OWNERS ON BOTH SIDES OF THE DEAL: MERGERS AND ACQUISITIONS AND OVERLAPPING INSTITUTIONAL OWNERSHIP

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Using a corporate governance lens, this study considers owners with a stake in both the acquiring and the target firms in the context of mergers and acquisitions. A possible agency problem arises with regard to monitoring implications as managers may be able to take advantage of compromised monitoring because overlapping owners may focus on the aggregate value for both the acquiring and the target firms and nonoverlapping owners may be interested only in the acquirer’s side of the deal. The results suggest that when more owners overlap in their ownership of both the acquiring and target firms, the acquiring firms are more likely to experience decreased shareholder value through merger and acquisition deals. This effect, however, can be constrained by stronger board control. Copyright © 2010 John Wiley & Sons, Ltd.

INTRODUCTION

Mergers and acquisitions (M&A) are so widespread that in the United States alone, deals announced in the past decade amounted to more than $10 trillion. In 2006, the ‘urge to merge’ exceeded the record levels achieved in 2000, approaching $4 trillion globally (Dobbs, Goedhart, and Suonio, 2007). However, summaries and meta-analyses that study M&As indicate that acquiring firm shareholders tend to receive either significant negative or insignificant returns (Datta, Pinches, and Narayanan, 1992; Hitt, Ireland, and Harrison, 2001). For example, a recent meta-analysis by King and colleagues (2004) finds a preponderance of zero or negative abnormal returns for acquiring firms; and, in practical terms, Moeller, Schlingemann, and Stulz (2005) reveal that shareholders in the acquiring firms endure losses that average 12 cents for each dollar spent on acquisitions. In their attempts to understand the value-creation potential for acquirers in M&As, researchers have examined many factors including acquirers’ past M&A experience (e.g., Bruton, Oviatt, and White, 1994), diversification (e.g., Chatterjee, 1986), deal structure (e.g., Wulf, 2004), method of payment (e.g., Travlos, 1987), leveraging of firm knowledge, innovation, or resource base (e.g., Morrow et al., 2007; Uhlenbruck, Hitt, and Semadeni, 2006), managerial motives (e.g., Chatterjee and Hambrick, 2007), and the ownership structure of the acquirer or the target (e.g., Chang, 1998; Chen, Harford, and Li, 2007).

Much prior research argues that the poor returns to acquirers arise from governance problems resulting from managers being insufficiently accountable to owners. Yet most research assumes that all owners share similar objectives—an assumption that ignores two interlinked issues. First, owners are
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not always independently affiliated with only one party to an M&A; in many cases, the acquiring and target firms include some ‘overlapping’ owners who simultaneously hold stakes in both the acquirer and the target firms. A cursory analysis of the 2,688 M&A deals involving publicly traded companies during 1998–2004 from the Bloomberg database reveals that in 41.7 percent of the deals, the acquiring and target firms shared some of the same owners. Furthermore, in M&As with overlapping ownership, overlapping owners held 18.9 percent of the acquiring firm, the investment stakes of 44 owners. Such overlaps are increasingly common as institutional ownership supplants individual and family ownership to account for the majority of all ownership (Daily, Dalton, and Cannella, 2003). This trend has had notable effects; in recapping work by Demsetz and Lehn (1985) and Hansen and Hill (1991), Hoskisson and colleagues (2002: 698) suggest that ownership concentration is ‘an important tool to curtail managers’ propensity to pursue inefficient strategies’ and that ‘institutional investors have emerged as . . . key players in corporate governance.’ Yet in the M&A context, research still associates monitoring effectiveness with institutional ownership stakes at the firm level while ignoring the implications of institutional owners’ portfolio considerations. Recent research in corporate governance by Dharwadkar and colleagues (2008) advocates an extension beyond institutional ownership at the focal firm level to study the broader impact of institutional owners’ portfolios. Specifically, the portfolio characteristics of a large owner can compromise its monitoring effectiveness at the focal firm. We similarly argue that it is essential to go beyond the narrow effects of ownership structure at the firm level to consider the possibility of ownership overlaps that result from institutional owners’ portfolio holdings in M&A contexts.

