The Role of Corporate Governance for Acquisitions by the Emerging Market Multinationals: Evidence from India[*]

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1. Introduction

With rapid increases in globalization, multinational enterprises are no longer restricted to those founded in developed nations. Emerging market multinational enterprises (EMNEs) have been evolving rapidly during the last decade. Acquisitions by emerging market firms of targets located in developed markets have increased drastically over the recent years.[1] While the literature has documented that EMNEs acquire firms in developed markets for a variety of reasons, there is a gap in understanding the corporate governance implications of such transactions. Using a sample of Indian firms that acquired firms located in developed nations, we find that the institutional environment of the countries where the targets are located plays a role in the changes in firm-level corporate governance practices of the acquirers.

There can be many reasons why EMNEs acquire developed market targets, for example, to augment the assets as well as R&D capabilities of the acquirer (Hege, Jaslowitzer and Rapp, 2014), or to take advantage of the complementary nature of the two firms and internationalize the acquirer's tangible and intangible resources (Gubbi, Aulakh, Ray, Sarkar and Chittor, 2010). Acquiring large firms in developed markets to restructure operations, which may not be possible by acquiring firms located in the same country, also seems to be yet another motivation for such transactions (Chen, 2011 and Chari, Chen and Dominguez, 2012). However, in addition to market access and operational synergies (see Errunza and Senbet, 1981, 1984), Coffee (1999) suggests that cross-border acquisitions, similar to cross-listings, provide a medium for firms to bond to better institutions. Using country-level indicators, Rossi and Volpin (2004) find that

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[1] For operating performance and synergistic gains following these acquisitions see for example Chari, Chen and Dominguez (2012), Aybar and Ficici (2009), Bhagat, Malhotra and Zhu (2011) Chen (2011), Hege, Jaslowitzer and Rapp (2014) and Chernykh, Liebenberg and Mimeo (2010).

cross-border M&A intensity is driven by the differences in investor protection and additionally, Bris and Cabolis (2008) and Martynova and Renneboog (2008) find acquisitions that result in improvement in corporate governance generate positive returns. While country-level insights are useful, understanding firm-level changes in corporate governance practices by EMNEs after acquiring targets in developed markets is important for all stakeholders alike, in particular to understand whether the transaction will be beneficial to them. Additionally, changes in firm valuation provide insights into how investors view these transactions.[2]

Legal and institutional factors play a major role in contracting environment and hence the corporate governance of individual firms. Doidge, Karolyi and Stulz (2007) study the relation between country characteristics such as legal protection for minority investors and financial development with firm-level measures of governance and transparency. They find that country characteristics explain most of the variation in governance ratings, especially in less-developed markets. While acquisitions by EMNEs of targets located in developed countries may also be due to several operational and strategic reasons cited above, one outcome of such transactions will be the exposure of the acquirer to the institutional and regulatory framework of the target country. EMNEs with global ambitions have to convince all parties, in particular the various stakeholders of the target firm, that they are the best suitor. For example, a report by Accenture on the cross-border acquisitions by Indian companies says: *"Where possible, Indian companies should treat the governance standards of companies they are acquiring as an additional asset. For example, the well-reported Mittal-Arcelor deal was carefully constructed to*

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[2] In a domestic M&A setting, Xie and Wang (2009) use the U.S. firm level shareholder-rights difference between the acquirer and the target and find that the stronger the acquirer's shareholder rights relative to the target's, the higher the synergy created by an acquisition.

allow the new company to benefit from Arcelor's highly evolved corporate governance and operating structures."[3]Complying with the (developed) target country's institutional and regulatory environment through changes in corporate governance practices is essential to the EMNE for development of organizational capabilities and learning (Bartlett and Ghoshal, 1989; Hitt, Hoskisson, and Kim, 1997) as well as to benefit from partnering with firms from institutionally different environments by providing access to complementary resources (Gubbi et al. 2010), reduce risk (Kim, Hwang and Burgers, 1993) and improve deficiencies across nationally bounded interfirm networks (Burt, 1992). When the business partners come from institutionally distant environments, it is not always easy to integrate the two firms. Abdi and Aulakh (2012) find that whereas the benefits of relational governance are reinforced at higher degrees of informal institutional distance, formal institutional frameworks and contractual governance have a complimentary relationship, with performance gains reducing at higher degrees of formal distance. While our analysis does not break it down along these lines, we examine the joint effect of investor protection and legal enforcement, focusing not only what exists on the books, but also whether the regulatory framework is effective.

We believe that studying cross-border M&As of emerging market (EM) firms where the target is located in a developed market (DM) offers an excellent setting to observe whether a higher country-level investor protection leads to changes in firm-level corporate governance and improve valuation of EMNEs. We use a novel database that provides firm-level governance characteristics in a major emerging market (EM), in particular India, to explore a cross-border M&A setting. We are thus able to contribute to

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[3] See the Accenture report titled as "India Goes Global: How Cross-border Acquisitions are Powering Growth", pg. 16, available at http://www.presidencia.pt/archive/doc/India_Goes_Global.pdf

the literature that explores the relation between the firm-level and country-level governance, as well as the literature on convergence in corporate governance practices following cross-border deals. We select India as the home country of the acquirers because it has democratic institutions with a long history of corporate activity, good quality archived data available for researchers and offers a unique setting which allows us to compare the changes due to regulatory shock towards better governance, implemented via Clause 49 in 2005 versus firm-specific shocks introduced via cross-border M&As.

We find that firms that acquire targets located in DM nations change two distinct firm-level attributes of corporate governance significantly viz. ownership structure and board characteristics following these acquisitions. We also find that among the sample with targets located exclusively in DM nations, changes in corporate governance attributes are more pronounced for countries with higher investor protection. In addition to changes in firm-specific corporate governance, we also find that acquirers whose target is located in a DM nation exhibit higher valuation after the acquisition. Furthermore, the changes in corporate governance associated with DM acquisitions lead to higher valuation. Overall, our results support the argument that cross-border acquisitions involving targets in DM can be motivated to self-impose better firm-level corporate governance, with the ultimate goal to reduce cost of capital and increase firm value.

An important caveat of using cross-border M&As as a setting is that firms that acquire targets overseas are very different from average Indian firms with domestic operations, as the former is trying to establish its global presence and become an EMNE. In other words, endogeneity becomes an issue, as firms with improved governance or better performance are more likely to buy targets in developed countries. We therefore

implement a propensity score matching (PSM) technique to select a matched sample of control firms that have not engaged in any cross-border acquisitions and then use a difference-in-difference approach to compare the changes in governance and valuation characteristics of the treatment and control sample.

It is possible that emerging market firms that plan to become global players develop an "outward looking" strategy and improve their corporate governance to signal to firms and markets in developed nations that they can be trusted. To test this signaling story, we analyze the changes in corporate governance attributes prior to the acquisition and compare them to the changes following the acquisitions. We do not find any evidence that firms implement better governance in years leading up to the acquisition.

Finally, we explore the effects of corporate governance reforms recently implemented in India, in particular, Clause 49 introduced by Securities Exchange Board of India (SEBI). We compare the changes in corporate governance following cross-border M&As for pre- and post- reform period. Our results support the argument that monitoring benefits introduced through cross-border M&As with DMs are larger when home country regulations are weaker.

