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Enhancing corporate governance quality through mergers and acquisitions

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Abstract

This study examines whether the pre-deal target-bidder firm governance gap affects the bidder's postdeal change in governance quality. We estimate cross-sectional regressions using mergers and acquisitions from 2004 to 2016. We find that the bidder's firm-level governance improves for acquisitions where the target's governance quality is better than that of the bidder preacquisition. We attribute the results to reverse portability, suggesting that the predeal governance gap creates space for governance transfer, and bidders can adopt better governance of targets after the acquisition. Board independence, audit committee independence, CEO-Chairman separation, stock compensation, and equal treatment of minority shareholders serve as potential channels to demonstrate the bidder's higher governance after the acquisition. Our findings also reveal that bidders with governance improvement are also associated with higher operating performance. We extend the portability theory of Ellis et al. (2017) and suggest that governance can also travel from targets to bidders through mergers and acquisitions.

KEYWORDS
firm corporate governance, mergers and acquisitions, operating performance, reverse portability

1 | INTRODUCTION

The reverse portability—from targets to bidders—stream of literature on the corporate governance gap between merging firms argues that targets can transfer their higher governance standards to bidders (Martynova & Renneboog, 2008; Starks & Wei, 2013).[1] Martynova and Renneboog (2008) propose the "bootstrapping hypothesis" to underscore that bidders may adopt higher governance standards of targets. Likewise, Starks and Wei (2013) argue that bidders may be willing to pay higher premiums for acquiring better-governed targets. These studies focus on the financial implications of the target-bidder governance gap and suggest that bidders often choose targets with better governance to improve their firm value and postacquisition performance. The empirical evidence is still scarce on how and through what channels the postacquisition bidder's governance quality increases when the bidder acquires a target with higher governance quality. To fill this important gap in the literature, we attempt to answer the following research questions: (i) Does a positive target-bidder firm governance gap increase the bidder's governance quality? (ii) What are the channels through which the bidder's governance increases?

It is important to explore the target's governance transferability, because, in general, knowledge or capability transfer through merger and acquisitions (M&As) is a two-way phenomenon (Hitt et al., 1990; Ranft & Lord, 2002), where the better capabilities of one firm flow to another firm after an acquisition and are reflected in realized takeover value. A notable study by Wang and Xie (2009) shows that bidders with stronger shareholder rights (SRs) than targets create higher takeover gains as the bidders will replace target governance standards with their own. This study is based on a fundamental assumption that bidders are always better than target firms, neglecting that there can be situations where targets possess better governance quality than bidders in the preacquisition period. Therefore, we address a counterintuitive question of what happens if the target firm has better corporate governance than the bidder before acquisition and how the predeal target-bidder governance gap translates into higher bidder governance.

We differ from the existing literature in two ways. First, we explicitly examine the effect of the ex ante target-bidder firm governance gap on the actual governance quality of the bidder ex post. Second, we show through what governance mechanisms the bidder can increase its governance. Through reverse portability,[2] bidders can increase their access to qualified management (Mgt.), ensure better protection for minority shareholders, secure more rigorous accounting disclosures, and establish a well-governed firm persona. It is probable that higher firm-level governance practices are a source of learning through takeovers as firms exhibit significant heterogeneity in their governance practices (Klapper & Love, 2004 Martynova & Renneboog, 2008; Starks & Wei, 2013). Also, bidders acquire targets with superior environmental, social, and governance (ESG) practices to improve their corporate performance (Aktas et al., 2011; Tampakoudis & Anagnostopoulou, 2020). In so doing, the acquirer CEO may increase monitoring mechanisms that help to eliminate longer-tenured board members and ensure higher board independence. Further, Hussain et al. (2022) argue that the bargaining power of merging firms (i.e., bidders and targets) is determined by the availability of resources and the firm with better resources will bargain on better terms to create shareholder wealth. In the context of our study, it is possible that the target being a better-governed firm is more powerful in the negotiation process and brings more of the target's Mgt. after the acquisition.

To accomplish the objectives of our study, we analyze a global sample of 1360 M&As involving public bidders and targets over 13 years (2004–2016). Our findings demonstrate that when the predeal target-bidder governance gap is positive, there is a significant increase in the bidder's governance quality postacquisition. The average bidder is subject to an improvement of 14%–20% of the predeal governance difference, representing a rather pronounced improvement. The results show that bidder

firms improve their postacquisition corporate governance for various governance measures,[3] and that reverse governance portability drives this improvement. Our findings show that governance also travels from the target to the bidder if the former has higher governance standards than the latter. Overall, our results are persistent after controlling for several country, deal, and firm characteristics.

The potential endogenous relationship between the target-bidder governance gap and the bidder's governance improvement can be a concern for our findings. One can raise the question that M&As with a higher target-bidder gap may be nonrandomly distributed. For instance, deals with a higher target-bidder governance gap may be dominated by acquirers of a certain type, including those with particularly low governance quality and thus higher opportunity for improvements. Conversely, bidders with higher governance quality may predominantly reflect deals with a lower target-bidder governance gap. Although we added year, industry, and country dummies in our regression analysis, omitted variables can still be a matter of concern when examining the association between the governance gap and the bidder's governance enhancement. We address these concerns using Propensity Score Matching (PSM) and the Oster (2019) indicative test for omitted variable bias and show that the findings are robust.

We next investigate the possible channels through which the bidder's ex-postgovernance has increased. To do so, we rely on well-established firm governance attributes—board independence (Byrd & Hickman, 1992; Cotter et al., 1997), audit committee independence (Carcello & Neal, 2003; Klein, 2002), equal treatment of minority shareholders (Doidge et al., 2007), stock compensation (Datta et al., 2001), and CEO-chairman separation (Dahya et al., 1996; Krause & Semadeni, 2013). The results exhibit increases in these five governance attributes after the bidders have adopted the targets' governance standards. For instance, board independence of the bidder firm increases by 2.69 times, suggesting that the overall increase in the bidder's governance score is due to the adoption of the board independence of the target. Other individual governance attributes show a similar pattern, suggesting that the average increase in bidders' governance quality postacquisition is due to the increase in the number of independent board members, independent members on audit committees, stock compensation for board members, CEO-Chairman separation, and protection of minority shareholders. Finally, the bidder's better post-deal governance quality also improves its operating performance, corroborating earlier studies (see, e.g., Chemmanur et al., 2010; Core et al., 2006) that better firm governance is positively associated with operating performance.

Our study contributes to the existing literature on governance transfer (Ellis et al., 2017; Martynova & Renneboog, 2008; Wang & Xie, 2009) by exploring how the ex ante firm corporate governance gap between targets and bidders affects the ex-postgovernance quality of bidders through reverse portability. We show that the ex ante target-bidder firm governance gap creates room for the bidders to adopt the better governance practices of targets and achieve higher governance quality after the acquisition. The results extend the portability theory of Ellis et al. (2017) and suggest that higher governance standards can also travel from targets to bidders. We also add to the literature discussing the role of different individual firm-level governance attributes in M&As (see, for instance, Byrd & Hickman, 1992; Cotter et al., 1997) and identify the important governance attributes that serve as potential channels through which bidders' governance quality improves in the ex-post period. Finally, we contribute to the literature that associates good corporate governance with better firm performance (Black et al., 2006; Byrd & Hickman, 1992; Chemmanur et al., 2010; Core et al., 2006; Shaukat & Trojanowski, 2018) and show that once the bidders adopt the better governance of targets after the acquisition, their firm performance improves.

The remainder of the study is arranged as follows: Section 2 reviews the existing literature and develops hypotheses, Section 3 describes the data and methodology, Section 4 discusses the main results, Section 5 reports results of robustness tests, Section 6 shows takeover outcomes, and Section 7 concludes the study.

2 | LITERATURE REVIEW AND DEVELOPMENT OF HYPOTHESES

2.1 | Governance transfer in M&As

The corporate governance transferability literature in M&As can be classified into two broad domains: portability and emerging market multinational enterprises) learning from international M&As. The portability literature focuses on how governance differences between bidders and targets generate takeover value (Chari et al., 2010; Ellis et al., 2017; Hussain & Shams, 2022; Martynova & Renneboog, 2008; Wang & Xie, 2009). Scholars adhering to assumptions of portability theory mainly focus on announcement returns that are associated with higher predeal corporate governance differences between merging firms. A commonly held view is that bidders typically have better governance standards than targets pre-acquisition. As a result, bidders apply their governance practices on the targets to improve the governance quality of the combined firm post-acquisition. Thus, after controlling for other potential determinants, a higher governance gap creates a higher takeover value that is reflected in the higher bidder announcement returns. In short, takeover value is based in the market's belief that the successful deal will improve the target's ex-postgovernance standards. These findings indicate that a better governance environment can increase the target's market value under the acquirer's Mgt. supervision. However, the fundamental shortcoming with portability literature is that it does not pay adequate attention to preacquisition situations where the targets' governance standards are superior to those of bidders and to how the bidders can adopt the targets' better governance standards. The insufficient treatment of such situations is based on the argument that bidders are unlikely to buy better-managed targets because the target shareholders will demand compensation for their exposure to the inferior governance standards of the bidder (Starks & Wei, 2013).

Second, studies related to EMNE's learning from international M&As have challenged the notions that bidders are always superior to targets, and that governance transfers are only from bidders to targets. Scholars pursuing this line of research have predominantly investigated acquisitions by EMNEs in developed markets. They argue that EMNE bidders can enhance their strategic position (Tippins & Sohi, 2003) and performance (Chari et al., 2012; Chen, 2011) by learning advanced innovation capabilities (Ahuja & Katila, 2001) or by governance bonding (Col & Sen, 2019; Reese & Weisbach, 2002). Another important consequence of such takeovers is that EMNE bidders get increased exposure to the institutional quality and SRs of the target country. Scholars in these studies argue that a well-planned takeover enhances the bidder's governance performance. Thus, these studies show that bidders can improve various kinds of learning, including learning of higher governance standards from better-governed targets. Although scholars from this line of research have made significant contributions to enhance our understanding of governance transfer in the context of M&As, they fall short in explaining whether and how bidders with lower predeal governance standards can learn from the governance attributes of better-governed targets in other settings. Furthermore, the extant findings of EMNE's learning in M&As are primarily based on international M&As where bidders are mainly from developing countries and targets are from developed countries (see Col & Sen, 2019,). This raises the pertinent question of whether this learning occurs in all situations where the target is better governed than bidders preacquisition, or whether such learning only occurs for EMNEs. It highlights the need for more research to explore learning, specifically governance learning, in various contexts by considering domestic and international M&A deals.