Second, overlapping and nonoverlapping owners may have heterogeneous interests that compromise the effectiveness of monitoring from the owners’ perspective or enable managers to pursue value-destroying deals. Institutional ownership heterogeneity can compromise monitoring because overlapping owners likely focus on the total gain from M&A transactions (Easterbrook and Fischel, 1982; Hansen and Lott, 1996), as their aggregate outcome depends on their ownership stake in the target firm as well as the acquiring firm. These owners, then, may be less concerned with value erosion, because their lack of gains or even losses as an owner in the acquiring firm can be offset by benefits derived from their ownership in the target firm. In contrast, nonoverlapping owners who own stock in the acquiring firm but not in the target, consider the stock returns of the acquiring firm only. These circumstances may compromise monitoring vigilance, while also strengthening managers’ ability to pursue their own objectives at the expense of owners’ interests (Hayward and Hambrick, 1997).

This potential conflict between overlapping and nonoverlapping owners thus introduces ownership heterogeneity, wherein the interests of the owners of the acquiring firm temporarily diverge during the specific M&A deal. Prior research indicates that differences among institutional owners largely reflect their legal types, relationships with the focal firm, investment horizons, and propensity for activism (David, Hitt, and Gimeno, 2001; David, Kochhar, and Levitas, 1998; Hoskisson et al., 2002; Woidtke, 2002). By extending previous work on heterogeneity at the firm level, we suggest that heterogeneity arising from overlapping ownership in M&A contexts may result in agency costs that have not been considered previously. Hence, we develop our main research question: How does the heterogeneity of owners’ interests, and specifically the case of overlapping ownership, affect the value-creating potential of mergers and acquisitions?

This question is important from both theoretical and practical perspectives. Corporate governance researchers studying the implications of agency problems have established the need for principals to monitor self-interested agents (e.g., Beatty and Zajac, 1994; Tosi, Katz, and Gomez-Mejia, 1997; Zajac and Westphal, 1994). However, this prior work largely assumes that owners are independent and share a goal of maximizing value at the focal firm. We extend such notions of ownership by considering situations in which this assumption may not apply.

From a theoretical standpoint, we expand current notions of ownership heterogeneity by highlighting how divergent ownership interests arise dynamically in the M&A process. Recent literature recognizes how various owner preferences can lead to different effects in a wide range of contexts including compensation, research and development and
innovation, corporate entrepreneurship, and corporate social performance, among others (e.g., Brickley, Lease, and Smith, 1988; David et al., 1998; Hoskisson et al., 2002; Johnson and Greening, 1999; Kochhar and David, 1996; Tihanyi et al., 2003). Building on prior literature that finds that owners of target firms enjoy significantly positive shareholder returns (Bruner, 2004; Hayward and Hambrick, 1997; King et al., 2004), we suggest that overlapping and nonoverlapping owners’ interests differ in the M&A context. The former can realize overall gains from the M&A event, even if they gain nothing or even suffer losses at the acquiring firm, so they adopt a different perspective on the deal than do nonoverlapping owners, who are solely affected by their exposure at the acquiring firm.

From a practical perspective, by suggesting that the magnitude of overlapping ownership affects the propensity of acquiring firms to engage in suboptimal M&A deals, we also help identify conditions in which some shareholders may support M&As that seemingly fail to create or even destroy shareholder wealth. Effective corporate governance (e.g., Hayward and Hambrick, 1997) could ameliorate the problems that arise from heterogeneity in the interests of owners. The portfolio implications thus have significance not only for individual firms, investors, financial intermediaries, and regulators but also with regard to the wider demands for stronger corporate governance. If the portfolio characteristics of some investors implicitly allow managers more discretion to further their own interests at the expense of some shareholders by pursuing suboptimal M&A deals, investors and regulators may need to contemplate governance structures and/or disclosure requirements that can minimize value destruction in the M&A process.

