartered in countries likely to have large border frictions with the United States. I also find that announced international deals are more likely to be completed successfully and are rewarded by equity markets when first-time cross-border acquirers have an experienced director on the board. These effects are dampened when estimated on firms with a prior cross-border deal record, suggesting that directors' experience is particularly potent when alternative experience gained from learning-by-doing is unavailable. Taken along with the finding that director experience is associated with better deals, the absence of evidence that directors are recruited specifically to obtain cross-border M&A experience raises the possibility that directors, once hired, tend to support investment projects about which they have expertise and that individual director skill sets can impact firms' major corporate initiatives.

At a broader level, this study offers support for the view that an individual firm's ability to overcome information frictions is an important determinant of international capital flows. Facts initially presented in this work indicate that the volume of cross-border acquisitions has increased dramatically during the past 30 years, both in absolute terms and as a fraction of total foreign direct investment. It is likely that the process of globalization, i.e. reductions in aggregate frictions to international investment, has opened the door to a variety of profitable investment opportunities abroad and that some firms - those with international deal experience - are better positioned to take advantage of these opportunities when they arise.

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Table I
Director Seating Patterns and Cross-Border Experience

This table reports information about individual director seating patterns within the *Directors Database* from 1985-2008. Panel A shows the frequency of the total number of firms at which each director serves during the entire sample period. Panel B shows, at the director-year level, the total number of seats on which a director sits during a single year, where seats are defined as the number of directorships held by a director in a given year. Panel C reports the number of directors who ever had international acquisition experience for the top 25 target locations where these directors gained their international deal experience.

Panel *A. Director firm count*

#	Frequency	Percent
1	6,563	22%
2	5,243	18%
3 to 5	8,579	29%
6 to 10	6,240	21%
11+	2,951	10%
All	29,576	100%

Panel *B. Annual seat count*

#	Frequency	Percent
1	123,518	81%
2	19,383	13%
3 to 5	8,518	5%
6 to 10	257	0%
All	151,676	100%

Panel *C. Director experience by target country*

Country	Directors	Country	Directors
U. K.	2,103	Sweden	323
Canada	1,673	Spain	322
Germany	1,223	Switzerland	314
France	982	South Korea	277
Australia	729	Israel	253
China	588	Belgium	252
India	561	Ireland-Rep	223
Netherlands	551	Norway	216
Italy	549	Singapore	209
Brazil	512	Poland	207
Mexico	494	Taiwan	198
Japan	435	South Africa	191
Argentina	382		

Table II
Firm Characteristics and Director Experience

This table compares observations in which potential acquirers initiate acquisitions of foreign targets with those in which potential acquirers do not initiate acquisitions of foreign targets. DE is defined in Section II.A, The number of available observations are listed in brackets beneath means. *, ** and *** denote difference-in-means statistical significance across acquiring and non-acquiring observations at the ten, five, and one percent levels, respectively.

	A. Non-Acquiring		B. Acquiring	
	Mean	**S.D.**	**Mean**	**S.D.**
Director experience (DE_{it})	0.310*** [48,725]	0.462	0.680 [4,691]	0.466
Return on assets	0.029*** [43,852]	0.196	0.044 [4,351]	0.147
Leverage	0.245*** [38,074]	0.272	0.297 [3,211]	0.528
Cash intensity	0.067*** [41,689]	0.101	0.080 [3,083]	0.095
Employees	13.38*** [51,383]	33.95	35.92 [3,510]	88.77
Capital expenditure intensity	0.068*** [40,599]	0.101	0.056 [4,211]	0.047
Market to book ratio	1.711*** [32,584]	1.989	2.288 [3,050]	2.070

Table III
Director Experience and a Cross-Border Merger

This table reports estimates from probit regressions where the dependent variable equals unity if a firm initiates an international acquisition in year t. Director experience is defined in Section II.A. Column (2) adds additional firm-level controls: capital expernditures, leverage, return on assets, cash intensity, size and the market-to-book ratio. Column (3) includes fixed effects for 2-digit SIC industries. Column (4) re-estimates column (3) for the sub-sample of firms that have previously conducted a cross-border acquisition. All regressions include fixed effects for years. Robust standard errors appear in parentheses beneath the coefficient estimates. *, ** and *** denote statistical significance at the ten, five, and one percent levels, respectively.

