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Global board reforms and corporate acquisition performance

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ABSTRACT

This paper examines the effect of board reforms on corporate acquisition performance using data from 31 countries. Using a difference-in-differences design, we find that the implementation of board reforms in the acquirer's country significantly increases acquirer returns. The increase is driven by reforms involving board independence, but not reforms involving audit committee independence nor the separation of CEO and board chair roles. Further analysis shows that the uplift in acquisition performance following improvements in board independence is strongest in acquirers with more agency problems. The 'Board reform strengthening' effect is concentrated in larger acquirers, with more free cash flows, executing large and public-target deals and operating in countries with ex-ante poor investor protection. The empirical evidence indicates that reforming board independence effectively alleviates agency problems between managers and shareholders and improves corporate acquisition performance.

1. Introduction

With serious corporate scandals and managerial misconduct that repeatedly surface around the world, many countries have realized the criticality of strengthening corporate governance systems. Corporate board reforms have been extensively implemented since the late 1990s and they include the requirements of board independence, audit committee independence, and the clear separation of board chair and CEO roles. In this paper, we examine the effect of these different types of board reforms around the world on corporate acquisition performance. As prior studies have established that entrenched managers often make self-serving acquisitions and this can result in the significant destruction of shareholder value (Masulis et al., 2007; Harford et al., 2012), it warrants this global investigation into whether the implementation of different types of board reforms can restrain managers from making self-serving acquisitions and thence improve corporate acquisition performance.

How board reforms affect corporate acquisition performance is a central empirical question that we address in this study as the relationship is not clear ex ante. On the one hand, agency theory suggests that raising corporate governance standards through strengthening board independence can alleviate agency problems between managers and shareholders and should thereby improve acquisition performance (hence we term this the 'Board reform strengthening' view). For example, Nguyen and Nielsen (2010) show that following the sudden death of independent directors, stock prices on average drop by 0.85%, which indicates that independent directors add value to firms. In the vein of alleviating agency conflicts, Guo and Masulis (2015) find that CEO turnover is more sensitive

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to firm performance in firms with independent boards, suggesting that independent directors are able to discipline entrenched managers. Lastly, most relevant to our study, Masulis and Zhang (2019) find that firms with more preoccupied (distracted) independent directors perform worse in corporate acquisitions, which suggests that independent directors are valuable in acquisition decisions.

However, on the other hand, critics of board reforms suggest that independent directors often face limited access to firm-specific information, which reduces their monitoring and advisory effectiveness (Raheja, 2005; Adams and Ferreira, 2007; Duchin et al., 2010; Masulis and Mobbs, 2011). Furthermore, others argue that independent directors lack sufficient industry knowledge and expertise needed for advisory and only hold small equity stakes in firms which limits their financial incentives (Harris and Raviv, 2008). Most relevant to our study, Faleye et al. (2011) document that firms with independent directors that monitor intensively exhibit worse acquisition performance, suggesting that the negative advisory effects associated with independent directors may outweigh the benefits of improved monitoring. These insights indicate that the implementation of board reforms may adversely affect acquisition performance (which we term the 'Board reform weakening' view). Therefore, whether global board reforms enhance or impede the success of corporate acquisitions remains an important empirical question.

We investigate this research question using a comprehensive sample of acquisitions from 31 countries around the world. We use the global board reforms identified by Fauver et al. (2017), which the authors identified from various sources including the World Bank, European Corporate Governance Institute, local stock exchange regulators, and prior academic studies. Acquisition performance is measured using cumulative abnormal stock returns around the acquisition announcement. The results from our baseline difference-in-differences (DID) regression analysis show that the implementation of global board reforms in the acquirer's country increases acquirer returns. The finding is robust to controlling for various time-varying country and firm-specific characteristics, as well as acquirer country fixed effects, target country fixed effects, industry fixed effects and year fixed effects. In terms of economic importance, we find that 5-day cumulative abnormal stock returns around the acquisition announcement are on average 1.94% higher after the implementation of board reforms, which translates into an increase of $93 million in shareholder value for the average acquirer in our sample.

We further examine whether the documented effect of global board reforms on corporate acquisition performance is driven by potential nonparallel acquisition performance trends before these reforms. We conduct dynamic DID tests and find that the effect on acquisition performance is immediate and persists from the first year after the reform year but does not exist in the years prior to the reform. This empirical evidence lends support to a causal interpretation of the relationship between global board reforms and acquisition performance. To further sharpen our identification, we also conduct placebo tests by falsely assuming that the first board reform occurs in the two years before, one year before, one year after, or two years after the actual reform year. We do not find any significant effect on acquisition performance from these placebo tests. Taken together, the findings from our dynamic DID and placebo tests suggest that the parallel-trends assumption for the DID approach is satisfied and the documented effect of global board reforms on corporate acquisition performance is most likely causal.

We further conduct multiple robustness checks for the documented positive effect of global board reforms on corporate acquisition performance. First, we confirm that the positive effect of board reforms on acquisition performance is driven by the implementation of board reforms in the acquirer's country rather than the target's country. Second, we control for industry-year fixed effects in our results and find stronger effects suggesting that our results are not driven by industry economic shocks or merger waves. Third, we follow the suggestion by Baker et al. (2021) and end our sample before the final board reform in 2006 and find qualitatively similar effects. Fourth, we measure acquisition performance using narrower three-day cumulative abnormal returns rather than five-day cumulative abnormal returns and we find qualitatively similar results. Fifth, we also examine the effect of board reforms on profitability and sales growth for the acquirer, as value creation should be eventually realized if the acquisition truly creates value for shareholders. We indeed find a significant positive effect of board reforms on acquirers' profitability and sales growth.

Next, we examine which specific components of board reforms contribute to the increase in acquisition performance. We find that reforms on board independence, but not the requirement of audit committee independence nor the separation of the CEO and Chairman positions, drive the documented increase in acquisition performance. This result is consistent with the finding from Masulis and Zhang (2019) that firms with more preoccupied independent directors perform worse in corporate acquisitions.

Lastly, we examine the channels through which global board reforms increase acquisition performance. We reason that raising board independence can alleviate the well-documented agency problems between managers and shareholders and should thereby improve acquisition performance. To validate our reasoning, we conduct three additional tests.

First, we examine the types of acquirers that are driving the positive effect of board reforms on acquisition performance. Prior literature suggests that large firm size serves as an effective takeover defense as it is more difficult to acquire a large target (Masulis et al., 2007). In addition, managers in firms with large amounts of free cash flows are more likely to make self-serving acquisitions if not carefully monitored. We therefore expect that the positive effect of board reforms on acquisition performance should be driven by these firms as managers in these firms are more likely to conduct self-serving acquisitions without adequate monitoring by independent directors. Our results show that the positive effect of board reforms on acquisition performance is indeed stronger in larger firms and firms with higher levels of free cash flows.

Second, we examine the types of deals that are driving the positive effect of board reforms on acquisition performance. Prior studies suggest that entrenched managers are more likely to conduct self-serving large acquisitions due to empire-building motives (Masulis et al., 2007). Moreover, entrenched managers often avoid private targets as they are more likely to face large blockholder(s) in private firms that can monitor and discipline them going forwards (Harford et al., 2012). We find that the positive effect of board reforms on acquisition performance is driven by large deals and public-target deals, which is consistent with prior studies that suggest these deals are likely to be self-serving acquisitions conducted by managers who are not being carefully monitored.

Third, we examine the effect of board reforms on acquisition performance conditional on the level of investor protection in a country. Prior studies find that managers in countries with poor investor protection are more likely to extract private benefits because they are less likely to lose their jobs through the market for corporate control (Pinkowitz et al., 2006; Doidge et al., 2007). We therefore expect that the implementation of board reforms should be highly effective in these countries offering weak investor protection. Using shareholder rights and creditor rights as proxies for investor protection, we find that indeed the positive effect of board reforms on acquisition performance is concentrated in countries with poor investor protection.

Our study contributes to the relatively scant literature on the effect of independent director representation and corporate acquisition performance. Early research by Byrd and Hickman (1992) find using a sample of tender offers that independent boards increase bidder returns, but it fails to account for the endogeneity of board structure (Hermalin and Weisbash, 2003). More recently, papers that use shock-based settings to examine the causal effect of independent director representation and corporate acquisition performance provide mixed results. For example, Masulis and Zhang (2019) show that independent directors add value to acquisition decisions, while Faleye et al. (2011) document that independent directors are potentially detrimental to acquisition performance. Different from the prior studies which focuses only on U.S. acquirers, we use global board reforms as an exogenous shock to board independence to study the effect of independent director representation on corporate acquisition performance around the world. The role of legal institutions as external governance mechanisms has been shown to have an impact on the efficacy of internal governance structures (Leuz et al., 2003; Djankov et al., 2008), hence it is important to examine the effect of board independence in different countries. In this paper, we contribute to the literature by showing that raising independent director representation increases acquisition performance globally and the effect is unambiguously concentrated in countries with weak external governance mechanisms.