THEORY AND HYPOTHESES

Overlapping institutional ownership and acquirer returns

Both agency and managerial theories (as discussed by Hoskisson et al., 2002) shed some light on the fact that managers could pursue M&A deals that are seemingly against the interests of the acquiring firm’s shareholders. According to Hitt and colleagues (2001), self-interested managers may pursue M&A strategies to increase their compensation, enhance their reputation, or reduce their employment risk (Amihud and Lev, 1981; Denis, Denis, and Sarin, 1997). They further contend that managers can better pursue their self-interests in the presence of widely distributed and unorganized ownership, and insufficient board vigilance. Hence, two firm-level options emerge for resolving agency problems in the M&A context: (1) monitoring by owners and boards (Desai, Kroll, and Wright, 2005; Kroll et al., 1997; Paul, 2007) and (2) providing managers with appropriate equity or stock-based incentives (Sanders, 2001; Wright et al., 2002b).

Three aspects of firm-level ownership have been examined in the M&A context. First, some research addresses the implications of ownership concentration for acquirer returns. In line with agency arguments, this stream suggests that ownership concentration relates to either value creation or limited value destruction. For example, Allen and Cebenoyan (1991) find that acquirer returns are positively associated with ownership concentration. Second, other research considers the implications of ownership heterogeneity for the acquirer’s short- and long-term performance. As an illustration, Gaspar, Massa, and Matos (2005) find that acquiring firms with short-term institutional owners experience significantly worse abnormal returns around the merger announcement, as well as worse long-run performance. Third, research investigates the implications of the target’s ownership, suggesting that acquirers experience more unfavorable abnormal returns when they acquire public firms than when they acquire private firms (Akhigbe, Madura, and Martin, 2003; Capron and Shen, 2007; Chang, 1998; Moeller, Schlingemann, and Stulz, 2004). Thus, ownership solutions to agency problems in the M&A context appear fairly consistent with other agency problems, for which ownership largely remains a firm-level construct.

Unlike individual and family investors, institutional owners tend to have well-diversified portfolios. For example, in 1999, Fidelity owned stock in 2,896 companies, covering a broad swath of U.S. publicly traded firms, whereas most individual and family investors hold substantially fewer stocks (Anderson and Reeb, 2003; Dharwadkar et al., 2008). These changes in ownership pose a new problem, because well-diversified institutional investors may find themselves on both sides of M&A deals. In such cases, these owners prefer to improve their wealth at the aggregate level, paying
less regard to the particular distribution of wealth between the acquiring and target firms, possibly at the expense of the interests of nonoverlapping owners. In fact, anecdotal evidence has recognized that institutional investors are more interested in the net gain to their portfolios from an M&A deal. For example, Holland (1998) finds instances in which financial institutions use situations that require their consent as ‘pressure points’ to encourage substantive changes in corporate behavior:

[I]nstitutions ... with common, large holdings in both predator company A and target company B, can dominate the institutional influencing and decision making process before, during and after the merger. This overlapping group of core stakeholders for both companies A and B has the strongest pre bid influence on the thinking of the predator and they can become insiders if so desired. They become the focus for intensive private and public corporate communications during the merger as both parties seek to gain their support, their share buying/selling and eventual voting can sway the whole decision (Holland 1998: 259).

At the same time, the average premium for targets ranges from 30 to 50 percent of market value (Hayward and Hambrick, 1997; Krishnan, Hitt, and Park, 2007; Walkling and Edmister, 1985). Consequently, to the extent that some owners appear on both sides of the deal, potentially benefiting from their stake in the target firm, they may be willing to accept lower returns at the acquiring firm. Therefore, from an agency perspective, owner monitoring may be compromised when some owners have interests on both sides of the deal wherein the overlapping class of owners potentially extracts deal benefits at the expense of the nonoverlapping class of owners (e.g., Dharwadkar, George, and Brandes, 2000; Young et al., 2008).