Variable	(1)	(2)	(3)	(4)
Director experience (DE)	0.270***	0.237***	0.234***	0.189***
	(0.035)	(0.037)	(0.038)	(0.042)
Capital expenditures		-0.259	-0.221	0.093
		(0.256)	(0.285)	(0.325)
Leverage		-0.187**	0.067	0.072**
		(0.093)	(0.079)	(0.029)
Return on assets		0.398***	0.510***	0.754***
		(0.132)	(0.125)	(0.168)
Cash flow		1.134***	0.730***	0.520***
		(0.142)	(0.161)	(0.175)
Market-to-book		0.021	0.058**	0.104***
		(0.024)	(0.024)	(0.028)
Firm size		0.054***	0.083***	0.231***
		(0.010)	(0.012)	(0.014)
Year fixed effects	yes	yes	yes	yes
Industry fixed effects	no	no	yes	yes
Observations	23,225	21,351	21,062	7,067
Pseudo R^2	0.04	0.06	0.11	0.12

Table IV
Director Experience and Cross-Border Merger Success

This table reports, in columns (1)-(3), estimates from probit regressions where the unit of observation is an announced international acquisition by acquirer i in year t. The dependent variable equals unity if the announced deal is successful. The variable of interest is director experience, which is defined in Section II.A. The other control variables are also discussed in Section II.A. Columns (4)-(6) present ordinary least squares estimates of cumulative abnormal market returns for an announced international acquisition by acquirer i in year t (defined in Section II.B). All regressions include fixed effects for years. Robust standard errors appear in parentheses beneath the coefficient estimates. *, ** and *** denote statistical significance at the ten, five and one percent levels, respectively.

Variable	A. Deal Completion			B. Market Reaction		
	(1)	(2)	(3)	(4)	(5)	(6)
Director experience	0.378**	0.54**	0.416**	0.031**	-0.001	0.033**
	(0.188)	(0.212)	(0.190)	(0.013)	(0.006)	(0.013)
Capital expenditures	-2.401**	-0.837	3.159	0.065	0.003	0.101
	(1.134)	(1.401)	(2.554)	(0.128)	(0.062)	(0.119)
Leverage	0.949**	1.348**	1.193***	0.070*	0.017	0.051
	(0.459)	(0.586)	(0.440)	(0.040)	(0.015)	(0.038)
Return on assets	-0.966	-0.984	-0.584	-0.060	0.004	-0.102**
	(0.963)	(1.066)	(1.061)	(0.042)	(0.019)	(0.041)
Cash flow	0.100	-0.056	1.016	-0.012	0.052**	-0.015
	(0.768)	(0.756)	(1.042)	(0.056)	(0.024)	(0.056)
Market-to-book	0.158	0.077	0.177	0.001	0.006*	-0.006
	(0.120)	(0.132)	(0.141)	(0.008)	(0.004)	(0.008)
Firm size	-0.200***	-0.330***	0.001	-0.004	-0.001	-0.003
	(0.067)	(0.085)	(0.059)	(0.005)	(0.001)	(0.005)
Transaction value	-0.388***	-0.416***	-0.249***	0.003	-0.001	0.004
	(0.058)	(0.061)	(0.047)	(0.004)	(0.001)	(0.004)
Exchange deal	0.246	0.141	-0.200	0.001	-0.006	0.003
	(0.189)	(0.203)	(0.248)	(0.014)	(0.005)	(0.014)
Year effects	yes	yes	yes	yes	yes	yes
Acquirer industry effects	no	yes	yes	yes	yes	yes
Target industry effects	no	yes	yes	yes	yes	yes

Table V
Country-Specific Experience and a Cross-Border Merger

This table reports estimates from probit regressions where the dependent variable equals unity if an acquirer buys a target in country j in year t. Director experience and a past cross-border international acquisition are defined in Section II.D. Column (1) includes director experience only. Column (2) adds the full vector of firm controls from Table III. Column (4) includes the logarithm of distance between the two countries and the logarithm of FDI inflows, GDP and GDP per-capita, market-capitalization as a percent of GDP, domestic lending quantities and rates, and natural resource intensity (all defined in Section II.D). Column (5) adds overall director experience (defined in Section II.D). Column (6) includes observations for first-time and previously acquiring firms as well as the interaction of director experience and a past acquisition at the country-level. All regressions include fixed effects for years and report robust standard errors in parentheses beneath the coefficient estimates. *, ** and *** denote statistical significance at the ten, five and one percent levels, respectively.

