Worldwide Board Reforms and Cross-border MA Flows

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Abstract:

We study the impact of global board reforms on international capital flows. Using a difference-in-difference analysis, we find that cross-border MA flows are amplified after the implementation of board reforms. The effect is more pronounced for countries with weak external governance mechanisms and an aloof economic tie. Our findings suggest that the board reforms strengthen the board monitoring and advising functions, supporting firms to invest abroad, thus stimulating international capital flows.

Keywords:

Board reforms; Board governance; Cross-border MA; Capital flows

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1. *Introduction*

The world observed a wave of board reforms, which objective is to enhance board governance and strengthen board functions in the last two decades. Not only practitioners but also researchers pay significant attention to these worldwide reforms, as they mitigate the inherent endogeneity problems existing in most international business (IB) studies. As board characteristics are endogenously related to the firm's business and managerial characteristics (Boone et al., 2007), regression analysis of firm outcomes and board characteristics is prone to major endogeneity concerns because of reverse causality (the capital inflows or outflows might change the board characteristics). Staggered implementation of global board reforms provides a powerful setting to release these endogeneity issues due to an exogenous shock which is orthogonal to firm-level attributes (Fauver et al., 2017; Chen et al., 2020a).

A growing body of empirical research has taken advantage of this shock-based research design to investigate the impact of major worldwide board reforms on various firm-level outcomes, such as firm value (Fauver et al., 2017), IPO pricing (Chen et al., 2020a), cash holding (Chen et al., 2020b), dividends policy (Bae et al., 2021), and debt choice (Ben-Nasr et al., 2021). Unlike these studies, which are firm-level research, our study is to focus on a country-level empirical question: how do the board reforms affect cross-border MA flows? This is not only an important question on international business research, but also an important question for firms making investment decisions.

According to existing literature, the international MA activity benefits acquiring firms by enhancing the competitive advantage, utilizing international growth opportunities (Cantwell & Mudambi, 2005; Dunning, 1998; Erel et al., 2012), for shareholders who can diversify their investment portfolios and risk, they would prefer a cross-border investment. On the contrary, for CEOs, foreign investment is uncertain, risky, and takes a long time to mature, these factors could depress short-term firm performance or resulting deal failure, further lower management compensation, ruin CEOs' reputations, and increase the forced turnover risk (Lehn & Zhao, 2006; Mitchell & Lehn, 1990). Thus, CEOs would be deterred by cross-border mergers even it benefits the firm and shareholders. We argue that board reforms, which enhance board governance, and strengthen board monitoring and advising functions, could effectively mitigate such agency problems.

Using a sample of 413,906 country-pair-year observations from 187 countries (region) between 1993 and 2012, we conduct a difference-in-differences (DiD) analysis and use a gravity model framework to uncover the changes in cross-border MA flows after board reforms were implemented. We conduct regressions that control for time-varying country- and country-pair characteristics, country-pair fixed effects, and year fixed effects. We find a significant increase in cross-border MA flows following reforms, consistent with the view that worldwide board reforms facilitate international capital flows.

Next, we conduct several robustness tests. Since the lower bound of our dependent variable is censored at zero, to solve this issue, we rerun our baseline regression using Tobit model (Aleksanyan et al., 2021; Di Giovanni, 2005; Lin et al., 2018) and find the results remain unchanged. Further, our main evidence is robust to alternative cross-border activity measures and alternative subsamples and accounts for concurrent non-board reforms and other reforms related to anti-trust laws and takeover laws.

We examine the effect of three major components of board reforms on cross-border MA flows: board independence, audit committee and auditor independence, and separation of the CEO and chair of directors. Concentrating on board independence and reduction of CEO duality is devoted to strengthening the board function: monitoring and advising, whereas concentrating on auditor and audit-committee independence are devoted to improving the transparency of corporate financial reporting. Our findings suggest that all three components facilitate foreign investment, while the effect is larger for board independence and reduction of CEO duality. These results indicate that both monitoring and financial quality channels work for the documented effect of board reforms, and the monitoring channel plays a stronger role.

We also explore the effects of two implementation approaches of board reforms on international MA activities: The rule-based reform, which requires firms to follow the regulation rules, and the comply-or-explain reform, which allows firms to choose either comply with the codes or explain why they failed to do so. We find both approaches are effective to motivate cross-border MAs, the effect of rule-based reforms is stronger than the effect of reforms implemented using a comply-or-explain approach.

To further release the concern of endogeneity issue and governance spillover effect through cross-border mergers, we perform dynamic effect tests and a firm-level test to provide additional evidence for the documented effect of board reforms. First, we find capital outflows

are not significantly changed contracting to the reform year, while the capital inflows are stable before reform year except for the last year (*YEAR-1*). This is maybe caused by firms avoiding policy uncertainties and making the investment before the reform implementation year. The results of the dynamic effects remove the concern that the timing of board reform is related to country-level merger inflows or outflows, reassuring that board reforms are exogenous in our study. Next, we perform a bidder firm-level test to examine whether better board governance factually supports firms to acquire in foreign countries. We include a lagged industry-country inflow number to proxy the governance spillover effect of cross-border MAs (Albuquerque et al., 2019; Ellis et al., 2017). We find the effect of board reforms is still significant and positive on firm-level, even there is a spillover effect. These results mitigate the concern of endogeneity issue and spillover effect, meanwhile further confirming our baseline results on the firm level.

At last, we explore cross-sectional variations in the documented effect. We examine the influence of country-level external governance mechanisms and economic ties on the relationship between global board reforms and international MA flows. As discussed, we reason that board reforms enhance the board monitoring toward top management team and enhance corporate financial transparency, supporting local firms to invest abroad. For countries that are already bonded economically closely, the investment uncertainty is significantly alleviated. If our reasoning is valid, the documented effect of board reforms on cross-border MA activity should be mitigated in home countries (country pairs) where strong external governance (close economic ties) is already in place. Employing multiple proxies of country governance and economic ties suggested in existing studies (Bae et al., 2021; Ben-Nasr et al., 2021; Djankov et al., 2008; Ellis et al., 2017), we find support for our predictions.

Our study makes four main contributions to the IB and finance literature.

First, to our knowledge, this paper represents an initial attempt to examine the impact of country-level board reforms on international capital flows, contributing to the debate of whether better board governance will lead to or impede cross-border investment decisions. A growing literature focuses on the effects of institutional (formal and informal) quality on cross-border mergers and acquisitions. Our findings add to this stream of literature by providing empirical evidence of country-level board governance quality affecting international MA flows.

Second, using worldwide board reforms which are largely exogenous events, our research design mitigates the endogeneity problem, allowing us to better estimate the relation between country-level board governance quality and cross-border capital flows.

Third, MAs, both domestic and cross-border, are important tools used by emerging countries to facilitate industrial restructuring and upgrading during the economic transition period. Our study provides profound implications to policymakers that strengthening the governance institutions should be carried out alongside economic development. Besides, our study provides valuable information for international investors, who hesitate to invest abroad when a target country implements new governance regulations.

Finally, we propose a new theory—quality assurance theory to explain our findings. Unlike previous studies treating institutional quality as distance, the quality assurance theory treats the board governance as size.

The remainder of this article is organized as follows: In section 2, we summarize the literature review and develop the research hypothesis. In Section 3, we describe the sample selection, discuss our main variable and the research design. Section 4 outlines empirical results, robust tests, and additional analysis of the impact of board reforms components, approaches, and dynamic effects. Section 5 concludes our study.

2. Theory background and hypotheses development

2.1 Country-level board reforms

The world has seen scandals of top firms in the 1990s. For instance, the Enron bankruptcy and major scandals before Asia economic crisis. This situation created a widespread clarion call to governments to improve country-level corporate governance and restore investor confidence.

Kim and Lu (2013) are the first among others to compile information on worldwide corporate governance reforms. They investigate whether governance reforms have altered investor protection by estimating the effect of reforms on foreign acquirers' tendency to pick better

performing firms in emerging markets. Based on Kim and Lu (2013)'s worldwide corporate governance reforms database, Fauver et al. (2017) are the first to compile information on worldwide corporate board reforms. They also collect reform information from World Bank's reports, European corporate Governance Institute (ECGI), and each country's stock exchange regulators. Further, they identify corporate governance reforms into two categories: reforms related to board, which they term “board reforms”, and reforms unrelated to board, which they term "non-board reforms"[2]. Afterward, they identify the effective year of board reforms. For those countries which have more than one reform (e.g., Australia, Finland, Mexico, UK, US…), they identify the earliest broad board reform during 1990 and 2012 as the "first reform" and reform with stricter provisions as "major reform". Fauver et al. (2017) state that the board reforms normally cover three key components: board independence, audit committee and auditor independence, and separation of the chairman and CEO positions. And to implement the reforms, there are normally two approaches: comply-or-explain (codes of best practices), which means firms either comply to the reform provisions or explain why they do not, and rule-based, which involves enactment of company laws or securities regulations firms must follow. They identify the key components and approaches for each reform. The detail of major board reform is reported in Appendix A.1. Figure 1 reports the staggered board reforms procedure.

A growing body of empirical research has taken advantage of this shock-based research design to investigate the impact of major worldwide board reforms on various firm-level outcomes, such as firm value (Fauver et al., 2017), IPO pricing (Chen et al., 2020a), cash holding (Chen et al., 2020b), dividends policy (Bae et al., 2021), and debt choice (Ben-Nasr et al., 2021). Our objective in this paper is to follow in the footsteps of this line of research by focusing on an important empirical question: how do the board reforms affect firms' investment decisions? More specifically, we examine the impact of board reforms on cross-border mergers and acquisitions flows.

2.2 Cross-border MAs

[2] The non-board reforms include compensation disclosure and approval of compensation by shareholders, insider trading rules, protection of minority shareholders, and CEO and CFO certification of financial statements.

Abundant country-level studies focus on the driver of international capital flows. Existing studies show that synergy effects can motivate cross-border mergers and acquisitions (Anderson and Gatignon, 1986; Doukas, 1995; Masulis et al., 2007). Macro-economic conditions, such as GDP per capita and financial market development affect international merger likelihood (Di Giovanni, 2005; Doidge et al., 2007; Erel et al., 2012). Geographic distance, resulting in information and transaction costs, creates barriers to cross-border merger activities (Di Giovanni, 2005; Malhotra & Gaur, 2014; Portes and Rey, 2005;). The relationship between two countries, e.g. economic ties (Aleksanyan et al., 2021; Bhagwat et al., 2021) or military conflicts (Gao et al., 2018; Li et al., 2020), also positively impact the capital flow.

