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Retaining problems or solutions? The post-acquisition performance implications of director retention

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Abstract

Research Summary: Director retention is a common practice during acquisitions, whereby the acquiring firm adds at least one director from the target onto its board. Despite the regularity of the phenomenon, little is understood about the post-acquisition financial implications of director retention. In this exploratory study, we investigate the financial impact (via long-term investor value appropriation) of director retention in a sample of acquisitions among publicly traded firms. Our empirical analyses consistently illustrate negative financial ramifications of director retention for the acquiring firm across multiple analytic models, time horizons of performance, and samples. We delineate implications for research on boards of directors and acquisitions, and we offer preliminary theoretical logic and empirical analyses for future scholarship to elucidate the mechanisms driving antecedents and outcomes of director retention.

Managerial Summary: Despite the prevalence of director retention—a practice where an acquirer adds at least one director from the target onto the board of the ongoing firm—research on the topic is equivocal about the financial implications of this practice. We argue this is a crucial oversight because new directors can have an incredible influence on the trajectory of the firm and its subsequent performance, a fact that is particularly true

in the turbulent post-acquisition period. In our study, we empirically examine the impact of director retention on post-acquisition performance. Across multiple analyses and time intervals of performance, we consistently find that director retention is negatively associated with the performance of the acquiring firm. Accordingly, our findings suggest that acquirers should generally approach direction retention with caution.

1 | INTRODUCTION

In the process of integrating acquisitions, companies often retain directors from acquired firms and add them to their boards of directors (Li & Aguilera, 2008).[1] We refer to this practice of acquiring firms keeping at least one director from the target firm as *director retention*. For instance, Disney retained a director from Pixar in the 2006 acquisition, and Southwest retained a director in the 2011 acquisition of AirTran. In fact, while not the primary focus of the study, Harford (2003) found that the acquiring firm's board size in the sample increased on average from 13.89 members pre-acquisition to 15.10 members post-acquisition. Director retention is thus an integral part of the crucial post-acquisition landscape for the acquirer.

Despite the regularity of director retention, existing work offers insights only about the implications of the practice for individual directors (Harford, 2003; Li & Aguilera, 2008; Xie, Cai, Lu, Liu, & Takumi, 2016), but it has not examined the financial impact for the acquiring firm. Studying the financial repercussions is imperative, though, as director retention might shed light on important yet unexplained variance in post-acquisition performance (see Devers et al., 2020; Haleblian, Devers, McNamara, Carpenter, & Davison, 2009; King, Dalton, Daily, & Covin, 2004 for acquisition reviews). Indeed, given that scholars repeatedly argue that the board collectively, and directors individually, can influence firm performance (e.g., Hambrick, Misangyi, & Park, 2015; Krause, Li, Ma, & Bruton, 2019), director retention may constitute a crucial factor that influences the relative success or failure of an acquisition.

We thus investigate the impact of director retention on acquirer post-acquisition performance. In doing so, we adopt an exploratory approach since there are compelling reasons for a positive (McDonald, Westphal, & Graebner, 2008), negative (Boivie, Bednar, Aguilera, & Andrus, 2016; Luciano, Nahrgang, & Shropshire, 2020), or null effect of director retention (Finkelstein, Hambrick, & Cannella, 2009; Finkelstein & Mooney, 2003). Specifically, we examine the influence of director retention on long-term investor value appropriation (LIVA), a measure of firm performance "uniquely suited to capture the performance impact" of acquisitions (Wibbens & Siggelkow, 2020, p. 869). We also conduct multiple robustness tests and supplemental analyses to illustrate the robustness and boundaries of our findings.

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[1]Consistent with prior research, we use the terms acquired firm and target firm interchangeably.

Our study makes at least two contributions. First, we contribute to the acquisition and director literatures by examining the effects of a poorly understood, but quite common, practice—director retention. Across a variety of empirical procedures and time horizons of post-acquisition performance, our findings consistently suggest that director retention is negatively associated with LIVA. We also find in post-hoc analyses that board dynamics, post-acquisition integration requirements, principal-agent issues, and director holdover issues appear to enhance or inhibit this negative association. Second, we contribute to the board literature by investigating a change in board composition due to director retention. Most research perspectives view board composition as largely static, but our study illustrates the need to adopt more of a dynamic view of boards that looks at changes over time, as these changes may influence important outcomes.

2 | DIRECTOR RETENTION AND POST-ACQUISITION PERFORMANCE

Scholars could make well-reasoned a priori arguments for why retaining a director would enhance, damage, or have no effect on post-acquisition acquiring firm performance. In this section, we briefly discuss the potential logics for each plausible relationship.