From a managerial perspective, the above principal-principal problem is further complicated by enabling managers to engage in empire building that conflicts with the interests of some shareholders. In the absence of overlapping ownership, managers may be more cautious in pursuing M&As in the face of more uniform owner preferences. However, in the presence of overlapping ownership, a new dimension is added to the principal-principal problem. The principal-principal problem in the context of emerging economies rarely assumes the presence of ‘agents’ from the managerialist perspective (Hitt et al., 2001; Hoskisson et al., 2002). In our context, self-interested managers may pursue M&As for personal reasons and may be able to take advantage of the compromised monitoring situation. Additionally, they may more easily secure the approval of overlapping shareholders for deals that are based on the premise of improving the performance of both firms by exploiting existing synergies. Such M&A deals should be particularly attractive to overlapping owners, because they promise to improve the overall value of their portfolios (Easterbrook and Fischel, 1982). However, nonoverlapping owners may oppose these deals if the potential value does not benefit them. For example, the Hewlett-Packard–Compaq merger was built on the assumption that combining two average performers would create one strong competitor. Even though Wall Street ‘absolutely despised the deal’ and despite the ensuing proxy fight, a slim majority of shareholders voted for the deal (Burrows, 2003: 186). For the most part, well-diversified institutional investors supported the deal, but family owners, foundations, and employees—those owners less likely to hold stock simultaneously at the target firm—opposed it (Burrows, 2003). Of the 848 institutional investors in Hewlett-Packard (which owned a total of 51.35% of its stock), 556 (42.8% ownership) also held stock in Compaq (data from Thomson Financial 13F database).

In summary, we draw attention to how heterogeneity of principal interests that arise in specific situations in advanced economies combined with low constraints on managerial discretion of self-interested agents, is associated with a unique principal-principal agent dilemma of three-way divergent interests between owners with overlapping interests, owners lacking overlapping interests, and managers. Brancato (1997) warns that modern organizations must determine the shareholders for whom they intend to create value and design strategies accordingly. In the context of this admonition, ownership portfolios and exposure to a target’s stock may prompt some groups of

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1 Hewlett-Packard’s stock fell 19 percent upon the announcement of its merger with Compaq; though the deal was completed, the board later fired the CEO amid press reports that the merger failed to live up to expectations (Paul, 2007; Wall Street Journal, 2005).
investors to favor an M&A deal, others to oppose it, and still others to remain indifferent. Managers also may be less restrained in pursuing their own interests when their interests coincide with those of other ownership constituencies.

Hypothesis 1: Overlapping institutional ownership relates negatively to acquirer gains.

Corporate governance and M&A outcomes

While ownership structure is an important corporate governance mechanism, a variety of other governance mechanisms operate in conjunction with ownership to either alleviate or exacerbate agency problems in the M&A setting, and may even substitute for one another (Rediker and Seth, 1995). Additionally, prior research has been unable to document consistent relationships between the effectiveness of corporate governance mechanisms and firm outcomes, leading Daily and colleagues (2003) to suggest that corporate governance research yields more consistent results in specific settings (e.g., financially distressed firms) rather than when it attempts to contribute more generally to the value-creating potential of the firm. As M&As are discrete events that can fundamentally change the value of the firm (e.g., Sirower, 1997), they are a fitting context for testing the role of corporate governance as a safeguarding mechanism that can ameliorate the negative impact of overlapping ownership. Therefore, we propose that corporate governance mechanisms may moderate the impact of heterogeneous ownership by constraining its adverse effects on M&A outcomes.

Monitoring by boards

Traditional agency theory research assumes that owners (principals) must encourage managers (agents) to act in the interests of owners by either monitoring managers or inducing incentive alignment through instruments such as managerial ownership and stock options (Beatty and Zajac, 1994; Jensen and Meckling, 1976; Tosi et al., 1997). Boards can serve an important monitoring role and ensure that managers do not pursue their self-interests at the expense of owners’ interests (Fama and Jensen, 1983; Finkelstein and D’Aveni, 1994). Empirical studies of boards’ monitoring role permeate corporate governance literature (Dalton et al., 1998; Johnson, Daily, and Ellstrand, 1996). Having more independent directors can strengthen board control and facilitate monitoring (Beatty and Zajac, 1994; Fama and Jensen, 1983; Paul, 2007). Although boards often appear as facilitators of M&As because they can assist management in the acquisition of resources and provide expert counsel (Pfeffer and Salancik, 1978; Zahra and Pearce, 1989), we instead focus on their monitoring role. Consistent with prior research (e.g., Desai et al., 2005; Hayward and Hambrick, 1997), we expect that boards with more independent directors provide more objective oversight and better account for the interests of all shareholders. Consequently, we suggest that improved monitoring in the form of increased outsider presence on the boards moderates the relationship between overlapping ownership and M&A returns.