More related to our study, a growing literature focuses on the effects of formal and informal institutional quality on international capital flows. Investor protection difference (Bris and Cabolis, 2008; Erel et al., 2012; Ferreira et al., 2010; Rossi and Volpin, 2004) and employment protection difference (Alimov, 2015; Dessaint et al., 2017; Levine et al., 2020) between home and host country play an important role in cross-border merger activities. Target country's policy uncertainty (Clougherty et al., 2021; Gulen & Ion, 2016; Nguyen et al., 2018), political uncertainty (Amore et al., 2021; Julio & Yook, 2016; Wang et al., 2021) deter international investment. Similarly, firms would avoid acquiring targets located in highly corrupt countries (Habib & Zurawicki, 2002; Nguyen et al., 2020; Weitzel & Berns, 2006). For informal institutions, cultural distance (Ahern et al., 2015; Bauer and Matzler, 2014; Siganos and Tabner, 2020) is related to the density of cross-border takeovers. The supportiveness from home country government (Gaur et al., 2018), or public sentiment of host country toward the home country (Yiu et al., 2022) are also important determinants of cross-border MA flows.

In our study, we examine whether country-level board governance improvement would affect international merger activities. Prior studies intensively test the relationship between board characteristics and firms' investment decisions, including board independence (Masulis et al., 2007; Paul, 2007; Wright et al., 2002), board gender and cultural diversity (Chen et al., 2016; Levi et al., 2014), director experience (Field & Mkrtchyan, 2017), and board connection (Cai & Sevilir, 2012; Renneboog & Zhao, 2014; Schmidt, 2015). Most of these studies are firm-level studies and only focus on either one country or one aspect of board characteristics. Besides, as board characteristics are endogenously related to the firm's business and managerial characteristics (Boone et al., 2007), regression analysis of firm outcomes and board characteristics is prone to major endogeneity concerns because of reverse causality (the capital inflows or outflows might change the board characteristics). Staggered implementation of

global board reforms provides a powerful setting to release these endogeneity issues due to an exogenous shock which is orthogonal to firm-level attributes (Fauver et al., 2017; Chen et al., 2020a).

2.3 Why do board reforms matter for cross-border MA?

The benefit of acquiring abroad have been acknowledged extensively. Theoretically, the acquiring firm's managers make a cross-border MA decision when they perceive the combination of two firms will increase value or utility (Erel et al., 2012). From the perspective of the acquiring firms, the major benefit of international acquisition is the utilization of international growth opportunities and advance of the firm's competitive advantage, e.g. new market, higher innovation... Foreign subsidiaries are often mandated to both exploit and explore, and they can exploit their location advantages to create new capabilities and profits (Cantwell & Mudambi, 2005; Dunning, 1998). Thus, international MA activity benefits shareholders by enhancing the competitive advantage of firms and potential synergy, both locally and globally.

However, an international acquisition tent to deter CEO as they view it as risky and uncertain (George et al., 2005). Firms that invest in foreign countries face extra market uncertainty and cost, due to geographic distance, or differences in language, political, economic, social, and cultural environments. All these factors make cross-border MA activity uncertain, risky, costly, and more likely to fail (Black et al., 2007; Eckbo & Thorbum, 2000; Moeller & Schlingemann, 2005). The higher uncertainty and higher acquiring cost could depress short-term firm performance or resulting deal failure, further lower management compensation, ruin CEOs' reputations, and increase the forced turnover risk (Lehn & Zhao, 2006; Mitchell & Lehn, 1990).

Therefore, CEOs may not favour international investment as the benefits of it usually take a long time to mature, even though such activities may enhance firms' competitiveness and maximize shareholders' profit in a long run. Conversely, shareholders who diversified their investment portfolios and risk may prefer a cross-border acquisition because it may achieve profitability in the long run if it succeeds and involves minimal risk if it fails (Cantwell & Mudambi, 2005; Zahra & Garvis, 2000).

According to agency theory, an agency problem occurs at the point when the interests of shareholders and CEOs are not aligned (Jensen and Meckling, 1976). According to the previous discussion, a firm's decision to invest abroad may be subject to agency conflicts between shareholders and CEOs. This conflict may be mitigated by the board of directors. A firm's directors serve two important functions: monitoring management on behalf of shareholders and providing resources. (Hillman & Dalziel, 2003). The board of directors is charged with the responsibility of monitoring managers to act in the best interests of shareholders (Jensen & Meckling, 1976). Compared to an insider board, an independent board is more likely to be objective monitors as they are independent from the firm or firm's executives (Ruigrok et al, 2006). Accordingly, including more independent directors can enhance board monitoring effectively, as the independent boards are less likely to connive with CEOs and could independently and effectively monitor the CEOs to behave in the best interests of shareholders (Kor, 2006; Musteen et al., 2009).

In addition to the monitoring function, independent directors also provide firms with important human capital and relational capital, which are important resources in helping firms overcome problems (Hillman & Dalziel, 2003). In the light of human capital, independent directors with relevant knowledge and experience are able to provide beneficial suggestions for firm operations and investment decisions. For relational capital, independent directors are more likely to network with other firms and external top management teams, which facilitates access to various resources such as finance and capital (Haynes & Hillman, 2010). Thus, independent directors play a vital role in monitoring and advising CEOs about firms' operation and investment decisions (Chen, 2011; Sanders & Carpenter, 2018; Wang et al., 2015).

As mentioned above, country-level board reform, which is designed to improve board independence, could support its firm to invest abroad. Therefore:

Hypothesis 1: Board reforms in home country stimulate cross-border mergers and outward capital flows.

In practice, cross-border deals relate to two sides: acquiring firms from home country and target firms from host country, another question is present naturally: is there any impact of board reforms on inward international capital flow? Will the country attract more (or less) international investment after board governance enhancement?

The gravity theory provides two different stories. Newton's theory of gravitation states that planets are attracted to each other in proportion to their size and proximity. The classic gravity model is derived from this theory firstly by Jan Tinbergen in 1962, who proposed that the size of bilateral trade flows between any two countries can be approximated by the 'gravity equation' (Tinbergen, 1962). Based on the gravity theory, Di Giovanni (2005) applies the gravity model in cross-border MA and finds the gross flows of investment between two countries depend inversely on the distance between countries and depend proportionally on their economic size.

In the existing literature, the institutional quality of the home country and the host country is normally treated as distance. Such as country governance distance (Ellis et al., 2017), labour regulation distance (Levine et al., 2020), cultural distance (Ahern et al., 2015) ... According to the literature mentioned above, capital should flow from rich countries to poor countries, or from the better institutional environment to a bad one, and they can exploit foreign profit and generate synergy from cross-border investment.

But why we cannot treat board governance as size? The famous "Lucas Paradox" provide distinct evidence from the studies mentioned above. Lucas (1990) conducts an important study of why capital does not flow from rich to poor countries. Lucas posits that weak institutional laws, lower economic performance, and scarce human capital are the causes behind poor investments in developing countries. Based on Lucas's posit, Alfaro et al. (2008) find the institutional quality to be the most legitimate attribute contributing to Lucas's paradox, suggesting that better institutional quality (better protection of property rights, reducing corruption, increasing government stability…) is the key factor to attract capital inflows to poor countries. As board governance is an important aspect of a country's institution, an enhancement of board governance due to board reforms should increase the capital inflows.

Following the gravitation theory but treating the governance quality differently, we propose a quality assurance theory. Unlike the existing studies, which treat institutional quality as distance between home and host country, we argue that the country-level governance could be treated as "size". Thus, the international flows are in proportion to home and host country's board governance quality. When a country has a better board governance quality, the improvement of board governance would assure the quality of acquisition, backing its firms to acquire abroad, on the other side, after the country improves its country-level governance, other countries would be attracted to this country as better board governance means less risky investment environment, assuring the deal quality in another way. After both countries in the

country pair implement board reforms, they should attract each other more. Therefore, we propose the following hypothesis:

Hypothesis 2: After host country's board reforms, better board governance attracts inward capital flows.

2.4 Role of board reforms on international capital flows on external governance mechanisms and country relationships

The literature suggests that corporate investment decisions are related to external governance mechanisms, including the market for corporate control (Mitchell & Lehn, 1990), enforcement of takeover laws (Lel & Miller, 2015), and the legal protection of shareholders (La Porta et al., 2000). Besides, a better economic relationship between countries also stimulates cross-border trade and investment (Aleksanyan et al., 2021; Bhagwat et al., 2021; Gaur et al., 2018; Yiu et al., 2022).

Applying insights from these studies in our setting, we posit the role of board reforms in enhancing monitoring and advising quality, and thus the effect of board reforms on cross-border MA flows, to be mitigated in countries where strong external governance mechanisms and close economic relationships are already in place.

Hypothesis 3: the effect of board reforms on cross-border MA flows is mitigated under strong external governance mechanisms and close economic relationships.

3. Methods

3.1 Data source and samples

We collect our data from multiple sources. The worldwide board reform data for this study is from Fauver et al. (2017). Following Chen et al. (2020a), we use major reforms information in our study. We collect cross-border MA data from Thomson one SDC's World Merger and Acquisitions database. Consistent with Bhagwat et al. (2021), we use all countries' deals available in SDC. Besides, we also include cross-border MA deals related to Hong Kong

because in Fauver et al. (2017)'s database, they identified Hong Kong had major board reform in 2005, which has different timing to the reform of mainland China (in 2001). According to Fauver et al. (2017), the first country that took major board reform is the United Kingdom in 1998 and the last one is Indonesia in 2007. Then we take deals with a public bidder firm and the target firms in our sample could be any status, this sample is our "main sample". In the robustness tests, we extend our sample and include deals with all status bidders and all status targets, which is our "whole sample". We start our sample period from 1993 and end it in 2012 to make sure we have enough observation to run our tests, both before and after each country's board reform. Meanwhile, using [-5, +5] window alleviates concerns that our findings might be driven by confounding events. Following Bhagwat et al. (2021), we do not exclude deals which are failed in the end as we want to see the change in firms' cross-border investment attempts. In the robustness tests, we include only successful deals as a subsample to see the change of real cross-border MA flows caused by board reforms.

To enter our main sample, one country must have at least one cross-border merger deal happen during the sample period. It results 186 countries and Hong Kong included in our analysis, and we take all pairs of them. In our study, the unit of observation is country-pair-year, which means we use cross-border MA flows with directions. For each country in our sample, it is an acquirer country or a target country in different observations. For example, (China acquirer, UK target, 2000) and (UK acquirer, China target, 2000) are two observations. Our final sample consists of 413,906 country-pair-year observations from 187 countries (region) between 1993 and 2012. The descriptive statistics and correlation matrix are reported in Table 1.