2.1 | Logics suggesting a positive performance impact

Several streams of research imply a positive relationship between director retention and post-acquisition performance. First, retained directors likely have intimate knowledge of the target firm's resources and capabilities, so they can help better integrate the target into the acquiring firm (Li & Aguilera, 2008; Shimizu & Hitt, 2005). This logic is consistent with research indicating that positive effects of directors on firm performance occur as a result of specific director knowledge rather than more general human capital (e.g., McDonald et al., 2008).

Second, directors are also involved in providing strategic advice to CEOs (e.g., Oliver, Krause, Busenbark, & Kalm, 2018). Since retained directors know the target firm's current strategy, as well as its strengths and weaknesses, they could provide the acquiring firm valuable insight that enhances post-acquisition firm performance. Such knowledge is likely difficult to accumulate through the acquisition due diligence process, which tends to focus more on adjudicating the financial elements of the target, but it is critical for successful integration (e.g., Netter, Stegemoller, & Wintoki, 2011). Finally, retaining a director might signal to employees at the target firm that they are valued and may increase the perceived sincerity of efforts to successfully integrate the target. This signal may facilitate higher levels of cooperation and trust from the target's employees, which research suggests eases integration difficulties (Datta, 1991), thus improving performance.

2.2 | Logics suggesting a negative performance impact

Multiple logics also suggest a possible negative performance impact of director retention. From an agency theory lens (Jensen & Meckling, 1976), director retention might be a form of self-interested behavior by top actors at the acquirer (Wulf, 2004). Research indicates there are

negative valuation consequences of boards having directors with connections to their companies' pasts (Feldman & Montgomery, 2015), so holdover directors from the target might reflect (or create) agency issues. Similarly, research on symbolic management indicates that director selection is often driven by CEOs as a way to increase their power while appearing to improve shareholder control (Westphal & Park, 2020). Accordingly, the CEO of an acquirer might lobby to retain a director who will exhibit deference (cf. Cohen, Frazzini, & Malloy, 2012), thus affording that CEO more power to subvert governance structures in ways that inhibit performance.

The team perspective of boards (e.g., Forbes & Milliken, 1999; Luciano et al., 2020) also implies a negative performance impact of director retention owing to potentially disrupting the board's group dynamics. Boards tend to develop tacit norms and informal hierarchies that allow them to work cohesively among themselves and with the TMT (e.g., Boivie et al., 2016). However, retaining a director from the target might impede these tacit routines and processes (Van den Berghe & Levrau, 2004) at a critical juncture for the firm—when it is trying to integrate the acquisition—which would potentially harm post-acquisition performance. Director retention may thus require the board to socialize the new director(s) in ways that detract from the already limited time directors spend together (Lewis, Belliveau, Herndon, & Keller, 2007).

2.3 | Logics suggesting no performance effect

Rationales also suggest director retention may not influence post-acquisition performance. Indeed, boards typically meet so infrequently that retained directors might not have sufficient interactions to influence post-acquisition performance (Finkelstein et al., 2009; Finkelstein & Mooney, 2003). If board meetings are less substantive and more perfunctory, a retained director would not significantly impact the way meetings unfold and the content derived from them. It is also feasible that retaining one (or a few) directors would not be disruptive enough to disturb team dynamics in a way that affects performance. This is consistent with research suggesting that board members are apt to display norms of deference (cf. Cohen et al., 2012) so that they can maintain their board seats and the positive benefits that accompany them (Westphal & Khanna, 2003). Retained directors may thus offer little value (or harm) to firm activities.

3 | EMPIRICAL METHODOLOGY

Our sample is comprised of acquisitions (i.e., an acquirer assuming 100% equity in a target) between publicly traded U.S. firms in the years 2004–2014. We stopped our sampling period in 2014 because of the nature of our dependent variable (i.e., performance via LIVA), in which we examine several different periods of post-acquisition performance after the acquisition date. We restricted our sample to public firms in the United States because we require sufficient data about board structure and subsequent performance (and controls) that are only reliably available for publicly traded U.S. firms (e.g., Busenbark, Lange, & Certo, 2017; Graffin, Haleblian, & Kiley, 2016).

Data about acquisitions are from the Thomson-Reuters SDC Platinum database. We determined if a director was retained from the target by consulting directorship information in BoardEx, Institutional Shareholder Services (ISS), and by manually examining regulatory SEC filings. We obtained LIVA data from the website provided by Wibbens and Siggelkow (2020), financial data from Compustat, stock market data from CRSP, and financial analyst data from

I/B/E/S. After accounting for missing data,[2] our final sample is comprised of 551 acquisitions, of which 143 featured director retention.