Variable	(1)	(2)	(3)	(4)	(5)
Director experience (DE_{ijt})	0.321*** (0.029)	0.188*** (0.032)	0.258*** (0.048)	0.412*** (0.050)	0.280*** (0.047)
Director experience (DE^o_{ijt})				0.216*** (0.018)	
IA_{ijt}					0.881*** (0.025)
$DE_{ijt} \times IA_{ijt}$					-0.305*** (0.104)
Distance			-0.077*** (0.017)	-0.080*** (0.017)	-0.059*** (0.015)
FDI			0.032*** (0.006)	0.032*** (0.006)	0.028*** (0.006)
GDP			0.253*** (0.009)	0.254*** (0.009)	0.245*** (0.008)
GDP per-capita			0.062*** (0.009)	0.062*** (0.009)	0.054*** (0.008)
Market cap pct. GDP			0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
Net domestic credit			-0.001 (0.004)	-0.001 (0.004)	0.001 (0.003)
Domestic lending rate			-0.001*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Natural resource intensity			-0.010*** (0.001)	-0.010*** (0.001)	-0.010*** (0.001)
Firm-level controls	no	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes
Observations (thousands)	2,471	2,421	1,771	1,771	1,784
Pseudo R^2	0.01	0.03	0.17	0.17	0.23

Table VI

Experience, Cross-Border Mergers, and Target-Country Institutions

This table reports estimates from probit regressions where the dependent variable equals unity if a firm acquires a target in country j in year t. Experience denotes the presence of any cross-border deal experience with country j. All equations include the full vector of firm- and country-specific control variables from Section II.D. Country-level variables are described in Section II.E. All regressions include fixed effects for years and report robust standard errors in parentheses beneath the coefficient estimates. *, **, and *** denote statistical significance at the ten, five, and one percent levels, respectively.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Director experience (DE_{ijt})	0.288***	0.308***	0.299***	0.326***	0.326***	0.306***	0.236***
	(0.047)	(0.049)	(0.057)	(0.048)	(0.049)	(0.063)	(0.072)
Experience × Common language	0.085***						
	(0.041)						
Experience × Contract enforcement		0.159***					
		(0.040)					
Experience × Political stability			0.170***				
			(0.049)				
Experience × Property rights				0.159***			
				(0.055)			
Experience × Other legal origin					0.101**		
					(0.040)		
Experience × FDI barriers						0.312***	
						(0.051)	
Experience × Investment barriers							0.197***
							(0.056)
Full set of controls	yes	yes	yes	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes	yes	yes	yes
Observations (thousands)	1,822	1,815	1,127	1,838	1,838	433	433
Pseudo R^2	0.23	0.23	0.25	0.23	0.23	0.17	0.17

Table VII
Director Skill Recruitment and a Cross-Border Merger

This table reports estimates from probit regressions where the dependent variable equals unity for a firm's first hire of a director with cross-border acquisition experience in year t (columns (1)-(3)) and where the dependent variable equals unity if a firm initiates an international acquisition in year t. Director experience is defined in Section II.A. Appoint takes a value of one if a firm's director with international deal experience gained that expeirence prior to being hired at their current firm. Robust standard errors appear in parentheses beneath the coefficient estimates. *, ** and *** denote statistical significance at the ten, five, and one percent levels, respectively.

Variable	First Hire			Cross-Border Merger		
	(1)	(2)	(3)	(4)	(5)	(6)
Prior cross-border	0.550***	0.230***	0.164***			
Merger	(0.038)	(0.042)	(0.045)			
Director experience				0.300***	0.285***	0.225***
				(0.057)	(0.063)	(0.054)
Director experience				-0.045	-0.065	-0.046
$\times$ Appoint				(0.060)	(0.064)	(0.045)
Capital expenditures			0.033		-0.215	0.095
			(0.298)		(0.285)	(0.325)
Leverage			0.068		0.066	0.073**
			(0.086)		(0.080)	(0.028)
Return on assets			0.078		0.514***	0.754***
			(0.148)		(0.126)	(0.169)
Cash flow			0.201		0.732***	0.515***
			(0.179)		(0.161)	(0.175)
Market-to-book			0.124***		0.058**	0.104***
			(0.025)		(0.024)	(0.028)
Firm size			0.127***		0.081***	0.229***
			(0.012)		(0.012)	(0.014)
Year fixed effects	no	yes	yes	yes	yes	yes
Industry fixed effects	no	no	yes	no	yes	yes
Observations	26,454	16,932	16,573	21,817	21,062	7,067
Pseudo R^2	0.02	0.07	0.10	0.04	0.11	0.12

Table VIII
Policy-Induced Director Movements and a Cross-Border Merger

This table reports estimates from probit regressions where the dependent variable equals unity if a firm initiates an international acquisition in year t (columns (1) and (2)) and where the dependent variable equals unity if a firm buys a target in country j in year t (columns (3)-(5)). The director experience measures are defined in Sections II.A and II.D respectively and are adjusted to include only experienced directors recruited in conjunction with Sarbanes-Oxley regulatory initiatives (see Section III.B). Robust standard errors appear in parentheses beneath the coefficient estimates. *, ** and *** denote statistical significance at the ten, five, and one percent levels, respectively.