2.2 | Why the target-bidder governance gap may be positively associated with the bidder's postdeal governance quality?

There are two rationales to expect a positive association between the predeal target-bidder governance gap and the post-deal bidder's governance quality. First, the portability theory of Ellis et al. (2017) postulates that better country-level governance is transferable from the bidder to the target if bidders belong to countries with higher institutional quality. Beyond country-level governance, firm-level governance also varies between bidders and targets before the acquisition (Hussain & Loureiro, 2022; Martynova & Renneboog, 2008; Starks & Wei, 2013). Firm-level governance contains disclosure ("does the firm describe skill of every board member? Does the company have an audit committee?") and action-based norms[4] ("percentage of female board members, number of board meetings per year"). Corporate governance can also travel from targets to bidders (reverse portability) if targets have better firm-level governance quality than bidders before the deal announcement.

Second, the ex ante differences in firm-specific characteristics between merging firms create room for knowledge transfer (for instance, Björkman et al., 2007; Morosini et al., 1998; Sarala & Vaara, 2010). Thus, firm characteristics, such as governance standards, can transfer in either or both directions (Hitt et al., 1990; Ranft & Lord, 2002; Tampakoudis & Anagnostopoulou, 2020) from bidder to target or from target to bidder. Specifically, predeal differences positively affect knowledge transfer because M&As among firms with different characteristics are complementary where one firm's weakness is the strength of another firm. Based on the above discussion, our first hypothesis is:

H1: A positive predeal target-bidder firm corporate governance gap positively affects the bidder's postdeal change in the acquirer's corporate governance, ceteris paribus.

The literature suggests that several firm-level governance attributes reduce agency problems. The well-established attributes include CEO-Chairman separation (Krause & Semadeni, 2013), audit committee independence (Carcello & Neal, 2003; Klein, 2002), board independence (Gupta & Fields, 2009), stock compensation (Datta et al., 2001), and SRs (Doidge et al., 2007). Higher levels of these attributes can bring a better monitoring environment for adopting good governance. Subsequently, one can argue that bidders can improve their governance when the board has more independent directors, CEO and Chairman are separate individuals, audit committees are more independent, stock compensation is greater, and SRs are higher. This implies that an improvement in the overall governance of a bidder after an acquisition will be extended to various firm-level governance attributes. This leads to the following hypothesis:

H2: Ceteris paribus, increases in the overall firm-level governance of bidders postacquisition are associated with increases in specific governance attributes.

Higher standards of corporate governance promote a better alignment of interests between manager and shareholders (Black et al., 2006; Byrd & Hickman, 1992; Ciftci et al., 2019; Hussain & Loureiro, 2023), which should guide all investment decisions made by firms, including decisions regarding M&As. The empirical evidence on M&As suggests that firms with higher governance standards are positively associated with operating performance (Chemmanur et al., 2010; Core et al., 2006). A company with higher governance quality can mitigate agency conflicts and perform better (Doidge et al., 2007). When the target has better pre-deal firm-level governance than the bidder, the reverse portability effect translates into higher governance quality of the bidder which

should positively affect the change in its operating performance after the acquisition. This discussion leads to our third hypothesis:

H3: Change in the operating performance of the bidder is positively associated with the improvement in the bidder's corporate governance after an acquisition, ceteris paribus.

3 | DATA AND METHODOLOGY

3.1 | Sample selection

Our sample of mergers and acquisitions is derived from the Securities Data Corporation (SDC) database provided by Refinitiv and covers the period from 2004 to 2016.[5] We use only completed deals, as we need to examine the bidder's change in firm corporate governance after the deal. We require that both bidders and targets are publicly listed firms; the bidder buys at least 5% of the target shares, and the M&A deal represents <50% of the shares of the target before the deal and >50% of the shares after the deal.[6] Our sample excludes financial firms (SIC codes 6000-6999) and utilities (SIC codes 4900-4949). After applying all filters,[7] we get a final M&A sample of 1360 completed deals by bidders from 25 countries.

The firm-level corporate governance data are from the ASSET4ESG database that several recent studies have used (e.g., Drempetic et al., 2020; Duong et al., 2015; Mervelskemper & Streit, 2017). To analyze the bidder's post-acquisition governance changes, we collect governance data 1 year before and after the deal. The country-level governance and financial statement data are from the World Bank database and Refinitiv DataStream/WorldScope database.

3.2 | Measure of firm corporate governance

We use the corporate governance scores from the ASSET4ESG database, provided by Refinitiv, to measure the quality of firms' corporate governance. The ASSET4ESG commenced providing data on firm-level governance in 2002. It collects data from the firm's annual reports and regulatory filings; and rates firms on 510 key performance indicators grouped into the environment, social, and governance pillars. We focus on the governance pillar and its following four categories:[8]

(1) Governance pillar score—based on the weighted average of Mgt., shareholders, corporate social responsibility (CSR) scores, which shows the overall governance quality of the firm.
(2) Mgt. score—shows a firm's commitment to following principles of good governance.[9]
(3) Shareholders score—reflects a firm's effectiveness towards equal treatment of shareholders and use of antitakeover devices.[10]
(4) CSR strategy—reveals a firm's commitment to social, environmental, and financial dimensions in decision-making.

The ASSET4ESG assigns a score from 0 (lowest) to 100 (highest), and a non-zero score indicates a firm's governance quality concerning a particular dimension. As the focus of the study is on the firm's corporate governance, we use the governance pillar score and the scores of Mgt. and shareholders categories. These scores cover a wide variety of disclosure

and action-based norms discussed before. In our robustness tests, we also use a Principal Component Analysis (PCA) for constructing the PCA index based on the scores of the subcategories.

Motivated from the study of Tampakoudis and Anagnostopoulou (2020), we measure our primary independent variable as the scaled difference score (target-bidder governance gap scaled by bidder governance). Similarly, the Mgt. gap and shareholders gap are defined as the predeal scaled difference between target and bidder scores in these categories. These measures allow us to investigate the relative governance quality of target firms as compared with the bidders. They enable us to discern the comparative superiority of the target's governance that could offer reverse portability in an M&A deal. Our dependent variable is the change in the bidder's governance quality associated with the acquisition. It is calculated as the gap between a bidder's postdeal governance score minus the bidder's predeal governance score. We consider one-, two-, and 3-year postdeal governance performance of the bidder, because M&A integration is a time-taking process (Renneboog & Vansteenkiste, 2019).

3.3 | Methodology

3.3.1 | Model specification

To test our first hypothesis, the following cross-section regression is run separately for each choice of τ (postdeal year).

$$\begin{aligned}\Delta \mathrm{BCG}_{d,t-1\ to\ t+\tau} &= \alpha + \beta_1 \mathrm{FTB\ GAP}_{d,t-1} + \beta_2\ \mathrm{CTB\ GAP}_{d,t-1} + \sum \beta_k \mathrm{Deal\ controls}_{d,t} \\ &\quad + \sum \beta_l\ \mathrm{Firm\ controls}_{a,b,t-1} + \sum \beta_m\ \Delta \mathrm{Bidder\ controls}_{a,t-1\ to\ t+\tau} \\ &\quad + \sum \beta_n\ \mathrm{Bidder\ country\ controls}_{d,t-1} + \lambda_t + \eta_i + \gamma_c \\ &\quad + \varepsilon i,t, \text{ for } \tau = 1,\ \ 2,\ \ \text{or } 3,\end{aligned} \tag{1}$$

where $\Delta\ \mathrm{BCG}_{d,i,t-1\ \ \mathrm{to}\ t+\tau}$ is the change in the bidder's governance score during time $t-1$ (1 year before the deal) to $t+1$, 2, or 3 (1, 2, and 3 years after the deal) for deal d in industry i; α is the intercept; $\mathrm{FTBGAP}_{d,t-1}$ is the target-bidder gap in firm governance scores for deal d, industry i, 1 year before deal announcement. $\mathrm{CTBGAP}_{d,t-1}$ is the target-bidder gap in institutional quality for deal d, industry i, 1 year before the deal. Deal controls$_{d,t}$ is a vector of deal-specific characteristics for deal d, year t. These characteristics include same industry deal, an indicator variable that takes the value of one if the acquirer and the target share the same Fama-French industry and zero otherwise; payment method, a dummy variable that is equal to one if the payment is made in cash and zero otherwise; cross-border deal, a dummy variable that equals one for cross-border deals and zero otherwise; relative deal size, deal value divided by book value of total assets; and toehold, percentage of shares held by the bidder before acquisition. Firm controls$_{a,b,t-1}$ is a vector of firm-specific characteristics for bidder a and target b 1 year before the deal announcement; namely, the cash flow ratio (cash flows divided by total assets), size, the logarithm of book value of total assets, and staggered board, a dummy variable having a value of one if the firm has a staggered board structure and zero otherwise.

Following Huang and Wu (2020), Δ Bidder controls$_{a,t-1\ \ \mathrm{to}\ t+\tau}$ is a vector of changes in the bidder firm's characteristics from $t-1$ to $t+\tau$, $\tau = 1,\ 2,$ or 3, and includes the following: change in leverage (total debt scaled by total assets), change in cash flows (cash flows divided

by total assets), and change in assets. Bidder country controls$_{d,t-1}$ is a vector of bidder's country-related characteristics for deal d, industry i, 1 year before the deal announcement, and includes market capitalization, gross domestic product (GDP) per capita, GDP growth, and whether the bidder is from a common law country or not. We also include year, λ_t, industry (Fama-French 48 industries), η_i, and country, γ_c dummies to control for omitted invariant factors that may influence the bidder's governance. To mitigate the impact of outlier, we winsorize all continuous firm-specific variables at the top and bottom 1% of the distribution.

3.3.2 | Summary statistics

Table 1 presents the year (Panel A), industry (Panel B), and country (Panel C) distributions for our international sample of M&As. All distributions show significant variation across years, industries, and countries. Panel A shows that the largest number of M&As appeared in 2006 and the overall takeover activity in the sample period shows a mixed trend. Drugs, chemicals, and gold (Panel B) are the dominant bidder industries that contribute 18% to the sample. The leading nations (Panel C) in the takeover market for bidders are the United States,[11] Japan, and Canada, which account for 72% of our sample. The United States has the maximum number of 465 M&As and it was expected due to the development of its capital market (Fauver et al., 2018). There is a higher geographical diversity in M&A activity, as shown by the number of bidder firms and M&A deals.