3.1 | Variables

3.1.1 | Dependent variable

We assess post-acquisition performance with *LIVA*. Wibbens and Siggelkow (2020) introduce LIVA, discuss its benefits, provide examples of how it is calculated, produce relevant discounting rates for each public firm, and offer annualized data for download. LIVA is measured as "the sum of discounted absolute excess returns to shareholders over a given period" (Wibbens & Siggelkow, 2020, p. 872). One benefit of LIVA is that it captures how much value a firm generated for investors in any period based on cash inflows and outflows over that time, which are discounted by a rate appropriate for each firm. As such, Wibbens and Siggelkow (2020, p. 869) argue "when events such as Mergers & Acquisitions...are the focus of a study, LIVA is uniquely suited to capture the performance impact of such events."

We test our models across different time windows—LIVA for the year following the acquisition, 2 years after, 3 years after, and 5 years after. Any given period thus features the same value appropriation as the years before it, but also incorporates additional cash inflows and outflows for the extended years. For instance, LIVA over 5 years includes the LIVA created in the 2-year value plus the next 3 years. Given that there is no clear consensus in the literature about what period is appropriate to measure post-acquisition performance (Devers et al., 2020; Haleblian et al., 2009), LIVA is valuable because it can examine long-term performance while recognizing shorter periods are important.[3]

3.1.2 | Independent variable

Director retained is a binary indicator that captures whether (1) or not (0) a director from the target joined the acquiring firm's board following the acquisition. In supplemental analyses, we measured this variable as a count indicator capturing the number of directors retained from the target firm. The fact that the results from these analyses are virtually identical to our reported models is unsurprising, as over half the acquisitions with director retention only kept one individual, and 90% retained three or fewer, such that the marginal effects of more than one retention are not substantively different from retaining one director.

3.1.3 | Control variables

Online Appendix 1 contains information on the rationale for the inclusion of the control variables. We controlled for the following: related acquisition, relative acquisition size, acquisition

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[2]We manually located and filled in missing data whenever possible.

[3]Although we use LIVA for all of our primary analyses, we performed supplementary analyses with other measures of firm performance. Specifically, we examined ROA, net income, EBITDA, market-to-book, goodwill enhancements, and stock returns, many of which Rabier (2017) includes in her research on post-acquisition performance. The results across these different dependent variables are largely consistent with those we report. We thus use LIVA, as we believe it is the most suitable performance variable for our context.

value, acquirer ROA, acquirer R&D intensity, acquirer ROIC, acquirer assets, acquirer analyst recommendation, acquirer board interlocks, acquirer CEO duality, acquirer board homogeneity, acquirer board size change, target market-to-book, target debt intensity, target total directors, fiscal year, and clustered *SE*s for the industry.

3.2 | Analytic technique

We empirically explore the relationship between director retention and subsequent LIVA with two-stage treatment effects (herein treatment effects) models. Treatment effects models are well-suited for our empirical context, owing to two critical issues they address that may manifest in our data—the binary nature of our independent variable (Certo, Busenbark, Woo, & Semadeni, 2016; Shaver, 1998) and potential bias in our parameter estimates due to unexplained heterogeneity (Certo et al., 2016; Kennedy, 2008; Shaver, 1998). We are mainly concerned about omitted variables, as director retention likely reflects confounding managerial decisions that we simply cannot measure.[4]

We follow the guidance on best practices for this type of instrumental variable procedure and specify our treatment effects model with two exclusion restrictions (Certo et al., 2016; Kennedy, 2008). Owing to the well-documented challenges associated with locating conventionally measured variables that are empirically and theoretically relevant and exogenous, we adopt a novel approach that has gained traction in the econometrics literature in recent years (Baum & Lewbel, 2019; Lewbel, 2012, 2018). Specifically, we employ the heteroskedastic identified approach that generates instruments/exclusion restrictions using the available regressors (Baum & Lewbel, 2019; Lewbel, 2012). We discuss our two-stage treatment effect models and our heteroskedastic exclusion restrictions approach in detail in Online Appendix 2.

4 | RESULTS

Table 1 depicts the descriptive statistics and correlations for the variables in our study. The correlations between the covariates appear sufficiently low to not induce bias from multicollinearity, an idea supported by low variance inflation factors across all LIVA time intervals (Cohen, Cohen, West, & Aiken, 2003). Table 1 also shows that the correlations between the hazard adjustment (lambda) and the independent variables are low enough to suggest that our hazard adjustment does not induce bias, as they are consistent with the strongest condition Certo et al. (2016) describe. More, the correlations between director retention and all the intervals of LIVA preliminarily suggest a negative performance impact of retaining a director from the target.