Board size also may be a determinant of board effectiveness. Existing literature contains two different perspectives on board size.² The first suggests that larger boards increase abilities to acquire critical resources that benefit the firm (Pfeffer and Salancik, 1978; Zahra and Pearce, 1989), whereas the second suggests that smaller boards can better monitor managers (Eisenberg, Sundgren, and Wells, 1998; Yermack, 1996), as the smaller size may be conducive to more effective decision-making processes (e.g., Shaw, 1976; Smith et al., 1994). Adopting shareholders’ perspective, both Yermack (1996) and Paul (2007) indicate that firms with large boards are more likely to compromise the interests of shareholders. To the extent that the size of the board is negatively associated with monitoring, we suggest that board size relates positively to value destruction in the presence of overlapping ownership, which already has compromised monitoring. Alternatively, smaller boards might be more effective monitors that can substitute for the reduced monitoring ability associated with overlapping ownership.

Finally, research addresses the implications of board leadership structure, positing that the separation of chief executive officer (CEO) and chairperson roles provides greater board monitoring effectiveness (Mallette and Fowler, 1992; Morck, Shleifer, and Vishny, 1989). However, researchers using organization theory instead argue that joint structures provide for unified leadership, such that these leaders can implement strategic decisions and overcome organizational inertia (Donaldson and

¹ We thank an anonymous reviewer for this insight.
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Davis, 1991; Pfeffer and Salancik, 1978). Because we are interested in the monitoring effectiveness of boards, we emphasize monitoring arguments rather than organization theory arguments. Consistent with the predictions of agency theory, Desai and colleagues (2005) find an association between duality and wealth-diluting acquisitions. Furthermore, Hayward and Hambrick (1997) demonstrate that managerial hubris interacts with duality, with the result that acquiring firms pay higher acquisition premiums for targets. We extend this monitoring logic to our overlapping ownership context and propose that the relationship between ownership overlap and acquirer returns is stronger in the presence of duality due to compromised monitoring.

Incentive alignment

The greater use of incentive alignment mechanisms such as managerial ownership and stock options, could minimize the agency problems associated with overlapping ownership. Consistent with prior research (e.g., Wright et al., 2002b), we argue that managers with greater equity ownership may be less disposed to pursue value-destroying deals, so incentive alignment should positively moderate the impact of ownership heterogeneity on M&A gains. First, managerial ownership should be associated with interest alignment with shareholders at the acquiring firm so that the interests of the nonoverlapping owners will not be overlooked. Second, even if owner monitoring appears compromised, managerial self-interest arising from executive ownership stakes should align with that of the owners and thus prevent managers from taking advantage of the situation. Finally, long-term, outcome-based incentives such as stock options may provide a compensation tool that aligns agents’ and principals’ interests (Eisenhardt, 1989). Therefore, the use of stock options in compensation packages should increase managerial exposure to the fluctuating fortunes of the acquiring firm’s stock price, and may have a positive impact on acquisition returns (Wright, Kroll, and Elenkov, 2002a). Therefore, we expect that they also have a positive moderating effect on M&A gains.

Both monitoring and incentive alignment provide important corporate governance mechanisms, so we consider their composite impact on M&A gains. Rediker and Seth (1995) note that bundles of corporate governance mechanisms may be more effective than a single tool, because substitution or complementary effects may occur among the different mechanisms. Consequently, we consider three important aspects of monitoring (board independence, board size, and board leadership structure) and two aspects of incentive alignment (managerial ownership and options compensation) in our model. The overall bundling effect of strong corporate governance may curtail the adverse impact of overlapping ownership on M&A gains by improving board monitoring and aligning managerial interests while still supporting the interests of nonoverlapping owners.

Hypothesis 2: Overlapping institutional ownership relates more negatively to acquirer gains in conditions of weaker corporate governance than in conditions of stronger corporate governance.