Table 2 reports descriptive statistics for all variables in the full sample of M&As, as well as subsamples of deals for positive and negative target-bidder firm governance gaps before the acquisition. The governance gap is positive when the target governance score is higher than the bidder governance score and vice versa. In the full sample (Column 1), the average increase in the bidder's firm governance score is 1.4. The mean target-bidder firm governance gap is −38.9, reflecting that, on average, bidders have better governance than targets. The average target-bidder country governance (measured by the World Bank's governance indicators) gap is −0.3. Among deal-specific variables, deals in similar industries represent 32% of our sample and the mean relative deal size is 17.2%. Almost 76% of the bidders engaged in domestic deals. Public bidders make payments generally in cash (63%). We define all variables in Appendix A.

We divide our sample into positive and negative governance gap groups and conduct univariate tests in Columns (4)–(7) to examine the average differences in the characteristics of both groups. It is noteworthy that 290 (21%) deals out of 1360 deals involve targets with better firm governance, whereas 1070 deals involve bidders with higher firm governance quality. The mean change in the bidders' firm governance for positive and negative groups are 4.4 and 0.7, respectively. The average difference between these groups (3.7) is significant at the 1% level.[12] These findings provide initial support for our conjecture that the pre-deal target-bidder firm governance gap increases the post-deal governance quality of the bidder. Among the control variables, we mostly find significant differences that are positive between the two groups.

An important issue with using several firm governance proxies is that they may be highly correlated. To examine the multi-collinearity issue in our M&A sample, we report the correlation matrix for governance variables in Supporting Information S1: Table A.2. Column 1 shows that the pre-deal gap in governance, Mgt., and SRs is positive and significantly correlated with the change in the bidder's governance performance as expected. We observe that the governance gap score is highly correlated with the gap in the Mgt. and SRs scores. As a result, we estimate regressions taking the gap in governance, Mgt., and SRs one at a time.

TABLE 1 Sample distributions.

Panel A: Year distribution	***N***	**%**
2004	34	2.50
2005	108	7.94
2006	155	11.40
2007	151	11.10
2008	91	6.69
2009	131	9.63
2010	118	8.68
2011	105	7.72
2012	120	8.82
2013	66	4.85
2014	101	7.43
2015	78	5.74
2016	102	7.50
Total	**1360**	**100**

Panel B: Industry distribution (Top 10 representing 55.73% of the takeovers)	***N***	**%**
Drugs	98	7.21
Chemicals	72	5.29
Gold	77	5.66
Oil, petroleum, and natural gas	60	4.41
Telecommunications	65	4.78
Business services	60	4.41
Computer software	93	6.84
Electronic equipments	70	5.15
Retail	77	5.66
Trading	86	6.32

	Bidders		**Targets**	
Panel C: Bidder/target country distributions	***N***	**%**	***N***	**%**
Australia	71	5.22	83	6.10
Belgium	7	0.51	8	0.59
Canada	161	11.84	179	13.16
China	11	0.81	11	0.81
Denmark	3	0.22	1	0.07
Finland	1	0.07	40	2.94
France	53	3.90	13	0.96
Germany	31	2.28	11	0.81

(Continues)

TABLE 1 (Continued)

Panel C: Bidder/target country distributions	Bidders		Targets	
	N	%	*N*	%
Hong Kong	9	0.66	8	0.59
India	5	0.37	5	0.37
Israel	9	0.66	10	0.74
Italy	8	0.59	313	23.01
Japan	362	26.62	3	0.22
Mexico	5	0.37	10	0.74
Netherlands	14	1.03	9	0.66
Norway	12	0.88	5	0.37
Poland	5	0.37	15	1.10
Russian Fed	13	0.96	10	0.74
Singapore	5	0.37	9	0.66
South Africa	8	0.59	20	1.47
South Korea	19	1.40	6	0.44
Switzerland	42	3.09	22	1.62
Taiwan	8	0.59	10	0.74
United Kingdom	33	2.43	20	1.47
United States	465	34.19	539	39.63
Total	1360	100	1360	100

Note: The table exhibits the distribution of sample takeovers by the announcement year, by industry, and by bidder country. The takeover distribution by year in Panel A contains 1360 deals from 2004 to 2016. Panel B shows the sample distribution of the top 10 industries among the Fama-French 48 industries in the sample. Panel C reports the sample distribution by the acquirer and target countries. Acquirers and targets are publicly listed firms covered by the ASSET4ESG database pre- and postacquisition.

4 | MAIN RESULTS

To test our first hypothesis (H1), we estimate cross-sectional regressions of the postdeal change in bidder governance on the pre-deal target-bidder firm governance gap and a set of control variables. In Models 1–6 of Table 3, we document the learning effect of firm corporate governance on changes in bidder governance. The gaps in governance proxies are highly correlated, as reported in the Supporting Information S1: Table A.2. To tackle multicollinearity, we estimate the effect of one governance proxy at a time. From Models 1 to 3, we take only the target-bidder governance gap as the key independent variable. The parameter estimates are statistically and economically significant. To illustrate using the estimated coefficient for Target-Bidder firm gov. gap of 0.1431 for Model 1 in Table 3, the postmerger $(t+1)$ change in the bidder's governance increases by 7.180 [$\equiv ((0.1431 \times 29.411)/17.241) = 24.4\%$ of 29.411] scores from a 1 SD change in the Target-Bidder firm gov. gap, where 29.411 (Panel A, Tables 2) and 17.241 (Panel B, Table 2) are the SDs of Target-Bidder gov. gap and Δ in Bidder's Governance, respectively. Similarly, postdeal $(t+2)$ and $(t+3)$ changes in the bidder's governance increase by 8.12 and 8.40 scores, respectively, from a 1 SD change in the Target-Bidder firm gov. gap.

TABLE 2 Descriptive statistics.

	Full sample			Positive gap	Negative gap	*T* test	
Variables	Mean (1)	Median (2)	SD (3)	Mean (4)	Mean (5)	Difference (4)–(5) (6)	*p* (7)
Δ Bidder firm governance $(t-1, t+1)$	1.497	0.205	17.241	4.901	1.907	2.994***	.000
Target-Bidder firm gov. gap	−19.415	−20.840	29.411				
Target-Bidder country gov. gap	−0.336	0	6.347	−0.229	−0.395	−0.166	.629
Common law	0.204	0	0.403	0.193	0.216	−0.023	.283
Market capitalization	29.063	28.973	1.245	27.096	24.030	3.066	.331
GDP per capita	10.618	10.695	0.452	10.648	10.589	0.059***	.018
GDP growth	1.817	2.071	2.391	1.885	1.748	0.137	.291
Payment method (dummy)	0.629	1	0.483	0.587	0.676	−0.089***	.001
Cross-border (dummy)	0.246	0	0.431	0.236	0.252	−0.016	.487
Same industry (dummy)	0.324	0	0.468	0.369	0.274	0.095***	.000
Relative deal size	0.172	0.048	0.289	0.228	0.117	0.111***	.000
Tender offer (dummy)	0.147	0	0.354	0.154	0.140	0.014	.445
Merger of equals (dummy)	0.074	0	0.261	0.056	0.091	−0.035***	.013
Hostile takeover (dummy)	0.055	0	0.228	0.038	0.072	−0.034***	.007
Toehold	8.609	0	14.948	7.348	9.746	−2.398***	.003
Bidder cash flow	0.102	0.090	0.070	0.102	0.100	0.002	.961
Bidder size	16.088	16.092	1.518	15.745	16.430	−0.685***	.000
Bidder staggered board	0.262	0	0.440	0.321	0.203	0.118***	.000
Bidder ROA	0.066	0.056	0.059	0.067	0.065	0.002	.410
Bidder Tobin Q	1.252	0.142	1.097	2.502	1.002	1.500	.201
Target cash flow	0.035	0.059	0.151	0.041	0.029	0.012	.140
Target size	12.977	12.955	1.793	13.132	12.848	0.284***	.004
Target staggered board	0.054	0	0.225	0.078	0.033	0.045***	.000
Target ROA	0.090	0.076	0.081	0.091	0.088	0.003	.410
Target Tobin Q	1.986	0.209	1.407	3.590	1.383	2.207	.217
Δ Bidder leverage $(t-1, t+1)$	0.022	0.007	0.090	0.026	0.019	0.007	.176
Δ Bidder cash flow $(t-1, t+1)$	−0.016	−0.008	0.055	−0.021	−0.011	−0.011***	.000
Δ Bidder assets $(t-1, t+1)$	0.610	0.282	1.092	0.738	0.483	0.255***	.000
Δ ROA $(t-1, t+1)$	0.085	0.072	0.086	0.091	0.079	0.012***	.011
Takeover premium	0.511	0.257	3.051	0.527	0.494	0.033	.840

(Continues)

TABLE 2 (Continued)

	Full sample			Positive gap	Negative gap	*T* test	
Variables	Mean (1)	Median (2)	SD (3)	Mean (4)	Mean (5)	Difference (4)–(5) (6)	*p* (7)
No. of days for deal completion	109	90	117.579	4.532	4.545	−0.013*	.098
Observations	1360			290	1070		

Note: The table shows descriptive statistics of postacquisition changes in the corporate governance of the bidder firms over the 3 years between 2003 and 2020. The results are based on 1347 international M&A deals listed in Securities Data Corporation. The firm corporate governance data come from the ASSET4ESG database pre- and postacquisition. The bidders and targets are publicly listed firms with available firm corporate governance data. Our key variable of interest ("Target-Bidder firm governance gap") is the predeal, firm-level corporate governance gap between the target and the bidder governance scores. These scores have a value from 0 (lowest) to 100 (highest). Definitions of all variables are provided in Appendix A. * and *** represent significance at 10% and 1% level, respectively.

Abbreviations: gov., governance; ROA, return on assets.