Our results should be contrasted with the findings of Aybar and Ficici (2009). Using EMNEs primarily located in East Asia and Latin America they find negative returns to overall acquirers. They theorize that EMNE acquirers destroy value because of lack of international experience, poor governance practices, empire building and negative effect of diversification. However, more importantly, once they differentiate between DM and EM targets, results indicate higher acquirer returns (and more incidents of positive returns) when targets are located in developed nations, as compared to when the target is

located in an emerging market nation. This evidence is consistent with our findings. It

should be noted that they examine these DM acquisitions only as an additional test, and

hence do not study the role of institutional settings of the target countries specifically for

DM nations in improving the corporate governance practices of the EMNEs. Our paper

extends the analysis to the next level, providing better insights into institutional factors

that can create value for EMNEs.

The paper is organized as follows: the testable hypotheses are presented in section

2; the data and empirical methodology is discussed in section 3; the results are reported in

section 4; the robustness and additional tests are discussed in section 5 and the conclusion

is in section 6.

2. Hypotheses

The legal and institutional features of the different environments in which multi-national

enterprises (MNEs) operate can exacerbate or mitigate the various types of agency

problems that the stakeholders commonly face. Chari, Oimet and Tesar (2011) find

developed-market acquirers bring better institutional practices to emerging-market targets

and add value to the acquirers through positive announcement returns. This provides

support to value of spillovers (see Martynova and Renneboog, 2008), where, in the event

of full takeovers, the corporate governance regulation of the acquirer is imposed on the

target i.e. the *positive spillover by law* hypothesis holds.[4] In contrast, when the acquirer is

from a country with poorer shareholder protection, the *negative spillover by law*

hypothesis states that the poorer corporate governance regime of the acquirer will be

imposed on the target. However, the alternative *bootstrapping hypothesis* argues that

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[4] In partial takeovers, the improvement in the target corporate governance may occur on voluntary basis i.e.
the *spillover by control* hypothesis.

poor-governance acquirers voluntarily bootstrap to the governance regime of the target. While not explicitly framing the outcomes in terms of improved corporate governance, several papers mentioned earlier argue that in this situation, the acquirer improves its organizational capabilities, gets access to complementary resources due to the institutionally different environments, reduce risk and improve deficiencies that typically exist in nationally bounded interfirm networks. All of these benefits can accrue to the acquirer when a firm's governance improves i.e. the bootstrapping hypothesis is valid.

H1: In order to realize benefits from acquiring developed market targets, emerging market firms bootstrap their corporate governance practices to comply with target country norms.

While bootstrapping maybe a natural choice for EMNEs in general, they will only decide to engage in it to improve their profile. Given that India ranks quite high in terms of the investor protection rights, but not in legal enforcement, we expect the Indian EMNEs to bootstrap only if the target country's practices help in improving the firm.

H2: Indian firms that acquire developed market targets with better investor protection and legal environment are more likely to adjust firm-level governance.

All of beneficial outcomes mentioned above that accrue to EMNEs from acquiring developed market targets are operational in nature. However, the net effect of these benefits should get reflected in the fundamentals of the firm, so we expect these firms to improve their valuations after DM acquisitions. The most important benefit of good governance is access to capital markets on better terms. Doidge, Karolyi and Stulz (2007) argue that this benefit is worth less to a firm in a country with poor financial

development because that firm will obtain less funding from the capital markets and hence will benefit less from any governance- related reduction in the cost of funds.

H3: Firm valuation is higher for those that adjust firm-level governance after acquiring the developed market targets.

3. Methodology and Data

3.1. Methodology

In order to alleviate any concerns about endogeneity, we use a two-step approach to test our hypotheses. We first take care to identify a suitable set of control firms using the propensity score matching (PSM) technique. This involves developing a model to predict the probability that a firm will engage in an acquisition. The control sample is then selected randomly from the subset of non-acquirers that have the expected probability of an acquisition very close to the expected probability of the corresponding treatment firm.

Next, we use a difference measure to test the effect of the acquisitions on various corporate attributes related to governance and valuation. By subtracting the attribute values of each firm before the acquisition from the corresponding values after the acquisition, we allow for each firm to be its own control. This design is also consistent with "untreated control group design with pre-test and post-test" described in Cook and Campbell (1979, p103). As described earlier, in our setting, Indian acquisitions are designated as the control group and DM acquisitions as the treatment group. The difference-in-difference measure is the value of POST-PRE for the treatment group less the corresponding value for the control group. Our two-step approach is meant to adequately address any concern about self-section based endogeneity issues with the analysis.

We test our hypotheses using two different settings. In the first setting, we include acquisitions with targets located both in developed markets and in India to test the effects of developed market versus domestic market (Indian) acquisitions on acquirers' governance practices. In the second setting, we examine the effects of variations in institutional environment among developed market nations on the governance practices of the acquiring firms using the subset having targets located only in developed markets.

The models used to test hypothesis 1 are given by the two equations below.

Change in corporate governance = f (DM, control variables, DM*control variables)

--- (1)

where change in CG is calculated as its value at t=+1 (post) minus its value at t= -1 (pre) where t is the year of the effective date. DM is a dummy variable set equal to 0 when the target firm is located in India and equal to 1 when the target is located in a DM country. The second setting examines the role played by the institutional environment of the country where the target is located, using only the sample of acquisitions where the target is located in a DM country. We use country-level investor protection (shareholder rights and creditor rights multiplied by judicial efficiency) to measure the quality of institutional environment. In the model that tests hypothesis 2 below, IED is a dummy variable set equal to 1 if: (i) shareholder protection index of the DM country is better than India's (ii) creditor protection index of the DM country is better than India's.

Change in corporate governance = f (IED, control variables, IED*control variables)

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The literature examining the relation between corporate governance and firm valuation is quite extensive. It finds that better corporate governance is associated with higher firm valuation e.g. see La Porta et al. (2002), Gompers, Ishii, and Metrick (2003), Cremers and Nair (2005), Durnev and Kim (2005), Bebchuk, Cohen, and Ferrel (2009). Given this evidence, in addition to the direct effect of DM on firm valuation, we also consider the joint effect of DM and change in corporate governance on valuation in equation 3 below to test hypothesis 3. The full sample consisting of targets located in DM nations and India are used for this test.

Change in valuation = f (DM, CG, CG*DM, control variables, DM*control variables, CG*control variables) --- (3)

where valuation is measured by industry-adjusted Tobin's Q, DM is as defined above for equation 1, and CG is measured both ways i.e. level and change measure.

3.2. Data

The mergers and acquisitions data is obtained from SDC Thompson's International M&A database. We collect information on all completed acquisitions by Indian companies that target firms in developed market (DM) nations between January 2001 and December 2010. We exclude leverage buyouts, spin-offs, recapitalizations, self-tender offers, exchange offers, repurchases, minority stake purchases, acquisitions of minority interest, and privatizations.

We collect data for the acquiring companies from Prowess, distributed by Center for Monitoring the Indian Economy (CMIE). We use firm-level fundamental, market data, as well as governance data on board and ownership characteristics. In particular, we

examine the percentage of equity ownership by three different types of investors – insiders (referred to as promoters in India), institutional investors and foreign institutional investors. The difference between ownership by institutional investors and foreign institutional investors represents ownership by domestic institutional investors. We also examine three different types of board characteristics – independence, expertise and diligence. Independence is the percentage of independent directors on the company's board; busyness is the number of directors who serve on other corporate boards; diligence is the average number of meetings attended by the board of directors.