3.2 Variables

We focus on the impact of board reforms on the worldwide cross-border MA flows. In the baseline regression, the dependent variable is cross-border flows- *Ln (Flow)*, which is the natural log of one plus the aggregated dollar value of all announced CBMA deals in year *t* from country *i* to country *j*. We define our variable of interest, *ABR* as a dummy variable equal to one after the year of major board reforms in the acquirer country and zero otherwise; we also control for target country reforms in most of the tests, *TBR* is a dummy variable as well, which equals one after the reform year in the target country and zero otherwise; then we control the

interaction of *ABR* and *TBR* — *ABR*TBR*, which equals one when both *ABR* and *TBR* equals one, zero otherwise.

We follow prior cross-border MA literature to select control variables (Ferreira et al., 2010; Ahern et al., 2015; Frésard et al., 2017). A standard gravity model includes real incomes of the home and host countries, as gravity theory predicts that larger economies invest more in each other. We include the difference of log real GDP (*Ln GDP*) to proxy the difference in economic size for each country pair. To control for economic development, we include the difference of GDP per capita for each country pair (*Ln GDP per capita*), calculated as the natural log of home country's GDP per capita minus the natural log of host country's GDP per capita. We also control for financial development using the difference of stock market development (*Ln MKTCAP*) and credit market development (*Ln Credit*). We calculate stock market development for one country as the natural log of one plus total stock market capitalization divided by GDP in year t, and credit market development as the natural log of one plus one country's total amount of private loans divided by GDP in year t. Further, we include bilateral trade flows (*Ln Trade*) and exchange rate return (*Ln EX Return*) between acquirer country and target country. We control for the difference of tax burden between acquirer country and target country (*Ln Tax*), calculated as the natural log of one plus home country's tax burden minus the same for the host country. At last, we include two dummy variables, *BIT* and *DTT*, which equal one if two countries have signed a bilateral investment treaty or a double-taxation treaty respectively, and zero otherwise. The details of the variable definitions are provided in Appendix A.2.

4. Results

4.1 Baseline Results

We now examine the average effect of board reforms on cross-border MA activities using multivariate regressions. To measure cross-border MA flows between two countries, we use *Ln (Flow)* as the dependent variable, the detailed definitions are presented in Appendix A.2. In order to account for time trends and country-pair level macroeconomic trends, we use equation (1) below as our baseline regression.

$$Ln(flow)_{ijt} = \alpha + \beta_1 ABR_{it} + \beta_2 TBR_{jt} + \beta_3 ABR_{it} * TBR_{jt} + control + YEAR_t + COUNTRYPAIR_{ij} + \varepsilon_{ijt} \quad (1)$$

Where $control$ is a vector of country-level or country-pair level controls (as documented in 3.2 variables section). *YEAR* is a year fixed effect, *COUNTRYPAIR* is a country pair fixed effect, and ε_{ijt} denotes error terms. Year fixed effect isolates any time trends of macro economy and country pair fixed effect absorbs any time-invariant factors between home country and host country. The model is estimated by ordinary least squares (OLS).

Table 2 reports the results of baseline regressions. Columns 1-3 reports the results of specifications that use the main sample (public bidders and all status targets). First, in column 1 we only add *ABR* to test the effect of home country board reform on the international MA flows, and it stimulates the log flow to increase 0.381; Column 2 shows the impact of target country reforms, and it reports 0.235 increase on log flows. In column 3, we control for *TBR* and *ABR*TBR* in the regression. When only acquirer country implements board reforms during our sample period but not target country, the cross-border MA log-flow between two countries increase 0.223 after the reform; when target country implements board reforms but not acquirer country, the log MA flows increase 0.075; when both home country and host country conduct board reforms, we add three coefficients of *ABR*, *TBR*, and *ABR*TBR* together to estimate the effect of board reforms and the sum is 1.028. The result indicates that board reforms conducted in either home country or host country, or both stimulate cross-border MA activity. The coefficients of three variables are all significant at 1% level.

Furthermore, we use the whole sample to run the baseline regression in columns 4-6. We find that the direction and magnitude of coefficients of *ABR*, *TBR*, and interaction term do not change significantly from columns 1-3, which only include the flows from a public bidder. In column 6, the cross-border MA log-flow is 0.272 higher in the years after the acquirer country's board reform than before when target country remains no reforms, and the log-flow increase 0.222 in the years after the target country implements board reform than before when acquirer country remains no reform. After both home and host country board reforms, the MA log-flow increased by 1.488(0.272+0.222+0.994). Besides, the coefficients of three key variables remain statistically significant at 1% level.

Hypothesis 1 stated that the board reform in home country will stimulate cross-border capital flows. This hypothesis was supported by the results from both column 1 and column 4.

Hypothesis 2 was that the enhancement of board governance in host country will attract international capital inflows. The empirical results support Hypothesis 2, because the coefficients for *TBR* and *ABR*TBR* are significantly positive in columns 2, 3, 5, and 6.

The magnitudes of log-flow increase seem small on an absolute scale (0.381 for acquirer country board reform and 0.235 for target country board reform for a country-pair per year), but they represent large economic effects if contrast to the average figure during the whole period. After all, the unconditional log-flow between a given country-pair in our sample is 0.444.

4.2 Robustness Tests

4.2.1 Tobit

Next, we test the robustness of the baseline results. Our dependent variable is the natural log of one plus the aggregated dollar value of all announced CBMA deals in a country-pair. Consequently, the lower bound is censored at zero. Following existing literature (Aleksanyan et al., 2021; Di Giovanni, 2005; Lin et al., 2018), we run a Tobit model to assess the effectiveness of the baseline results. Different from the specification of OLS model, country-pair fix effect is omitted from the Tobit model to allow the Maximum Likelihood algorithm to converge. To remedy the absence of country-pair fixed effect, we include additional five country-pair level variables, namely: *Ln Distance*, which is the natural log of one plus geographic distance between two countries' capitals, calculated using the great circle formula and latitudes and longitudes of the; *Same Border*, which is a dummy variable that equals one if two countries share a common border; *Same Religion*, which is a dummy variable that equals one if two countries share the same religion; *Same Language*, which is a dummy variable that equals one if two countries share the same language; and *Same Legal System*, which is a dummy variable that equals one if two countries share the same legal system. Besides, we cluster standard error at country-pair level to further adjust the standard error.

We rerun the regressions in Table 2 using Tobit Model and Table 3 reports the results. We find the direction and significance level of the key variables coefficients do not change much, but the magnitude is larger, which indicates that the OLS regressions underestimate the effect of

board governance enhancement on international capital flows, and also indicate the baseline results are robust.

4.2.2 Other robustness tests

Panel A and Panel B of Table 4 present several robustness tests of the baseline regression results by using different subsamples and dependent variables. First, we include lagged cross-border MA flows (*Ln Flow_Lag1*) to control for past MA activities between country-pairs. Column 1 of Panel A presents the results, and we find the three key variables remain the same in terms of direction, magnitude, and significance level. The result shown in column 1 confirms the robustness of our baseline regression.

Next, we use two alternative variables to proxy the cross-border MA activity. The first one is cross border number - *Ln (number)*, we calculate it as the natural log of one plus the number of announced CBMA deals in year *t* between country pair *ij*; the second dependent variable is the cross-border MA indicator- *I (CBMA)*, which equals one if there is at least one cross border MA deal announces in year *t* between acquirer country *i* and target country *j*, and equals zero otherwise. We find similar effects of board reforms on the number of deals (column 2) and the probability of MA deals between two countries (column 3).

The United States is the most active country in cross-border MA activities (have both the highest inflows and outflows). In order to reduce concerns of overrepresentation by USA, we use a subsample that excluded observations related to USA. Column 4 of Panel A reports results without USA-related observations. We find the results are qualitatively similar to the results in the baseline regression, suggesting the effect of board reforms is not driven by the largest acquirer and target, and the baseline results are robust.

Furthermore, we want to test the effect of board reforms on the "real" cross-border MA activities. In the sample selection for baseline regression, we include deals of all statuses, e.g., completed, pending, withdrawn… In this robustness test, we only include the completed deals, in which the capital flows cross the border successfully in the end. Column 5 of Panel A reports that the results are qualitatively similar to the results in the baseline regression, suggesting board reforms stimulate both attempted and successful cross-border MA activity.

In addition, we control for concurrent events that might have an impact on cross-border MA. Fauver et al. (2017) identify not only the board reforms year and component for each country,

they also report the reform regulations which are not related to board, and they call it non-board reform. Appendix A.1 reports the details of non-board reforms. To access whether the increase of the cross-border MA activities is caused by the board related regulations only, we control for the concurrent non-board governance reforms.

In column 1 of Panel B, we perform this analysis by adding in two dummies variables, the first one is *OTHEREVENT_A*, which equals one for all years after the year of acquirer country non-board reforms implementation; the second is *OTHEREVENT_T*, which is the same as *OTHEREVENT_A* for the target country. Importantly, the effects of board reforms for both *ABR* and *ABR*TBR* remain significant, and the magnitude is slightly smaller than the baseline regression. Although TBR is not significant, but the direction is still positive. The results indicate that board reforms are still effective even the country conduct non-board reforms at the same time.

Next, we test whether concurrent takeover reforms and antitrust law have an impact on cross-border MA flows. In columns 2 and 3 of Panel B, we define *OTHEREVENT_A* and *OTHEREVENT_T* as dummy variables which equal one if the acquirer (target) country has passed a takeover law or an antitrust law between 1991 and 2009 respectively, and zero otherwise. In column 2, we find the effect of board reforms remains similar for magnitude, direction, and significance level. Meanwhile, the coefficients of *OTHEREVENT_A* is negative and significant, and *OTHEREVENT_T* is insignificant, indicating the promulgation of takeover law in acquirer country have a negative impact on cross-border MA flows. In column 3, we find the effects of antitrust law have a positive impact on international flows as the coefficient of *OTHEREVENT_A* and *OTHEREVENT_T* are positive and significant. More importantly, the implementation of antitrust reforms does not affect the effectiveness of board reforms on cross-border MAs, the coefficients of three key variables remain similar to the baseline results.

The tests conducted above show that although some concurrent events have an effect on international MA flows, our main findings are robust.

4.3 Three Components

In this session, we examine how the three major components of board reforms affect cross-border MA activity. According to Fauver et al. (2017), global board reforms typically cover three major components: board independence, separation of the CEO and chairman of the board

positions, and auditor and audit-committee independence. Concentrating on board independence and reduction of CEO duality is devoted to strengthening the board function: monitoring and advising, whereas concentrating on auditor and audit-committee independence is devoted to improving the transparency of corporate financial reporting. As discussed above, independent directors could better back their firm to process international investment, as monitoring function could reduce agency fraction. Not as the insider directors and CEOs, outsider directors could benefit from more transparent financial reporting, then better provide their resources and suggestion (Harris & Raviv, 2008; Raheja, 2005). Thus, we propose two possible channels through which board reforms can stimulate international capital flows: i) the enhanced monitoring of CEOs and ii) improved transparency of financial reporting. Therefore, distinguishing the specific effects of board reform components helps us to assess the relative importance of these two channels in causing the documented relationship.