We include control variables in Models 4–6 and estimate the impact of the target-bidder governance gap on the change in the bidder governance during 3 years after the acquisition. The estimated coefficient on our key variable of interest (i.e., target-bidder firm governance gap) is positive and statistically significant, suggesting that the governance gap between bidders and targets positively affects the bidder's governance post-acquisition. As far as economic magnitudes are concerned, they are almost similar as those found before. We next use the gap in two categories of governance, namely Mgt. quality and SRs. The results shown in Table 4 support the positive effect of the governance gap on changes in these categories. These results corroborate H1. For governance and its categories, we show that the bidder governance quality increases in deals with a higher target-bidder firm governance gap. This means that the portability of good corporate governance can happen in a reverse fashion—from targets to bidders. It further suggests that one potential source of increasing bidder governance from M&As is moving towards the target's higher governance standards after a change in control. The parameter estimates of control variables mostly show insignificant effects on changes in bidder's governance across all models, except "target staggered board" that negatively affects governance performance.

Our results differ from earlier studies that show no significant transferability of good governance from targets to bidders (Martynova & Renneboog, 2008; Wang & Xie, 2009). In contrast, we show that to be the case. Our empirical evidence helps to extend the portability theory by clarifying that higher governance standards can travel in both directions—that is, from bidders to targets (portability theory) or from targets to bidders (reverse portability).

4.1 | Channels of higher bidder firm governance

Our results suggest that the bidder's firm governance improves when the pre-deal target-bidder governance gap is positive. We further examine the potential channels through which the governance gap affects the quality of bidder governance. To do so, we follow the literature and use five individual firm governance attributes mentioned earlier. We generate a dummy variable

TABLE 3 Governance gaps and changes in the bidder's postdeal governance.

Dependent variable: Δ Bidder's governance	(1) Gov. $(t-1, t+1)$	(2) Gov. $(t-1, t+2)$	(3) Gov. $(t-1, t+3)$	(4) Gov. $(t-1, t+1)$	(5) Gov. $(t-1, t+2)$	(6) Gov. $(t-1, t+3)$
Target-Bidder firm gov. gap	0.2765*** (8.461)	0.3553*** (9.558)	0.4062*** (9.991)	0.2959*** (8.590)	0.3756*** (9.304)	0.4027*** (9.168)
Target-bidder country gov. gap				−0.1127 (−1.177)	−0.1171 (−1.276)	−0.0582 (−0.621)
Payment method dummy				0.4575 (0.364)	1.2406 (0.859)	−0.1227 (−0.075)
Cross-border dummy				0.3824 (0.283)	−0.9776 (−0.661)	0.7861 (0.447)
Same industry dummy				−0.8559 (−0.707)	−0.3002 (−0.229)	−0.4542 (−0.309)
Tender offer dummy				2.2400 (1.047)	−0.1993 (−0.080)	−2.0509 (−0.729)
Merger of equals dummy				4.6445 (1.073)	5.0450 (1.245)	−1.1924 (−0.241)
Hostile takeover dummy				−1.6242 (−0.364)	−2.0221 (−0.497)	6.5538 (1.307)
Toehold				0.0442 (1.185)	0.0048 (0.113)	0.0237 (0.525)
Relative deal size				−0.0031 (−1.309)	−0.0037 (−1.325)	−0.0034 (−1.174)
Bidder cash flow				−1.8713 (−1.326)	−4.9666 (−1.533)	−4.8788*** (−2.923)
Bidder size				0.3878 (0.793)	0.8502 (1.428)	0.7444 (1.159)
Bidder staggered board				0.2519 (0.178)	1.6718 (1.069)	5.3794*** (3.047)
Bidder Tobin Q				0.7918 (0.667)	−0.7167 (−0.545)	−1.8852 (−1.458)
Bidder ROA				5.7478* (1.899)	3.0543 (1.593)	7.5901* (1.911)
Target cash flow				3.5625 (0.990)	0.6320 (0.148)	−1.7094 (−0.394)
Target size				0.0442 (0.110)	0.2748 (0.609)	0.1400 (0.289)
Target staggered board				−3.8318* (−1.775)	−6.1856** (−2.469)	−6.8693** (−2.468)
Target Tobin Q				−0.5852 (−0.658)	0.5445 (0.552)	1.4220 (1.467)
Target ROA				0.0087 (0.078)	0.0081 (0.085)	0.0075 (1.052)

(Continues)

TABLE 3 (Continued)

Dependent variable: Δ Bidder's governance	(1) Gov. ($t-1$, $t+1$)	(2) Gov. ($t-1$, $t+2$)	(3) Gov. ($t-1$, $t+3$)	(4) Gov. ($t-1$, $t+1$)	(5) Gov. ($t-1$, $t+2$)	(6) Gov. ($t-1$, $t+3$)
Δ Bidder leverage				1.6666 (0.279)	0.0427 (0.006)	−1.5761 (−0.217)
Δ Bidder cash flow				8.6041 (0.654)	−1.2449 (−0.086)	7.6891 (0.475)
Δ Bidder assets				0.2992 (0.375)	1.3931 (1.640)	2.7251*** (2.731)
Common law				1.3804 (0.891)	0.0490 (0.028)	−1.0104 (−0.514)
Market cap				−1.3534 (−0.403)	−1.8045 (−0.442)	−1.4622 (−0.329)
GDP per capita				15.9081*** (2.819)	7.6814 (1.176)	5.4374 (0.775)
GDP growth				0.4560 (0.967)	−0.1087 (−0.207)	0.3138 (0.557)
Year, industry, and country dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	51.6623*** (9.337)	34.8028*** (6.694)	−1.3788 (−0.227)	−86.3724 (−1.278)	−12.6678 (−0.140)	−33.5559 (−0.363)
N	1360	1339	1302	1360	1339	1302
R^2	0.1595	0.1641	0.1978	0.1894	0.1835	0.2292

Note: The table shows results for the effect of the predeal, target-bidder governance gap on the postdeal bidder's change in governance. The sample comprises 1360 completed international mergers and acquisitions listed in Securities Data Corporation from 2004 to 2016. The ASSET4ESG database pre- and postacquisition covers the acquirer and target. The dependent variable is the bidder's change in firm corporate Gov. from 1 year before the deal announcement to 1, 2, and 3 years after the deal completion. The key variable of interest ("Target-Bidder firm governance gap") is the firm-level corporate governance gap between the target and the bidder Gov. 1 year before the deal announcement. These scores have a percentage value from 0 (lowest) to 100 (highest). The regression models use year, industry, and country dummies, whose coefficients are not shown for brevity. *, **, and *** represent significance at 10%, 5%, and 1% level, respectively. We report T statistics of the estimated coefficients in parentheses. The White (1980) robust SEs are used for heteroscedasticity.

Abbreviations: Gov., governance scores; ROA, return on assets.

*$p < .1$; **$p < .05$; ***$p < .01$.

TABLE 4 Governance categories.

Dependent variable: Δ Bidder's governance	(1) Mgt. $(t-1, t+1)$	(2) Mgt. $(t-1, t+2)$	(3) Mgt. $(t-1, t+3)$	(4) SR $(t-1, t+1)$	(5) SR $(t-1, t+2)$	(6) SR $(t-1, t+3)$
Target-Bidder firm gov. gap	0.3125*** (8.198)	0.3514*** (7.914)	0.3487*** (9.340)			
Target-Bidder firm gov. gap				0.3592*** (6.725)	0.3218*** (6.157)	0.3417*** (8.245)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes	Yes	Yes	Yes
Constant	−37.1170 (−1.028)	−42.6365 (−0.246)	−46.6972 (−1.013)	−23.1782 (−0.140)	25.3412*** (5.020)	26.2104 (1.061)
N	1360	1339	1301	1360	1339	1301
R^2	0.2091	0.2117	0.2894	0.3107	0.2970	0.3041

Note: The table shows results for the effect of the predeal, target-bidder governance gap on the postdeal bidder's change in governance using two categories of governance, namely Mgt. and shareholder. The sample comprises of completed international mergers and acquisitions listed in Securities Data Corporation from 2004 to 2016. The ASSET4ESG database pre- and postacquisition covers the acquirer and the target. The dependent variables are the bidder's change in Mgt. and SR scores from 1 year before the deal announcement to 1, 2, and 3 years after the deal completion. The key variable of interest ("Target-Bidder firm governance gap") is the firm-level corporate governance gap in Mgt. quality and SRs between the target and the bidder scores in these categories 1 year before the deal announcement. These scores have a percentage value from 0 (lowest) to 100 (highest). The regression models use year, industry, and country dummies, whose coefficients are not shown for brevity. *** represents the significance level at 1%. We show T statistics of estimated coefficients in parentheses. The White (1980) robust SEs are used for heteroscedasticity.

Abbreviations: gov., governance; Mgt., management quality; SR, shareholder rights.

***$p < .01$.

(Bidder governance DUM) equal to 1, if the change in the bidder governance attribute is positive, and 0 otherwise. To test our second hypothesis, we estimate the following model:

$$\begin{aligned}\Delta\ \mathrm{BCG}_{d,\ t-1\ \mathrm{to}\ t+\tau} \;=\; & \alpha + \beta_1 \mathrm{FTB\ GAP}_{d,t-1} + \beta_2 \mathrm{High\ IGA}_{d,t-1} \\ & + \beta_3 \mathrm{FTB\ GAP}_{d,t-1}\ \mathrm{X\ High\ IGA}_{d,t-1} + \beta_4 \mathrm{CTB\ GAP}_{d,t-1} \\ & + \sum \beta_k \mathrm{Deal\ controls}_{d,t} + \sum \beta_l\ \mathrm{Firm\ controls}_{a,\ b,t-1} \\ & \sum \beta_m\ \Delta\ \mathrm{Bidder\ controls}_{a,t-1\ \mathrm{to}\ t+\tau} + \sum \beta_n\ \mathrm{Bidder\ country\ controls}_{d,t-1} \\ & + \lambda_t + \eta_i + \gamma_c + \varepsilon i, \quad t, \text{for } \tau = 1,\ \ 2,\ \ \text{or } 3,\end{aligned} \tag{2}$$

where $\mathrm{HighIGA}_{d,t-1}$ is a dummy variable that equals 1 if the score on individual governance attributes (board independence, audit committee independence, CEO separation, stock compensation and equal treatment of shareholders) is above the sample median and zero otherwise. The variable of interest is the interaction term [$\mathrm{FTBGAP}_{d,t-1}$ X $\mathrm{HighIGA}_{d,t-1}$] between governance gap and high score of individual governance attributes. For each attribute, we estimate Equation (2) separately and used the same control variables as in the Equation (1). The results on interaction terms show significantly positive coefficients in all models of Table 5. For instance, Model (1) of Panel A shows that, on average, governance gap positively affects bidder's governance if their board independence is higher. The results favor H2 and support the monitoring role of all individual governance attributes. We argue that the five individual governance attributes are potential channels through which bidder firms improve their governance quality.