We match the information about acquirers from SDC with the data from Prowess and impose the availability of firm level fundamental, market and governance data in three-year window (-1, +1) around the effective date of the acquisition. Next, we use the propensity score matching (PSM) procedure on the Prowess population to identify a control sample of Indian firms with similar attributes that have not engaged in a cross-border M&A. Panel A of Table 1 reports the results of the logistic regression that is used to create the propensity score. The acquirers are likely to be larger firms, with higher profitability, cash, valuations, stock return momentum, institutional ownership and lower leverage, capital intensity. The model has decent explanatory power with pseudo R-square of 45% and concordant percent greater than 90. The matching technique to identify the control firms has been described in the methodology section; we limited the difference of probabilities between the treatment firm and the control firm to be 3 %. The matched sample includes 223 observations with 147 unique treatment firms. Under ideal circumstances, there will be no difference in the attributes of the treatment and control sample. Panel B reports the mean of firm covariates after the matching procedure. We

find that while most of the variables are similar, the treatment firms are smaller, younger, have more cash and lower (higher) board independence (busyness). The direction of these covariate differences has more than adequately addressed the concern that typically large, well-managed firms self-select to engage in such cross-border acquisitions and so will make it harder to establish our hypotheses. From the matched sample, we then eliminate observations (along with their corresponding control firms) for firms that engaged in multiple DM acquisitions while keeping the first DM acquisition in the sample. Thus our final sample includes 147 unique treatment firms and their matched counterparts. Table 2 Panel A summarizes the final sample of acquisitions by target nation. We find that around 37% of the target firms are located in United States, with another 20% in the United Kingdom and about 12% in Germany. In total, 72% of the targets are located in countries with common-law legal origins and the remainder in countries with code-law legal origins. Panel B summarizes them by acquirer industry, year and deal characteristics. About 30% of the acquisitions were in the business services industry, which is probably because Indian business process outsourcing companies grow by making acquisitions in the markets where their major clients are located. Another 15% of the acquisitions are in the pharmaceutical industry, which is not surprising given that the Indian pharma companies have captured global markets during the last decade. For our sample, the number of acquisitions starts to increase from 2005, peaking in 2007 at 23% and then declining at the onset of the financial crisis from 2008 onwards. Overall, 98% of the acquirers are publicly listed companies, where cash is used most of the time to acquire the entire equity stake. We notice that only 3.8% of the target firms in our sample are publicly listed. This is similar to the evidence in the existing literature e,g, Erel, Liao

and Weisbach (2012) finds 96% of cross-border mergers involve private firms. There are several fundamental reasons why the targets are private firms. First, private firms are less likely to be overvalued (Maksimovic, Phillips and Yang , 2013; Erel, Jang and Weisbach, 2015), so it may be cheaper to buy private targets. In general, returns to acquirers are positive for private firm acquisitions (e.g. see Capron and Shen, 2007). Also, private firms have lenders that monitor the firms closely (Gao, Harford and Li, 2013 and Gao, Lemmon and Li, 2012), thus have lower agency problems than public firms. One concern with targets primarily being private firms is that it appears to weaken the "bootstrapping" story, since there is no listing requirement in the developed nation that the acquirer has to fulfill. However, we posit that the acquirers want to comply with the prevailing legal framework of the developed nation, from the perspective of all stakeholders (i.e. customers, vendors and employees), not just shareholders. Moreover, convergence of governance practices at the firm-level may also be essential for post-merger integration purposes.

We report the descriptive statistics for the final treatment and control sample in Table 3. As a result of the PSM procedure, in terms of valuation, ownership and board characteristics, the treatment firms do not significantly differ from the control firms.

4. Results

4.1. Univariate results

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There is a large body of evidence that wealth is transferred from acquiring firms to target firms.[5] As reported in Table 4, we find that that there is a similar decrease in average value (industry adjusted Tobin's Q) for both the treatment (-0.093) and control sample (-

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[5] See for example Bradley, Desai and Kim (1988) and Moeller, Schlingemann and Stulz (2005).

0.398) after the acquisition. This suggests that acquirers are probably not overpaying for DM acquisitions relative to Indian acquisitions.

Overall, FII and institutional ownership increased and promoter ownership decreased after the acquisitions of DM firms (all changes are significant at 1%). We find that on average FII ownership went up by 1.59% (increase of 1.96% for treatment minus increase of 0.37% for control group), institutional ownership increased by 2.04% (increase of 2.31% minus increase of 0.26%) and promoter ownership went down by 2.7% (decrease of 3.01% minus decrease of 0.33%) for the treatment group relative to the control group.

We also find that board independence and diligence increased and board busyness decreased (changes are significant at 5%). On average, board independence increased by 0.028 (increase of 0.026 minus decrease of 0.001) for treatment firms relative to control firms. While the mean changes are significant for busyness and diligence for treatment group, the difference-in-difference relative to control firms are not statistically significant On the other hand, the median differences are significant for board diligence.

The existing literature finds that institutional investors perform a monitoring role (Hartzell and Starks, 2003; Gillan and Starks, 2003), whereas promoters do not look after the interest of the other investors and managerial entrenchment may increase agency costs (Morck et al., 1988); McConnell and Servaes, 1990). Studies also show that independent (Fama and Jensen, 1983; Hermalin and Weisbach, 1998) as well as diligent directors (Hermalin, 2005) improve monitoring on behalf of insiders whereas busy (Cashman, Gillan and Jun, 2012; Falato, Kadyrzhanova and Lel, 2014) directors are

distracted from performing their duties properly.[6] Given the findings of these prior studies the direction of the changes could be considered as an improvement in firm governance. Thus, our univariate results suggest that in general corporate governance improved for the treatment sample, and further it improved more for the treatment relative to the control sample.

4.2. Change in corporate governance after the acquisition

As mentioned in section 3, we use two different settings to test our hypotheses. The first hypothesis examines the effect of target firm's location on the corporate governance of the acquirer. In this section we discuss our findings related to this hypothesis. The first setting uses data from the treatment as well as the control sample to examine the marginal effect of acquiring from DM nations relative to India whereas the second setting uses only the treatment sample to examine how institutional differences explain changes in corporate governance. We consider two dimensions of a firm's corporate governance in our analyses – equity ownership pattern and board characteristics. We report the results of testing the first two hypotheses in separate tables, Table 5 through 8, one table for each combination of model used and dimension of corporate governance.

Table 5 presents the results of testing equation 1 with respect to pattern of equity ownership. The three columns report the regressions estimates separately for each type of investor. The dependent variable is change in equity ownership by a certain type of investor, as indicated in the column heading. The independent variable of interest is the developed market (DM) dummy. Based on the first hypothesis, we expect the Indian

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[6] The evidence in India regarding board busyness is mixed: Jackling and Johl (2009) find a positive relation between busyness and firm value whereas Sarkar and Sarkar (2009) find a negative relation. See Hermalin and Weisbach (2003) for a detailed survey on the role of board of directors.

acquirers to alter their governance in order to bootstrap to better governance mechanisms. Hence, we expect monitoring to increase and agency costs to reduce when the target is located in a DM nation i.e. a positive slope for institutional ownership and FII, and a negative slope for promoter ownership. We find that the slope of DM for institutional ownership is 4.4 significant at 10%, for FII it is 7.4 and for promoter ownership it is -2.5, both significant at 5%. In addition to these results, using the first two columns of Table 5, we infer that there is a significant increase in domestic institutional ownership (institutional ownership minus FII) in firms that acquire targets in DM nations.

Institutions are more likely to invest in large firms that are profitable and stable. Furthermore, cross-listings are likely to increase foreign institutional ownership. Based on proxies in O'Brien and Bhushan (1990) and Bhojraj and Sengupta (2003), the control variables we use for institutional investor and FII are firm size (SIZE), market-to-book (MTB), return on equity (ROE) and foreign listing (ADRGDR).[7] We find size and MTB have a significant positive effect on institutional and FII ownership; and cross-listing have a significant positive effect on FII ownership.