Our study also adds to the recent studies that investigate the effect of global board reforms on corporate outcomes. Fauver et al. (2017) document a positive effect of global board reforms on firm valuation. Chen et al. (2020) show that board reforms lead to a reduction in cash holdings. Hu et al. (2020) show that stock price crash risk reduces following board reforms. Li et al. (2020) show that the cost of equity increases for firms after the implementation of board reforms. Bae et al. (2021) find that firms pay higher dividends following board reforms. Ben-Nasr et al. (2021) document that board reforms reduce firms' bank debt ratios. Chen et al. (2022) show that board reforms are associated with a significant reduction in IPO underpricing. Hui et al. (2023) document an increase in loan spreads following board reforms. Surprisingly, there is a dearth of attention on examining the effect of global board reforms on mergers and acquisitions, the largest form of corporate investment. Board reforms are implemented with the aim of reducing the conflict of interests between managers and shareholders, and these potential conflicts are often the highest in mergers and acquisitions decisions because managers can receive large increases in compensation (which is often linked to firm size) and status if they can make self-serving empire building acquisitions. Therefore, it is surprising that no prior study has examined the effect of global board reforms on mergers and acquisitions, since the reduction in large value-destroying acquisitions is likely to be one of the key drivers underpinning the increase in firm value documented in Fauver et al. (2017). In this paper, we fill this void in the extant literature by documenting that the implementation of board reforms improves the performance of corporate acquisitions.

Our paper is most closely related to Kim and Lu (2013) showing that corporate governance reforms affect the ability of foreign acquirers to cherry-pick their targets in emerging markets. However, this study differs from theirs in that we detail the impact of board reforms on local acquirers' corporate acquisition performance and we show that not all board reforms are the same and it is specifically those reforms enhancing board independence that strongly support acquirers and improves their corporate acquisition performance. Furthermore, we highlight that the effectiveness of reforms that strengthen board independence are conditional on the efficacy of the institutional environment in protecting investors and that both the monitoring and advisory functions of independent directors are important. There are clear policy implications from our findings on the types of board reforms that policy makers and standard setters should collectively prioritize to improve corporate governance standards.

The remainder of the paper is organized as follows. Section 2 describes the data sources and research design. Section 3 presents the empirical results on the effect of global board reforms on corporate acquisition performance. Section 4 examines the channels through which global board reforms affect corporate acquisition performance. Section 5 concludes.

2. Data sources, sample selection and research design

In this section, we describe our data sources, sample selection, summary statistics, and research design.

2.1. Data sources and sample selection

The data used in this study are obtained from multiple sources. We begin by obtaining board reforms data compiled by Fauver et al. (2017), who identified board reforms data from 31 countries using various sources including the World Bank, European Corporate Governance Institute, local stock exchange regulators, and prior academic studies (Kim and Lu, 2013). For each board reform, Fauver et al. (2017) identify the reform year and reform component, which includes the requirement of board independence, audit committee independence and separation of the CEO and chairman positions. For countries with multiple board reforms, we focus on the first board reform since it represents a more plausibly exogenous shift towards better corporate governance. To reduce the concerns of confounding events, we follow Fauver et al. (2017) and restrict the sample to five years before and five years after each reform adoption (i.e., we only include acquisitions from five years before to five years after the acquirer country's reform implementation year). We also exclude acquisitions conducted during the reform year since the actual timing of the reform within a year is unknown to us.

Next, we collect corporate acquisitions data from the Securities Data Company (SDC) M&A database, country-level data from the

World Bank and firm-level data from Compustat and Compustat Global. We only include mergers and acquisitions driven by change in control, where acquirers control less than 5% of the target before the announcement and more than 50% after the transaction.[1] We exclude cross-listed firms in our sample, as they often have to comply with the board governance related listing rules of multiple stock exchanges, which adds noise to our analysis.[2] We also exclude firms located in the United Kingdom as the first board reform in the United Kingdom is implemented in 1992 and Compustat Global does not provide consistent coverage for UK firms in the five years before the reform. Our final sample consists of 5322 acquisitions conducted by 3118 unique acquirers from 31 countries over the time period from 1992 to 2011. Appendix 2 provides the board reform data for these 31 countries reproduced from Fauver et al. (2017), and Table 1 reports the sample distribution by country. The sample is geographically diverse, and the distribution of acquirers per country varies widely. For example, our sample consists of 1545 acquirers from the United States, and only 1 from Colombia.

We control for acquirer and target country-level characteristics as well as acquirer firm-level and deal-level characteristics when examining the effect of global board reforms on corporate acquisition performance. Our country-level controls include the acquirer country's and target country's level and growth rate of GDP, as the level of economic development influences acquisition decisions and target selection (Rossi and Volpin, 2004). Our acquirer firm-level controls include firm size, return on assets, book-to-market ratio and leverage ratio. Managers in large firms are naturally more entrenched and are more likely to make value-destroying acquisitions as firm size serves as an effective takeover defense for potential acquirers. Return on assets controls for the firm's profitability and performance. The effect of book-to-market is ambiguous as Lang et al. (1991) document a negative effect for tender offers and public-firm acquisitions while Moeller et al. (2004) find a positive relation using their sample. The effect of leverage is also ambiguous as leverage on the one hand limits managerial discretion and provides incentives for managers to improve firm performance, while on the other hand managers in firms with higher leverage have incentives to play it safe and are more likely to undertake diversifying acquisitions that have negative announcement returns (Gormley and Matsa, 2016). Our deal level controls include relative deal size, a cross-industry deal indicator, a cross-border deal indicator, the method of payment, target public status and tender offer indicators. We winsorize all continuous variables at the 1st and 99th percentiles. Table 2 reports summary statistics. An average acquirer in our sample has a leverage ratio of 19%, book-to-market ratio of 0.66, and ROA of 7%. The average 5-day cumulative abnormal announcement return for our sample of corporate acquisitions is 1.25% and the size of the average acquisition is 29% of acquirer's market capitalization. Among the acquisitions, 43% are cross-industry deals, 14% are cross-border deals, 7% are tender-offer deals, and 50% are funded entirely by cash. Table 2 also shows that there are significant differences in acquirer firm characteristics, target firm characteristics, and deal characteristics between acquisitions conducted during the pre-reform period and the post-reform period. This is expected as acquirers and targets from different industries in different countries participate in the M&A market each year. These differences all drive differences in acquirer returns. Hence, we need to control for these firm characteristics, country characteristics, deal characteristics, along with country, industry, and year fixed effects in our multivariate analysis to gain a clear understanding on the effect of board reforms on corporate acquisition performance.

2.2. Research design

We exploit the staggered adoption of board reforms across countries and time to examine the effect of board reforms on corporate acquisition performance using a difference-in-differences (DID) design. Specifically, we estimate the following difference-in-differences (DID) regression model:

$$CAR\ (-2,+2)_{i,t} = \alpha + \beta Reform_{j,t} + \gamma Z_{i,j,k,t} + AcquirerCountry_j + TargetCountry_k + Industry_m + Year_t + \varepsilon_{i,j,k,m,t} \quad (1)$$

where i denotes firm, j denotes acquirer country, k denotes target country, m denotes industry and t denotes year. The dependent variable, $CAR\ (-2,+2)_{i,t}$, is the 5-day cumulative acquirer abnormal returns around the acquisition announcement date for firm i in year t. Abnormal returns are calculated by subtracting the acquirer country's stock market return from the acquirer's stock return.[3] The board reform measure, $Reform_{j,t}$, is an indicator variable that takes the value of one for acquisitions conducted within the five years after a country's board reform, and zero for acquisitions conducted within the five years before a country's board reform. $Z_{i,j,k,t}$ is a vector of acquirer-country, target-country, acquirer firm and deal characteristics that are likely to affect a firm's acquisition performance. $AcquirerCountry_j$, $TargetCountry_k$, $Industry_m$ and $Year_t$ capture acquirer country, target country, industry and year fixed effects, respectively. We cluster standard errors by country as board reforms occur at the country-level.[4]

The coefficient of interest is β. It captures the difference between changes in corporate acquisition performance in countries with

[1] We only include deals in which acquirers control less than 5% of the target before the announcement to ensure that the acquirers were not blockholders in the target company before the acquisition, as blockholders often have the ability to influence managerial decisions. As a robustness check, we also re-run our analysis requiring the acquirer to control less than 10%, 20%, or 50% before the acquisition, and present the results in Appendix 3.

[2] We obtain cross-listing data from websites of major depositaries of ADRs: Bank of New York, Citibank, and J.P. Morgan.

[3] As a robustness check, we also calculate cumulative abnormal returns (CARs) of the sample acquirers over the event window (−2, +2) around the announcement date in which the CARs are measured as returns in excess of those predicted by the market model with the benchmark being the country's index and parameters estimated over a period from 300 to 91 days prior to the announcement (Golubov et al., 2015). We present the regression results in Appendix 4.

[4] As a robustness check, we also cluster standard errors by acquirer, industry and year. We present the regression results in Appendix 5.

Table 1
Sample Distribution.