4.2 | Bidder's postdeal operating performance

We now test our third hypothesis (H3) and examine the impact of the post-deal positive change in the bidder's governance on changes in its operating performance. Following Healy et al. (1992) and Alexandridis et al. (2013), we compute return on assets (ROA), the ratio of operating income to assets, as a proxy for operating performance. We then adjust this ROA to capture the probable impacts of industry and country-wide factors. Specifically, the bidder's adjusted ROA is calculated as its ROA minus the median ROA of other firms in the same Fama-French 48 industry *i*, year *t*, and country *c*. The same method is used to compute both pre- and postdeal bidder's ROA, and the change in operating performance is simply the difference between both ROAs. The following model is used to test H3:

$$\begin{aligned}\Delta\ \mathrm{BOP}_{d,t-1\ \mathrm{to}\ t+1} \;=\; & \alpha + \beta_1 \Delta\ \mathrm{Bidder\ governance\ DUM}_{d,t-1\ to\ t+1} + \beta_2 \mathrm{CTB\ GAP}_{d,t-1} \\ & + \sum \beta_k \mathrm{Deal\ \ controls}_{d,t} + \sum \beta_l\ \mathrm{Firm\ controls}_{a,b,t-1} \\ & + \sum \beta_m\ \Delta\ \mathrm{Bidder\ controls}_{a,t-1\ to\ \ \ t+1} + \lambda_t + \eta_i + \gamma_c + \varepsilon i, t,\end{aligned} \tag{3}$$

where $\Delta\ \mathrm{BOP}_{d,i,\ t-1\ \mathrm{to}\ t+1}$ is the bidder's post-deal $(t + 1)$ change in industry-adjusted ROA relative to the pre-deal industry-adjusted ROA $(t - 1)$ for deal *d* in industry *i*. The estimated coefficient on our key variable of interest, Δ Biddergovernance $\mathrm{DUM}_{d,t-1\ \mathrm{to}\ t+1}$, (measured by scores on governance, Mgt., and shareholders) is significantly positive (see Table 6) showing that the bidders learning and adoption of the higher governance of the targets postacquisition are associated with positive changes in operating performance. Taking Model (1) of Table 6 as an example, the estimated parameter of Δ

TABLE 5 Channels of bidder's higher governance.

Panel A: Moderating effect of board independence, audit committee independence, and CEO-Chairman separation									
Dependent variable: Δ Bidder's governance	**(1) Gov. $(t-1, t+1)$**	**(2) Gov. $(t-1, t+2)$**	**(3) Gov. $(t-1, t+3)$**	**(4) Gov. $(t-1, t+1)$**	**(5) Gov. $(t-1, t+2)$**	**(6) Gov. $(t-1, t+3)$**	**(7) Gov. $(t-1, t+1)$**	**(8) Gov. $(t-1, t+2)$**	**(9) Gov. $(t-1, t+3)$**
TBGP	0.3518*** (6.015)	0.3027*** (6.124)	0.3129*** (6.578)	0.2337*** (5.136)	0.2245*** (5.342)	0.2198*** (5.158)	0.1548*** (3.576)	0.1281*** (3.448)	0.1910*** (3.726)
HBI	0.2315*** (5.731)	0.2541*** (5.064)	0.2288*** (4.693)						
TBGP × HBI	0.4827*** (3.129)	0.4567*** (3.471)	0.4378*** (3.258)						
HACI				0.1308*** (7.731)	0.1595*** (6.162)	0.2415*** (5.105)			
TBGP × HACI				0.4971* (1.702)	0.4018*** (3.471)	0.3001** (2.130)			
CEO-Chairman SEP							0.0302*** (3.128)	0.0158*** (3.149)	0.0549*** (3.126)
TBGP × SEP							0.4115*** (4.027)	0.4508*** (4.195)	0.4314*** (5.120)
Year, industry, and country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1360	1339	1301	1360	1339	1301	1360	1339	1301
R^2	0.2544	0.2077	0.2018	0.2084	0.1389	0.2587	0.2221	0.2419	0.1512

Panel B: Moderating effect of stock compensation and equal treatment of shareholders						
Dependent variable: Δ Bidder's governance	**(1) Gov. $(t-1, t+1)$**	**(2) Gov. $(t-1, t+2)$**	**(3) Gov. $(t-1, t+3)$**	**(4) Gov. $(t-1, t+1)$**	**(5) Gov. $(t-1, t+2)$**	**(6) Gov. $(t-1, t+3)$**
TBGP	0.3714*** (4.763)	0.4058*** (5.518)	0.2219*** (4.632)	0.1528*** (3.179)	0.1271*** (4.185)	0.1285*** (5.147)
SC	0.1543*** (6.230)	0.1153*** (6.132)	0.1276*** (6.184)			

(Continues)

TABLE 5 (Continued)

Panel B: Moderating effect of stock compensation and equal treatment of shareholders						
Dependent variable: Δ Bidder's governance	**(1) Gov. ($t-1$, $t+1$)**	**(2) Gov. ($t-1$, $t+2$)**	**(3) Gov. ($t-1$, $t+3$)**	**(4) Gov. ($t-1$, $t+1$)**	**(5) Gov. ($t-1$, $t+2$)**	**(6) Gov. ($t-1$, $t+3$)**
TBGP × SC	0.4125*** (3.192)	0.4517*** (3.241)	0.4672*** (4.225)			
ETS				0.3308*** (4.636)	0.3570*** (4.241)	0.3214*** (4.518)
TBGP × ETS				0.3516*** (5.685)	0.4009*** (4.165)	0.3318*** (5.786)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes	Yes	Yes	Yes
N	1360	1339	1301	1360	1339	1301
R^2	0.2167	0.2216	0.1803	0.3265	0.3919	0.3581

Note: The table reports results for the change in bidder governance on the post-deal bidder's change in five individual governance attributes. The sample comprises completed international mergers and acquisitions listed in Securities Data Corporation from 2004 to 2016. The ASSET4ESG database pre- and postacquisition covers the acquirer and the target. The dependent variable is the bidder's change in board independence, audit committee independence, CEO-Chairman SEP, stock compensation, and equal treatment of minority shareholders, in separate regressions, from 1 year before the deal announcement to 1, 2, and 3 years after the deal completion. The key variable of interest (Δ Bidder management dummy or Δ Bidder shareholder rights dummy) is a dummy variable that equals 1 for a positive change in bidder governance measured by subcategories of governance, that is, management and shareholder rights scores, and 0 otherwise. The regression models use year, industry, and country dummies, whose coefficients are not shown for brevity. *, **, and *** represent the significance level at 10%, 5%, and 1%, respectively. We show *T* statistics of estimated coefficients in parentheses. The White (1980) robust SEs are used for heteroscedasticity.

Abbreviations: ETS, equal treatment of shareholders; Gov., governance score; HACI, high audit committee independence; HBI, high board independence; SC, stock compensation; SEP, separation; TBGP, Target-Bidder firm gov. gap.

*$p < .1$; **$p < .05$; ***$p < .01$.

TABLE 6 Bidder's operating performance.

Dependent variable: Δ Bidder's ROA ($t-1, t+1$)	(1) Gov. ($t-1, t+1$)	(2) Mgt. ($t-1, t+1$)	(3) SR ($t-1, t+1$)
Δ Bidder governance score dummy	0.1584*** (6.128)		
Δ Bidder Mgt. score dummy		0.1637*** (6.128)	
Δ Bidder SRs score dummy			0.1418*** (7.205)
Controls	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes
Constant	−0.4015** (−2.015)	−0.3174** (−2.187)	−0.4971* (−1.742)
N	1358	1358	1358
R^2	0.4658	0.4345	0.5265

Note: The table shows the change in bidder's operating performance from 1 year before to 1 year after deal announcement. The sample consists of completed international mergers and acquisitions listed in Securities Data Corporation from 2003 to 2016. The ASSET4ESG database pre- and postacquisition covers the acquirer and target. The dependent variable is the change in the bidder's industry-adjusted ROA and the key variable of interest ("Δ Bidder governance score dummy") is a binary variable that equals 1 if the postdeal change in bidder's overall governance, Mgt., and SRs is positive and 0 otherwise. The regression models use year, industry, and country dummies, whose coefficients are not shown for brevity. *, **, and *** represent the significance level at 10%, 5%, and 1%, respectively. We show *T* statistics of estimated coefficients in parentheses.

Abbreviations: Gov., governance score; Mgt., management; ROA, return on assets; SR, shareholder rights.

*$p < .1$; **$p < .05$; ***$p < .01$.

Bidder governance score dummy shows that the average change in bidder operating performance is 7.96% higher for bidders who adopted the target's governance standards. The results are similar for Mgt. (Model 2) and SRs (Model 3) categories.

Our results support the literature reporting that higher corporate governance standards positively affect operating performance (Black et al., 2006; Byrd & Hickman, 1992; Chemmanur et al., 2010; Core et al., 2006), mainly because agency conflicts are lower in firms with better governance (Chhaochharia & Laeven, 2009). The findings are also consistent with lower implementation/integration risks when bidders adopt the higher governance standards of their targets. Implementation/integration risks help in obtaining the benefits from operational synergies, which are higher for international M&As due to the cultural, geographic and institutional distances between acquirers and targets (Chakrabarti & Mitchell, 2016; Deloitte, 2015). The results in this section provide further support for reverse portability, suggesting that a positive predeal target-bidder firm governance gap appears to be a source of better postdeal bidder operating performance.