As firm size increases, agency problems may increase, which can result in higher insider ownership in order to improve monitoring. On the other hand, large firms might enjoy economies of scale in monitoring by top management and by rating agencies, leading to a lower optimal level of insider ownership. Thus as suggested by Himmelberg et.al., (1999), we use both log sales and its square as control variables since firm size can have an ambiguous effect on insider ownership. Investments in fixed capital are more easily monitored, so firms with high fixed capital are likely to have a lower optimal level

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[7] We were unable to find a reliable source of data for analyst following and liquidity of the stock.

of managerial ownership; we use the long-term assets to sales ratio (K/S) as the meaure for fixed capital. Firms with higher growth opportunities are expected to have higher insider ownership, which we capture using capital expenditures (I/K). Jensen (1986) argued that agency costs are higher at firms with higher free cash flows, so to improve monitoring, insider ownership may be higher. We capture free cash flow using the operating income to sales ratio (Y/S). Finally, we expect an inverse relationship between a firm's idiosyncratic risk and insider ownership because of portfolio diversification reasons. In summary, the control variables for promoter ownership we use are log sales (SALES), square of log sales (SQ_SALES), long-term assets to sales (K/S), operating income to sales (Y/S), capital expenditures to property, plant and equipment (I/K), stock price risk (SIGMA). The results confirm the non-linear effect of firm size on insider ownership; in addition, the expected effect of fixed assets and free cash flows on insider ownership are also confirmed.

Table 6 presents the results of testing equation 1 with respect to board characteristics and has a layout similar to Table 5. The three measures of board characteristics we examine are independence, busyness and diligence. As in Table 5, we expect that monitoring to increase and agency costs to reduce when the target is located in a DM nation i.e. a positive slope for independence and diligence, and a negative slope for busyness. We find that the slope of DM for board independence is 0.238, for busyness it is -3.762, both significant at 5%.

Firms with high growth opportunities as well as those that are large in size typically have more agency problem and require more monitoring. For high performing CEOs, as inferred from a firm's ROA, monitoring through independent boards may not

make a difference. On the other hand, for managers with high private benefits, board independence is needed for monitoring. We proxy private benefits by free cash flows (FCF) and industry concentration (CONC). Firm complexity is captured by firm age and leverage, where debt can also serve as an additional disciplining mechanism, The control variables for board independence as suggested by Guest (2008) are firm size (SIZE), firm value or growth (Q), return on assets (ROA), market share (CONC), free cash flow (FCF), firm age (AGE) and leverage (LEV). We find several of the control variables have slopes that confirm these expectations.

Board diligence is likely to increase with institutional ownership as these investors demand more monitoring. Better quality auditors supply good monitoring and may compensate for any slack because of busy or irregular directors, so we expect high quality auditors to result in more busyness and less diligence. Cross-listed firms have to comply with more regulations and hence require better quality boards i.e. lower busyness and higher diligence. Using the measures in Jeanjean and Stolowy (2009), the control variables we use for board busyness and diligence are firm size (SIZE), firm value (Q), return on assets (ROA), institutional ownership (INSTOWN) and auditor type (BIGFOUR). The slopes on most control variables confirm our expectations.

The next two tables test hypothesis 2 using the second model, where we examine if the institutional environment of the target country affects changes in corporate governance. The level of investor protection is our proxy for the country's institutional environment. We operationalize it using a dummy variable that equals one if: (i) shareholder protection index of the DM country is better than India's (ii) creditor protection index of the DM country is better than India's. Country level investor

protection scores are calculated using data from La Porta et al. (1998), Djankov, McLiesh and Shleifer (2007) and Djankov et al. (2008). Following prior studies, we calculate shareholder protection score as revised anti-director rights index multiplied by the efficiency of the judicial system, and similarly creditor protection score as creditor rights index multiplied by the efficiency of the judicial system. It is worth noting that since India has adopted UK legal system, in terms of the laws-in-place it ranks among the best in terms of the anti-directors and creditors rights indices. On the other hand, the enforcement is substantially weak, which brings down the investor protection scores significantly implying a relatively weaker institutional environment for the investors. Based on hypothesis 2, we expect that a better institutional environment brought through DM acquisitions will improve monitoring and reduce agency costs.

Table 7 reports the results of equation 2 for the three classes of equity owners; we expect the investor protection dummies to have a positive slope for institutional and FII ownership, and a negative slope for promoter ownership. We find that the coefficients on *Shareholder_prot* dummy confirm our expectations for institutionl, FII and promoter ownership, significant at 5%, 10% and 5%, respectively. The coefficients on *Creditor_prot* dummy confirm our expectations for institutional ownership only, significant at 5%. The control variables are the same as in Table 5 and have the expected signs.

Table 8 reports the results of equation 2 for the three measures of board characteristics. *Shareholder_prot* dummy is significantly positive for board independence and diligence (at 1%) and negative for board busyness (though not significant). The *Creditor_prot* dummy is significantly positive for board independence and diligence at

10%. The coefficients on control variables are mostly consistent with those in Table 6. Overall, these results suggest evidence that Indian firms are more likely to adjust firm-level governance mechanisms when the institutional environment improves via cross-border M&As with DM firms.

4.3. Valuation

Our third hypothesis implies that an acquirer's valuation increases if the target firm is located in a developed market because of lower cost of capital due to improvement in firm governance. Similar to the first group of tests in section 4.2, our setting uses pooled data that includes the control sample as well as the treatment sample.

Table 9 reports the results of equation 3, focusing on the role of DM and equity ownership structure on firm valuation. The dependent variable is the industry-adjusted Tobin's Q. As earlier, three classes of investors are considered: institutional, FII and promoters. Two alternative measures of ownership are considered for each of the three class of investors: the percentage owned at the end of the effective year (GOV) and the change in percentage owned at the end of the year t+1 relative to percentage owned at the end of the year t-1 (GOV_DIFF). So in all, there are six columns in Table 9, for these combinations. Note that DM coefficient is significant in almost all specifications indicating that the valuation (industry adjusted Tobin's Q) is higher when the target is located in a DM nation. In the first column, the level of institutional ownership is not significant. The second column shows that the acquirer's valuation is affected more so for firms when institutional ownership has increased. In particular, a one percent increase in ownership when the target is located in a DM nation increases valuation by 0.220,

significant at 1%. The next two columns examine the effects of FII ownership on valuation. The results are stronger than those in the first two columns i.e. an increase in FII ownership in such an acquisition causes the valuation to increase further by 0.472 (significant at 1%) for a one percent increase in FII. In addition, unlike the first column, in the third column we find that the valuation is higher by 0.022 (significant at 1%) for every additional percentage of FII. These results confirm the positive effect of increase in institutional and FII ownership if the target is located in a DM nation. The last two columns of Table 9 present the effects of promoter ownership on valuation. Unlike institutional ownership, which is a proxy for monitoring, insider ownership has been found to have an alignment effect at moderate levels and an entrenchment effect at higher levels. The results in column 6 imply that for firms acquiring a target in a DM nation, valuation increases by 0.274 (significant at 1%) for a unit decrease in insider ownership after the acquisition. In all the six columns, the lagged value of Q is always significant at 1% with a coefficient ranging from 0.038 to 0.044, indicating persistence in Tobin's Q.