METHOD

Sample

We extracted all M&A deals from the Bloomberg database (n = 5,974) for the period 1998–2004. The sample was further restricted to publicly traded U.S. companies for which ownership data are available for both acquirer and target (from the CDA/Spectrum Thomson Financial 13F database), which reduced our sample to 2,688 M&A deals. Because we required both the acquiring firm and the target firm to be publicly owned, we did not include M&A deals involving private target firms. In Table 1a, we compare M&A returns and the percentage of positive shareholder gains for these 2,688 M&A deals. To test Hypothesis 1, we conduct multivariate analyses controlling for numerous variables used in prior research and available from the Center for Research in Security Prices (CRSP), Compustat, or Mergerstat databases. Missing data about operating cash flows, growth, prior M&A experience, and, in some cases, prior performance reduces the sample to 1,131 M&A events. To test Hypothesis 2, we further require corporate governance variables (obtained from Investor Responsibility Research Center [IRRC] Director Database and Standard & Poor’s Execucomp database). Therefore, our test of Hypothesis 2 relies on an analysis of 407 M&A events for which all the data are available in these commercial databases. The sample size is consistent with prior research in the area of mergers.
Table 1a. Comparison between overlap and non-overlap samples

<table>
<thead>
<tr>
<th>Acquiring firms with no overlapping ownership (n = 1566)</th>
<th>Acquiring firms with overlapping ownership (n = 1122)</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number overlap</td>
<td>0</td>
<td>43.8</td>
</tr>
<tr>
<td>% ownership overlap</td>
<td>0</td>
<td>43.8</td>
</tr>
<tr>
<td>Avg shareholder gain ($’000)</td>
<td>38</td>
<td>18.9</td>
</tr>
<tr>
<td>% positive shareholder gains</td>
<td>49.2</td>
<td>41.4</td>
</tr>
<tr>
<td>% positive shareholder returns</td>
<td>48.8</td>
<td>41.8</td>
</tr>
</tbody>
</table>

†p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001, two-tailed tests.

and acquisitions (e.g. Kroll, Walters, and Wright, 2008).

Dependent variables

Event study methodology has emerged as the dominant method for measuring the impact of M&As on shareholder value (Kroll et al., 1997), though prior research also indicates that abnormal stock returns relate to subsequent accounting measures of performance (Healy, Palepu, and Ruback, 1992; Sirower, 1997), as well as the likelihood of subsequent divestitures (Kaplan and Weisbach, 1992). In this paper we follow the recommendations of McWilliams and Siegel (1997) with respect to their 10-step process for conducting event studies. Additionally, following the methodology outlined by Brown and Warner (1985), we compute cumulative abnormal returns (CAR), or the returns over the event window minus the normal returns, which represent the expected returns if the event had not taken place (Campbell, Lo, and MacKinlay, 1997). To calculate CAR, we first obtained abnormal returns (AR) for firm j by following the procedure outlined by Brown and Warner (1985).3 Next, we accumulated the AR for a period of three days surrounding the announcement of the deal. This event window incorporates the day before and the day after the announcement, consistent with previous research (e.g., Moeller et al., 2005). Although longer event periods would ensure that we captured all effects, the estimates would be less reliable (Weston, Siu, and Johnson, 2001). Following recommendations to use abnormal dollar returns (e.g., Moeller et al., 2004; 2005), we weight the CARs by the market value of the firm two days prior to the announcement, using data from the CRSP database.

Independent variables

We compiled institutional ownership data from the CDA/Spectrum Thomson Financial Services database for the years 1997–2004. These data are based on institutional 13F filings with the Securities and Exchange Commission (SEC) and enabled us to calculate two measures to assess heterogeneous ownership. Following Hoskisson and colleagues (2002), we calculated the percentage of total institutional ownership and the absolute number of institutional owners of the acquiring firm that also held equity at the target firm.

Number of overlapping owners

To measure the number of institutional investors that own stock in both the acquiring firm and the target firm, we extracted the ownership portfolios of both target and acquiring firms and counted the number of matching owners for both firms at the end of the quarter immediately preceding the announcement of the deal.

Overlapping owners’ percentage

The percentage owned by overlapping owners in the acquiring firm equaled the sum of ownership stakes at the acquiring firm of all owners that held stock in both the acquiring and the target firm.

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3 $AR_{jt} = R_{jt} - \hat{\alpha}_j - \hat{\beta}_j R_{mt}$, where we estimated the parameters $\hat{\alpha}_j$, $\hat{\beta}_j$ by regressing the firm’s returns to market returns for a period of 240 to 40 days preceding the announcement of the M&A event (Mueller and Sirower, 2003).
the end of the quarter preceding the announcement of the deal.