Variable	Any International		Country-Specific		
	(1)	(2)	(4)	(5)	(6)
Director experience (DE_{it})	0.350*** (0.086)	0.296*** (0.095)	-	-	-
Director experience (DE_{ijt})	-	-	0.341*** (0.089)	0.350*** (0.100)	0.383*** (0.100)
Director experience (DE^o_{ijt})	-	-			0.153*** (0.027)
Full vector of firm-level controls	no	yes	no	yes	yes
Full vector of country-level controls	-	-	no	no	yes
Year effects	yes	yes	yes	yes	yes
Pseudo R^2	0.04	0.10	0.04	0.17	0.17

Table IX
Director Experience and a Cross-Border Merger
Controlling for Time-Invariant and Time-Varying Endogeneity

Panel A reports estimates of the percent change in the propensity to initiate a cross-border merger and the propensity to acquire a target in country j where the dependent variable equals unity if a firm initiates an international acquisition in year t (columns (1) and (2)) or if an acquirer buys a target in country j in year t (columns (3) and (4)). All equations contain the full set of control variables from the main specifications. All equations include fixed effects for years. T-statistics computed from robust standard errors appear in parentheses beneath the coefficient estimates. Each cell of the first row in Panel B reports ratios based on the coefficient for director experience from estimated regressions of international acquisitions (columns (1) and (2)) and country-specific international acquisitions (columns (3)-(5)) that include the 'restricted set' of control variables listed below the coefficient estimates. Call this coefficient β^r. Call the coefficient obtained from regressions using the full set of controls β^f. Columns (1) and (2) include firm fixed effects and columns (3)-(5) include firm-country fixed effects. Robust standard errors appear in parentheses beneath the coefficient estimates. *, ** and *** denote statistical significance at the ten, five, and one percent levels, respectively. The ratio is calculated as: $\beta^f/(\beta^r - \beta^f)$.

Panel A. Linear probability models with fixed effects

Variable	Any International		Country-Specific	
	(1)	(2)	(3)	(4)
Director experience (DE_{it})	35.13***	29.51***		
	[6.54]	[4.45]		
Director experience (DE_{ijt})			37.87***	84.04***
			[4.67]	[4.56]
Full set of controls	yes	yes	yes	yes
Year fixed effects	yes	yes	yes	yes
Industry fixed effects	yes	no	no	no
Firm fixed effects	no	yes	-	-
Firm-country fixed effects	-	-	no	yes

Panel B. Using selection on observables to assess bias from unobservables

Variable	Any International		Country-Specific		
	(1)	(2)	(3)	(4)	(5)
$\hat{\beta}^f/(\hat{\beta}^r - \hat{\beta}^f)$	-50.78	-53.65	-8.16	-8.30	-8.09
DE_{ijt}^o	-	-	no	yes	yes
Firm-level controls (1)	yes	yes	no	yes	yes
Firm-level controls (2)	no	yes		yes	yes
Country-level controls (1)	-	-	no	no	yes
Country-level controls (2)	-	-	no	no	no
Year fixed effects	yes	yes	yes	yes	yes
Firm fixed effects	yes	yes	-	-	-
Firm-country fixed effects	-	-	yes	yes	yes

Table X
Domestic Experience and a Cross-Border Merger

This table reports estimates from probit regressions where the dependent variable equals unity if a firm initiates an international acquisition in year t. Domestic director experience is defined in Section II.E. Column (2) adds controls for capital expenditures, leverage, return on assets, cash flow, firm size and market-to-book ratio. Column (3) includes fixed effects for 2-digit SIC industries. All equations include fixed effects for years. Robust standard errors appear in parentheses beneath the coefficient estimates. *, ** and *** denote statistical significance at the ten, five, and one percent levels, respectively.

Variable	(1)	(2)	(3)
Director experience	-0.218	-0.185	-0.174
(domestic)	(0.180)	(0.182)	(0.183)
Capital expenditures		-0.556**	-0.288
		(0.254)	(0.280)
Leverage		-0.020	0.016**
		(0.019)	(0.008)
Return on assets		0.300***	0.312***
		(0.123)	(0.116)
Cash flow		0.781***	0.289**
		(0.132)	(0.157)
Market-to-book ratio		0.090***	0.105**
		(0.022)	(0.023)
Firm size		0.092***	0.132***
		(0.010)	(0.011)
Year fixed effects	yes	yes	yes
Industry fixed effects	no	no	yes
Observations	24,104	22,222	21,837
Pseudo R^2	0.04	0.05	0.10