Similar to Table 9, the results in Table 10 also use equation 3, but replace the three classes of equity ownership with three types of board characteristics as explanatory variables. As above, there are also six columns in Table 10, for the 2x3 combinations. In four out of six columns DM dummy continues to matter at 5% level of significance. However, the acquirer's valuation is higher if the target is located in a DM nation and the acquirer's board characteristics improve after the acquisition. The coefficient for GOV_DIFF*DM using board independence is 0.346 (significant at 1%) and using board diligence is a whopping 1.687 (significant at 5%). We do not get any significant results for board busyness. Overall, results suggest higher valuation associated with changes in

firm governance mechanisms of Indian firms following the cross-border M&As with DM firms.

5. Robustness and additional tests

5.1. Signaling Hypothesis

Although we have examined whether EMNEs "bootstrap" to better corporate governance practices subsequent to the acquiring targets in developed markets, there are other possible explanations regarding our main findings. It is possible that emerging market firms that plan to become global players develop an outward looking strategy and improve their corporate governance to "signal" to firms and markets in developed nations that they can be trusted. If the "signaling" hypothesis is true, we expect the improvement in corporate governance to happen at any time prior to "effective" date of the acquisition, including but not limited to after the "announcement" date. On the other hand, if the "bootstrapping" hypothesis holds, then we expect the improvement in corporate governance to happen subsequent to the "effective" date. It should be noted that "signaling" and "bootstrapping" are not mutually exclusive, and acquirers can engage in both.

In the analysis presented earlier, we have only examined the change in corporate governance *around* the acquisition event to test for "bootstrapping". In Table 11, we report the results of testing the "signaling" story. We examine the changes in ownership and board characteristics within three years leading up to the acquisition (-3, -1) year window for both treatment and matched control group. Except for promoter ownership and board busyness, the changes are not significant. For those dimensions, the changes

are not significantly different than changes for the control group firms. The results are similar using (-2, 0) window.

5.2. Corporate governance reform in India

In order to protect the interests of investors and promote transparency, the Securities Exchange Board of India (SEBI) has attempted to improve the corporate governance practices of Indian companies. In particular, it had formed two task forces[8] to study these issues. Finally, in 2004, the SEBI modified a clause in the Listing Agreement between a company and the stock exchanges. The clause that modified was number 49, so the corporate governance reform is commonly known as "Clause 49". All listed companies had to comply with the clause by 31st December, 2005. The major changes were with regard to the definition of independent directors, ownership patterns, the responsibilities of the audit committees, quality of financial disclosures and certification of financial statements by executive officers. We reexamine our hypotheses by splitting our sample into two time periods – before and after the passage of Clause 49 in 2005. The data for board characteristics is unfortunately not available for period prior to 2005. Thus, we report our results on the changes in the ownership before and after the legislation. The marginal benefit of access to better institutional environment for EM multinationals through cross-border M&As with DM firms decreases once the home-country institutional environment improves. Thus, we expect our results to become weaker for the post-Clause 49 period. Table 12 reports the mean and median changes in ownership in three-year window (-1, +1) for two sub-periods: before and after the Clause 49 legislation

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[8] The Kumaramangalam Birla Committee was formed in 1999 and the Narayana Murthy Committee in 2002.

implemented in 2005. The average change in institutional ownership is much higher and significant (with a mean of 3.6% and a median of 2%) prior to the implementation of Clause 49 than afterwards (the mean change is 1% and median is insignificant). The results are similar for FII ownership, with differences in changes between pre- and post-period are statistically significant for both the mean and the median. The differences for the promoter ownership change results are not as significant though the decrease in promoter ownership is significant on average only prior to 2005. Overall, these results support the argument that monitoring benefits introduced through cross-border M&As with DMs are larger when home country regulations are weaker.

5.3 Sample issues

As is evident from Table 2, our sample is dominated by acquisition of targets from the US (36%) and the UK (19%). In order to ensure that our results are not due to something specific about these two countries and is holds across all developed markets, we repeat our analyses for both governance and valuation regressions after excluding all transactions related to these two countries. The results reported in Table 13 show that our findings mainly continue to hold.

6. Conclusion

In this paper, we find evidence that cross-border acquisitions when the acquirer is located in an emerging economy and the target is located in a developed market, brings certain benefits to the acquirer. In particular, the benefits are improved corporate governance and higher firm valuation. Our findings add to the body of literature that suggests that firms

located in countries with weak investor protection grow by holding themselves up to higher standards via the acquisition route. By voluntarily subjecting themselves to higher levels of corporate governance as applicable in the target firm's nation, these acquirers are able to access global capital markets and increase their valuation.

While there can be many other reasons for such acquisitions, the evidence provided in this paper certainly establishes the importance of good governance in executing a firm's strategy.

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Appendix. Variable Definitions

Variable	Definition	Source
Ownership variables		
Institutional ownership	Institutional investors (% ownership)	Prowess (CMIE)
FII ownership	Foreign institutional investors (% ownership)	Prowess (CMIE)
Promoter ownership	Promoters i.e. insiders (% ownership)	Prowess (CMIE)
Board characteristics variables		
Board independence	Ratio of the number of independent directors divided by the total number of directors	Prowess (CMIE)
Board busyness	Indicator variable that equals 1 if there is at least one board member who serves on the board of another firm, 0 otherwise.	Prowess (CMIE)
Board diligence	Mean value across all board members of the ratio of meetings attended to the total meetings held in a fiscal year	Prowess (CMIE)
Country-level variables		
DM	Dummy variable equals one if target nation is a developed market, zero otherwise	MSCI definition
Shareholder_prot	Revised anti-director rights index (ADRI) multiplied by the efficiency of the judicial system	Djankov et al. (2008), La Porta et al. (1998)
Creditor_prot	Creditor rights index multiplied by the efficiency of the judicial system	Djankov, McLiesh and Shleifer (2007), La Porta et al. (1998)
Firm-level variables		
Tobin's Q	Market Capitalization+ Total Liabilities – Book Value of Equity)/Total Assets	Prowess (CMIE)
Tobin's Q (Ind-adjusted)	Tobin's Q minus industry mean (using 1 digit NIC code)	Prowess (CMIE)
SIZE	Log (Total Assets)	Prowess (CMIE)
MTB	Market Value of Equity /Book Value of Equity	Prowess (CMIE)
ROE	Return on Equity calculated as Net Income/Total Assets	Prowess (CMIE)
ADR/GDR	Dummy equals one if company	Prowess (CMIE)

	has a foreign listing, zero otherwise	
SALES	Log (Net Sales)	Prowess (CMIE)
SQ_SALES	Square of log (Net Sales)	Prowess (CMIE)
K/S	Property, Plant and Equipment / Net Sales	Prowess (CMIE)
Y/S	Operating Income /Net Sales	Prowess (CMIE)
I/K	Capital Expenditures / Property, Plant and Equipment	Prowess (CMIE)
SIGMA	The standard deviation of idiosyncratic stock price risk	Prowess (CMIE)
ROA	Return on Assets calculated as Net Income/Total Assets	Prowess (CMIE)
CONC	Market concentration (HH1)	Prowess (CMIE)
FCF	Free cash flow calculated as Cash holdings /Total Assets	Prowess (CMIE)
AGE	Firm age (log of number of years a firm is listed)	Prowess (CMIE)
LEV	Leverage calculated as (Long-term debt + short-term debt) / (Long-term debt + short-term debt + Common Equity)	Prowess (CMIE)
INSTOWN	Sum of the percentages of voting rights held by shareholders identified as institutional and banks	Prowess (CMIE)
BIGFOUR	Indicator variable that equals 1 for Big 4 affiliated auditors operating in India.[9]	Prowess (CMIE)

[9] The firms associated with PwC are Price Waterhouse & Co., Lovelock & Lewes and Dalal & Shah. Dalal and Shah became a part of the PwC network in India in 2008 (Economic Times, December 27, 2008). The firms associated with Deloitte Touch and Tohmatsu are Deloitte & Touche, Deloitte Haskins & Sells, A F Ferguson & Co., A F Ferguson Associates, S B Billimoria & Co., S B Billimoria & Company, Fraser & Ross,Fraser & Ross Associates. The firms associated with KPMG are B S R & Associates, B S R & Co., B S R & Company. The firms associated with Ernst &Young are S R Batliboi & Associates, S R Batliboi & Co. and S V Ghatalia & Associates.