Table 2 depicts the results corresponding to our two-stage treatment effects models that test the relationship between director retention and LIVA. The parameter estimates in Table 2 suggest a negative relationship between director retention and LIVA for at least the first 2 years following the acquisition. Specifically, our models estimate that director retention is associated

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[4]We find that the direction and magnitude of our estimates are approximately the same between OLS benchmark models and the treatment effect models we report. However, the robustness of inference to replacement, which is a variant of the ITCV, suggests that the OLS estimates might produce inaccurate causal inference if there is less than 15% bias in the coefficient depending on the time interval of LIVA, so we proceed with treatment effects.

TABLE 1 Descriptive statistics and correlations

		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	LIVA	−2.76	23.82																						
2	LIVA (2-year)	−3.89	32.11	0.77																					
3	LIVA (3-year)	−2.04	37.27	0.72	0.81																				
4	LIVA (5-year)	−2.03	39.84	0.65	0.69	0.81																			
5	Director retained	0.26	0.44	−0.03	−0.03	−0.04	−0.04																		
6	Related acquisition	0.75	0.43	0.06	0.06	0.06	0.04	0.08																	
7	Relative acquisition size	0.44	0.90	0.01	0.02	0.01	0.00	0.18	0.10																
8	Acquisition value	6.75	1.35	−0.02	−0.02	0.02	−0.03	0.14	−0.10	0.16															
9	Time to close acquisition	125.85	75.06	−0.03	−0.01	−0.03	−0.06	0.29	0.08	0.08	0.20														
10	Acquirer ROA	0.05	0.08	0.01	0.02	0.09	0.11	−0.16	−0.09	−0.16	0.11	−0.11													
11	Acquirer R&D intensity	0.03	0.05	−0.01	−0.02	0.02	0.06	−0.13	0.05	0.14	−0.13	−0.29	−0.05												
12	Acquirer ROIC	0.07	0.35	0.00	0.00	0.02	0.03	−0.03	−0.03	−0.05	0.06	−0.03	0.52	−0.10											
13	Acquirer assets	8.85	1.88	−0.12	−0.15	−0.11	−0.13	−0.12	−0.14	−0.14	0.42	0.06	0.13	−0.26	0.14										
14	Acquirer analyst recommendation	2.28	0.43	0.00	−0.01	−0.04	−0.03	0.04	0.09	−0.15	−0.03	0.09	−0.07	−0.10	0.10	0.16									
15	Acquirer board interlocks	12.70	8.54	−0.10	−0.13	−0.08	−0.11	−0.08	−0.16	−0.15	0.13	−0.06	0.01	−0.05	0.03	0.40	0.01								
16	Acquirer average tenure	7.86	3.45	−0.01	−0.01	−0.03	−0.02	−0.10	0.07	−0.14	0.06	0.13	0.12	−0.07	0.06	0.20	0.06	−0.08							
17	Acquirer CEO duality	0.53	0.50	−0.05	−0.05	−0.06	−0.04	−0.09	−0.10	0.03	0.17	−0.03	0.00	−0.10	−0.03	0.19	0.03	0.06	0.02						

TABLE 1 (Continued)

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
18 Acquirer board homogeneity	25.00	3.55	0.10	0.13	0.09	0.12	−0.01	0.10	0.28	−0.26	−0.10	−0.04	0.17	−0.07	−0.67	−0.15	−0.61	−0.06	−0.16					
19 Acquirer board size change	0.05	0.18	0.00	0.01	−0.03	−0.02	0.43	0.07	0.20	0.10	0.09	−0.04	−0.06	−0.04	−0.16	−0.03	−0.16	−0.07	0.01	0.13				
20 Target market-to-book	2.68	4.96	−0.01	−0.01	−0.01	0.00	0.02	−0.12	0.07	0.07	0.02	0.02	0.06	0.01	−0.02	−0.01	0.05	−0.10	−0.04	0.04	−0.02			
21 Target debt intensity	0.16	0.21	0.00	−0.04	−0.05	0.00	0.11	0.00	0.01	0.17	0.17	0.02	−0.16	0.05	0.06	0.00	0.01	−0.02	0.06	−0.03	0.04	−0.04		
22 Target total directors	8.94	2.48	−0.07	−0.05	−0.04	−0.05	0.04	0.04	0.00	0.07	0.09	−0.06	−0.08	−0.02	0.11	0.08	0.07	−0.01	0.05	−0.11	0.01	−0.04	0.03	
23 Hazard adjustment	1.53	0.75	−0.03	−0.03	0.02	0.04	−0.56	−0.11	−0.27	−0.22	−0.53	0.30	0.30	0.01	0.24	−0.13	0.15	0.19	0.15	0.01	−0.62	−0.01	−0.24	−0.06

Note: In the table, $n = 551$. $p < .05$ when $r > = |.083|$. Acquirer assets and acquisition value are expressed as the natural log of each variable.