**Board independence**

Because CEO power could undermine board control (Beatty and Zajac, 1994; Fama and Jensen, 1983; Paul, 2007) as the proportion of insiders (firm executives reporting to the CEO) serving on the board increases, the board’s control function may become compromised. We calculated board independence as the number of independent directors serving on the board, divided by the total number of directors. We obtained the board information from the IRRC Director database.

**Board size**

The size of the board of directors could affect its ability to ensure that management decisions support the interests of shareholders. Although larger boards provide more opportunities for director specialization, the coordination among these directors could be more challenging, which would make larger boards slower to decide and could compromise board monitoring (Eisenberg et al., 1998; Yermack, 1996). We extracted board size data from the IRRC Director database to determine the number of directors serving on the board.

**CEO duality**

Executives serving simultaneously as the chair of the board of directors may be able to influence board decisions (David et al., 1998; Westphal and Zajac, 1994). Thus, CEO duality is an indicator variable equal to 1 if the CEO is also the chair and 0 otherwise. We derived the CEO duality measure from the title of the executive obtained from Execucomp.

**Managerial ownership**

According to agency theory, CEO ownership indicates incentive alignment because it could reduce the potential for opportunistic behavior (Jensen and Meckling, 1976). The level of CEO ownership influences risk taking, firm strategy, and CEO compensation (Berger, Ofek, and Yermack, 1997; Denis et al., 1997; Finklestein and Hambrick, 1989). We measured managerial ownership as the percentage of outstanding shares owned by the CEO at the end of each fiscal year, relying on data obtained from Execucomp.

**CEO stock options**

Compensation in the form of stock options involves longer-term outcomes and represents the largest component of executive compensation. We measured it as the Black-Scholes value of the options granted to the CEO during the year. Because the variable was skewed and kurtotic, we also applied a natural logarithmic transformation to the CEO stock options data we obtained from Execucomp.

**Control variables**

**Firm size**

Moeller et al. (2004) find that large firms are associated with lower abnormal returns. Furthermore, firm size could affect both acquisition activity and M&A propensity (Amburgey and Miner, 1992; Sanders, 2001); therefore, we controlled for firm size, measured as the natural logarithm of firm assets. These data came from Compustat.

**Related acquisitions**

Prior research suggests that acquiring related firms creates more value for the acquiring firm than does pursuing unrelated diversification (King et al., 2004). Empirical research also suggests that acquisitions of unrelated firms are more likely to destroy shareholder value (Amihud and Lev, 1981; Morck, Shleifer, and Vishny, 1990). Therefore, we controlled for related deals by including an indicator variable equal to 1 if the acquirer and the target firms operate in the same industry, specified by the two-digit standard industrial classification (SIC) code, and 0 if they do not. We obtained the data about the industry operations of the acquiring and target firms from Compustat.

**Growth**

Following Lang, Stulz, and Walkling, (1989) who find that growth potential relates positively to abnormal returns, we controlled for growth opportunities with a proxy of Tobin’s Q (market value/book value of equity), as suggested by Wright et al. (1996). The market value and book value of equity data come from Compustat.
Free cash flows

Harford (1999) finds that abnormal returns are lower for bidders with large holdings of cash, in support of Jensen’s (1986) arguments that managers prefer to spend cash in a value-decreasing manner instead of distributing it back to shareholders. Following Carow, Heron, and Saxton (2004), we included operating cash flows scaled by firm assets as a control. To correct for skewness and kurtosis, we applied a natural logarithmic transformation; these financial data also came from Compustat.

Prior performance

Research suggests that prior performance relates to a firm’s propensity to take strategic actions (Morrow et al., 2007). We measured firm performance as return on assets (ROA), consistent with prior research (e.g., Sanders, 2001), and used data collected from the Compustat database.

Contested versus uncontested deal

Friendly takeovers appear associated with synergistic combinations, whereas hostile takeovers tend to feature disciplinary attempts to reallocate resources (Marks, 1982; Shleifer and Vishny, 1988). Because hostility may lead to lower returns for the acquiring firm (e.g., Hitt et al., 2001), we included a dummy variable that equals 1 when the Bloomberg M&A database classifies the deal as hostile and 0 otherwise.