Country	Number of acquirers	Number of acquisitions
Australia	190	250
Belgium	3	3
Brazil	3	3
Canada	3	5
Chile	4	6
China	94	114
Colombia	1	2
Denmark	16	23
Finland	29	63
France	47	59
Germany	46	52
Greece	3	3
Hong Kong (China)	11	15
India	9	9
Indonesia	2	2
Italy	63	93
Japan	563	947
Mexico	2	3
Malaysia	170	228
Netherlands	14	18
Norway	37	69
Philippines	8	10
Poland	13	26
Portugal	2	3
Singapore	85	102
South Korea	43	55
Spain	19	23
Sweden	51	81
Switzerland	10	11
Thailand	32	44
US	1545	3000
Total	3118	5322

This table provides the number of acquirers and number of acquisitions by acquirer country.

Table 2
Summary Statistics.

	Mean	Std. dev.	Q1	Median	Q3	Pre-Reform	Post-Reform	Diff in Mean	Diff in Median
Reform	0.61	0.49	0.00	1.00	1.00				
CAR (−2, +2) (%)	1.25	8.70	−3.15	0.44	4.91	0.96	1.43	−0.47	−0.33
Ln(GDP)	29.08	1.49	28.55	29.90	30.13	29.30	28.94	0.36***	0.77***
GDP Growth (%)	3.35	2.10	1.88	3.51	4.48	3.57	3.21	0.36***	1.62***
Target Ln(GDP)	28.89	1.51	28.13	29.84	29.99	29.08	28.78	0.30***	0.64***
Target GDP Growth (%)	3.42	2.23	1.88	3.51	4.48	3.56	3.33	0.23***	1.62***
Firm Size	5.99	2.15	4.50	5.83	7.30	6.37	5.76	0.61***	0.69***
Book-to-Market	0.66	1.21	0.22	0.42	0.70	0.63	0.67	−0.04	−0.07***
ROA	0.07	0.16	0.03	0.09	0.15	0.06	0.08	−0.02***	0.00
Leverage	0.19	0.18	0.03	0.15	0.30	0.18	0.20	−0.02***	−0.03***
Relative Deal Size	0.29	0.78	0.01	0.05	0.17	0.34	0.25	0.09***	0.04***
Cross-industry	0.43	0.50	0.00	0.00	1.00	0.39	0.46	−0.07***	0.00***
Cross-border	0.14	0.35	0.00	0.00	0.00	0.14	0.15	−0.01	0.00
Cash deal	0.30	0.46	0.00	0.00	1.00	0.20	0.37	−0.17***	0.00***
Private Target	0.50	0.50	0.00	1.00	1.00	0.47	0.52	−0.05***	−1.00***
Tender Offer	0.07	0.25	0.00	0.00	0.00	0.10	0.05	0.05***	0.00***
Takeover Premium (%)	36.48	35.72	14.63	30.68	51.05	42.37	30.37	12***	23.08***

This table provides summary statistics for the variables used in our baseline regressions. All variable definitions are provided in Appendix 1. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

board reforms and those without board reforms during the corresponding years. This approach classifies all firms in countries where board reforms are implemented into the treatment group, and those in countries where reforms are not yet implemented into the control group, which is commonly used in the literature (e.g., Bertrand and Mullainathan, 2003; Gormley and Matsa, 2016). If board reforms increase (decrease) corporate acquisition performance, consistent with the 'Board reform strengthening' ('Board reform weakening') view, we expect β to be significantly positive (negative).

3. Global board reforms and corporate acquisition performance

In this section, we examine the effect of global board reforms on corporate acquisition performance. We first present the difference-in-differences test results and then present the dynamic difference-in-differences, placebo, and robustness test results to rule out that our findings are driven by general macroeconomic conditions unrelated to board reforms. Furthermore, we examine how each of the three components of board reforms affect corporate acquisition performance.

3.1. Difference-in-differences test results

Table 3 presents the difference-in-differences (DID) test results that examines the effect of global board reforms on corporate acquisition performance. We start with a model that regresses abnormal returns on an acquirer country board reform indicator, acquirer and target country's level and growth rate of GDP, along with acquirer firm-level controls. Column 1 of Table 3 reports the results. We find that corporate acquisition performance increases following the implementation of a board reform in the acquirer's country, and the effect is significant at the 10% level. Next, we add deal-level controls into the regression and report the results in Column 2 of Table 3. The positive effect of global board reforms on corporate acquisition performance becomes significant at the 5% level. Finally, we exclude countries with less than 10 unique acquirers in our sample and find that the effect of global board reforms on corporate acquisition performance remains positive and significant at the 5% level, as reported in Column 3 of Table 3. In terms of economic importance, we find that 5-day cumulative acquirer abnormal stock returns around the acquisition announcement are on average 1.94% higher after the implementation of board reforms, which translates into an increase of $93 million in shareholder value

Table 3
Global board reforms and corporate acquisition performance.

Dependent Variable	CAR (−2, +2)		
	Full Sample		Exclude countries with less than 10 unique acquirers
Reform	1.772*	1.941**	2.159**
	(1.985)	(2.163)	(2.384)
Ln(GDP)	2.979*	3.434*	3.235*
	(1.929)	(2.037)	(1.830)
GDP Growth	0.005	0.001	−0.008
	(0.021)	(0.006)	(−0.034)
Target Ln(GDP)	1.389	1.319	1.632
	(0.944)	(0.863)	(1.020)
Target GDP Growth	−0.142	−0.138	−0.152
	(−0.637)	(−0.595)	(−0.629)
Firm Size	−0.655***	−0.569***	−0.571***
	(−14.241)	(−8.959)	(−8.322)
Book-to-Market	−0.077	−0.023	0.004
	(−0.637)	(−0.179)	(0.030)
ROA	0.481	0.256	0.465
	(1.209)	(0.578)	(0.931)
Leverage	0.380	0.599	0.570
	(0.794)	(0.934)	(0.884)
Relative Deal Size		−0.631***	−0.653***
		(−6.852)	(−8.338)
Cross-industry		−0.194	−0.185
		(−1.133)	(−1.111)
Cross-border		−0.743*	−0.688
		(−1.814)	(−1.586)
Cash deal		0.350	0.304
		(1.070)	(0.881)
Private Target		0.096	0.103
		(0.163)	(0.172)
Tender Offer		0.551	0.563
		(1.352)	(1.382)
Acquirer country FE	Yes	Yes	Yes
Target country FE	Yes	Yes	Yes
Industry FE	No	Yes	Yes
Year FE	Yes	Yes	Yes
N	5322	5322	5272
Adjusted R^2	0.060	0.064	0.061

This table presents the effect of global board reforms on corporate acquisition performance. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement. *Reform* is an indicator variable equal to one for the five years after the first board reform of the acquirer country, and zero for the five years before the first board reform of the acquirer country. Appendix 1 presents detailed definitions and constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

for the average acquirer in our sample. Hence, our results are more in line with the 'Board reform strengthening view' with regards to corporate acquisition performance.

The coefficients of our control variables exhibit the expected signs. For example, managers in larger firms are naturally more entrenched and therefore are more likely to make value-destroying acquisitions, large deals are more likely to be value-destroying as these deals are likely to be conducted due to the empire-building motives of the CEO, and stock prices of acquirers in cross-border deals often respond negatively to acquisition announcements as investors are concerned that acquirers usually have worse information than the sellers in cross-border deals (Moeller and Schlingemann, 2005).

Table 4
Global board reforms and corporate acquisition performance: dynamic DID and Placebo Tests.

Panel A: Dynamic DID Test					
Dependent Variable	CAR (−2, +2)				
	(1)	(2)	(3)	(4)	(5)
	Dynamic DID test	Placebo reform 2 years before actual reform	Placebo reform 1 year before actual reform	Placebo reform 1 year after actual reform	Placebo reform 2 years after actual reform
Year (−1)	0.199				
	(0.417)				
Year (+1)	2.096*				
	(2.003)				
Year (+2)	2.207*				
	(1.755)				
Pseudo Reform		0.287	0.710	0.267	−0.177
		(0.256)	(0.727)	(0.355)	(−0.230)
Ln(GDP)	3.504**	3.504**	0.708	4.202*	2.906**
	(2.118)	(2.118)	(0.195)	(1.897)	(2.127)
GDP Growth	−0.005	−0.005	0.084	0.090	0.232
	(−0.019)	(−0.019)	(0.318)	(0.364)	(0.945)
Target Ln(GDP)	1.223	1.223	0.345	−1.456	0.469
	(0.827)	(0.827)	(0.162)	(−1.040)	(0.343)
Target GDP Growth	−0.138	−0.138	−0.148	−0.208	−0.318
	(−0.594)	(−0.594)	(−0.968)	(−0.870)	(−1.452)
Firm Size	−0.570***	−0.570***	−0.534***	−0.608***	−0.590***
	(−9.013)	(−9.013)	(−7.714)	(−6.225)	(−7.218)
Book-to-Market	−0.025	−0.025	0.043	0.045	0.090
	(−0.198)	(−0.198)	(0.319)	(0.269)	(0.891)
ROA	0.255	0.255	0.618	0.240	−0.350
	(0.574)	(0.574)	(1.393)	(0.611)	(−0.671)
Leverage	0.597	0.597	0.651	0.123	0.517
	(0.929)	(0.929)	(0.775)	(0.161)	(0.625)
Relative Deal Size	−0.630***	−0.630***	−0.723***	−0.687***	−0.620***
	(−6.851)	(−6.851)	(−8.882)	(−7.940)	(−4.494)
Cross-industry	−0.192	−0.192	−0.189	−0.055	−0.258
	(−1.115)	(−1.115)	(−1.091)	(−0.231)	(−1.282)
Cross-border	−0.738*	−0.738*	−0.699	−1.247***	−0.563
	(−1.789)	(−1.789)	(−1.352)	(−2.825)	(−1.352)
Cash deal	0.355	0.355	0.180	0.077	0.135
	(1.096)	(1.096)	(0.997)	(0.253)	(0.414)
Private Target	0.096	0.096	0.519	0.300	0.090
	(0.163)	(0.163)	(0.892)	(0.379)	(0.177)
Tender Offer	0.551	0.551	−0.247	0.182	0.159
	(1.348)	(1.348)	(−0.563)	(0.353)	(0.310)
Acquirer country FE	Yes	Yes	Yes	Yes	Yes
Target country FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
N	5322	4100	4861	5759	5644
Adjusted R^2	0.064	0.071	0.071	0.072	0.063