Table 1
Propensity Score Matching

Panel A. Logistic Regression

Dependent Variable: **DMD**	COEF	Pr>ChiSq
SIZE	0.231	< .0001
MTB	0.011	< .0001
FCF	0.125	0.0019
ROA	2.556	< .0001
LEV	-0.545	< .0001
K/S	-0.003	0.0015
AGE	-0.007	< .0001
ANN_RET	0.025	< .0001
FII ownership	0.015	< .0001
Institutional ownership	0.011	< .0001
Promoter ownership	-0.001	0.1079
Year and Industry FE	Yes	
Log Likelihood	10408.33	
Pseudo R2	0.4567	
N	8,074	

Panel B. Covariate Balance

Variable	Treatment	Control	%bias	t-stat	N
FII ownership	11.467	10.061	1.406	1.34	223
Institutional ownership	20.581	19.087	1.494	1.04	223
Promoter ownership	47.988	49.016	-1.027	-0.52	223
Board independence	0.604	0.654	-0.049	-3.30***	163
Board busyness	4.460	3.509	0.950	2.53**	163
Board diligence	0.774	0.773	0.001	0.05	109
SIZE	9.049	9.433	-0.384	-1.98**	244
MTB	3.733	3.689	0.044	0.07	224
CF/TA	0.084	0.061	0.022	2.12**	240
ROA	0.087	0.080	0.006	0.82	243
LEV	0.255	0.240	0.015	0.76	221
K/S	15.508	-0.725	14.782	-0.94	194
AGE	27.064	32.930	-5.866	-2.72***	244
ANN_RET	0.688	0.489	0.198	1.61	224

The table reports the results of propensity score matching procedure. Panel A reports the results of first-stage logistic regressions to estimate a propensity score where the dependent variable is an acquisition by an Indian firm of a developed market nation target. Panel B reports the means of the covariates after the propensity score matching procedure. The treatment sample includes the acquisitions with developed market targets (DM) and the control sample includes propensity score matched Indian firms that did not engage in any acquisition. The difference in means t-test assumes equal variances and t-statistics are reported.

Table 2
Summary of the Final Sample

Panel A. Indian DM Acquisitions by Target Nation

Target Nation	N	%
Australia	6	4.08%
Belgium	4	2.72%
Canada	7	4.76%
Denmark	1	0.68%
Finland	2	1.36%
France	6	4.08%
Germany	17	11.56%
Italy	7	4.76%
Japan	1	0.68%
Netherlands	8	5.44%
Spain	2	1.36%
Sweden	2	1.36%
Switzerland	1	0.68%
United Kingdom	29	19.73%
United States	54	36.73%
Total	147	100.00%

Panel B. Indian DM Acquisitions by year, industry and deal characteristics

Year	%	Acquirer Industry	%	Deal Characteristics	
2002	3.4%	Food, Agriculture and Textile	7.8%	Diversifying	35.8 %
2003	5.5%	Pharmaceuticals	15.5%	Median Transaction Value	$22.78 mil
2004	9.5%	Metal and Metal Products	6.9%	Median % of shares sought	100 %
2005	12.2%	Transportation	6.9%	Median % of shares acquired	100 %
2006	16.3%	Software and Telecommunications	5.2%	Public acquirer (%)	97.8 %
2007	22.5%	Machinery, Chemicals and Electronics	9.9%	Public target (%)	3.8 %
2008	8.8%	Business services	28.4%	Median % cash payment	100%
2009	8.8%	Other	19.4%	Median % stock payment	56.9%
2010	13.0%				
Total	100.00%	Total	100.00%		

The table summarizes the final sample of acquisitions by Indian firms. Panel A summarizes the number and the frequency of acquisitions by target nation. Panel B summarizes the acquisitions by acquirer industry, year and deal characteristics. The sample includes only the cross-border DM mergers for which firm-level data is available in three-year window (-1, +1) around the effective date of the acquisition. Industry classifications are based on SDC Thomson.

Table 3 - Descriptive Statistics

Category	Variable	Mean	Median	Std Dev	N
Treatment Sample					
Valuation	Tobin's Q (Ind-adjusted)	0.205	0.165	0.301	147
Ownership	Institutional ownership	18.972	17.325	15.278	147
	FII ownership	10.250	7.145	11.189	147
	Promoter ownership	46.410	46.940	18.683	147
Board Characteristics	Board independence	0 .609	0.604	0.126	117
	Board busyness	3.876	3.000	3.244	117
	Board diligence	0.763	0.775	0.105	62
Control Sample					
Valuation	Tobin's Q (Ind-adjusted)	0.208	0.177	0.240	125
Ownership	Institutional ownership	17.840	16.930	15.288	125
	FII ownership	9.314	6.541	10.178	125
	Promoter ownership	47.463	50.832	20.645	125
Board Characteristics	Board independence	0 660	0.667	0.133	92
	Board busyness	3.597	3.000	3.056	92
	Board diligence	0.804	0.825	0.126	53

The table provides mean, median and standard deviation of firm financial and governance variables for Indian acquirers. Tobin's Q is calculated as market value of equity divided by book value of long-term debt and equity and adjusted by the industry median. Industries are classified based on the NIC code.

Table 4 – Change in corporate governance and valuation after acquisition

Category	Variable (post-pre)	Treatment	Control	Difference	t	Kruskal-Wallis	N
Valuation	Tobin's Q (Ind-adjusted)	-0.093	-0.398	0.304	0.84	1.91*	147
Ownership	FII ownership	1.956***	0.365	**1.591**	2.06**	1.83*	147
	Institutional ownership	2.305***	0.264	**2.041**	2.21**	2.15**	147
	Promoter ownership	-3.012***	-0.330	**-2.682**	-2.53***	0.97	147
Board Characteristics	Board independence	0.026***	-0.001	**0.028**	1.86**	0.83	117
	Board busyness	-1.273***	-1.367***	0.094	0.32	1.10	117
	Board diligence	0.032**	-0.003	0.035	1.28	1.69*	62

The table reports the means of the change in corporate governance variables a year before and after the effective date of the acquisition. The treatment sample includes the acquisitions with developed market targets (DM) and the control sample includes propensity score matched Indian firms that did not engage in any acquisition. The significance levels of the means are based on t-tests. The difference in means t-test assumes equal variances. Tests of median differences are based on Kruskal-Wallis test. The symbols ***, ** and * denote significance at 1, 5 and 10 percent levels, respectively.