Abbreviation: LIVA, long-term investor value appropriation.

TABLE 2 Two-stage treatment effects model estimates

	I: First stage		II: LIVA		III: LIVA (2-year)		IV: LIVA (3-year)		V: LIVA (5-year)	
	Estimate	p-Value	Estimate	p-Value	Estimate	p-Value	Estimate	p-Value	Estimate	p-Value
Treatment										
Director retained			**−3.457**	**.042**	**−4.972**	**.005**	**−3.382**	**.180**	**−1.826**	**.548**
Controls										
Constant	2.774	.038	1.984	.943	−9.867	.750	−1.112	.977	3.338	.936
Related acquisition	0.029	.882	2.408	.357	3.596	.326	5.820	.204	4.397	.314
Relative acquisition size	−0.026	.822	−0.755	.509	−1.937	.266	−2.609	.264	−2.047	.444
Acquisition value	0.146	.075	0.514	.680	1.700	.413	3.001	.140	1.328	.538
Time to close acquisition	0.004	.000	−0.038	.129	−0.023	.194	−0.017	.351	−0.028	.114
Acquirer ROA	−3.505	.016	18.180	.360	19.372	.242	46.494	.038	60.908	.023
Acquirer R&D intensity	−3.910	.005	−13.837	.439	−27.150	.293	−6.633	.835	8.872	.800
Acquirer ROIC	0.445	.390	−3.160	.147	−3.081	.089	−3.614	.113	−3.803	.136
Acquirer assets	−0.264	.000	−0.969	.600	−2.581	.245	−3.090	.341	−3.420	.366
Acquirer analyst rec.	0.173	.305	1.236	.560	3.325	.288	0.410	.931	2.176	.669
Acquirer board interlocks	−0.015	.129	−0.062	.618	−0.111	.520	−0.022	.888	−0.202	.332
Acquirer average tenure	−0.037	.083	0.134	.710	0.142	.697	−0.382	.390	−0.177	.766
Acquirer CEO duality	−0.339	.023	0.751	.683	0.465	.874	−0.752	.820	1.309	.700
Acquirer board homogeneity	−0.107	.002	0.360	.676	0.512	.511	0.294	.769	0.101	.924
Acquirer board size change	3.820	.000	−14.631	.206	−11.938	.219	−15.516	.136	−12.867	.186
Target market-to-book	0.011	.377	−0.066	.457	0.011	.935	−0.160	.229	−0.037	.796
Target debt intensity	0.453	.069	−1.411	.910	−6.848	.451	−11.774	.112	0.220	.985
Target total directors	−0.011	.656	−0.481	.261	−0.238	.700	−0.336	.588	−0.319	.622
Hazard adjustment			−7.094	.204	−5.949	.168	−4.174	.407	−2.947	.536
Model statistics										
Sample size	551		551		551		551		551	
R^2	.335		.089		.096		.075		.086	

Note: Year-fixed effects are included but not reported. Industry-clustered robust *SEs* are included. Heteroskedastic exclusion restrictions from the Baum and Lewbel (2019) procedure are included in the first stage but are not reported because they are automatically incorporated in the estimator. R^2 refers to pseudo R^2 in the first-stage probit model.

Abbreviation: LIVA, long-term investor value appropriation.

TABLE 3 Estimated LIVA outcomes from the two-stage treatments effects model

	I: LIVA		II: LIVA (2-year)		III: LIVA (3-year)		IV: LIVA (5-year)	
	Value	95% C.I.	Value	95% C.I.	Value	95% C.I.	Value	95% C.I.
No director retained	−$1.86	−$3.77 $0.05	−$2.60	−$5.37 $0.16	−$1.16	−$4.76 $2.44	−$1.56	−$5.55 $2.43
Director retained	−$5.32	−$8.34 −$2.30	−$7.58	−$11.12 −$4.03	−$4.54	−$9.28 $0.19	−$3.38	−$8.94 $2.18
Value difference	−$3.46	−$4.57 −$2.35	−$4.97	−$5.75 −$4.19	−$3.38	−$4.52 −$2.25	−$1.83	−$3.40 −$0.26

Note: All values are expressed in billions.

Abbreviation: LIVA, long-term investor value appropriation.

with value destruction for the year after the acquisition ($\beta = -3.457$; $p = .042$), as well as 2 years after the acquisition ($\beta = -4.972$; $p = .005$). The estimates from our treatment effects models examining LIVA outcomes measured at 3 years ($\beta = -3.382$; $p = .180$) and 5 years ($\beta = -1.826$; $p = .548$) after the acquisition indicate a negative relationship that is not differentiated from zero, although we hesitate to suggest the negative effect is not meaningful.