This table presents the dynamic DID regression results and placebo DID regression results on the effect of global board reforms on corporate acquisition performance. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement. For k being −1, 0 or 1, Year(k) is an indicator variable that equals one if year t is the kth year relative to the adoption year of the first board reform of the acquirer country and equals zero otherwise. Year (+2) is an indicator variable that equals one if year t is the 2nd year onward after the adoption year of the first board reform of the acquirer country and equals zero otherwise. We use the first four pre-reform years (years −5 to −2) of the country as the reference years. Panel B reports the placebo DID regression results. Placebo Reform is an indicator variable that equals one for the years after a pseudo reform and equals zero for the years before the pseudo reform. Appendix 1 presents detailed definitions and constructions of the other variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

Table 5
Global board reforms and corporate acquisition performance: robustness tests.

Dependent variable		CAR (−2, +2)			CAR (−1, +1)	ΔIndustry-Adjusted ROA	ΔIndustry-Adjusted Sales Growth
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Control for Difference between Acquirer Reform and Target Reform	Only include cross-border deals and control for target-country board reform	Control for industry-year fixed effects	End our sample in year 2005			
Reform	1.829*	3.683*	2.960***	2.325*	1.468**	0.021**	0.072**
	(1.791)	(1.765)	(4.012)	(2.028)	(2.525)	(3.117)	(3.739)
Ln(GDP)	3.533**	5.197	2.968**	4.396*	2.881***	0.001	−0.004
	(2.096)	(1.390)	(2.298)	(1.818)	(2.895)	(0.281)	(−0.651)
GDP Growth	0.002	−0.060	−0.078	−0.217	−0.122	0.000	−0.005**
	(0.007)	(−0.209)	(−0.378)	(−1.578)	(−0.740)	(1.973)	(−5.401)
Target Ln (GDP)	1.136	2.855	1.704	−0.533	−0.205	−0.006	0.012
	(0.761)	(0.700)	(0.793)	(−0.136)	(−0.122)	(−1.955)	(2.147)
Target GDP Growth	−0.136	−0.208	−0.155	−0.133	−0.022	−0.001***	0.000
	(−0.599)	(−0.938)	(−0.793)	(−0.932)	(−0.167)	(−4.869)	(0.091)
Firm Size	−0.569***	−0.269	−0.539***	−0.553***	−0.413***	0.001***	−0.001**
	(−9.017)	(−1.434)	(−10.621)	(−15.244)	(−6.819)	(5.918)	(−4.461)
Book-to-Market	−0.022	0.133	0.041	0.157	0.097	0.001***	0.001
	(−0.167)	(0.634)	(0.416)	(1.137)	(1.417)	(4.320)	(1.513)
ROA	0.266	−3.172	−0.209	0.002	−0.217	−0.033***	0.010**
	(0.580)	(−1.072)	(−0.378)	(0.003)	(−0.457)	(−17.001)	(4.333)
Leverage	0.610	2.911*	1.014*	0.937*	0.277	0.003***	0.004**
	(0.974)	(1.813)	(1.955)	(1.833)	(0.238)	(12.710)	(4.402)
Relative Deal Size	−0.630***	−1.865***	−0.659***	−0.882***	−0.753***	−0.000***	0.001**
	(−6.794)	(−4.481)	(−10.228)	(−11.167)	(−9.405)	(−27.407)	(5.600)
Cross-industry	−0.194	−0.919**	−0.319	−0.418*	−0.089	−0.000***	0.001
	(−1.138)	(−2.086)	(−1.633)	(−1.857)	(−0.671)	(−6.203)	(1.075)
Cross-border	−0.767*		−0.842*	−0.603	0.026	−0.000	−0.004*
	(−1.760)		(−1.887)	(−0.947)	(0.067)	(−0.440)	(−2.893)
Cash deal	0.350	−0.089	0.363	0.113	0.245	0.002***	0.001**
	(1.067)	(−0.103)	(0.960)	(0.221)	(0.617)	(9.580)	(3.949)
Private Target	0.099	−1.576***	0.216	0.572	0.076	−0.001**	−0.003*
	(0.170)	(−2.887)	(0.354)	(0.762)	(0.139)	(−3.710)	(−2.986)
Tender Offer	0.551	−0.814	1.163**	1.537***	0.668**	−0.000	0.001
	(1.359)	(−0.770)	(2.217)	(3.496)	(2.273)	(−0.728)	(2.245)
Difference in Reform	0.569						
	(0.415)						
Target-country Reform		−1.389					
		(−0.981)					
Acquirer country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Target country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	No	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	No	Yes	Yes	Yes	Yes
Industry-year FE	No	No	Yes	No	No	No	No
N	5322	673	5165	3538	5324	3724	3562
Adjusted R^2	0.060	0.182	0.141	0.142	0.064	0.223	0.140

This table presents the robustness test results for the effect of global board reforms on corporate acquisition performance. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement, CAR (−1, +1) is the three-day cumulative abnormal return around the acquisition announcement, ΔIndustry-Adjusted ROA is the change in acquirer's industry-adjusted ROA from year before the acquisition to the year after the acquisition. ΔIndustry-Adjusted Sales Growth is the change in acquirer's industry-adjusted sales growth from the year

before the acquisition to the year after the acquisition. *Reform* is an indicator variable equal to one for the five years after the first board reform of the acquirer country, and zero for the five years before the first board reform of the acquirer country. Appendix 1 presents detailed definitions and constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

3.2. Dynamic DID and placebo tests

We further conduct dynamic DID and placebo tests to assess whether our results may be driven by concurrent changes unrelated to the board reforms. In our dynamic DID model, we replace the reform indicator with indicator variables that track the effect of board reforms before and after they are adopted and become effective. Specifically, we include the indicator variables Year (−1), Year (+1) and Year (+2). Year (−1) equals one for the year before the reform, and zero otherwise. Year (+1) equals one for the year after the reform, and zero otherwise. Year (+2) equals one for the second and subsequent years after the reform, and zero otherwise. Column 1 of Table 4 presents the results. The coefficient estimate of Year (−1) is insignificantly different from zero, which suggests that the implementation of board reforms are not in response to changes in economic conditions that affected corporate acquisition performance. Moreover, we find that the positive effect of board reforms on corporate acquisition performance materializes in the first year after the implementation of a board reform. Specifically, the results show that cumulative abnormal announcement returns on average increases by 2.1% in the first year after the implementation of a board reform, and the effect lasts from the second year to the fifth year, with the increase in cumulative abnormal announcement returns increasing to 2.2%.

We also conduct a series of placebo tests by falsely assuming that the board reform occurs in the 2 years before the actual reform year, 1 year before the actual reform year, 1 year after the actual reform year, or 2 years after the actual reform year. Similar to our main sample specification, we restrict our sample to between 5 years before and 5 years after each pseudo reform. Columns 2 to 5 of Table 4 report the placebo test results. We do not find any significant effect on acquisition performance from these pseudo reforms. Taken together, the findings from our dynamic DID tests and placebo tests suggests that the documented effect of global board reforms on corporate acquisition performance is most likely to be causal.

3.3. Additional robustness tests

We further conduct multiple robustness checks for the documented positive effect of global board reforms on corporate acquisition performance and present our findings in Table 5. First, there is a possibility that our results are driven by the target country's adoption of a board reform, as in 86% of the deals in our sample the target firm is located in the same country as the acquirer. An alternative interpretation of our results is that board reforms reduces the ability of targets to put up a takeover defense and therefore lowers the cost of acquisition and thereby increases acquirer returns. We examine the effect of board reforms on takeover premium and report the results in Appendix 6. We do not find a significant effect of board reforms on takeover premium. There is also a possibility that the difference in the level of investor protection between the acquirer and the target is driving our results. To address this concern, we control for the relative difference in board reforms between the two countries and report our results in Column 1 of Table 5. We continue to find a significant positive effect of global board reforms on corporate acquisition performance. To further examine whether our results are driven by the target country's adoption of a board reform, we restrict our sample to include only cross-border deals and control for target countries' implementation of board reforms in our regressions. Column 2 of Table 5 presents the results. We find that the documented positive effect of global board reforms on corporate acquisition performance is driven by the acquirer country's implementation of board reforms and not the target country's implementation of board reforms. Overall, these results make sense as managers often hold equity positions in their firms and hence managers in the target firm would act in the best interest of its shareholders when facing a takeover bid regardless of whether they are being carefully monitored or not.