To assess the effect of each component on cross-border merger activity, we re-estimate the baseline regression in Table 2 after restricting the three dummy variables—*Component_A*, *Component_T,* and *Component_A * Component_T*. That is to say, to access the effect of board independence, we set *Component_A* (*Component_T*) equal to one after the year of board independence in the acquirer (target) country and zero otherwise. For these countries which do not have board independence as a component of their reforms, *Component_A* (*Component_T*) equals zero; The second and third subsamples are restricted in the same way but for the last two components (audit committee and auditor independence, and chairman and CEO separate) respectively. In column 1 of Table 5, the dummy variable *Component_A* is equal to one for all years after the year when acquirer country implements board independence component; *Component_T* is equal to one for all years after the year when target country implements board independence component; In column 2, *Component_A* and *Component_T* represent audit independence and in column 3, they represent chairman and CEO separate, and we include the interaction term in all three regressions as well.

Table 5 reports the effects of three major components of board reforms--board independence (column 1), audit independence (column 2), and chairman and CEO separate (column 3) respectively. We find that the coefficients of *Component_A, Component_T* and the interaction term in all three columns are significantly positive except for the interaction term in column 3[3],

[3] The possible reason is that there are only 11 countries implement CEO chairman separation, but there are 31 and 33 countries use board independence and audit independence as reform components. The number of observations

suggesting all three components stimulate cross-border mergers. We also find the coefficients in columns 1 and 3 are slightly larger than the coefficients in column 2. These results suggest that both monitoring and financial transparency channels are effectively stimulating the cross-border MA activities, the monitoring channel plays a stronger role.

4.4 Type of flows

In this section, we examine whether the effect of board reforms varies with different types of flows. In MA literature, mergers are normally divided into three types: horizontal, vertical, and conglomerate. The horizontal merger is classified as when both acquiring firm and target firm belong to the same industry; while when both the deal side belong to the same product line but not the same industry, the merger will be defined as a vertical one; for the acquiring and target firms are neither in the same industry nor vertically linked, the deal is defined as a conglomerate. According to Fan et al. (2017), vertical integration is more common where legal institutions are weaker and where regional governments are of lower quality. They compare Chinese firms in the 2000's and U.S. firms in the 1990s and find that Chinese firms are more vertically integrated. As merger is a primary method of firm integration, we posit the effect of board reforms varies between different types of cross-border merger flows.

We distinguish patterns of vertical and horizontal cross-border mergers based on the SIC and IO (Input and output) specifications. Based on the SIC-based classification, we define horizontal flows as mergers between firms with the same four-digit SIC code. For the IO-based classification, we use the 2002 input-output matrix from the BEA (Bureau of Economic Analysis) to construct the coefficients of inter-industry vertical relatedness. This matrix provides a vector of coefficients with which we can determine which industries are connected through an input relationship. Following Garfinkel and Hankins (2011) and Fan and Goyal (2006), we select a threshold of 1% to determine the strength of vertical integration. We classify a merger as vertically integrated if its associated vertical relatedness coefficient is greater than

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is much smaller for both home and host countries undertaking CEO chairman separation than those for other two components in each scenario, the effect is hard to catch by the regression, resulting the coefficient of *Component_A * Component_T* in column 3 being insignificant.

1%. In our sample, there is no lap between horizontal and vertical mergers. We define conglomerate flows for the rest of the sample, which is cross-industry and vertically unrelated.

We repeat the regression in Table 2 column 3 for different types of flows respectively, and Table 6 reports the results. Column 1 reports the results for horizontal flows, columns 2 and 3 report the results for vertical and conglomerate flows respectively. We find the coefficients of all three columns are positive and statistically significant, which is consistent with our baseline results. We also find that the magnitude in column 2 is smaller than the other two columns, which indicates that although board reforms stimulate all three types of flows between home and host countries, the effect of board reforms on vertical flows is weakened, as vertical mergers are less common in better governance environment. Our results are consistent with the findings of Fan et al. (2017). To further assess our results, we combine the components tests and types of flow tests and find the results remain unchanged. The results are presented in Appendix Table A.3.

4.5 Two Approaches

Next, we examine whether the effect of board reforms varies between different implementation approaches. As mentioned above, Fauver et al. (2017) classify board reforms into two types: rule-based and comply-or-explain. The rule-based reforms require firms to follow the regulation rules, such as the US Sarbanes—Oxley Act of 2002. In contrast, the comply-or-explain reforms are softer, which allow firms to choose either to comply with the codes or explain why they failed to comply, such as the UK Cadbury Report. It is not clear whether the two reform approaches are both effective, and which one is more effective in stimulating the international capital flows. The rule-based approaches might have too "sharp blade" to impede international investment, while comply-or-explain might be "blunt" as firms could choose to ignore the codes.

To conduct this test, we construct a dummy variable *RULEBASED_A* (*RULEBASED_T*) which equals one for countries that implement rule-based reforms and zero otherwise. We interact *RULEBASED_A* with *ABR* and *RULEBASED_T* with *TBR*. The results of this analysis are reported in Table 7. We find the coefficients of *ABR* and *ABR*RULEBASED_A* are positive and significant, indicating both of the approaches implemented in home country effectively stimulate international capital flows. The magnitude of comply-or-explain approach (0.163) is

smaller than the rule-based approach (0.298). For the host country, the coefficient of *TBR* is positive but insignificant, while the coefficient of *TBR*RULEBASED_T* is positive and significant. We conduct an F-test and the joint significance of *TBR* and *TBR*RULEBASED_T* is at 1% level, indicating the comply-or-explain reforms in target countries do not significantly attract capital inflows, while the rule-based reforms are effective. These results in Table 7 suggest that board reforms with both approaches are effective to motivate cross-border MAs, the effect of rule-based reforms is stronger for reforms implemented using comply-or-explain approach.

4.6 Dynamic Effects

In our study, a potential endogeneity concern is reverse causality, where the change of one country's cross-border MA activity would cause the governance reform decisions. According to Fauver et al. (2017), board reforms in general are initiated by countries when they realize the importance of governance and respond to various corporate scandals, such as the Enron and WorldCom bankruptcies. It is unlikely that the change of foreign capital inflows or outflows via mergers cause scandals or the implementation of board reforms, therefore largely releasing the endogeneity concern. However, we still perform separate tests for acquirer country and target country to rule out the concern of pre-existing cross-border merger trends.

For the acquirer country, we introduce dummy variables for each year relative to the reform year instead of the reform indicator *ABR* in Table 2, omit *TBR* and the interaction term, then repeat the baseline tests. We divide our sample into eleven subperiods, from the start of our sample to the fifth year before the reform year (*YEAR -5++*), each year of the 4-year period leading up to the reform (*YEAR-4, YEAR-3, YEAR-2, YEAR-1*), each year of the 4-year period after the reform (*YEAR 1, YEAR 2, YEAR 3, YEAR 4*), the fifth year after the reform to the end of our sample period (*YEAR 5++),* and the reform effective year (*YEAR 0*). We omit *YEAR 0* to make it serve as the base period. Column 1 of Table 8 reports the results of the dynamic effect of home country board reforms. The new dummy variables are the same for target country, and the results are reported in column 2 (we omit *ABR* and the interaction term in column 2 regression). If the timing of board reform is endogenous to the average level of one

country's merger inflows or outflows, the year indicator before the reform announcement would be significant, which violates the parallel trends assumption.

As reported in column 1 for the home country, we find that the coefficient estimates on the *YEAR-4*, *YEAR-3*, *YEAR-2*, and *YEAR-1* are insignificant, indicating the capital outflows are not significantly changed contracting to the home country reform year; the coefficients of year dummies after *YEAR 0* are all positive and statistically significant, the magnitude of these coefficients for acquirer is similar, indicating home country reform maintain effective to stimulate international capital flows until the end of our sample.

For the host country in column 2, the coefficients of *YEAR-4*, *YEAR-3*, *YEAR-2* are insignificant, however the coefficient of *YEAR-1* is positive and significant at 10% level, indicating there is an inflow trend in the year before the reform year. The reason for this small inflow trend might because the international investors tend to avoid investing in the year of policy implementation. According to Kim and Lu (2013), the board reforms are usually promulgated in the year (*YEAR-1*) before the policy being effective (*YEAR 0*), such as in Austria, Belgium, Brazil, Chile, Germany…, allowing local firms to prepare for the change. A cross-border MA, as a risky investment, makes the international investor more sensitive to the target country's policy. The acquirer might "rush" to announce the acquisition before board reforms go into force, trying to avoid policy uncertainty (Julio & Yook, 2016; Nguyen & Phan, 2017); we also find that the coefficients of *YEAR1* is insignificant for MA inflows, indicating the investors are still hesitated and wait to invest in a country just implemented new governance policies. After *YEAR1*, the coefficients of *YEAR2*, *YEAR3*, *YEAR4* and *YEAR5++* are all positive and significant at 1% level, indicating the investors no longer wait and start to invest in the target country.

The results stated above remove the concern that the timing of board reform is related to country-level merger inflows or outflows, reassuring that board reforms are exogenous in our study. Besides, we find that policy uncertainty does have an impact on international investors, but they won't wait forever, the dynamic effects are consistent with our main findings.

4.7 Firm-level tests

The results so far demonstrate that board reforms lead to an increase in cross-border acquisitions. In this section, we conduct a firm-level test to examine whether enhancement of board governance has an impact on bidder firms' investment decisions. Besides, the governance spillover effect is well documented in the literature. Albuquerque et al. (2019) show that international acquisition promotes corporate governance spillovers in the host country. They find that cross-border MA activity is associated with subsequent improvements in the governance of target firm's industry when the acquirer country has stronger investor protection than the target country. Although unlikely, but it might be the spillover effect that enhances corporate governance, not board reforms. To answer these questions, we conduct a firm-level test.

We construct the subsample using all public firms in the 187 countries and collect the data from DataStream. For the dependent variable, we construct a dummy variable (*CBMA_dummy*) which equals one when a firm attempts an overseas investment, and zero otherwise. We include four firm-level variables: market to book ratio (*Market_To_Book*), leverage (*Leverage*), return on equity (*ROE*), and market cap (*Ln Market Cap*). We also control for home country's GDP (*Ln GDP*) and GDP per capita (*Ln GDP per capita*). To mitigate the governance spillover concern, we include lagged industry inflow number (*Ln In_Number_Lag1*), which is calculated as the natural log of one plus the firm's industry-country cross-border inflow number in year *t-1*. Adding this to the regression will distinguish the effects of the spillover and the board reforms. We also include year FE in the regression.