Table5- Change in Corporate Governance- Institutional and Insider Ownership

Dependent Variable	Institutional Ownership	FII Ownership	Promoter Ownership
DM	4.434*	7.392**	-2.470**
	(2.22)	(3.16)	(-2.33)
SIZE	0.127**	0.398***	
	(2.86)	(3.66)	
MTB	0.778**	0.811**	
	(2.57)	(3.01)	
ROE	3.399	2.120	
	(1.31)	(1.09)	
ADRGDR		17.16***	
		(3.66)	
SALES			-5.442*
			(-2.28)
SQ_SALES			0.395**
			(2.52)
K/S			-0.213*
			(-1.95)
Y/S			0.108*
			(2.21)
I/K			1.193
			(0.78)
SIGMA			0.277
			(0.25)
Control variables (interactions)	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
N	232	232	212
Adj R-squared	0.129	0.180	0.272

This table reports the results of the panel regressions where the dependent variable is change in institutional and insider ownership a year before and after the effective date of the acquisition. DM is a dummy equals one if the Indian firm engaged in a developed market firm acquisition and zero otherwise. All variable definitions are provided in Appendix. Mean coefficient estimates are reported with t-statistics in parentheses. Standard errors are robust and corrected for clustering at firm level. The symbols ***, ** and * denote significance at 1, 5 and 10 percent levels, respectively.

Table 6- Change in Corporate Governance- Board Characteristics

Dependent Variable	Board Independence	Board Busyness	Board Diligence
DM	0.238**	-3.762**	0.051
	(2.46)	(-2.10)	(0.28)
SIZE	0.007	-0.332**	0.019
	(1.18)	(-2.36)	(1.58)
Q	0.015**	-0.075	-0.012**
	(2.19)	(-0.46)	(-2.54)
ROA	-0.169	-3.286	0.295
	(-1.11)	(-0.85)	(0.76)
CONC	0.711***		
	(3.59)		
FCF	0.088		
	(0.62)		
AGE	0.006		
	(0.45)		
LEV	-0.693		
	(-0.43)		
INSTOWN		-0.044	0.006**
		(-1.30)	(2.72)
BIGFOUR		0.226	0.563*
		(0.56)	(1.66)
Control variables (interactions)	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
N	182	182	76
Adj R-squared	0.059	0.275	0.119

This table reports the results of the panel regressions where the dependent variable is change in board characteristics a year before and after the effective date of the acquisition. DM is a dummy equals one if the Indian firm engaged in a developed market firm acquisition and zero otherwise. All variable definitions are provided in Appendix. Mean coefficient estimates are reported with t-statistics in parentheses. Standard errors are robust and corrected for clustering at firm level. The symbols ***, ** and * denote significance at 1, 5 and 10 percent levels, respectively.

Table 7- Change in Corporate Governance (Ownership) and Country-level Regulations

Dependent Variable	Institutional Ownership	Institutional Ownership	FII Ownership	FII Ownership	Promoter Ownership	Promoter Ownership
Shareholder_prot	**4.196****		**9.348*****		**-2.511****	
	(2.56)		**(3.05)**		**(2.56)**	
Creditor_prot		**6.889****		4.563		-1.195
		(2.15)		(0.84)		(1.16)
SIZE	-0.748**	-0.817**	-0.779***	-0.713***		
	(-2.24)	(-2.96)	(-4.02)	(-3.14)		
MTB	0.416***	0.413***	0.320*	0.325**		
	(3.83)	(4.54)	(2.13)	(2.27)		
ROE	-7.867***	-5.200	-5.468	4.257		
	(-3.32)	(-1.26)	(-1.66)	(1.72)		
ADRGDR			-0.149	8.213***		
			(-0.16)	(5.28)		
SALES					-8.710***	-7.134
					(-3.56)	(-0.71)
SQ_SALES					0.547***	0.216
					(3.96)	(0.36)
K/S					-0.191	-0.319
					(-1.36)	(-0.35)
Y/S					1.149**	2.515***
					(2.85)	(4.44)
SIGMA					-1.440**	-1.762***
					(-2.35)	(-3.43)
Control variables (interactions)	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
N	117	117	117	117	117	117
Adj R-squared	0.090	0.093	0.123	0.128	0.178	0.146

This table reports the results of the panel regressions where the dependent variable is change in institutional and insider ownership a year before and after the effective date of the acquisition. *Shareholder_prot* is a dummy equals one if target nation shareholder protection score is higher than India's. *Creditor_prot* is a dummy equals one if target nation creditor protection score is higher than India's. All variable definitions are provided in Appendix. Mean coefficient estimates are reported with t-statistics in parentheses. Standard errors are robust and corrected for clustering in target country. The symbols ***, ** and * denote significance at 1, 5 and 10 percent levels, respectively.

Table 8- Change in Corporate Governance (Board Characteristics) and Country-level Regulations

Dependent Variable	Board Indep.	Board Indep.	Board Busyness	Board Busyness	Board Diligence	Board Diligence
Shareholder_prot	0.688*** (3.74)		-2.100 (-0.723)		0.999*** (5.57)	
Creditor_prot		0.335* (1.84)		-3.555 (-1.25)		0.073* (2.02)
SIZE	-0.044** (-2.53)	-0.029* (-1.99)	-0.721* (-1.96)	0.093 (0.24)	-0.068*** (-4.39)	-0.069** (-3.28)
Q	0.017** (2.61)	0.007 (1.76)	-0.559*** (-5.05)	-0.410*** (-4.40)	0.035 (1.23)	0.030* (1.99)
ROA	-1.068*** (-3.49)	-0.220 (-0.94)	10.150*** (3.69)	9.638** (2.41)	0.437 (1.06)	-0.431* (-1.97)
CONC	0.025 (0.31)	0.504** (2.22)				
FCF	-0.076 (-0.28)	-0.106 (-0.41)				
AGE	-0.006 (-0.39)	-0.015 (-0.93)				
LEV	-0.060 (-1.18)	-0.088 (-1.49)				
INSTOWN			0.010 (0.49)	0.056 (0.67)	0.017*** (4.38)	0.004 (0.27)
BIGFOUR			-0.717*** (-3.58)	-2.701 (-0.57)	0.671*** (3.74)	0.786*** (6.21)
Control variables(interactions)	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	No	No
N	97	97	97	97	46	46
Adj R-squared	0.287	0.229	0.130	0.295	0.163	0.157

This table reports the results of the panel regressions where the dependent variable is change in board characteristics a year before and after the effective date of the acquisition. *Shareholder_prot* is a dummy equals one if target nation shareholder protection score is higher than India's. *Creditor_prot* is a dummy equals one if target nation creditor protection score is higher than India's. All variable definitions are provided in Appendix. Mean coefficient estimates are reported with t-statistics in parentheses. Standard errors are robust and corrected for clustering in target country. The symbols ***, ** and * denote significance at 1, 5 and 10 percent levels, respectively.

Table 9- Tobin's Q and Corporate Governance (Ownership)

Governance Variable	Institutional Ownership	Institutional Ownership	FII Ownership	FII Ownership	Promoter Ownership	Promoter Ownership
DM	**0.657***	**0.645***	0.522	**0.598***	**0.729***	**0.769***
	(1.88)	**(1.91)**	(1.56)	**(1.79)**	**(3.16)**	**(3.80)**
Q (t-1)	0.043***	0.044***	0.040***	0.041***	0.044***	0.038***
	(3.26)	(3.34)	(3.16)	(3.25)	(3.38)	(2.91)
GOV	0.004		0.022***		-0.003	
	(1.06)		(4.73)		(-1.33)	
GOV*DM	-0.004		0.023***		0.004	
	(-0.89)		(3.77)		(1.13)	
GOV_DIFF		-0.104		0.271***		0.142
		(-1.15)		(2.99)		(1.20)
GOV_DIFF*DM		**0.220***		**0.472***		**-0.274***
		(1.78)		**(3.72)**		**(-3.11)**
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Interaction variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
N	264	264	264	264	264	264
Adj R-squared	0.459	0.462	0.477	0.487	0.460	0.474

This table reports the results of the panel regressions where the dependent variable is Tobin's Q a year after the effective date of the acquisition. Q (t-1) is the lagged Tobin's Q. DM is a dummy equals one if the Indian firm engaged in a developed market firm acquisition and zero otherwise. GOV is the lagged corporate governance characteristic (ownership). GOVDIFF is a dummy equals one if institutional/fii/insider ownership increases following a year after acquisition and zero otherwise. Firm control variables are lagged and include: size, market-to-book, return on assets, leverage and free cash flows as well as interaction variables. All variable definitions are provided in Appendix. Mean coefficient estimates are reported with t-statistics in parentheses. Standard errors are robust and corrected for clustering at firm level. The symbols ***, ** and * denote significance at 1, 5 and 10 percent levels, respectively.