Second, there is a potential concern that the documented positive effect of global board reforms on corporate acquisition performance may be driven by merger waves that occurred in the years around the implementation of board reforms, as Rhodes-Kropf and Viswanathan (2004) document that acquisitions are often overvalued during merger waves. Given that industry-specific economic shocks cause merger waves (Mitchell and Mulherin, 1996), we control for merger waves by controlling for industry-year fixed effects in our regressions. Column 3 of Table 5 shows the results. We find even stronger positive effects of board reforms on corporate acquisition performance with this model specification, ruling out the possibility that our results are specific to reforms occurring during merger waves.

Third, we follow the suggestion by Baker et al. (2021) and end our sample before the final board reform in 2006, as the authors suggest that all countries in the sample have implemented board reforms by 2006 and hence there are no effective control firms after 2005 for the DID tests. Column 4 of Table 5 shows that the documented positive effect of board reforms on corporate acquisition performance remains qualitatively similar with this sample restriction.

Fourth, we use three-day cumulative abnormal returns rather than five-day cumulative abnormal returns to measure acquisition performance and we then reestimate the DID regressions in a sensitivity check. Column 5 of Table 5 shows that the results are qualitatively unchanged.

Fifth, we also examine the effect of board reforms on (industry-adjusted) profitability and sales growth (from *year*-1 to *year* + 1) for the acquirer. These performance metrics are important because the value creation should be eventually realized if the acquisition truly creates value for shareholders, as suggested by Suk and Wang (2021) and Ben-David et al. (2022). Columns 6 and 7 of Table 5 presents the results. We indeed find a significant positive effect of board reforms on profitability and sales growth for the acquirer.

Overall, results from the robustness tests confirm the documented positive effect of global board reforms on corporate acquisition

performance, thereby lending further support for our 'Board reform strengthening' view.

3.4. Components of board reforms and corporate acquisition performance

Next, we examine how each of the three key types of board reforms affect corporate acquisition performance. First, we expect board reforms involving the requirement of board independence to have a positive effect on acquisition performance, as Masulis and Zhang (2019) find that firms with more preoccupied independent directors perform worse in acquisitions which indicates the importance of independent directors. Second, ex-ante the effect of audit committee independence reform on acquisition performance is ambiguous. On the one hand the existing literature documents that audit committee independence is generally related to better corporate transparency and less earnings management rather than investment decision-making (e.g., Carcello and Neal, 2002; Deli and Gillian, 2000; Klein, 2002), and hence we should not expect reforms involving audit committee independence to have a significant effect on corporate acquisition performance. However, on the other hand, Faleye et al. (2011) document that firms with independent directors that monitor intensively exhibit worse acquisition performance, suggesting that audit committee independence reform may have a negative effect on acquisition performance. Third, existing studies document that the existence of CEO-Chairman duality can both harm and improve investment decisions. On the one hand, agency theory suggests that the separation of the CEO and board chair roles help to improve corporate boards' monitoring effectiveness (Fama and Jensen, 1983; Jensen, 1993). On the other hand, organization theory suggests that having CEO-Chairman duality establishes strong and unambiguous leadership which enables the CEO to have

Table 6
Components of board reforms and corporate acquisition performance.

Dependent Variable	CAR (−2, +2)			
	(1)	(2)	(3)	(4)
Board Independence Reform	1.329**			1.627**
	(2.212)			(2.486)
Audit Committee Reform		0.844		−0.638
		(0.912)		(−0.640)
Separation of CEO-Chair Reform			0.532	0.580
			(0.300)	(0.314)
Ln(GDP)	2.712	3.470*	3.085*	2.257
	(1.618)	(2.008)	(1.899)	(1.419)
GDP Growth	0.057	0.019	0.030	0.069
	(0.253)	(0.081)	(0.132)	(0.295)
Target Ln(GDP)	0.716	1.282	1.396	0.665
	(0.483)	(0.828)	(0.954)	(0.470)
Target GDP Growth	−0.132	−0.137	−0.139	−0.131
	(−0.559)	(−0.586)	(−0.596)	(−0.555)
Firm Size	−0.571***	−0.567***	−0.567***	−0.572***
	(−9.061)	(−8.975)	(−8.836)	(−8.985)
Book-to-Market	−0.029	−0.015	−0.007	−0.028
	(−0.221)	(−0.120)	(−0.060)	(−0.212)
ROA	0.249	0.274	0.289	0.253
	(0.546)	(0.599)	(0.643)	(0.555)
Leverage	0.614	0.618	0.648	0.629
	(0.972)	(0.973)	(1.013)	(1.008)
Relative Deal Size	−0.625***	−0.629***	−0.629***	−0.625***
	(−6.730)	(−6.755)	(−6.787)	(−6.739)
Cross-industry	−0.189	−0.188	−0.186	−0.189
	(−1.125)	(−1.115)	(−1.104)	(−1.123)
Cross-border	−0.747*	−0.733*	−0.733*	−0.748*
	(−1.817)	(−1.772)	(−1.755)	(−1.797)
Cash deal	0.344	0.332	0.324	0.343
	(1.013)	(0.989)	(0.958)	(1.002)
Private Target	0.098	0.099	0.101	0.099
	(0.168)	(0.169)	(0.173)	(0.168)
Tender Offer	0.556	0.543	0.551	0.564
	(1.367)	(1.333)	(1.349)	(1.403)
Acquirer country FE	Yes	Yes	Yes	Yes
Target country FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
N	5322	5322	5322	5322
Adjusted R^2	0.064	0.063	0.063	0.064

This table presents the effect of different board reform components on corporate acquisition performance. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement. Components of board reforms are indicator variables that equal one for the five years after the related board reforms, and zero for the five years before the related board reforms. Appendix 1 presents detailed definitions and constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

influence over crucial decisions (Finkelstein and D'Aveni, 1994; Adams et al., 2005). Hence, the effect of board reforms involving the separation of the CEO and board chair positions remains an empirical question.

Columns 1 to 3 of Table 6 presents the results that examines how the three types of board reforms individually affect corporate acquisition performance. We find that specific reforms on board independence (*Board Independence Reform)*, but not the requirement of audit committee independence (*Audit Committee Reform*) nor the separation of CEO and chairman positions (*Separation of CEO-Chair Reform*), is the main driver of the documented positive effect of board reforms on corporate acquisition performance. Specifically, Column 1 of Table 6 shows that cumulative acquirer abnormal returns on average decreases by 1.3% after the adoption of board independence reform. This finding complements the recent finding by Masulis and Zhang (2019) that firms with more preoccupied independent directors perform worse in acquisitions.

In column 4 of Table 6 we also include all three types of board reforms in one regression to jointly test the effects of these board reforms. First, we find that the coefficient estimate for *Audit Committee Reform* is negative, however it is insignificant and the coefficient estimate for *Separation of CEO-Chair Reform* remains positive. Second and more importantly, the coefficient estimate on *Board Independence Reform* stays positive and significant, suggesting that board independence on average adds value to acquisition decisions.

Table 7
Global board reforms and corporate acquisition performance conditional on firm characteristics.

Dependent Variable	CAR (−2, +2)	
	(1)	(2)
Reform x Firm Size	0.312***	
	(2.882)	
Reform x Free Cash Flow		5.633***
		(5.462)
Free Cash Flow		−1.801
		(−1.000)
Reform	0.088	2.066*
	(0.088)	(1.765)
Ln(GDP)	4.099**	2.179
	(2.342)	(1.090)
GDP Growth	0.061	0.166
	(0.303)	(0.841)
Target Ln(GDP)	0.946	3.035
	(0.605)	(1.449)
Target GDP Growth	−0.145	−0.295
	(−0.645)	(−1.351)
Firm Size	−0.737***	−0.686***
	(−14.432)	(−9.569)
Book-to-Market	−0.046	−0.219*
	(−0.313)	(−1.849)
ROA	0.247	0.114
	(0.564)	(0.073)
Leverage	0.618	0.489
	(0.977)	(1.241)
Relative Deal Size	−0.626***	−0.764***
	(−6.243)	(−9.944)
Cross-industry	−0.168	−0.065
	(−0.944)	(−0.311)
Cross-border	−0.754*	−0.785*
	(−1.876)	(−2.044)
Cash deal	0.319	0.500
	(1.076)	(1.244)
Private Target	0.111	−0.343
	(0.185)	(−0.740)
Tender Offer	0.566	0.478
	(1.363)	(1.442)
Acquirer country FE	Yes	Yes
Target country FE	Yes	Yes
Industry FE	Yes	Yes
Year FE	Yes	Yes
N	5322	3922
Adjusted R^2	0.065	0.067

This table presents the effect of global board reforms on corporate acquisition performance conditional on firm characteristics. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement. *Reform* is an indicator variable equal to one for the five years after the first board reform of the acquirer country, and zero for the five years before the first board reform of the acquirer country. Appendix 1 presents detailed definitions and constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

4. Further analysis

Our results so far show that corporate acquisition performance improves after the implementation of board reforms, which is consistent with agency theory predictions. In this section, we conduct cross-sectional tests to examine in detail how strengthening board independence can alleviate agency problems between managers and shareholders and improve acquisition performance.