5 | ROBUSTNESS TESTS

5.1 | Alternative model specifications and subsamples

This section investigates the robustness of the positive effect of the pre-deal target-bidder firm governance gap on the postdeal bidder's governance performance documented above. Our results are robust (materially unchanged) for the following alternate variable and sample specifications: (1) governance quality of the bidder and target is measured using the first

principal component with a Eigenvalue higher than one from a PCA based on the scores of overall governance and its two categories of Mgt. and shareholders, and the target-bidder governance gap computed by subtracting the bidder's PCA score from the target's PCA score (see Panel A of Table 7); the sample of deals is split before and after the financial crisis based on the finding of Alexandridis et al. (2017) of "profound improvements in the quality of corporate governance among acquiring firms after the financial crisis" that likely lowered the potential adoption of better governance by acquirers after the financial crisis;[13] the effect of the other two dimensions of ESG, namely, environmental, and social along with the overall ESG score are examined, which provides further support to the reverse portability by showing that bidders can also adopt the target's environmental and social practices; and (4) various subsamples such as excluding the deals from the United States (as the United States dominates our sample), and dropping the year (i.e., 2006) and industry (drug) with the highest number of deals to ensure that results are not driven by any sort of observational bunching or dominance. To summarize, all findings for this set of robustness tests are consistent with prior (baseline) results.

5.2 | Are the results driven by the inclusion of cross-border acquisitions?

One can raise a concern that country-level governance, where the bidder can benefit from the higher governance standards of the target's home country, may be driving our results. To address this concern, we rerun our baseline regression for separate samples of domestic and cross-border M&As that contain 1029 and 331 deals, respectively. Based on the results reported in Panel D of Table 7, we observe that the reverse portability effect is comparatively higher for domestic deals. This suggests that our baseline results are not due to the inclusion of cross-border acquisitions. It supports our first hypothesis that bidders can adopt the targets' governance standards if they have poor governance standards before the acquisition. To summarize, all findings for the robustness tests are consistent with baseline results.

5.3 | Endogeneity

The results so far document a positive relation between the predeal target-bidder firm governance gap and postdeal bidder governance. However, the findings may be due to endogeneity issues arising from either a nonrandom distribution of deals with higher target-bidder governance gaps or omitted variable bias. We address potential endogeneity concerns using PSM and the Oster (2019) test of omitted variable bias.

To initially address endogeneity concerns, we first use PSM to examine a matched sample of deals. The main advantage of employing PSM is that it permits us to ascribe any observed effects to the deals with better target governance themselves, irrespective of the firm attributes linked with deals with positive target-bidder governance gaps. We first divide the full takeover sample into two groups (see, for instance, Bose et al., 2021) of high and low pre-deal target-bidder gaps based on the median predeal target-bidder gap for the full sample. Those deals above the median represent our treatment group and the remainder represent the donor pool from which we choose our control sample. As the first step in obtaining deals for the control group from the donor pool, we estimate a logit model for the full M&A sample. The logit regression model regresses the binary variable for governance, Mgt., and SRs gap on several

TABLE 7 Robustness tests.

Panel A: Alternative measure of governance			
Dependent variable: Δ Bidder's governance	**(1) PCA governance ($t-1, t+1$)**	**(2) PCA governance ($t-1, t+2$)**	**(3) PCA governance ($t-1, t+3$)**
Target-Bidder firm governance gap	4.1259*** (6.551)	4.2160*** (8.251)	5.7492*** (8.124)
Constant and control variables	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes
N	1360	1339	1301
R^2	0.1493	0.1510	0.2206

Panel B: Before and after the end of the financial crisis						
	Pre-2010			**Post-2010**		
Dependent variables: Δ Bidder's governance	**(1) Gov. ($t-1, t+1$)**	**(2) Mgt. ($t-1, t+1$)**	**(3) SR ($t-1, t+1$)**	**(4) Gov. ($t-1, t+1$)**	**(5) Mgt. ($t-1, t+1$)**	**(6) SR ($t-1, t+1$)**
Target-Bidder firm gov. gap	0.2061*** (6.175)	0.2179*** (7.207)	0.0915*** (4.189)	0.1514*** (6.142)	0.1415*** (5.014)	0.1358** (1.890)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes	Yes	Yes	Yes
N	670	670	670	690	690	690
R^2	0.4372	0.4455	0.3715	0.2272	0.2541	0.2048

Panel C: ESG scores									
Dependent variable: Δ Bidder's ESG	**(1) ESG ($t-1, t+1$)**	**(2) ESG ($t-1, t+2$)**	**(3) ESG ($t-1, t+3$)**	**(4) Env. ($t-1, t+1$)**	**(5) Env. ($t-1, t+2$)**	**(6) Env. ($t-1, t+3$)**	**(7) Soc. ($t-1, t+1$)**	**(8) Soc. ($t-1, t+2$)**	**(9) Soc. ($t-1, t+3$)**
Target-Bidder firm gov. gap	0.2178*** (6.135)	0.2276*** (6.925)	0.2469*** (6.129)	0.2576*** (5.150)	0.2814*** (5.170)	0.1817*** (4.019)	0.1702*** (6.138)	0.1725*** (5.129)	0.0969*** (6.313)
Constant and control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

(Continues)

TABLE 7 (Continued)

Panel C: ESG scores									
Dependent variable: Δ Bidder's ESG	**(1) ESG ($t-1$, $t+1$)**	**(2) ESG ($t-1$, $t+2$)**	**(3) ESG ($t-1$, $t+3$)**	**(4) Env. ($t-1$, $t+1$)**	**(5) Env. ($t-1$, $t+2$)**	**(6) Env. ($t-1$, $t+3$)**	**(7) Soc. ($t-1$, $t+1$)**	**(8) Soc. ($t-1$, $t+2$)**	**(9) Soc. ($t-1$, $t+3$)**
N	1360	1339	1301	1071	1058	1030	1354	1335	1298
R^2	0.2171	0.2815	0.3595	0.2517	0.2915	0.3518	0.2114	0.2840	0.3171

Panel D: Subsamples												
	Full takeovers			**Drop US**			**Exclude year 2006**			**Exclude drugs industry**		
Dependent variable: Δ Bidder's governance	**(1) Gov. ($t-1$, $t+1$)**	**(2) Mgt. ($t-1$, $t+1$)**	**(3) SR ($t-1$, $t+1$)**	**(4) Gov. ($t-1$, $t+1$)**	**(5) Mgt. ($t-1$, $t+1$)**	**(6) SR ($t-1$, $t+1$)**	**(7) Gov. ($t-1$, $t+1$)**	**(8) Mgt. ($t-1$, $t+1$)**	**(9) SR ($t-1$, $t+1$)**	**(10) Gov. ($t-1$, $t+1$)**	**(11) Mgt. ($t-1$, $t+1$)**	**(12) SR ($t-1$, $t+1$)**
Target-Bidder firm gov. gap	0.2170*** (5.148)	0.3318***	0.3650*** (6.136)	0.3140*** (6.261)	0.3561*** (5.194)	0.3505*** (5.205)	0.2488*** (5.145)	0.2911*** (5.148)	0.3523*** (0.187)	0.2541*** (7.413)	0.2421*** (5.310)	0.1970*** (5.115)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	769	769	769	895	895	895	1205	1205	1205	1262	1262	1262
R^2	0.2514	0.2330	0.2377	0.1819	0.3772	0.2514	0.2156	0.2287	0.2017	0.1812	0.2513	0.2521
Target-Bidder firm gov. gap	0.2119*** (6.017)		0.2250*** (6.015)		0.3941*** (6.611)		0.2201*** (5.022)		0.2519*** (3.147)		0.2317*** (4.418)	
Controls	Yes		Yes		Yes		Yes		Yes		Yes	
Year, industry, and country dummies	Yes		Yes		Yes		Yes		Yes		Yes	
N	1029		1029		1029		331		331		331	
R^2	0.2531		0.2550		0.2851		0.3107		0.3105		0.4176	

Panel E: Endogeneity using PSM			
Dependent variable: Δ Bidder's governance	**(1) Gov. ($t-1$, $t+1$)**	**(2) Mgt. ($t-1$, $t+1$)**	**(3) SR ($t-1$, $t+1$)**
High Target-Bidder firm gov. gap	6.1058*** (5.109)	6.2641*** (6.148)	6.0084** (4.641)
Controls	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes
N	886	878	904
R^2	0.3018	0.3510	0.3029

Panel F: Omitted variable bias and Oster (2019) method						
Key variables	**Controlled**		**Uncontrolled**			
Assume $\delta = 1$; R_{MAX} = min(2.2˜ R,1)	**β**	**R^2**	**β**	**R^2**	**Identified set**	**Includes zero?**
Target-Bidder firm gov. gap	.1448	0.1761	0.1556	.1540	[0.1507, 0.1448]	No
Target-Bidder firm mgt. gap	.1816	0.2855	0.1730	.1952	[0.1965, 0.1816]	No
Target-Bidder firm SR gap	.1091	0.1830	0.1902	.1455	[0.2671, 0.1091]	No
Assume $\delta = 1$; R_{MAX} = 1						
	Controlled		**Uncontrolled**			
Key Variables	**β**	**R^2**	**β**	**R^2**	**Identified set**	**Includes zero?**
Target-Bidder firm gov. gap	.1460	.1768	.1456	.1748	[0.2295, 0.1460]	No
Target-Bidder firm mgt. gap	.1756	.1752	.1939	.2959	[0.2225, 0.1756]	No
Target-Bidder firm SR gap	.1898	.2131	.2601	.2557	[0.3555, 0.1898]	No

Panel G: Moderating effect of target-bidder similarity				
	Domestic		**Cross-border**	
	(1) Mgt.	**(2) SR**	**(3) Mgt.**	**(4) SR**
High similarity	−1.6185	0.0424	4.9353	0.0521
	(−0.400)	(0.345)	(0.451)	(0.818)

(Continues)

TABLE 7 (Continued)

Panel G: Moderating effect of target-bidder similarity				
	Domestic		Cross-border	
	(1) Mgt.	(2) SR	(3) Mgt.	(4) SR
Target-Bidder firm gov. gap	0.2179***	0.0147	0.0712	−0.0025
	(6.540)	(2.263)	(0.661)	(−1.617)
High similarity × Target-Bidder firm gov. gap	−0.1218	−0.075	0.1517	0.0115
	(−1.028)	(−0.429)	(0.175)	(0.061)
Control variables	Yes	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes	Yes
N	746	746	222	222
R^2	0.1854	0.1471	0.2135	0.2772