To help better contextualize the practical importance of these negative associations, we present Table 3, which contains the estimated LIVA values from our two-stage treatment effects model when accounting for all the variables in our study. As we show in Columns I–IV of Table 3, director retention is associated with anywhere between \$3.38 and \$7.58 billion of average value destruction depending on the time horizon of LIVA. Further, even though our estimator recognizes that acquisitions generally tend to undermine firm performance, our model predicts that director retention destroys an additional \$1.83–\$4.97 billion (i.e., over the general value reduction), on average, depending on the time interval of LIVA.

5 | SUPPLEMENTARY ANALYSES

5.1 | Matched sampling approaches

We recognize that not all firms that completed an acquisition and are in our sample had the same opportunity or pressure to retain a director (Li & Aguilera, 2008; Shimizu & Hitt, 2005). Retaining a director is thus an endogenous decision reflecting managerial choices and contextual constraints. We take care to model the former in our empirical estimation procedure, but we also seek to ensure our sample is representative of firms that had a similar opportunity to retain a director. Accordingly, in addition to our broader sample of 551 firms, we also empirically estimate relationships from a condensed sample of firms that retained a director and a matched observation of a firm that did not retain a director, but had a similar likelihood of doing so. Specifically, this sample is derived from a propensity score matching procedure and includes 286 firms (143 that retained a director and a matched group of 143 that did not retain a director). We discuss our procedures for creating this sample in Online Appendix 3, including Online Appendix Table 3.1, in which we display the propensity score matching outcomes.

In Online Appendix Table 3.2, we display the estimates derived from treatment effects models using this more condensed sample of 286 firms. These estimates suggest a negative impact of director retention on LIVA in the year ($\beta = -1.644$; $p = .025$), 2 years ($\beta = -4.198$; $p = .023$), 3 years ($\beta = -4.728$; $p = .024$), and 5 years ($\beta = -4.176$; $p = .076$) following the acquisition. In Online Appendix Table 3.3, we display the actual LIVA values for the four different time horizons for firms in the treated group (i.e., director retention) and control group (i.e., matched pair), which more closely mirrors how scholars tend to employ propensity score models (Shipman, Swanquist, & Whited, 2017). Although the confidence intervals for LIVA in either group are wider than the estimates displayed in Table 3, director retention tends to destroy \$2.90–\$4.55 billion (depending on the time interval) of LIVA, on average, compared to acquisitions without director retention that had a similar likelihood of onboarding at least one director.

In further supplemental analysis, we restructured our sample to reflect another scenario that firms may encounter in the decision to make an acquisition and retain a director. Specifically, we employed a propensity score matching procedure to create a sample of firms that conducted an acquisition, as well as those that did not conduct an acquisition, but had a similar

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TABLE 4 Marginal effects for moderators that examine theoretical rationales

Variable description	Conceptual rationale		LIVA		LIVA (2-year)	
			dy/dx	p-Value	dy/dx	p-Value
Team homogeneity	The group dynamics and team perspectives of boards	**Team homogeneity**				
Sum of reverse-scored standardized board size, interlocks, ethnic minorities, females, and outsiders		Low	3.414	.633	0.570	.937
		Medium	−3.127	.034	−4.311	.011
		High	−9.669	.108	−9.192	.104
Acquisition relatedness	Post-acquisition integration requirements	**Acquisition related**				
Binary indicator reflecting whether (1) or not (0) the target is in the same 3-digit SIC code as the acquirer		Unrelated	0.845	.809	1.751	.717
		Related	−4.480	.034	−6.254	.012
Time to close the deal	Post-acquisition integration requirements	**Time to close**				
Number of days between the announcement and close dates		Low	−2.727	.601	−4.775	.449
		Medium	−3.193	.046	−4.686	.008
		High	−3.659	.358	−4.597	.342
Relative size of the acquisition	Post-acquisition integration requirements	**Relative size**				
Size of the acquirer minus the target, reverse-scored so higher values reflect more similar sizes		Low	−4.270	.034	−6.522	.041
		Medium	−3.382	.024	−4.836	.004
		High	−2.494	.218	−3.150	.251
Acquisition premium	Post-acquisition integration requirements	**Acq. Premium**				
Acquisition value minus target market value		Low	2.650	.399	4.166	.614
		Medium	−3.155	.041	−4.724	.003
		High	−8.960	.029	−13.614	.136
Acquirer board independence	Principal-agent issues	**Board independence**				
Number of independent directors on the acquirer's board (total directors controlled in the model)		Low	−3.254	.410	−6.832	.067
		Medium	−2.779	.037	−3.625	.019
		High	−2.305	.569	−0.419	.908

TABLE 4 (Continued)