4.1. Agency conflicts

We first investigate the types of acquirers that are driving the positive effect of board reforms on acquisition performance ('Board reform strengthening' effect). It is well known in the literature that the market for corporate control helps to discipline poorly performing managers. Mitchell and Lehn (1990), for example, document that firms that perform poorly in acquisitions are at a later date likely to be acquired themselves. However, prior studies show that the market for corporate control is much less effective for large firms, as it is very difficult to acquire a large target (Palepu, 1986; Powell, 1997). Consistent with the evidence that managers in large firms face less threat from the market for corporate control, Moeller et al. (2004) show that large acquirers perform much worse in acquisitions, with announcements returns around 2% lower for large acquirers compared to small acquirers. We therefore expect that

Table 8
Global board reforms and corporate acquisition performance conditional on deal characteristics.

Dependent Variable	CAR (−2, +2)	
	(1)	(2)
Reform x Relative Deal Size	−1.230**	
	(−2.232)	
Reform x Private Target		1.222***
		(18.625)
Reform	2.519**	1.627*
	(2.486)	(1.863)
Ln(GDP)	3.570**	3.609**
	(2.066)	(2.185)
GDP Growth	−0.003	0.034
	(−0.014)	(0.148)
Target Ln(GDP)	1.211	1.115
	(0.772)	(0.758)
Target GDP Growth	−0.132	−0.131
	(−0.575)	(−0.556)
Firm Size	−0.574***	−0.573***
	(−9.432)	(−9.092)
Book-to-Market	−0.032	−0.057
	(−0.242)	(−0.462)
ROA	0.331	0.299
	(0.755)	(0.687)
Leverage	0.637	0.619
	(0.971)	(0.945)
Relative Deal Size	−0.623***	−1.269***
	(−6.591)	(−18.902)
Cross-industry	−0.207	−0.181
	(−1.221)	(−1.047)
Cross-border	−0.695	−0.718*
	(−1.653)	(−1.721)
Cash deal	0.357	0.341
	(1.096)	(1.074)
Private Target	0.872	0.124
	(1.335)	(0.209)
Tender Offer	0.658	0.579
	(1.470)	(1.385)
Acquirer country FE	Yes	Yes
Target country FE	Yes	Yes
Industry FE	Yes	Yes
Year FE	Yes	Yes
N	5322	5322
Adjusted R^2	0.065	0.066

This table presents the effect of global board reforms on corporate acquisition performance conditional on deal characteristics. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement. *Reform* is an indicator variable equal to one for the five years after the first board reform of the acquirer country, and zero for the five years before the first board reform of the acquirer country. Appendix 1 presents detailed definitions and constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

managers in larger firms are more likely to conduct self-serving acquisitions when they are not as carefully monitored, and hence the implementation of board reforms should have a stronger effect for larger acquirers. Column 1 of Table 7 examines the effect of board reforms on acquisition performance conditional on acquirer size. We find indeed that the positive effect of board reforms is stronger for larger acquirers.

The level of free cash flow is another strong determinant of acquisition performance documented in the literature. For example, Jensen (1986) argues that managers in firms with more free cash flows are more likely to make value-destroying acquisitions in order to realize personal gains from empire building, rather than returning the excess cash flow to shareholders. Lang et al. (1991) later test and find strong supportive empirical evidence for the free cash flow hypothesis. Consistent with these findings, we expect that managers in firms with higher levels of free cash flows are more likely to conduct self-serving acquisitions if not carefully monitored, and hence the implementation of board reforms should also have a stronger effect for firms with more free cash flows. Column 2 of Table 7 reports the results. Consistent with our prediction, we find that the positive effect of board reforms is stronger for acquirers with more free cash flows.

Table 9
Global board reforms and corporate acquisition performance conditional on investor protection.

Dependent Variable	CAR (−2, +2)	
	(1)	(2)
Reform x Poor Shareholder Rights	2.812**	
	(2.254)	
Reform x Poor Creditor Rights		1.220**
		(2.318)
Reform	0.594	0.494
	(0.639)	(0.529)
Ln(GDP)	3.459*	4.003**
	(1.967)	(2.056)
GDP Growth	−0.060	0.049
	(−0.282)	(0.246)
Target Ln(GDP)	1.064	0.600
	(0.736)	(0.399)
Target GDP Growth	−0.104	−0.084
	(−0.486)	(−0.389)
Firm Size	−0.565***	−0.577***
	(−8.951)	(−8.787)
Book-to-Market	0.017	−0.035
	(0.151)	(−0.263)
ROA	0.223	0.231
	(0.509)	(0.517)
Leverage	0.589	0.645
	(0.896)	(0.985)
Relative Deal Size	−0.633***	−0.636***
	(−7.008)	(−7.423)
Cross-industry	−0.180	−0.184
	(−1.064)	(−1.075)
Cross-border	−0.729*	−0.706*
	(−1.808)	(−1.756)
Cash deal	0.381	0.377
	(1.161)	(1.123)
Private Target	0.133	0.108
	(0.224)	(0.179)
Tender Offer	0.604	0.587
	(1.535)	(1.472)
Acquirer country FE	Yes	Yes
Target country FE	Yes	Yes
Industry FE	Yes	Yes
Year FE	Yes	Yes
N	5167	5167
Adjusted R^2	0.065	0.065

This table presents the effect of global board reforms on corporate acquisition performance conditional on investor protection. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement. *Reform* is an indicator variable equal to one for the five years after the first board reform of the acquirer country, and zero for the five years before the first board reform of the acquirer country. Poor shareholder rights equals to one if the Shareholder rights index for the acquirer country is 0, 1, or 2 (within a total range of 0–5), and zero otherwise. Poor creditor rights equals to one if the Creditor rights index for the acquirer country is 0 or 1 (within a total range of 0–4), and zero otherwise. Appendix 1 presents detailed definitions and constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

Next, we investigate the types of acquisition deals that are driving the positive effect of board reforms on acquisition performance. We expect the increase in acquisition performance to be concentrated in deals that are more likely subject to agency conflicts, as the forced addition of independent directors post-reform would play a significant role in monitoring managers in conducting these deals.

It is well documented in the literature that managers have strong incentives to engage in empire-building if not carefully monitored. Studies document that entrenched managers have incentives to grow their firms excessively in order to increase the resources that they control, as growth in resources increases a manager's power and typically also their compensation level (Murphy, 1985; Jensen, 1986; Harford, 1999). In support of this view, Moeller et al. (2004, 2005) document that large acquisitions are more value-reducing. Hence, we expect the positive effect of board reforms on acquisition performance to be driven by larger deals, as the added independent directors post reform are likely to closely monitor larger deals to ensure that these deals are not conducted due to empire-building motives. Column 1 of Table 8 examines the effect of board reforms on acquisition performance conditional upon relative deal size. Consistent with our expectations, we find that the positive effect of board reforms is stronger in deals with larger relative deal size.

The preference for acquiring public targets is another channel documented in the literature through which entrenched managers destroy shareholder value in corporate acquisitions. For example, Harford et al. (2012) show that entrenched managers are likely to avoid acquiring private firms even if it is value enhancing because acquiring a private target can create a large blockholder with the power and incentive to monitor and discipline them going forward. Therefore, we expect the positive effect of board reforms on acquisition performance to also be concentrated in public-target deals, as the public-target acquisitions conducted before the implementation of board reforms may be pursued not with the purpose of maximising shareholder value. Column 2 of Table 8 examines the effect of board reforms on acquisition performance conditional upon target public status. Consistent with our expectations, we find that the positive effect of board reforms is stronger in public-target deals.

We also examine the effect of board reforms on acquisition performance conditional upon cross-industry deals and cash deals. The univariate comparisons in Table 2 show that the proportion of cross industry deals and cash deals increased significantly in the post-reform period, and therefore we investigate whether the positive effect of board reforms on acquisition performance is also driven by these specific types of deals. The results are shown in Appendix 7. We do not find that the positive effect of board reforms on acquisition performance is driven by these types of deals, further suggesting that it is the alleviation of agency conflicts that is driving our results.

4.2. Country-level institutional environment

Next, we examine the role country-level institutional environment plays in affecting the impact of board reforms on corporate acquisition performance. Pinkowitz et al. (2006) find that managers in countries with poor investor protection are more likely to extract private benefits, and Doidge et al. (2007) demonstrate that country characteristics explain significantly more of the variance in corporate governance (39% to 73%) compared to observable firm characteristics (4% to 22%). Due to these prior findings, we expect the positive effect of board reforms on corporate acquisition performance to be concentrated in firms operating in countries with ex-ante poor corporate governance, as the board reforms are likely to play a very important role in disciplining managers in these countries with weaker corporate governance standards. On the other hand, corporate managers in countries with strong corporate governance standards are likely to be restricted to an extent in conducting self-serving acquisitions even prior to the adoption of board reforms, and hence the implementation of board reforms should not have a significant effect on corporate acquisition performance in these countries. To test our predictions, we condition our DID estimations on the level of ex-ante shareholder protection and creditor protection in a country, given that both shareholders and creditors have incentives to prevent managers from conducting self-serving acquisitions.