The subsample in this section presents a clustering structure, a simple OLS estimation apparently does not appropriate for this test. We apply a hierarchical linear model (HLM), which can test the country-level effects and correct for the country clustering structure at the same time, this cannot be realized by a fixed effect model (Marcato et al., 2018).

The result of this estimation is reported in Table 9. The coefficient of *Ln In_Number_Lag1* is positive and significant, indicating the spillover effect does exist at the industry level. But more importantly, our variable of interest, *ABR*, is positive and significant, the magnitude is larger than the magnitude of spillover effect. This result supports our conjecture that board reforms lead to an increase in international investment, and meanwhile, mitigate the spillover effect concern.

4.8 The Moderating Effects of Country-Level Institutions

In this section, we examine the effects of country-level external governance mechanisms on the relationship between board reforms and cross-border MA flows. Previous studies (Bris & Cabolis, 2008; Erel et al., 2012; Rossi & Volpin, 2004) document that the volume of MA activity is significantly larger in countries with better institutional environments (stronger shareholder protection, better accounting standards…). Applying insights from these studies in our setting, we expect the role of board reforms in enhancing monitoring and financial reporting transparency in bidder firms, and thus the effect of board reforms on international capital flows, to be mitigated in countries where strong external governance mechanisms are already in place.

We use several measures of external governance suggested in existing studies. The first measure we use is country-level institutions indicator: World Governance Indicators (*WGI*), which measures the general country governance and institution quality, and it is composed of six attributes: political stability, governance effectiveness, regulatory quality, enforcement of the rule of law, corruption, and the extent to which a country's citizens are able to participate in selecting their government. We calculate the value using the mean of the six sub-factors. We also use the relevant sub-factor to proxy specific country institutions, which are: enforcement of rule of law (*Rule_Of_Law*), governance effectiveness (*Gover_Effectiveness*), and regulatory quality (*Regulatory_Quality*) (Bae et al., 2021; Ellis et al., 2017). A higher index value indicates a better institution quality for all four variables above. Our last measure is a country-specific shareholder rights index, revised anti-director index (*Anti_Director*) (Djankov et al., 2008; Ben-Nasr et al., 2021), a higher index value indicates better shareholder protection in a given country, and this index is time-invariant. Based on these five measures we construct five dummy variables respectively (*EGDistance*): dummy variables equal one if the institutional environment of home country is better than it of host country, and zero otherwise. We interact these 5 dummy variables with ABR and include the corresponding interaction terms in the baseline regression.

The results of this analysis are presented in columns 1-5 of Table 10. We find the coefficients of *ABR* EGDistance* are all negative and significant except column 2, which is not significant, but still negative. These results confirm our prediction that the positive effect of board reforms on international capital flows is weakened in countries with strong external governance mechanisms.

4.9 The Moderating Effects of Economic Ties

MAs, especially cross-border ones, are crucial investment decisions for a firm, as they are risky, uncertain, costly, and easy to fail (Bhagwat et al., 2021). Investment uncertainty from host country could amplify the risk acquirer firm face before, during and after MAs. Thus, investment uncertainty in a country could form barriers and restrain international capital flows (Aleksanyan et al., 2021). It's a rational decision to avoid investing in a country that is subject to higher uncertainty. Bonaime et al. (2018) suggest that investment uncertainty is strongly negatively associated with merger and acquisition activity at the macro and firm levels. To dispel the concern and encourage foreign investment and trade, two countries normally carry out related policy or sign a bilateral treaty, tightening their economic ties.

A board governance improvement carried out at country-level could provide knowledge, information and resources, thus supporting local firms to face the uncertainty and to invest abroad. If our argument is correct, the impact of board reforms should be lower on international MAs when the economic ties between home and host countries are already close. Aleksanyan et al. (2021) find that Regional Trade Agreement relationship is associated with more bilateral cross-border MAs. We use two regional trade indicators known as Customs Union (CU) and Service Agreement (SA) to proxy economic ties between two countries. Both CU and SA have investment-related provisions that enhance fair treatment and protection for foreign investors, hence reducing the investment fraction and facilitating international capital flows. Data of CU and SA is collected from the Regional Trade Agreements Information System on the WTO website. We construct two dummy variables (*Economic Ties*), which equal one if there is already a CU or SA signed between home and host country in our main sample. We expect to observe the effect of board reforms is reduced when two countries involved in a regional trade agreement. We interact these two dummy variables with ABR and include the corresponding interaction terms in the baseline regression.

The results of this analysis are presented in columns 1 (SA) and 2 (CU) of Table 11. We find the coefficients of *ABR, TBR,* and *ABR*TBR* are positive and significant. The coefficients of *ABR*Economic Ties* are both negative and statistically significant at 1%, indicating for country pairs signed a CU or SA, the effect of board reforms is mitigated. The results support our expectation that the effect of board reforms on international investment is weakened if a close economic tie between home and host country is already in place.

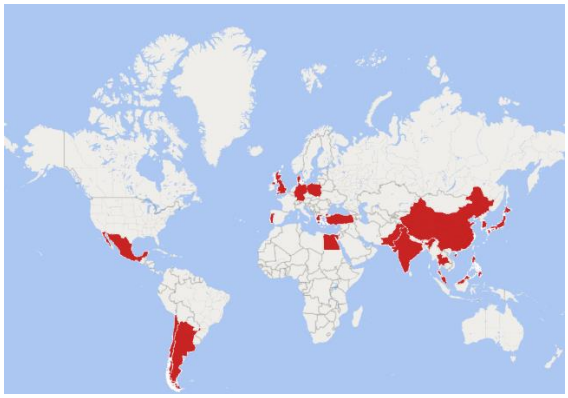
5. *Conclusion*

We study the effect of worldwide board reforms on cross-border MA flows. We find that board reforms are associated with a significant increase in foreign investment activities. After testing the effects of three reform components, we confirm both the monitoring and financial quality channel works for the documented effect of board reforms. We further find that the effect of board reforms is mitigated in countries with stronger external governance mechanisms and close economic ties. We also alleviate the endogeneity concern and spillover effect issue by conducting dynamic effect tests and firm-level tests.

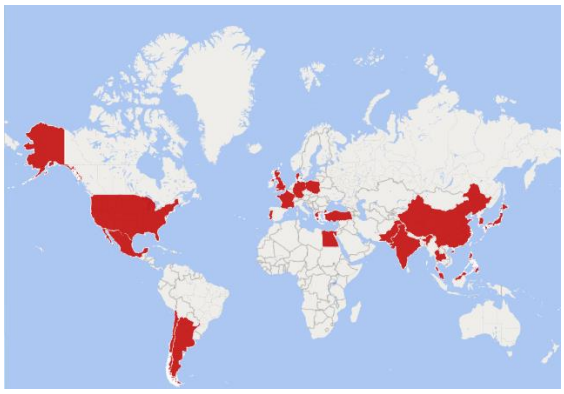
Our analyses have key implications for not only international business literature but also firms' investment decisions. First, we provide theoretical and empirical evidence to support the positive role of board reforms on international capital flows. Second, our research mitigates the endogeneity problem haunted in the existing IB and finance literature. Third, our study provides valuable information and suggestions to policy makers and firm managers. Finally, we contribute to the literature examining the interaction effect between intern and external governance by illustrating how external governance impacts the effect of board reforms on cross-border MA flows.

Countries BR during 1998-2000

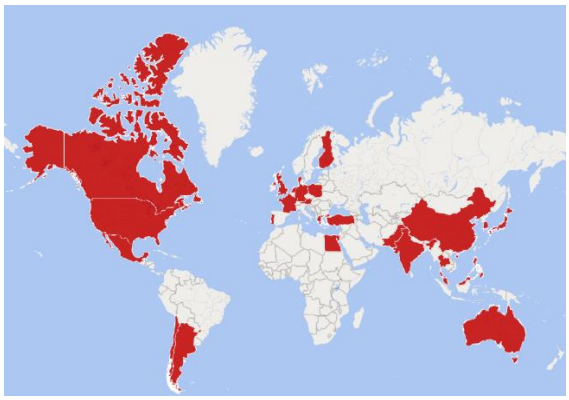
Countries BR during 1998-2001



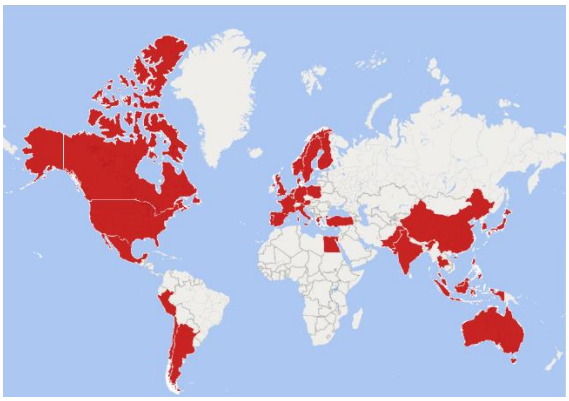
Countries BR during 1998-2002



Countries BR during 1998-2003



Countries BR during 1998-2004



Countries BR during 1998-2007

Figure 1: Color-coded Maps of staggered implementation of board reforms. This figure displays maps of countries which adopt board reforms in different periods in the sample. Countries are coloured red if the country has implemented major board reforms during each period showed under each map

Table 1

Descriptive Statistics

Panel A: Summary Statistics

	Mean	Std. dev.	Min	Max
Ln (Flow)	0.444	2.809	0.000	26.051
Ln (Number)	0.028	0.207	0.000	5.403
I (CBMA)	0.025	0.156	0.000	1.000
ABR	0.117	0.321	0.000	1.000
TBR	0.117	0.321	0.000	1.000
ABR*TBR	0.024	0.152	0.000	1.000
Ln GDP	0.000	2.999	-10.850	10.850
Ln GDP per capita	0.000	2.199	-6.311	6.311
Ln Credit	0.000	1.446	-5.949	5.949
Ln MKTCAP	0.000	2.555	-7.135	7.135
Ln Trade	10.100	7.882	0.000	26.594
Ln EX Return	0.000	0.559	-20.431	20.431
Ln Tax	0.000	0.337	-2.216	2.216
DTT	0.143	0.350	0.000	1.000
BIT	0.118	0.322	0.000	1.000