Variable description	Conceptual rationale	LIVA dy/dx	LIVA p-Value	LIVA (2-year) dy/dx	LIVA (2-year) p-Value
CEO duality	Principal-agent issues	**CEO duality**			
Binary indicator reflecting whether (1) or not (0) the acquirer's CEO is also the chairperson of the board					
No duality		−4.397	.080	−6.695	.022
Duality		−2.006	.373	−1.926	.536
Lead independent director	Director holdover issues	Predicted LIVA	p-Value	Predicted LIVA	p-Value
Binary indicator whether (1) or not (0) the retained director was lead independent director					
Not lead director		−3.878	.000	−5.532	.000
Lead director		−6.914	.057	−11.599	.002
Ownership percentage	Director holdover issues	Predicted LIVA	p-Value	Predicted LIVA	p-Value
Percent of the target firm that the retained director owned					
Low		−2.130	.035	−4.360	.011
Medium		−4.006	.000	−5.786	.000
High		−5.881	.000	−7.212	.000
Director tenure	Director holdover issues	Predicted LIVA	p-Value	Predicted LIVA	p-Value
Number of years the retained director served on the target firm's board					
Low		−3.542	.117	−5.786	.006
Medium		−4.006	.000	−5.786	.000
High		−4.470	.080	−5.786	.053

Note: The marginal effects are derived from the two-stage treatment effects models. The sample size for the "director holdover" rationales is 143 because these variables only exist for directors who were indeed retained. In cases when a firm retained multiple directors, we simply took the average of these factors across all of those individual directors.
Abbreviation: LIVA, long-term investor value appropriation.

likelihood of doing so. This sample features three different categories of firms: (a) those that did not complete an acquisition, (b) those that did complete an acquisition but did not retain a director, and (c) those that completed an acquisition and retained a director. Online Appendix Table 3.4 displays the outcomes associated with the propensity score matching technique.

Given that this sample eliminates the possibility of controlling for acquisition- and target-related characteristics (since half of the sample did not conduct an acquisition), we compare the descriptive statistics of LIVA for all three values our independent variable could assume. The results from these analyses, shown in Online Appendix Table 3.5, are again compelling. We find that the LIVA values in the year(s) following an acquisition, or a hypothetical acquisition for the matched group, are lowest for the firms that retained a director, generally second lowest for firms that conducted an acquisition and did not retain a director, and highest for firms that did not conduct an acquisition. In sum, these results suggest that, on average, firms create the most value for investors when they do not conduct an acquisition and by far destroy the most value for investors when they conduct an acquisition and retain a director.

5.2 | Empirically examining theoretical logics

The results from our analyses suggest that director retention is generally a value-destroying practice. Given the multitude of theoretical perspectives potentially relevant to director retention that could underscore our empirical results, we sought to further explore some plausible mechanisms at play in terms of both why director retention is detrimental and why firms retain directors. As such, we conducted preliminary empirical analyses analyzing potential moderators of the relationship between director retention and LIVA, as well as antecedents of director retention. In Online Appendix 4, we define the moderator variables designed to examine some of the theoretical rationales linking director retention to negative performance outcomes, some plausible antecedents of director retention, and the corresponding empirical techniques.

Table 4, which contains the conceptual rationales and marginal effects, indicates that multiple mechanisms potentially drive our findings. Director holdover issues appear to play a vital role in value destruction from director retention. Specifically, we find that there is a stronger negative impact of director retention when the lead independent director is retained, as well as when the individual has a higher ownership percentage and longer tenure. Similarly, our model estimates that group dynamics enhance the negative influence of director retention, as we see evidence that director retention is more harmful when the board is homogenous. Further, the results indicate that post-acquisition integration requirements enhance director retention's negative impact, as we find that deals that take longer to close, firms that are less equivalent sizes, and higher acquisition premiums tend to invoke more negative LIVA consequences. Intriguingly, principal-agent issues appear equivocal, since a lack of board independence strengthens the negative impact of director retention on LIVA, but CEO duality weakens it.

In terms of antecedents of director retention, Online Appendix Table 4.1 contains the conceptual rationales and results exploring potential drivers of director retention. We retain these results only for the online appendix because determining the influences of director retention is outside the primary scope of our study. These results, however, appear to suggest that variables relating to bargaining influence (relative size of the firms, acquisition value), the need for help with post-acquisition integration (acquisition premium, time to close the deal), and principal-agent issues (CEO options vested) play a role in driving director retention.

6 | DISCUSSION

In this exploratory study, we examined the post-acquisition performance implications of director retention, a common phenomenon whereby firms retain at least one director from an acquired firm. Across numerous analyses, we consistently find a negative relationship between director retention and post-acquisition performance. As a result, and as we discuss next, we believe our study has substantive implications and sets the stage for a great deal of future research.