We use the anti-director rights index introduced by La Porta et al. (1998) as a proxy for shareholder protection. The index ranges from 0 to 5 and it measures how the legal system favors shareholders against managers in the corporate decision-making process, including the voting process. Higher values indicate better shareholder protection. We expect that managers in firms operating in legal systems favoring managers over shareholders are more likely to conduct self-serving acquisitions, since shareholders in these firms are unlikely to have the ability to replace a manager through the voting process. We classify a firm as having a poor level of shareholder protection if they operate in a country with a shareholder protection score of 0, 1, or 2. Column 1 of Table 9 shows the results. We find that the positive effect of board reforms on corporate acquisition performance ('Board reform strengthening') is stronger in firms operating in countries with ex-ante weaker shareholder protection.

Next, we use the creditor rights index used by La Porta et al. (1998) as a measure of creditor protection. The index ranges from 0 to 4 and it measures the power a country's law and regulation provide to secured lenders. We expect that managers of firms that operate in countries providing less power to secured lenders are more likely to conduct self-serving acquisitions, since managers in these firms can continue to run the business even if the firm runs into reorganization, rather than having the creditor or administrator taking over in running the business. We classify a firm as having a poor level of creditor protection if they operate in a country with a creditor protection score of 0 or 1. Column 2 of Table 9 presents the results. Similar to our results on shareholder protection, we also find that the positive effect of board reforms on corporate acquisition performance ('Board reform strengthening') is concentrated in firms operating in countries with weaker creditor protection.

5. Conclusion

This study examines the effect of board reforms on corporate acquisition performance using a geographically diverse sample from around the world. Using a difference-in-differences approach, we show that corporate acquisition performance increases after the implementation of board reforms in the acquirer's country, consistent with a 'Board reform strengthening' view. We find that the

increase is driven by reforms involving board independence, but not reforms involving audit committee independence nor the separation of the CEO and board chair roles (removal of CEO duality). Further analysis reveals that the improvement in acquisition performance ('Board reform strengthening') is concentrated where agency conflicts are most likely - in larger acquirers with more free cash flows, large deals, public-target deals, and in acquirer countries with ex-ante poor shareholder and creditor protection.

Overall, our findings show that the implementation of board reforms alleviates agency problems between managers and shareholders and improves corporate acquisition performance – a finding that should be of interest to investors, academics, and regulators. Future research in this area should focus on whether board reforms can alleviate other types of managerial misbehavior, such as earnings management, corporate fraud, insider trading and tunnelling.

CRediT authorship contribution statement

To Thomas: Conceptualization, Formal analysis, Methodology, Supervision, Validation, Writing – review & editing. **Eliza Wu:** Conceptualization, Methodology, Project administration, Supervision, Visualization, Writing – review & editing. **Diya Zhao:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing – original draft.

Data availability

Data will be made available on request.

Appendix 1: Variable Definitions

Variable name	Variable definition	Source
CAR (−2, +2)	Acquirer's five-day cumulative abnormal return around deal announcement. Abnormal returns are calculated by subtracting the acquirer country's stock market return from the acquirer's stock return.	Compustat
CAR (−1, +1)	Acquirer's three-day cumulative abnormal return around deal announcement. Abnormal returns are calculated by subtracting the acquirer country's stock market return from the acquirer's stock return.	Compustat
ΔIndustry-Adjusted ROA	ΔIndustry-Adjusted ROA is calculated as the acquirer's industry-adjusted ROA in the year after the acquisition minus acquirer's industry-adjusted ROA in the year before the acquisition. Industry-adjusted ROA is measured as acquirer's ROA minus the average ROA of firms in the same two-digit SIC code.	Compustat
ΔIndustry-Adjusted Sales Growth	ΔIndustry-Adjusted Sales Growth is calculated as the acquirer's industry-adjusted sales growth in the year after the acquisition minus acquirer's industry-adjusted sales growth in the year before the acquisition. Industry-adjusted sales growth is measured as acquirer's sales growth minus the average sales growth of firms in the same two-digit SIC code.	Compustat
Ln (GDP)	Natural logarithm of GDP for the acquirer country, in thousands of $US dollars.	World Development Indicators
GDP Growth	Acquirer country's GDP growth.	World Development Indicators
Target Reform	An indicator variable that equals one for the five years post first board reform in target country, and zero for the five years before first board reform in target country.	World Development Indicators
Target Ln(GDP)	Natural logarithm of GDP for the target country, in thousands of $US dollars.	World Development Indicators
Target GDP Growth	Target country's GDP growth.	World Development Indicators
Firm Size	Natural logarithm of market value of equity of the acquirer, in US dollars.	Compustat
Book-to-Market	Acquirer's book value of equity (CEQ) divided by market value of equity	Compustat
ROA	Acquirer's operating income before depreciation (OIBDP) scaled by the book value of total assets (AT).	Compustat
Leverage	Acquirer's Book value of debt (DLTT+DLC) scaled by the book value of total assets (AT)	Compustat
Free cash flow	Acquirer's operating income before depreciation (OIBDP) minus interest expense (XINT) minus income taxes (TXT) minus capital expenditure (CAPX), all scaled by book value of total assets (AT).	Compustat
Relative deal size	Deal value (from SDC) divided by acquirer's market value of equity.	Compustat and SDC Platium
Cross-industry	An indicator variable that equals one if acquirer and target do not share the same 2-digit SIC industry, and zero otherwise.	SDC Platium
Cross-border	An indicator variable that equals one if the target nation is not the same as acquirer nation, and zero otherwise.	SDC Platium
Private Target	An indicator variable that equals one for private targets, and zero otherwise.	SDC Platium
Tender Offer	An indicator variable that equals one for tender offer, and zero otherwise.	SDC Platium
Shareholder Rights	Shareholder rights index of the acquirer's country.	La Porta et al. (1998)

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(*continued*)

Variable name	Variable definition	Source
Creditor Rights	Creditor rights index of the acquirer's country.	La Porta et al. (1998)
Takeover Premium	Difference between the offer price and the target market value 1 week prior to the announcement.	SDC

This table provides the definitions and data sources of all the variables used in the study.

Appendix 2: Types of Board Reforms

Country	Year	Board Independence	Separation of CEO and Chairman	Audit Committee Independence
Australia	2003	1	0	1
Belgium	1998	1	0	0
Brazil	2002	0	0	0
Canada	2004	1	1	1
China	2001	1	0	1
Colombia	2001	0	0	0
Denmark	2001	1	0	0
Finland	2003	1	0	1
France	2001	0	1	0
Germany	2002	1	0	1
Greece	1999	0	0	0
Hong Kong (China)	2005	1	1	1
India	1998	0	0	0
Indonesia	2000	1	0	0
Italy	2006	1	0	1
Japan	2002	0	0	1
Malaysia	2001	1	0	1
Mexico	1999	1	0	1
Netherlands	1997	0	0	0
Norway	2005	1	1	1
Peru	2002	1	1	1
Philippines	2002	1	0	1
Poland	2002	1	0	0
Portugal	1999	0	0	0
Singapore	2003	1	0	1
South Korea	1999	1	0	1
Spain	1998	0	0	1
Sweden	2005	1	1	1
Switzerland	2002	0	0	0
Thailand	2002	1	0	1
United States	2003	1	0	1

This table contains information on sample countries' first board reform. It includes the year of the reform and the component the reform involves (i.e., board independence, separation of CEO and chairman, and audit committee independence).