Panel B: Correlation Matrix

		1	2	3	4	5	6	7	8	9	10
1	Ln (Flow)	1									
2	Ln (Number)	0.8913	1								
3	I (CBMA)	0.9904	0.8599	1							
4	ABR	0.1656	0.1499	0.1663	1						
5	TBR	0.1223	0.1153	0.1191	0.0979	1					
6	ABR*TBR	0.2487	0.2411	0.2449	0.4288	0.4288	1				
7	Ln GDP	0.0389	0.0298	0.0415	0.3133	-0.3133	0	1			
8	Ln GDP per capita	0.0503	0.0416	0.0531	0.1879	-0.1879	0	0.5897	1		
9	Ln Credit	0.0449	0.0366	0.0475	0.1905	-0.1905	0	0.4838	0.7078	1	
10	Ln MKTCAP	0.0368	0.0285	0.0395	0.235	-0.235	0	0.6358	0.5991	0.6094	1
11	Ln Trade	0.219	0.1993	0.2185	0.3276	0.2515	0.2091	0.1012	0.083	0.065	0.0924
12	Ln EX Return	0.0041	0.0035	0.0044	0.0115	-0.0115	0	0.0477	0.1144	0.1492	0.0883
13	Ln Tax	-0.0276	-0.0185	-0.0286	-0.1245	0.1245	0	-0.2208	-0.1545	-0.0173	-0.0885
14	DTT	0.2274	0.2004	0.2269	0.2242	0.2242	0.2488	0	0	0	0
15	BIT	0.0932	0.0635	0.0988	0.2402	0.2402	0.1841	0	0	0	0

(Continued on next page)

Panel B: Correlation matrix

		11	12	13	14	15
11	Ln Trade	1				
12	Ln EX Return	0.0003	1			
13	Ln Tax	-0.0332	0.0437	1		
14	DTT	0.4155	0	0	1	
15	BIT	0.3621	0	0	0.4351	1

Table 1 represents the summary statistics and correlation matrix of the variables in the analysis. Our baseline sample consists of 413,906 country-pair cross-border MA flows across 187 countries (region) spanning the period 1993-2012. The details of the variable definitions are provided in Appendix A.2.

Table 2
Board Reforms and Cross-border MA Flows: Baseline Regression Analysis

	1	2	3	4	5	6
	Main Sample			Whole Sample		
ABR	0.381***		0.223***	0.490***		0.272***
	(0.0238)		(0.0219)	(0.0267)		(0.0253)
TBR		0.235***	0.075***		0.441***	0.222***
		(0.0214)	(0.0172)		(0.0246)	(0.0215)
ABR*TBR			0.730***			0.994***
			(0.0763)			(0.0810)
Ln GDP	0.029	-0.151***	-0.038	0.182***	-0.0898**	0.054
	(0.0265)	(0.0268)	(0.0269)	(0.0358)	(0.0360)	(0.0361)
Ln GDP per capita	0.011	0.131***	0.056**	-0.128***	0.053	-0.043
	(0.0262)	(0.0263)	(0.0265)	(0.0356)	(0.0356)	(0.0358)
Ln Credit	0.007	-0.0158**	-0.002	0.018**	-0.0163**	0.002
	(0.00688)	(0.00687)	(0.00694)	(0.00824)	(0.00825)	(0.00831)
Ln MKTCAP	0.008***	0.008***	0.008***	0.020***	0.019***	0.020***
	(0.00298)	(0.00299)	(0.00298)	(0.00376)	(0.00377)	(0.00375)
Ln Trade	0	-0.001	0.001	0	-0.001	0.001
	(0.000652)	(0.000656)	(0.000649)	(0.000777)	(0.000781)	(0.000774)
Ln EX Return	-0.0155***	-0.0195***	-0.0170***	-0.0201***	-0.0260***	-0.0228***
	(0.00376)	(0.00377)	(0.00376)	(0.00420)	(0.00422)	(0.00420)
Ln Tax	-0.142***	-0.113***	-0.131***	-0.175***	-0.132***	-0.155***
	(0.0219)	(0.0220)	(0.0218)	(0.0254)	(0.0255)	(0.0253)
DTT	0.216***	0.230***	0.179***	0.435***	0.440***	0.374***
	(0.0326)	(0.0326)	(0.0325)	(0.0392)	(0.0393)	(0.0393)
BIT	0.102***	0.126***	0.090***	0.156***	0.164***	0.120***
	(0.0303)	(0.0303)	(0.0306)	(0.0389)	(0.0390)	(0.0392)
Constant	0.360***	0.381***	0.355***	0.528***	0.542***	0.510***
	(0.00883)	(0.00877)	(0.00881)	(0.0106)	(0.0105)	(0.0106)
Year FE	YES	YES	YES	YES	YES	YES
Country Pair FE	YES	YES	YES	YES	YES	YES
Observations	413,906	413,906	413,906	413,906	413,906	413,906
R-squared	0.540	0.539	0.541	0.560	0.560	0.561

Table 2 presents the baseline regression results for the relationship between board reforms and cross-border MA flows. Our baseline sample consists of 413,906 country-pair cross-border MA flows across 187 countries (region) spanning the period 1993-2012. The regressions are performed by OLS. The dependent variable is Ln (Flow), which is the natural log of one plus the aggregated dollar value of all announced CBMA deals in year t from country i to country j. ABR is a dummy variable equals 1 after the year of major board reforms in the acquirer country and zero otherwise; TBR is a dummy variable equals 1 after the reform year in the target country and zero otherwise; ABR*TBR is equals to 1 when both ABR and TBR equal one, zero otherwise. In Column 1-3, the regressions use main sample. In Column 4-6, the regressions use whole sample. Robust standard errors are shown in parentheses. *, **, and *** indicate significance at the 10%, 5% and 1%, respectively. The details of the variable definitions are provided in Appendix A.2.

Table 3
Tobit Regression

	1	2	3	4	5	6
	Main Sample			Whole Sample		
ABR	12.22***		9.309***	9.773***		7.595***
	(0.713)		(0.797)	(0.576)		(0.654)
TBR		10.80***	6.830***		11.38***	8.662***
		(0.774)	(0.925)		(0.612)	(0.735)
ABR*TBR			6.747***			5.355***
			(1.013)			(0.858)
Constant	-156.3***	-158.9***	-145.6***	-122.3***	-121.6***	-111.1***
	(6.462)	(6.513)	(6.541)	(4.834)	(4.819)	(4.849)
Control	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Country Pair FE	NO	NO	NO	NO	NO	NO
Observations	413,906	413,906	413,906	413,906	413,906	413,906

Table 3 presents the Tobit regression results for the relationship between board reforms and cross-border MA flows. The regressions are performed by Tobit. The dependent variable is Ln (Flow), which is the natural log of one plus the aggregated dollar value of all announced CBMA deals in year t from country i to country j. ABR is a dummy variable equals 1 after the year of major board reforms in the acquirer country and zero otherwise; TBR is a dummy variable equals 1 after the reform year in the target country and zero otherwise; ABR*TBR is equals to 1 when both ABR and TBR equal one, zero otherwise. In Column 1-3, the regressions use main sample. In Column 4-6, the regressions use whole sample. Except for the control variables included in baseline regression, five country-level variables are included in the Tobit regressions, namely: geographic distance, same border, same religion, same language, and same legal system. Standard errors are clustered at country-pair level and shown in parentheses. *, **, and *** indicate significance at the 10%, 5% and 1%, respectively. Constant and year FE are included in all the regressions. The details of the variable definitions are provided in Appendix A.2.

Table 4
Other Robust Tests

Panel A: Subsamples

	1	2	3	4	5
	Last Year Flows	Ln (number)	I (CBMA)	Without US	Only Finished
ABR	0.205***	0.013***	0.013***	0.232***	0.169***
	(0.0218)	(0.00127)	(0.00127)	(0.0216)	(0.0203)
TBR	0.069***	0.005***	0.003***	0.071***	0.066***
	(0.0172)	(0.000985)	(0.000961)	(0.0171)	(0.0165)
ABR*TBR	0.666***	0.052***	0.038***	0.722***	0.597***
	(0.0761)	(0.00500)	(0.00430)	(0.0781)	(0.0742)
Ln Flow_Lag1	0.076***				
	(0.00612)				
Constant	0.329***	0.023***	0.020***	0.295***	0.301***
	(0.00906)	(0.000482)	(0.000500)	(0.00848)	(0.00833)
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Country Pair FE	YES	YES	YES	YES	YES
Observations	413,906	413,906	413,906	408,178	413,906
R-squared	0.543	0.714	0.511	0.490	0.526

Panel B: Concurrent Events

	1	2	3
	Non-BR	Takeover Reforms	Antitrust Reforms
ABR	0.081**	0.239***	0.214***
	(0.0328)	(0.0225)	(0.0221)
TBR	0.002	0.074***	0.070***
	(0.0290)	(0.0177)	(0.0174)
ABR*TBR	0.732***	0.731***	0.729***
	(0.0762)	(0.0763)	(0.0762)
OTHEREVENT_A	0.204***	-0.174***	0.310***

	(0.0371)	(0.0390)	(0.0716)
OTHEREVENT_T	0.104***	0.004	0.148**
	(0.0349)	(0.0345)	(0.0602)
Constant	0.351***	0.367***	0.312***
	(0.00885)	(0.00951)	(0.0132)
Control	YES	YES	YES
Year FE	YES	YES	YES
Country Pair FE	YES	YES	YES
Observations	413,906	413,906	413,906
R-squared	0.541	0.541	0.541

Table 4 presents the robustness checks results for the relationship between board reforms and cross-border MA activity. The regressions in Panel A are performed by OLS. ABR is a dummy variable equals 1 after the year of major board reforms in the acquirer country and zero otherwise; TBR is a dummy variable equals 1 after the reform year in the target country and zero otherwise; ABR*TBR is a dummy variable equals 1 when both ABR and TBR equal to one, zero otherwise. In Panel A, the dependent variable is Ln (Number) and I (CBMA) in column 2 and 3 respectively, and all other dependent variables are Ln (Flow). Ln (Number) is natural log of one plus the number of announced CBMA deals in year t between country-pair ij; I (CBMA) is an indicator, which equals one if there is at least one cross border MA deal announces in year t between acquirer country i and target country j, and zero otherwise; Ln (Flow) is the natural log of one plus the aggregated dollar value of all announced CBMA deals in year t from country i to country j. In column1, lagged 1 year Ln(Flow) is added as a control variable to control the impact of historical CBMA activities. In column 4 the subsample excludes cross-border MA flows related to US, and the regression in column 5 uses real CBMA flows between countries. In Panel B, concurrent events are included. In column 1, Non-BR is a dummy variable equals one for all years after the year of acquirer (target) country non-board reforms implementation; In column 2, Takeover Reforms is a dummy variables which equals one if the acquirer (target) country has passed a takeover law between 1991 and 2009 respectively, and zero otherwise. In column 3, Antitrust Reforms is a dummy variable which equals one if the acquirer (target) country has passed an antitrust law between 1991 and 2009 respectively, and zero otherwise. Robust standard errors are shown in parentheses. *, **, and *** indicate significance at the 10%, 5% and 1%, respectively. Constant, all control variables, country pair FE and year FE are included in all the regressions. The details of the variable definitions are provided in Appendix A.2.