Panel H: Role of stock financing			
Dependent variable: Δ Bidder's governance	**(1) Gov. $(t-1, t+1)$**	**(2) Gov. $(t-1, t+2)$**	**(3) Gov. $(t-1, t+3)$**
TBGP	0.2536***	0.2876	0.2136***
	(5.013)	(4.218)	(6.105)
SFD	0.1307	0.0931*	0.1260*
	(1.720)	(1.690)	(1.713)
TBGP × SFD	0.1828 (4.936)	0.2547*** (4.645)	0.2261*** (5.127)
Control variables	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes

TABLE 7 (Continued)

Panel H: Role of stock financing			
Dependent variable: Δ Bidder's governance	**(1) Gov. $(t-1, t+1)$**	**(2) Gov. $(t-1, t+2)$**	**(3) Gov. $(t-1, t+3)$**
N	1360	1339	1302
R^2	0.2094	0.1902	0.2562

Note: The table shows several robustness tests of the positive effect of the pre-deal, target-bidder governance gap on the post-deal bidder's governance performance. The sample consists of completed international mergers and acquisitions listed in Securities Data Corporation from 2004 to 2016. The ASSET4ESG database pre- and post-acquisition covers the acquirer and the target. The key variable of interest ("Target-Bidder firm governance gap") is the firm-level corporate governance gap between the target and the bidder governance scores one year before the deal announcement. These scores have a percentage value from 0 (lowest) to 100 (highest). Definitions of variables are provided in Appendix A. The regression models use year, industry, and country dummies, whose coefficients are not shown for brevity. *, **, and *** represent the significance level at 10%, 5%, and 1%, respectively. We show T-statistics of estimated coefficients in parentheses. The White (1980) robust SEs are used for heteroscedasticity.

Abbreviations: ESG, environmental, social, and governance; FD, stock financed deal; PSM, propensity score matching; SFD, stock financed deal; TBGP, Target-Bidder firm gov. gap.

*$p < .01$; **$p < .05$; ***$p < .1$.

deal, firm and country characteristics to estimate propensity scores. The logit model specification is the same as Equation (1) in Section 4, excluding the target-bidder governance gap and target-bidder country governance gap variables. The dependent variable for each of governance, Mgt., and SRs in the logit model is binary based on the median value of the predeal target-bidder gap. It is assigned a value of 1, if the target-bidder gap is above the full sample median, and 0 otherwise. Using the same controls as in our baseline regressions helps to ensure accurate equilibrium (covariate balancing) between treatment and control groups in the matched sample (Shipman et al., 2017). We then choose our control group by implementing a one-to-one nearest-neighbor matching technique without replacement with a caliper distance of 0.01. We identify a control group by choosing a deal from the donor pool (the group with below median target-bidder gaps) with the nearest propensity score for each deal in the treatment group (the group with above median target-bidder gaps). After controlling for possible nonrandom selection bias, the results in Panel E of Table 7 show that there is still a positive and significant association between target-bidder gaps and postdeal governance quality of bidders.

To account for omitted variable bias, we use the Oster (2019) indicative test. The intuition behind this test is that an identifiable set can be constructed using the coefficients and R^2 from regressions with and without control variables. The identified set can be shown as: $[\tilde{\beta}, \beta^{*'}]$ and $\beta^{*'}$ is estimated by the following formula:

$$\beta^{*'} = \tilde{\beta} - \delta[\beta^{*} - \tilde{\beta}]\frac{R_{\mathrm{MAX}} - R^{*}}{\tilde{R} - R^{*}},$$

where $\tilde{\beta}$ is the estimated coefficient of our governance gap variable; $\tilde{R}$ is the R^2 from our baseline regression with controls (see, Model 4 of Table 3); and β^* and R^* are estimated values from Model 1 of Table 3 where we do not include controls. We choose δ and R_{MAX} values and rely on the Oster (2019) suggestion that the upper bound for δ is equal to 1, meaning that omitted variables must be as significant as the included variables. Following Mian and Sufi (2014), we construct the identified sets' upper Oster bound value of $R_{\mathrm{MAX}} = \min(2.2\,\tilde{R}, 1)$ and $R_{\mathrm{MAX}} = 1$ for the lower panel. R_{MAX} cannot exceed 1, as it identifies a hypothetical R^2 value from the regression of omitted and included variables. The results from Panel F of Table 7 document that neither identified set includes 0 and, therefore, it can be concluded that inferences from our baseline models in Table 3 are unlikely to be affected by omitted variable bias.

The governance scores used previously by us and others do not examine the similarity of the vector (string) of attributes (variables) used in their computation by ASSET4ESG. Such similarity or lack thereof could moderate the relation between $\Delta\,\mathrm{BCG}_{d,i,\,t-1\,\mathrm{to}\,t+1}$ and $\mathrm{FTBGAP}_{d,i,t-1}$. Unfortunately, the updated ASSET4ESG database cannot be used for this purpose because some individual variables in the various vectors for each category are percentage scores, dummy variables, or numeric values. Thus, we use a prior version of the ASSET4ESG database to compute a governance similarity measure proposed by Jaffe (1986) and used by Bereskin et al. (2018) for merger partners:

$$\mathrm{GOVERNANCE\quad SIMILARITY}_{i,j,t} = \frac{X_{i,t}X'_{i,j}}{(X_{i,t}X'_{i,t})^{0.5}(X_{j,t}X'_{j,t})^{0.5'}},$$

where $X_{i,t}$ is a vector of individual governance attributes in the Mgt. or SRs category for bidder firm i and $X'_{i,j}$ is a vector of the same attributes for target firm j. The total number of attributes under the Mgt. and SRs categories are 44 and 11, respectively. We examine if there is any moderating effect of governance similarity on the relationship between $\Delta \quad BCG_{d,\ t-1\ to\ t+1}$ and $FTBGAP_{d,t-1}$. Therefore, we estimate Equation (1) using two additional controls, lagged value of governance similarity, and the interaction between governance similarity and governance gap, separately for domestic and cross-border deals. Based on the results reported in Panel G of Table 7, High similarity reduces the positive relation of the Target-Bidder firm gov. gap significantly only with SR for domestic deals. Overall, adding the similarity measure does not substantially moderate the base-case relations given in Table 4.

5.4 | Role of stock financing

Harford et al. (2012) identified that entrenched managers are not motivated to offer equity as a method of payment because of the possibility of creating monitoring blockholders. In the context of our study, if the target's governance travels to the acquirer after the acquisition, the governance gap—bidder governance relationship is likely more pronounced for stock-financed deals where the potential of creating monitoring blockholders is higher and this monitoring may translate into the higher governance of the bidder firm. In the same vein, Starks and Wei (2013) argue that shareholders of the bidder and target become owners of the new entity if the payment is made by issuing stock and better governance standards would be preferred after the acquisitions. Therefore, targets would be highly motivated to transfer their governance standards to bidders to realize synergy benefits. Based on these arguments, we expect that stock financing should positively moderate the association between the governance gap and bidders' governance postacquisition. Our results are shown in Panel H of Table 7, which corroborates our conjecture that stock-financed deals may ease the process of governance transfer from the target to the bidder.

6 | TAKEOVER OUTCOMES

This section examines how the pre-deal target-bidder governance gap affects takeover outcomes, the price paid by the bidder to the target (takeover premium) and the time taken to complete the deal. Starks and Wei (2013) find that acquirers from countries with weaker investor protection pay higher premiums to targets from countries with stronger investor protection as the target shareholders demand compensation for vulnerability to the acquirer's poorer national governance standards. However, Wang and Xie (2009) argue that takeover value is shared between the bidder and target when the bidder has better SRs than the targets in the US market. Therefore, we conjecture those bidders may pay higher premiums to targets to satisfy their shareholders, particularly if the bidders do not adopt the higher standards of the targets. We define takeover premium as the ratio of the bidder's offer price to the target's equity price 2 weeks before the deal. The results of Models (1) to (3) reported in Table 8 support our conjecture and suggest that, on average, bidders pay higher bid premiums for targets with relatively better corporate governance. Based on the first model, a 1 SD increase in the target-bidder firm governance gap increases the premium by 51.96 basis points (29.411×0.1833/3.051 = 176.69% of 29.41 = 51.96).

TABLE 8 Governance gap, takeover premium, and time taken to complete the deal.

	Takeover Premium			Log days		
Dependent variables: Premium and log days	**(1) Gov. $(t-1, t+1)$**	**(2) Mgt. $(t-1, t+1)$**	**(3) SR $(t-1, t+1)$**	**(4) Gov. $(t-1, t+1)$**	**(5) Mgt. $(t-1, t+1)$**	**(6) SR $(t-1, t+1)$**
Target-Bidder firm gov. gap	0.0108***	0.0139**	0.0127*	−0.0018**	−0.0009*	−0.0004*
	(3.186)	(2.308)	(1.798)	(−2.196)	(−1.781)	(−1.709)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year, industry, and country dummies	Yes	Yes	Yes	Yes	Yes	Yes
N	1360	1360	1360	1360	1360	1360
R^2	0.1825	0.1735	0.1739	0.1698	0.1698	0.1588

Note: This table shows the effect of the predeal target-bidder governance gap on the takeover premium. The sample consists of completed international mergers and acquisitions listed in Securities Data Corporation from 2004 to 2016. The ASSET4ESG database pre- and postacquisition covers the acquirer and the target. The key variable of interest ("Target-Bidder firm governance gap") is the firm-level corporate governance gap between the target and the bidder governance scores 1 year before the deal announcement. These scores have a percentage value from 0 (lowest) to 100 (highest). Takeover Premium is the ratio of bidder's offer price to the target's equity price 2 weeks before the deal. The natural logarithm of the difference between the effective date and the announcement date is used to compute Log days. The regression models use year, industry, and country dummies, whose coefficients are not shown for brevity. *, **, and *** represent the significance level at 10%, 5%, and 1%, respectively. We show T statistics of estimated coefficients in parentheses. The White (1980) robust SEs are used.

*$p < .1$; **$p < .05$; ***$p < .01$.

Furthermore, if influential stakeholders such as creditors and large shareholders who have incentives to promote sound acquisitions consider a quicker movement to better governance, we would expect a lower time to complete a deal. As our proxy for the time taken to complete a deal, we use the natural logarithm of the difference between the announcement date and the effective date (Marquardt & Zur, 2015). We find that, on average, deals with higher target-bidder governance gaps take almost 2 days less ($29.411 \times -0.0011/0.481 = -6.72\%$ of $29.41 = -1.97$) to complete if the governance gap increases by 1 SD (see Model [4] of Table 8), consistent with our expectation. This finding suggests that deals with higher target-bidder governance gaps experience fewer deal finalization difficulties.