Appendix 3: Global Board Reforms and Corporate Acquisition Performance: Alternative Sample

Dependent variable	CAR (−2, +2)		
	(1)	(2)	(3)
	Owns less than 10% of target before the announcement	Owns less than 20% of target before the announcement	Owns less than 50% of target before the announcement
Reform	1.832**	1.779**	1.421*
	(2.077)	(2.070)	(1.832)
Ln(GDP)	3.427**	3.743**	4.415***
	(2.151)	(2.398)	(3.083)
GDP Growth	0.013	0.018	−0.026
	(0.058)	(0.079)	(−0.123)
Target Ln(GDP)	1.227	1.143	0.101
	(0.852)	(0.851)	(0.068)
Target GDP Growth	−0.146	−0.153	−0.108
	(−0.634)	(−0.651)	(−0.517)
Firm Size	−0.569***	−0.559***	−0.553***

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Dependent variable	CAR (−2, +2)		
	(1)	(2)	(3)
	(−9.185)	(−9.408)	(−8.424)
Book-to-Market	−0.024	−0.022	−0.036
	(−0.184)	(−0.172)	(−0.304)
ROA	0.309	0.220	0.246
	(0.704)	(0.530)	(0.635)
Leverage	0.641	0.637	0.559
	(1.105)	(1.215)	(1.102)
Relative Deal Size	−0.628***	−0.628***	−0.629***
	(−6.342)	(−6.607)	(−5.923)
Cross-industry	−0.220	−0.242	−0.221
	(−1.302)	(−1.433)	(−1.455)
Cross-border	−0.737*	−0.637	−0.442
	(−1.758)	(−1.567)	(−1.232)
Cash deal	0.344	0.355	0.237
	(1.057)	(1.055)	(0.710)
Private Target	0.104	0.131	0.101
	(0.179)	(0.238)	(0.194)
Tender Offer	0.506	0.528	0.529
	(1.098)	(0.979)	(1.038)
Acquirer country FE	Yes	Yes	Yes
Target country FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
N	5351	5455	5893
Adjusted R^2	0.063	0.061	0.058

This table presents the effect of global board reforms on corporate acquisition performance using alternative samples. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement. *Reform* is an indicator variable equal to one for the five years after the first board reform of the acquirer country, and zero for the five years before the first board reform of the acquirer country. Appendix 1 provides the definitions and constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

Appendix 4: Global Board Reforms and Corporate Acquisition Performance: Alternative CAR (−2, +2)

Dependent Variable	CAR (−2, +2)		
	Full Sample		Exclude countries with less than 10 unique acquirers
Reform	0.023**	0.025**	0.026**
	(2.126)	(2.327)	(2.311)
Ln(GDP)	0.010	0.018	0.017
	(0.547)	(0.874)	(0.782)
GDP Growth	0.001	0.000	0.000
	(0.296)	(0.239)	(0.198)
Target Ln(GDP)	0.016	0.014	0.016
	(0.781)	(0.667)	(0.733)
Target GDP Growth	−0.002	−0.002	−0.002
	(−1.383)	(−1.317)	(−1.297)
Firm Size	−0.006***	−0.005***	−0.005***
	(−11.314)	(−5.404)	(−5.156)
Book-to-Market	0.002	0.002	0.002
	(1.186)	(1.341)	(1.351)
ROA	0.021***	0.018**	0.020**
	(2.925)	(2.177)	(2.169)
Leverage	−0.001	0.001	0.001
	(−0.256)	(0.108)	(0.132)
Relative Deal Size		−0.007***	−0.007***
		(−6.129)	(−7.342)
Cross-industry		−0.001	−0.001
		(−0.837)	(−0.800)
Cross-border		−0.003	−0.003
		(−0.612)	(−0.597)
Cash deal		0.006	0.005
		(1.255)	(1.106)

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Dependent Variable	CAR (−2, +2)		
	Full Sample		Exclude countries with less than 10 unique acquirers
Private Target		−0.001	−0.000
		(−0.098)	(−0.018)
Tender Offer		0.010*	0.010*
		(1.866)	(1.977)
Acquirer country FE	Yes	Yes	Yes
Target country FE	Yes	Yes	Yes
Industry FE	No	Yes	Yes
Year FE	Yes	Yes	Yes
N	4933	4933	4893
Adjusted R^2	0.055	0.060	0.057

This table presents the effect of global board reforms on corporate acquisition performance with alternative standard error clustering. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement. The CARs are measured as returns in excess of those predicted by the market model with the benchmark being the acquiring country's index and parameters estimated over a period from 300 to 91 days prior to the announcement. *Reform* is an indicator variable equal to one for the five years after the first board reform of the acquirer country, and zero for the five years before the first board reform of the acquirer country. Appendix 1 presents detailed definitions and constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

Appendix 5: Global Board Reforms and Corporate Acquisition Performance: Alternative Standard Error Clustering

Dependent Variable	CAR (−2, +2)		
	(1)	(2)	(3)
	Cluster by Acquirer	Cluster by Industry	Cluster by Year
Reform	1.941*	1.941**	1.941***
	(1.895)	(2.142)	(3.180)
Ln(GDP)	3.434*	3.434	3.434*
	(1.716)	(1.047)	(1.931)
GDP Growth	0.001	0.001	0.001
	(0.007)	(0.007)	(0.008)
Target Ln(GDP)	1.319	1.319	1.319
	(0.620)	(0.726)	(0.656)
Target GDP Growth	−0.138	−0.138	−0.138
	(−0.855)	(−0.905)	(−0.992)
Firm Size	−0.569***	−0.569***	−0.569***
	(−7.002)	(−5.705)	(−8.294)
Book-to-Market	−0.023	−0.023	−0.023
	(−0.186)	(−0.191)	(−0.163)
ROA	0.256	0.256	0.256
	(0.226)	(0.261)	(0.281)
Leverage	0.599	0.599	0.599
	(0.779)	(0.867)	(0.847)
Relative Deal Size	−0.631***	−0.631***	−0.631***
	(−3.426)	(−4.005)	(−3.011)
Cross-industry	−0.194	−0.194	−0.194
	(−0.677)	(−0.765)	(−0.734)
Cross-border	−0.743	−0.743	−0.743
	(−1.306)	(−1.596)	(−1.383)
Cash deal	0.350	0.350	0.350
	(1.280)	(1.012)	(1.398)
Private Target	0.096	0.096	0.096
	(0.348)	(0.411)	(0.306)
Tender Offer	0.551	0.551	0.551
	(1.071)	(1.130)	(0.767)
Acquirer country FE	Yes	Yes	Yes
Target country FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
N	5322	5322	5322
Adjusted R^2	0.064	0.064	0.064

This table presents the effect of global board reforms on corporate acquisition performance with alternative standard error clustering. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement. *Reform* is an indicator variable equal to one for the five years after the first board reform of the acquirer country, and zero for the five years before the first board reform of the acquirer country. Appendix 1 presents detailed definitions and

constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

Appendix 6: Global Board Reforms and Takeover Premium

Dependent Variable	Takeover Premium
	(1)
Reform	10.312
	(1.194)
Ln(GDP)	−37.949*
	(−1.905)
GDP Growth	2.161
	(0.825)
Target Ln(GDP)	19.516
	(1.373)
Target GDP Growth	−1.790
	(−1.187)
Firm Size	−1.348***
	(−3.104)
Book-to-Market	−2.859**
	(−2.839)
ROA	−7.972
	(−1.207)
Leverage	6.044***
	(5.319)
Relative Deal Size	−1.075***
	(−5.606)
Cross-industry	−4.854**
	(−2.915)
Cross-border	14.916***
	(3.542)
Cash deal	5.301***
	(3.966)
Private Target	−12.778
	(−1.253)
Tender Offer	4.746***
	(4.156)
Acquirer country FE	Yes
Target country FE	Yes
Industry FE	Yes
Year FE	Yes
N	1321
Adjusted R^2	0.162

This table presents the effect of global board reforms on takeover premium. The dependent variable, takeover premium, is the percentage difference between the offer price and the target's market value 1 week prior to the announcement. *Reform* is an indicator variable equal to one for the five years after the first board reform of the acquirer country, and zero for the five years before the first board reform of the acquirer country. Appendix 1 provides the definitions and constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

Appendix 7: Global Board Reforms and Corporate Acquisition Performance conditional on Cross-Industry Deals and Cash Deals

Dependent Variable	CAR (−2,+2)	
	(1)	(2)
Reform x Cross-Industry	−0.084	
	(−0.385)	
Reform x Cash deal		−0.170
		(−0.344)

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Dependent Variable	CAR (−2,+2)	
	(1)	(2)
Reform	1.971**	1.971**
	(2.184)	(2.149)
Ln(GDP)	3.429*	3.402*
	(2.028)	(2.037)
GDP Growth	0.003	0.002
	(0.015)	(0.009)
Target Ln(GDP)	1.313	1.322
	(0.860)	(0.867)
Target GDP Growth	−0.137	−0.137
	(−0.592)	(−0.584)
Firm Size	−0.570***	−0.568***
	(−8.968)	(−8.645)
Book-to-Market	−0.024	−0.022
	(−0.183)	(−0.173)
ROA	0.254	0.245
	(0.573)	(0.533)
Leverage	0.600	0.590
	(0.934)	(0.928)
Relative Deal Size	−0.631***	−0.629***
	(−6.853)	(−7.109)
Cross-industry	−0.142	−0.194
	(−0.685)	(−1.140)
Cross-border	−0.745*	−0.741*
	(−1.820)	(−1.785)
Cash deal	0.350	0.466
	(1.069)	(0.900)
Private Target	0.094	0.096
	(0.161)	(0.164)
Tender Offer	0.550	0.531
	(1.351)	(1.408)
Acquirer country FE	Yes	Yes
Target country FE	Yes	Yes
Industry FE	Yes	Yes
Year FE	Yes	Yes
N	5322	5322
Adjusted R^2	0.064	0.064

This table presents the effect of global board reforms on corporate acquisition performance conditional on cross-industry deals and cash deals. The dependent variable CAR (−2, +2) is the five-day cumulative abnormal return around the acquisition announcement. *Reform* is an indicator variable equal to one for the five years after the first board reform of the acquirer country, and zero for the five years before the first board reform of the acquirer country. Appendix 1 presents detailed definitions and constructions of the variables. *t*-statistics, reported in parentheses, are based on standard errors clustered at the country level. ***, **, * denote significance levels at 1%, 5% and 10% respectively.

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