Table 5
Components Analysis

	1	2	3
	Board Independence	Audit Independence	CEO Chairman Separation
Component_A	0.254***	0.243***	0.551***
	(0.0244)	(0.0237)	(0.0496)
Component_T	0.115***	0.080***	0.240***
	(0.0195)	(0.0183)	(0.0386)
Component_A*Component_T	0.786***	0.732***	0.317
	(0.0917)	(0.0844)	(0.310)
Constant	0.360***	0.358***	0.379***
	(0.00876)	(0.00882)	(0.00876)
Control	YES	YES	YES
Year FE	YES	YES	YES
Country Pair FE	YES	YES	YES
Observations	413,906	413,906	413,906
R-squared	0.541	0.541	0.540

Table 5 presents the effect of three major components of board reforms on cross-border MA flows. The regressions are performed by OLS. The dependent variable is Ln (Flow), which is the natural log of one plus the aggregated dollar value of all announced CBMA deals in year t from country i to country j. In column 1, the dummy variable Component_A is equal to one for all years after the year when acquirer country implements board independence component; Component_T is equal to one for all years after the year when target country implements board independence component; In column 2, Component_A and Component_T represent audit independence and in column 3, they represent chairman and CEO separate, and the interaction term is included in all three regressions. Robust standard errors are shown in parentheses. *, **, and *** indicate significance at the 10%, 5% and 1%, respectively. Constant, all control variables, country pair FE and year FE are included in all the regressions. The details of the variable definitions are provided in Appendix A.2.

Table 6
Type of Flows

	1	2	3
Flows	Horizontal	Vertical	Conglomerate
ABR	0.119***	0.072***	0.117***
	(0.0178)	(0.0134)	(0.0171)
TBR	0.056***	0.019	0.057***
	(0.0138)	(0.0114)	(0.0140)
ABR*TBR	0.378***	0.354***	0.490***
	(0.0654)	(0.0570)	(0.0681)
Constant	0.181***	0.114***	0.222***
	(0.00681)	(0.00543)	(0.00678)
Control	YES	YES	YES
Year FE	YES	YES	YES
Country Pair FE	YES	YES	YES
Observations	413,906	413,906	413,906
R-squared	0.436	0.393	0.511

Table 6 reports the effect of board reforms varies on different types of flows. The regressions are performed by OLS. In column 1, the dependent variable is Ln (Horizontal flow), which is the natural log of one plus the aggregated dollar value of all announced horizontal CBMA deals in year t from country i to country j. In column 2 and 3, the dependent variables are constructed in the same way as in column 1, but use vertical and conglomerate deals instead respectively. Robust standard errors are shown in parentheses. *, **, and *** indicate significance at the 10%, 5% and 1%, respectively. Constant, all control variables, country pair FE and year FE are included in all the regressions. The details of the variable definitions are provided in Appendix A.2.

Table 7
Two Approaches

	1
ABR	0.163***
	(0.0298)
TBR	0.028
	(0.0243)
ABR*TBR	0.733***
	(0.0762)
ABR*RULEBASED_A	0.135***
	(0.0458)
TBR*RULEBASED_T	0.105***
	(0.0397)
Constant	0.355***
	(0.00881)
Control	YES
Year FE	YES
Country Pair FE	YES
Observations	413,906
R-squared	0.541

Table 7 presents the effect of two approaches of board reforms on cross-border MA flows. The regressions are performed by OLS. The dependent variable is Ln (Flow), which is the natural log of one plus the aggregated dollar value of all announced CBMA deals in year t from country i to country j. In column 1, the dummy variable RULEBASED_A is equal to one for acquirer country implements board reforms with rule-based approach; RULEBASED_T is equal to one for target country implements board reforms with rule-based approach. Robust standard errors are shown in parentheses. *, **, and *** indicate significance at the 10%, 5% and 1%, respectively. Constant, all control variables, country pair FE and year FE are included in all the regressions. The details of the variable definitions are provided in Appendix A.2.

Table 8
Dynamic Effect

	1	2
Flows	Out	In
5+ Years Prior to Reform	-0.315***	-0.228***
	(0.0524)	(0.0440)
4 Years Prior to Reform	-0.1	0.031
	(0.0652)	(0.0568)
3 Years Prior to Reform	-0.017	0.022
	(0.0670)	(0.0553)
2 Years Prior to Reform	-0.024	0.008
	(0.0684)	(0.0560)
1 Year Prior to Reform	-0.077	0.097*
	(0.0661)	(0.0562)
1 Year After Reform	0.200***	0.03
	(0.0672)	(0.0566)
2 Years After Reform	0.117*	0.184***
	(0.0682)	(0.0590)
3 Years After Reform	0.209***	0.228***
	(0.0689)	(0.0598)
4 Years After Reform	0.193***	0.173***
	(0.0695)	(0.0595)
5+ Years After Reform	0.277***	0.169***
	(0.0534)	(0.0452)
Constant	0.402***	0.406***
	(0.0143)	(0.0129)
Control	YES	YES
Year FE	YES	YES
Country Pair FE	YES	YES
Observations	413,906	413,906
R-squared	0.540	0.540

Table 8 presents the dynamic effects of board reforms on cross-border MA flows. The regressions are performed by OLS. The dependent variable is Ln(Flow), which is the natural log of one plus the aggregated dollar value of all announced CBMA deals in year t from country i to country j. The yearly indicator variables are equal to 1 during the relevant year(s) relative to the year of the board reforms implementation. The year of the implementation (Year 0) is omitted as the base year. In column 1, the yearly indicator variables replaced the acquirer country reform indicator--ABR, and TBR is omitted. In column 2, the yearly indicator variables replaced the target country reform indicator--TBR, and ABR is omitted. Robust standard errors are shown in parentheses. *, **, and *** indicate significance at the 10%, 5% and 1%, respectively. Constant, all control variables, country pair FE and year FE are included in all the regressions. The details of the variable definitions are provided in Appendix A.2.

Table 9
Firm-level Test

	HLM
Dependent Variable	CBMA_dummy
ABR	0.0028*
	(0.00163)
Ln In_Number_Lag1	0.0002***
	(7.17e-06)
Market_To_Book	1.12e-09
	(1.53e-08)
Leverage	-2.29e-07
	(1.71e-07)
ROE	-3.27e-07***
	(8.13e-08)
Ln Market Cap	0.018***
	(0.0002)
Ln GDP	-0.014***
	(0.0032)
Ln GDP per capita	0.010***
	(0.0035)
Constant	-0.158***
	(0.0573)
Observations	341,079
var (country) / var (_cons)	0.002563
var (firm) / var (residual)	0.0422393
ICC	0.0572074
LR test vs. OLS	p=0
year FE	YES
Number of groups	86
number of observations	341079

Table 9 presents the firm-level estimate of the effect of board reforms on firms' investment decisions. The regressions are performed by a hierarchical linear model (HLM). The dependent variable, CBMA_dummy, is a dummy variable which equals one when a firm attempts an overseas investment in year t, zero otherwise. Country-level and firm-level variables are included in the regression, namely: GDP, GDP per capita, market to book ratio, leverage, return on equity, and market cap. A lagged industry-country inflow number is also included. Robust standard errors are shown in parentheses. *, **, and *** indicate significance at the 10%, 5% and 1%, respectively. Constant, all control variables, country pair FE and year FE are included in all the regressions. The details of the variable definitions are provided in Appendix A.2.

Table 10
The Moderating Effect of External Governance Mechanisms

	1	2	3	4	5
	WGI	Rule Of Law	Government Effectiveness	Regulatory Quality	Anti-director Index
ABR	0.289***	0.271***	0.322***	0.338***	0.373***
	(0.0443)	(0.0454)	(0.0517)	(0.0473)	(0.0767)
EGDistance	0.0592***	0.0310**	0.0303**	0.0654***	
	(0.0140)	(0.0139)	(0.0140)	(0.0131)	
ABR*EGDistance	-0.0892*	-0.0630	-0.124**	-0.148***	-0.173**
	(0.0514)	(0.0521)	(0.0571)	(0.0534)	(0.0793)
TBR	0.0753***	0.0748***	0.0757***	0.0758***	0.0751***
	(0.0172)	(0.0172)	(0.0172)	(0.0172)	(0.0172)
ABR*TBR	0.710***	0.715***	0.696***	0.693***	0.681***
	(0.0783)	(0.0787)	(0.0798)	(0.0786)	(0.0817)
Constant	0.326***	0.340***	0.341***	0.324***	0.356***
	(0.0112)	(0.0113)	(0.0111)	(0.0109)	(0.00880)
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Country Pair FE	YES	YES	YES	YES	YES
Observations	413,906	413,906	413,906	413,906	413,906
R-squared	0.541	0.541	0.541	0.541	0.541

Table 10 reports the moderating effect of external governance mechanisms on the relationship between board reforms and international capital flows. The regressions are performed by OLS. The dependent variable is Ln (Flow), which is the natural log of one plus the aggregated dollar value of all announced CBMA deals in year t from country i to country j. ABR is a dummy variable equal to 1 after the year of major board reforms in the acquirer country and zero otherwise; TBR is a dummy variable equals to 1 after the reform year in the target country and zero otherwise; ABR*TBR is equals to 1 when both ABR and TBR equal to one, zero otherwise. In column 1, WGI is a dummy variable which equals one if the difference of World Governance Indicators index (WGI) between acquirer country i and target country j is positive, zero otherwise; In columns 2-5, the four dummy variables are constructed in the same way but use rule of law, governance effectiveness, regulatory quality, and anti-director index instead of WGI. Robust standard errors are shown in parentheses. *, **, and *** indicate significance at the 10%, 5% and 1%, respectively. Constant, all control variables, country pair FE and year FE are included in all the regressions. The details of the variable definitions are provided in Appendix A.2.