6.1 | Performance implications

A crucial contribution of this study is that we illustrate the downsides of director retention. Across LIVA timeframes—ranging from up to at least 2 years post-acquisition in our primary sample and up to at least 5 years post-acquisition in our propensity score matched sample—we found that director retention is associated with billions of dollars in value destruction for the acquiring firm. Our findings thus highlight that it may be prudent for acquirers to approach direction retention with trepidation. Indeed, our rigorous empirical analyses imply director retention is likely a factor that helps explain the notorious negative financial ramifications of acquisitions for acquiring firms (Devers et al., 2020; Haleblian et al., 2009; King et al., 2004).

Yet, while we endeavor to shed light on the general performance impact of director retention, we also examined moderators to more fully explore the mechanisms through which director retention leads to value destruction. In this regard, our supplemental analyses examining these moderators shed light on four theoretical logics worth more exploration. First, future research might examine the extent to which director retention is a self-interested behavior by managers of the acquirer (Jensen & Meckling, 1976) and whether appropriate governance structures might enhance or ameliorate the negative impact of director retention. This is certainly needed given that our analyses suggest that one favored governance practice, having a highly independent board, reduces the negative impact of director retention, but the common practice of no CEO duality strengthens the negative relationship. Second, scholars could more exhaustively explore the extent to which director holdover issues drive negative post-acquisition performance. In particular, future research could seek to better explain why it is problematic to retain directors with stronger ties to the target as our analyses indicate.

Third, scholarship might further investigate the team dynamics implications of director retention. The team perspective of boards (e.g., Forbes & Milliken, 1999; Luciano et al., 2020) suggests that the board's functioning as a team impacts firm performance and our supplemental analyses suggest that this is the case in the context of director retention. We specifically find that that director retention is more harmful when the board is homogenous. Because the team dynamics perspective is fairly new and our assessment of team dynamics is quite rudimentary, however, future research could seek to better understand whether and why director retention might hurt the board's team dynamics in a way that would impact post-acquisition performance.

Fourth, given that our marginal effects vary quite a bit, we believe a promising line of inquiry involves more definitively determining whether (and why) the negative impact of director retention is amplified when post-acquisition integration might prove more challenging. Specifically, an investigation along these lines might advance understanding regarding when acquirers need to enhance synergies to a greater extent to realize positive post-acquisition outcomes (Laamanen, 2007).

6.2 | Changes in board composition

A second key contribution of this study is that we explore a change in board composition due to director retention. This is in line with calls to "examine the churn of component group members" on the board (Luciano et al., 2020, p. 794). Given that director retention inherently captures evolving board compositions, our unfavorable performance findings demonstrate the salience in conceptualizing boards as dynamic teams that can prompt different types of strategic initiatives and performance outcomes (e.g., Humphrey & Aime, 2014). Indeed, and as we described, our results imply that more homogenous boards tend to fair worse following director retention than more heterogeneous boards.

The negative ramifications of direction retention naturally imply a need for future research to investigate what drives this practice in the first place. Scholarship along these lines could build on our preliminary empirical analyses about the antecedents of director retention to better determine what drives this board composition change following acquisitions. For instance, studies could examine whether and why director retention might be part of the bargaining process, since our proxies for bargaining—the relative size of the firms and acquisition value (Lee, 2018)—suggest this is important. This is a promising line of inquiry given that there is evidence director retention is negotiated in the deal process, as highlighted in the deal terms of AbbVie's acquisition of Allergan (AbbVie, 2019). Scholars could specifically investigate what target firms might need to give up to have directors retained since research indicates target firm CEOs often have to trade power for acquisition premiums (Wulf, 2004).

Relatedly, studies could examine the impact of time to close the deal, another variable we find is influential. This research could investigate whether director retention is more apt to occur in acquisitions that take longer to close because it might signal either a complicated bargaining process or the extent to which acquirers need to consider the integration challenges associated with the target. Finally, our preliminary empirical analyses suggest a need to explore the role of the acquiring firm CEO in director retention, as our model estimates a negative impact of CEO in-the-money options on director retention, and surely other CEO characteristics are relevant.

7 | CONCLUSION

The overarching implication from our exploratory study is clear—director retention following an acquisition destroys shareholder value for the acquiring firm. Specifically, we find that this effect ranges from nearly $2 billion to almost $5 billion, depending upon the time horizon examined. Our research thus represents the first step in beginning to understand the practice of director retention and the corresponding implications. Although we explore factors that might drive this unfavorable effect—director holdover issues, team dynamics, integration requirements, and agency problems—there is an ostensibly infinite number of opportunities for future research to further unpack the mechanisms driving this phenomenon.

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SUPPORTING INFORMATION

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