7 | CONCLUSION

This study shows the effect of the predeal target-bidder firm corporate governance gap on the bidder's postdeal change in corporate governance. Our results show that better governance of the target than the bidder before an acquisition positively affects the bidder's postdeal governance quality. The results support the reverse portability (i.e., from targets to bidders), addressing the counterintuitive question of what happens if targets have better governance than bidders preacquisition. The predeal governance gap creates the potential for governance transfer in the postdeal stage such that bidders can adopt higher governance standards of targets to improve governance performance. We also find that the bidder's improvement in governance stems from five individual governance attributes that serve as potential channels for learning. We also show that the increase in bidder governance after the acquisition is positively associated with the operating performance of the bidder postacquisition and quicker deal completion but at the expense of higher deal premiums.

Our results are not due to firm governance acting as a proxy for country governance as we control for the predeal target-bidder country governance gap in all our regression analyses, and our results on the reverse portability of good corporate governance practices from targets to bidders still hold. The baseline results also hold for a sample of domestic deals. The results suggest that dissimilarities in firm governance standards between bidders and targets are sources of mutual learning for merging firms. Overall, the results present evidence of governance transfer during the post-merger period and shed light on the significance of firm-level corporate governance.

The study provides insights for regulators and policymakers on how takeovers can increase the bidders' governance and operating performance by adopting the better governance quality of targets. We report that an M&A deal can serve as a vehicle for transferring higher corporate governance standards. As there is heterogeneity in governance standards between merging companies, regulators can use this study as a guide towards analyzing the governance spillover effects from targets to bidders in the domestic and international takeover markets. Consideration should be given to requiring governance rankings of potential merging partners in takeover documents so that shareholders are more informed when voting on whether to approve an M&A deal.

We recommend future work on corporate governance such as an investigation of how governance dissimilarities affect the probability of deal completion. Although we examine M&As where the bidder firm acquires the majority stake of the target firm, a similar study can examine partial acquisitions and joint ventures. Finally, there is a lack of reliable sources for firm-level governance data of private bidders and targets, and a study on private combining firms could enhance the generalizability of the learning theory of merger integration.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

Data are not publicly available due to restrictions from the third party.

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ENDNOTES

[1] Some scholars emphasize the notion of "legal bonding" (Stulz, 1999; Coffee, 1999, 2002) to describe the advantages that firms from weaker shareholder protection regimes, such as emerging market multinationals (EMNEs), achieve after cross-listings, or acquiring firms in better-protected environments (Col & Sen, 2019; Loureiro, 2010; McGuinness et al., 2017; Reese & Weisbach, 2002).

[2] One may ask why the bidders acquire targets with better governance, although M&As are costly. The potential reason can be either governance as an important asset or to avoid a takeover threat, enabling firms to survive longer or because they may be easier to integrate. We subsequently deal with this issue in more detail.

[3] In our robustness tests, we compute a governance score using Principal Component Analysis (PCA) that shows similar results as our baseline regressions.

[4] Notably, the disclosure standards (Chahine & Filatotchev, 2008; Collett & Hrasky, 2005; Healy & Palepu, 2001) are voluntary firm communications with the public and increase integrity, analyst forecast accuracy, transparency, and potentially decrease the uncertainty regarding the firm's operations. The action norms, for instance, board independence (Burns et al., 2021), audit committee independence (Carcello & Neal, 2003; Klein, 2002), and stock compensation (Datta et al., 2001) reflect diverse governance conditions under which firms operate and increase corporate performance.

[5] We select this period due to availability of governance data from ASSET4ESG database.

[6] Our results are qualitatively unchanged for full control (100%) acquisitions.

[7] Step by step procedure for getting the final sample is shown in Appendix B.

[8] We do not consider the CSR strategy subcategory in our baseline regressions but in the robustness tests we do.

[9] Based on the firm's annual reports and regulatory filings, ASSET4ESG assigns the scores to 73 Mgt. attributes depending on answers to questions such as: Does the firm have an audit board committee? Does the CEO simultaneously chair the board?

[10] The score of 50 shareholders' attributes is based on questions that include: Does the firm equally treat all stockholders? Does the firm offer shares with different voting rights?

[11] Although the US is dominant in our sample, our results on the bidder's learning capability are still valid when excluding deals made by the US bidders.

[12] We observe the same pattern when we use the gap in Mgt. and SRs (see Supporting Information S1: Table A.1).

[13] As reported in Panel B of Table 8, all the coefficients of the Target-Bidder gap are significant at the 5% level but smaller in magnitude and statistical and economic significance in the Post-2010 period. We use the results for Models (1) and (4) reported in Table 8 to illustrate the change in economic significance. Consistent with lower learning potential after the crisis, we find that the ex-post change in bidder's governance is lower by 3.51 scores {[≡ $((0.1023 \times 30.820)/15.190) = 20.75\%$ of $30.820 = 6.39$] − [≡ $((0.2406 \times 27.703)/18.6411) = 35.75\%$ of $27.703 = 9.90$]} from a 1 SD change in Target-Bidder gov. gap after versus before the financial crisis.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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APPENDIX A

Variable definitions

Table A1

TABLE A1 Variable definition.

Firm governance gap	
Target-Bidder governance score gap	Scaled difference in lagged governance scores of the bidder and target. The governance score is the weighted average score of management, shareholder, and CSR scores. Source: Refinitiv/ASSET4ESG.
Target-Bidder management score gap	Scaled difference in lagged management scores of the bidder and target. Source: Refinitiv/ASSET4ESG/.
Target-Bidder shareholders rights score gap	Scaled difference in lagged shareholder rights scores of the bidder and target. Source: Refinitiv/ASSET4ESG.
Change in firm governance	
Δ Governance ($t-1$ to $t+1$, $t+2$, and $t+3$	Change in bidder governance score from one year before the deal announcement to one, two, and three years after the deal. Source: Refinitiv/ASSET4ESG.
Δ Management ($t-1$ to $t+1$, $t+2$, and $t+3$)	Change in bidder management score from one year before the deal announcement to one, two, and three years after the deal. Source: Refinitiv/ASSET4ESG.
Δ Shareholder rights ($t-1$ to $t+1$, $t+2$, and $t+3$)	Change in bidder shareholder rights score from one year before the deal announcement to one, two, and three years after the deal. Source: Refinitiv/ASSET4ESG.
Individual firm governance attributes (Channels)	
Δ Board independence	Change in Percentage of independent board members for bidders that improved their management score. Source: Refinitiv/ASSET4ESG.
Δ Audit committee independence	Change in Percentage of independent board members on the audit committee for bidders that improved their management score. Source: Refinitiv/ASSET4ESG.

Δ CEO-Chairman separation	Change in CEO-chairman separation for bidders that improved their management score. Source: Refinitiv/ASSET4ESG.
Δ Board diversity	Change in Percentage of females on the board for bidders that improved their management score. Source: Refinitiv/ASSET4ESG.
Δ Stock compensation	Change in executive stock options for bidders that improved their management score. Source: Refinitiv/ASSET4ESG.
Δ Voting rights	Change in voting rights for bidders that improved their shareholder rights score. Source: Refinitiv/ASSET4ESG.
Country governance gap	
Target-Bidder CG gap	Difference in lagged country governance index scores of the bidder and target. The World Governance Indicators (WGI) index is the average index based on six-country governance dimensions proposed by Kaufmann et al. (2009). These dimensions include control of corruption, political stability, govt. effectiveness, the rule of law, voice and accountability, and regulatory quality. Source: World Governance Indicators.
Deal characteristics	
Payment method	Dummy variable: 1 for purely cash-financed deal, 0 otherwise. Source: Refinitiv/Securities Data Corporation.
Cross-border deal	Dummy variable: 1 if cross-border deal, 0 otherwise. Source: Refinitiv/Securities Data Corporation.
Same industry deal	Dummy variable: 1 for same industry deal, 0 otherwise. Source: Refinitiv/Securities Data Corporation.
Toehold	Percentage of shares held by the bidder before deal announcement. Source: Refinitiv/Securities Data Corporation.
Relative size	Deal value/bidder total assets. Sources: Refinitiv/Securities Data Corporation and WorldScope.
Bidder and target firm characteristics	
Cash flow	Lagged ratio (cash flow/total assets) for both bidders and targets. Source: Refinitiv/WorldScope.
Size	Lagged value for the natural logarithm of the assets for bidders and targets. Source: Refinitiv/WorldScope.
Staggered board	Dummy variable: 1 for staggered board structure, 0 otherwise for bidders and targets.
Change in bidder firm characteristics	
Δ Leverage	Change in the bidder's leverage ratio (total debt/total assets) from one year before to one, two, and three years after the deal. Source: Refinitiv/WorldScope.
Δ Cash flow	Change in the bidder's cash flow ratio (cash flow/total assets) from one year before to one, two, and three years after the deal. Source: Refinitiv/WorldScope.

(Continues)

Δ Assets	Change in the bidder's total assets from one year before to one, two, and three years after the deal. Source: Refinitiv/ WorldScope.
Bidder country characteristics	
Common law	Dummy variable: 1 for common law countries, 0 otherwise. Source: World Development Indicators.
Market capitalization	Log of market capitalization of the bidder country. Source: World Development Indicators.
GDP per capita	Log of real GDP (current US dollars)/average population. Source: World Development Indicators.
GDP growth	Annual growth in real GDP. Source: World Development Indicators.

APPENDIX B: DATA CLEANING PROCEDURE

Table B1

TABLE B1 The table shows all steps taken to get the final sample of mergers and acquisitions.

Followed steps	Database	Filters	Number of dropped deals	Number of available deals
1	SDC	Completed deals between public listed bidders and targets from 2003 to 2016	N/A	16,981
2	SDC	Excluding financials and utilities	2,401	14,580
3	SDC	Majority control acquisitions	8,404	6176
4	ASSET4ESG	Bidders and targets with available governance data	4,771	1405
5	Merging all databases from WorldScope, DataStream, and World Bank	Excluding deals with missing values of variables of interests	45	1360

Abbreviations: ESG, environmental, social, and governance; SDC, Securities Data Corporation.