Table 11
The Moderating Effect of Economic Ties

	1	2
	Service Agreement	Custom Union
ABR	0.248***	0.247***
	(0.0214)	(0.0214)
Economic Ties	0.381***	0.237
	(0.120)	(0.188)
ABR*Economic Ties	-0.472***	-0.486***
	(0.156)	(0.156)
TBR	0.076***	0.075***
	(0.0172)	(0.0172)
ABR*TBR	0.759***	0.761***
	(0.0763)	(0.0763)
Constant	0.341***	0.345***
	(0.00962)	(0.0109)
Control	YES	YES
Year FE	YES	YES
Country Pair FE	YES	YES
Observations	413,906	413,906
R-squared	0.541	0.541

Table 11 reports the moderating effect of economic ties on the relationship between board reforms and international capital flows. The regressions are performed by OLS. The dependent variable is Ln (Flow), which is the natural log of one plus the aggregated dollar value of all announced CBMA deals in year t from country i to country j. ABR is a dummy variable equal to 1 after the year of major board reforms in the acquirer country and zero otherwise; TBR is a dummy variable equals to 1 after the reform year in the target country and zero otherwise; ABR*TBR is equals to 1 when both ABR and TBR equal to one, zero otherwise. In column 1, SA is a dummy variable which equals one if there is already a Service Agreement between home country i and host country j, zero otherwise; In columns 2, CU is a dummy variable which equals one if there is already a Customs Union between home country i and host country j, zero otherwise. Robust standard errors are shown in parentheses. *, **, and *** indicate significance at the 10%, 5% and 1%, respectively. Constant, all control variables, country pair FE and year FE are included in all the regressions. The details of the variable definitions are provided in Appendix A.2.

Appendix

Appendix A.1: Major Board Reforms information

Country	Reform Year	Board Independence	Audit Committee and Auditor Independence	Chairman and CEO Role separate	Non-board Reform	Reform Approaches
U. K.	1998	1	1	1	1	Comply-or-explain
S. Korea	1999	1	1	0	1	Rule-based
Israel	2000	1	1	1	1	Rule-based
Argentina	2001	0	1	0	1	Rule-based
Chile	2001	0	1	0	1	Rule-based
China	2001	1	1	0	1	Rule-based
Denmark	2001	1	0	0	1	Comply-or-explain
Malaysia	2001	1	1	0	0	Comply-or-explain
Mexico	2001	1	1	0	1	Rule-based
Portugal	2001	1	1	0	0	Rule-based
Egypt	2002	1	1	0	1	Rule-based
Germany	2002	1	1	0	1	Comply-or-explain
Greece	2002	1	1	0	0	Rule-based
India	2002	1	1	0	1	Rule-based
Japan	2002	0	1	0	0	Rule-based
Pakistan	2002	0	1	0	0	Comply-or-explain
Philippines	2002	1	1	0	1	Comply-or-explain
Poland	2002	1	0	0	1	Comply-or-explain
Thailand	2002	1	1	0	1	Comply-or-explain
Turkey	2002	1	0	1	1	Comply-or-explain
France	2003	0	1	0	1	Rule-based
Singapore	2003	1	1	0	1	Comply-or-explain
U. S.	2003	1	1	0	1	Rule-based
Australia	2004	1	1	1	1	Comply-or-explain
Austria	2004	1	1	0	1	Comply-or-explain
Canada	2004	1	1	1	0	Rule-based
Finland	2004	1	1	1	1	Comply-or-explain
Netherlands	2004	1	1	1	0	Comply-or-explain
Belgium	2005	1	1	1	1	Comply-or-explain
Hong Kong	2005	1	1	1	0	Comply-or-explain
Norway	2005	1	1	1	1	Comply-or-explain
Peru	2005	1	1	0	0	Comply-or-explain
Italy	2006	1	1	0	1	Rule-based
Spain	2006	1	1	0	1	Comply-or-explain
Sweden	2006	1	1	1	1	Comply-or-explain
Indonesia	2007	1	1	0	0	Rule-based

Appendix A.2: Data Definitions

Variable Name	Definition	Source
Ln (Flow)	Natural log of one plus the dollar value of all announced MA by any firm in acquirer country i of any firm in target country j in year t	SDC
Ln (Number)	Natural log of one plus the number of all announced MA by any firm in acquirer country i of any firm in target country j in year t	SDC
I(CBMA)	Indicator equals 1 if a firm in acquirer country i announces an acquisition of a firm in target country j in year t, and equal to 0 otherwise.	SDC
ABR	Dummy variable equals 1 after the year of major board reforms in the acquirer country i, and 0 otherwise	Fauver et al. (2017)
TBR	Dummy variable equals 1 after the year of major board reforms in the target country j, and 0 otherwise	Fauver et al. (2017)
ABR*TBR	The interaction of ABR and TBR	Fauver et al. (2017)
Ln GDP	Natural log of acquirer country GDP minus natural log of target country GDP in year t	WDI
Ln GDP per capita	Natural log of acquirer country GDP per capita minus natural log of target country GDP per capita in year t	WDI
Ln Credit	Natural log of one plus acquirer country credit market development minus natural log of one plus target country credit market development. Credit market development is defined as total amount of private loans divided by GDP in year t	WDI
Ln MKTCAP	Natural log of one plus stock market development minus natural log of one plus target country stock market development. Stock market development is defined as total stock market capitalization divided by GDP in year t.	WDI
Ln Trade	Natural log of one plus bilateral imports and exports between acquirer and target country in year t	IMF
Ln EX Return	Natural log of one plus end-of-year nominal exchange rate at year t minus natural log of one plus end-of-year nominal exchange rate at year t-1	IFS
Ln Tax	Natural log of one plus home country tax burden minus natural log of one plus host country tax burden in year t	Economic Freedom Index
DTT	Dummy variable equals 1 if two countries have signed a double-taxation treaty, and 0 otherwise	UNCTAD
BIT	Dummy variable equals 1 if two countries have signed bilateral investment treaty, and 0 otherwise	UNCTAD
Ln Distance	Natural log of one plus geographic distance between capitals, calculated using the great circle formula and latitudes and longitudes of the capital or most populous city	CEPII
Same Border	Dummy that equals 1 if two countries share a common border	CEPII
Same Religion	Dummy that equals 1 if two countries share the same religion, defined as the dominant religion of a country	CIA World Factbook 2018
Same Language	Dummy that equals 1 if two countries share the same language, defined as the primary spoken language of a country	CIA World Factbook 2018

Same Legal System	Dummy that equals 1 if two countries share the same legal system (English, French, German, Scandinavian, Socialist)	CEPII
Non-BR	Dummy variable equals 1 after the year of non-board reforms in each country, and 0 otherwise	Fauver et al. (2017)
Takeover Reforms	Indicator variable equals 1 if the country has passed a takeover law between 1991 and 2009, and 0 otherwise.	Lel and Miller (2015)
Antitrust Reforms	Indicator variable equals 1 if country has passed an antitrust law between 1991 and 2009, and 0 otherwise.	Bris and Cabolis (2008)
WGI	Difference in the country average of World Governance Indicators index between acquirer country i and target country j.	World Governance Indicators Data (World Bank)
Rule of Law	Rule-of-law index that captures perceptions of the extent to which agents have confidence in and abide by the rules of society, particularly contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Rule of law is time varying from 1996. The values for each country prior to1996 are set to the value in 1996. For gap years (1997, 1999, and 2001), we use the values from 1996, 1998, and 2000, respectively.	World Governance Indicators Data (World Bank)
Government Effectiveness	Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Government Effectiveness is time varying from 1996. The values for each country prior to1996 are set to the value in 1996. For gap years (1997, 1999, and 2001), we use the values from 1996, 1998, and 2000, respectively.	World Governance Indicators Data (World Bank)
Regulatory Quality	Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Regulatory Quality is time varying from 1996. The values for each country prior to1996 are set to the value in 1996. For gap years (1997, 1999, and 2001), we use the values from 1996, 1998, and 2000, respectively.	World Governance Indicators Data (World Bank)
Anti-director Index	The revised anti–director-rights index that measures the extent to which minority shareholders are protected in the corporate decision process, in terms of the right to vote. It covers the following six areas:"(1) vote by mail; (2) obstacles to the actual exercise of the right to vote (i.e., the requirement that shares be deposited before the shareholders' meeting); (3) minority representation on the board of directors through cumulative voting or proportional representation; (4) an oppressed minority mechanism to seek redress in case of expropriation; (5) pre-emptive rights to subscribe to new securities issued by the company; and (6) the right to call a special shareholder meeting."	Djankov, La Porta, Lopez-de-Silanes, and Schleifer (2008)
Custom Union	Dummy variable equal to one if country i and country j belong to a customs union, and zero otherwise.	World Trade Organization
Service Agreements	Dummy variable equals one if i and j belong to a service agreement, and zero otherwise.	World Trade Organization
Market_To_Book	Market value of assets divided by the book value of assets of the bidder firm at year t.	DataStream
Leverage	Total debt divided by total assets of the bidder firm at the year t.	DataStream

ROE	Return on equity, computed as the ratio of net income to equity of bidder firm in year t.	DataStream
Ln Market Cap	Natural log of one plus total stock market capitalization of bidder firm at year t.	DataStream
Ln In_Number_Lag1	Natural log of one plus the firm's industry-country cross-border inflow number in year t-1.	SIC

Appendix A.3: The effect three major components of board reforms on three types of cross-border MA flows

	1	2	3	4	5	6	7	8	9
Flow		Horizontal			vertical			Conglomerate	
Components	Board Independence	Audit Independence	Chairman CEO Separation	Board Independence	Audit Independence	Chairman CEO Separation	Board Independence	Audit Independence	Chairman CEO Separation
Component_A	0.131***	0.131***	0.322***	0.0837***	0.0828***	0.216***	0.124***	0.129***	0.284***
	(0.0198)	(0.0194)	(0.0411)	(0.0153)	(0.0148)	(0.0329)	(0.0191)	(0.0187)	(0.0411)
Component_T	0.0808***	0.0553***	0.135***	0.0441***	0.0264**	0.0729***	0.0792***	0.0612***	0.155***
	(0.0158)	(0.0146)	(0.0302)	(0.0133)	(0.0122)	(0.0278)	(0.0162)	(0.0151)	(0.0327)
Component_A* Component_T	0.402***	0.370***	0.807***	0.335***	0.377***	0.183	0.597***	0.537***	0.0218
	(0.0779)	(0.0732)	(0.289)	(0.0687)	(0.0647)	(0.260)	(0.0826)	(0.0762)	(0.297)
Constant	0.184***	0.183***	0.193***	0.116***	0.113***	0.122***	0.226***	0.223***	0.239***
	(0.00679)	(0.00682)	(0.00678)	(0.00539)	(0.00543)	(0.00538)	(0.00673)	(0.00678)	(0.00677)
Control	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Country Pair FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	413,906	413,906	413,906	413,906	413,906	413,906	413,906	413,906	413,906
R-squared	0.436	0.436	0.436	0.393	0.393	0.393	0.512	0.511	0.511

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