Table 10- Tobin's Q and Corporate Governance (Board Characteristics)

Governance Variable	Board Independence	Board Independence	Board Busyness	Board Busyness	Board Diligence	Board Diligence
DM	**-0.461**	**0.767****	**0.953*****	**0.963****	**0.568**	**0.540****
	(-0.87)	**(2.17)**	**(2.70)**	**(2.19)**	**(1.36)**	**(1.99)**
Q (t-1)	0.052***	0.043***	0.041*	0.043***	0.053***	0.045***
	(3.80)	(3.26)	(1.79)	(3.27)	(3.87)	(3.47)
GOV	0.770*		0.287		-0.011	
	(1.72)		(0.34)		(-0.77)	
GOV*DM	0.865		-0.209		0.195**	
	(1.48)		(-0.34)		(2.14)	
GOV_DIFF		0.124		0.232		0.346***
		(0.27)		(1.19)		(2.84)
GOV_DIFF*DM		**0.346*****		**-0.239**		**1.687****
		(2.84)		**(-0.96)**		**(2.27)**
Firm-level controls	Yes	Yes	Yes	Yes	Yes	Yes
Interaction variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
N	196	196	196	196	175	175
Adj R-squared	0.461	0.489	0.457	0.391	0.446	0.459

This table reports the results of the panel regressions where the dependent variable is Tobin's Q a year after the effective date of the acquisition. Q (t-1) is the lagged Tobin's Q. DM is a dummy equals one if the Indian firm engaged in a developed market firm acquisition and zero otherwise. GOV is the lagged corporate governance characteristic (board characteristics). GOV_DIFF is a dummy equals one if the absolute change in board independence/busyness/diligence increases a year after the acquisition and zero otherwise. Firm control variables are lagged and include: size, market-to-book, return on assets, leverage and free cash flows as well as interaction variables. All variable definitions are provided in Appendix. Mean coefficient estimates are reported with t-statistics in parentheses. Standard errors are robust and corrected for clustering at firm level. The symbols ***, ** and * denote significance at 1, 5 and 10 percent levels, respectively.

Table 11- Changes in Corporate Governance before the acquisition

Ownership	Treatment	Control	Difference	(p-value)
Institutional Ownership	0.514	0.464	0.050	(0.3676)
Foreign Institutional (FII) Ownership	0.410	0.361	0.049	(0.3463)
Promoter Ownership	-1.608*	-1.837**	0.229	(0.4176)

Board Characteristics	Treatment	Control	Difference	(p-value)
Board Independence	0.014	0.009	0.005	(0.4415)
Board Busyness	-1.560***	-1.343***	-0.217	(0.2690)
Board Diligence	0.004	0.001	0.003	(0.1864)

The table reports the means of the change in ownership variables three years leading to the acquisition ((-3, -1) year window). The treatment sample includes the acquisitions with developed market targets (DM) and the control sample includes propensity score matched Indian firms that did not engage in any acquisition. The significance tests are based on t-test. The significance levels of the means are based on t-tests. The difference in means t-test assumes equal variances. The symbols ***, ** and * denote significance at 1, 5 and 10 percent levels, respectively. *P-values* for two sample tests are reported.

Table 12- Changes in Ownership before and after Clause 49

	MEAN			MEDIAN		
	Before 2005	After 2005	(p-value)	Before 2005	After 2005	(p-value)
Institutional Ownership	4.538*** (27)	1.802* (120)	(0.0030)	2.405** (27)	0.940 (120)	(0.0026)
Foreign Institutional Ownership	3.991*** (27)	1.498** (120)	(0.0009)	4.185*** (27)	0.795 (120)	(0.0001)
Promoter Ownership	-4.172** (27)	-2.752*** (120)	(0.2754)	-0.121 (27)	-0.010 (120)	(0.0405)

The table reports the means and medians of the change in ownership variables for DM acquirers a year before and after the effective date of the acquisition for both before and after the implementation of Clause 49. The significance tests are based on t-test for means and Wilcoxon signed-rank test for medians. The symbols ***, ** and * denote significance at 1, 5 and 10 percent levels, respectively. *P-values* for two sample tests are reported. The two sample t-test assumes unequal variances. Tests of median differences are based on Kruskal-Wallis test.

Table 13- Alternative Samples

Panel A. Excluding UK Targets

Dependent Variable	Institutional Ownership	Promoter Ownership	Board Independence	Board Busyness	Tobin's Q (Inst Own.)	Tobin's Q (Prom Own.)	Tobin's Q (Board Indep.)	Tobin's Q (Board Bus.)
DM	10.08*	-19.410**	8.408***	1.316	0.775	0.632	0.043***	0.032*
	(1.66)	(2.54)	(10.12)	(0.40)	(1.48)	(1.26)	(3.07)	(1.95)
GOV_DIFF*DM					0.360*	-0.291**	0.518***	-0.373**
					(1.83)	(-2.10)	(2.76)	(-2.50)
Control variables (interactions)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	195	176	46	43	220	220	119	119
Adj R-squared	0.160	0.365	0.239	0.142	0.280	0.361	0.475	0.391

Panel B. Excluding US Targets

Dependent Variable	Institutional Ownership	Promoter Ownership	Board Independence	Board Busyness	Tobin's Q (Inst Own.)	Tobin's Q (Prom Own.)	Tobin's Q (Board Indep.)	Tobin's Q (Board Bus.)
DM	-1.619	-6.07**	1.071***	-5.284	0.172*	0.603**	0.077	0.368
	(-0.234)	(-3.04)	(4.44)	(-1.51)	(1.82)	(2.61)	(1.21)	(1.63)
GOV_DIFF*DM					0.028***	-0.0310**	0.039*	-0.066
					(2.89)	(-2.51)	(1.75)	(-1.39)
Control variables (interactions)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	143	130	48	36	154	154	89	89
Adj R-squared	0.114	0.168	0.262	0.082	0.373	0.453	0.349	0.264

This table reports the results of the panel regressions where the dependent variable is change in ownership/board characteristics a year before and after the effective date of the acquisition and Tobin's Q a year after the effective date of the acquisition. DM is a dummy equals one if the Indian firm engaged in a developed market firm acquisition and zero otherwise. Panel A excludes the acquisitions where the target nation is United Kingdom. Panel B excludes the acquisitions where the target nation is United States. GOV_DIFF is a dummy equals one if the absolute change in institutional ownership/promoter ownership/board independence/ board busyness increases a year after the acquisition and zero otherwise. Firm control variables are consistent with the prior regressions and include interaction variables. All variable definitions are provided in Appendix. Mean coefficient estimates are reported with t-statistics in parentheses. Standard errors are robust and corrected for clustering at firm level. The symbols ***, ** and * denote significance at 1, 5 and 10 percent levels, respectively.