Cash payment

The most commonly used payment methods in M&As are cash, stock shares (equity), or a combination. Marks (1982) suggests that cash payments signal higher confidence in the M&A outcomes on the part of the acquiring firm. We measured cash payments as an indicator variable and extracted the pertinent information from the Bloomberg M&A database.

Percentage acquired

We included a control for the final ownership stake in the target firm by measuring the percentage of the target firm’s outstanding common stock obtained by the acquiring firm. Supplementary analyses that included only those M&A deals with 100 percent acquisition of the target stock attained generally the same results. These data come from the Bloomberg M&A database.

Acquisition experience

Because M&A deals pose complex organizational and integration challenges, prior acquisition experience by the acquiring firm may affect acquisition performance (King et al., 2004). Managers may learn from their prior M&A experience and build facilitating processes for identifying and integrating targets successfully (Hitt et al., 1998). Following prior research (e.g., Bruton et al., 1994), we measured prior acquisition experience as the number of all completed M&A deals made by the acquiring firm in the preceding four years. We obtained this information from the Mergerstat database.

Blockholdings

Monitoring by large owners (e.g., blockholders) may provide an important solution to agency problems (Shleifer and Vishny, 1997). Large owners are more likely to monitor than are dispersed owners, because the benefits of monitoring outweigh the costs of monitoring (Gillan and Starks, 2000; Shleifer and Vishny, 1986). Consequently, we controlled for this variable using data obtained from SEC (Edgar’s) proxy statement filings.

Temporal and industry effects

The studied period covers both bull and bear markets as well as changes in the corporate governance climate associated with the Sarbanes-Oxley Act of 2002, so we used indicator variables to control for year effects. A dummy variable for a given year equals 1 if the M&A event occurred during that calendar year and 0 otherwise. Consistent with prior research, we controlled for industry effects by including dummy variables (Amburgey and Miner, 1992; Matta and Beamish, 2008).

We measured all the moderating and control variables at the end of the year preceding the M&A event, with the exception of year dummies and variables that measure the characteristics of the given M&A deal. Following Aiken and West (1991), we mean centered the variables prior to
forming the interaction terms. To test the robustness of our results to model specification, we also used an alternative measure of overlap, checked the model sensitivity to the inclusion of additional control variables, performed split-sample analyses in addition to the moderated regressions, and conducted an extensive search for confounding events surrounding M&A announcements, following the process recommended by McWilliams and Siegel (1997).4

RESULTS

In Table 1a, our comparison centers on M&A deals with overlapping ownership (n = 1,122) versus those without overlapping ownership (n = 1,566). The descriptive statistics indicate that M&A deals with overlapping ownership include 44 (S.D. = 74) owners with simultaneous interests in the acquirer and the target firm, which hold 19 percent (S.D. = 20) of the acquiring firm’s outstanding shares. Average shareholder gains in the nonoverlapping sample reached $38,000, whereas the average shareholder in the overlapping sample lost $228,000. These differences are statistically significant at p < 0.001. Furthermore, 49.2 percent of the M&A deals resulted in positive shareholder gains for the nonoverlapping sample compared with 41.4 percent for the overlapping sample; the differences again are statistically significant. These data provide preliminary evidence that ownership overlap may be associated with greater value destruction.

4 Results of these analyses do not change our conclusions. The analyses are available from the authors upon request.

A subsample analysis in Table 1b provides additional support. We split our overlapping sample into four quartiles according to the extent of overlapping ownership then compared the top and bottom quartiles. The low overlap ownership sample (bottom quartile, n = 288) indicates that an average of three (S.D. = 2) overlapping owners hold interests in both the acquirer and the target firm, and their percentage of ownership overlap is three percent (S.D. = 4). In contrast, in the high overlap subsample (top quartile, n = 322), 128 (S.D. = 106) owners have interests in both the acquirer and the target firm, and the percentage overlap is 44 percent (S.D. = 18). The average shareholder gain in the low overlap quartile is −$112,000, whereas that in the high overlap sample is −$609,000. T-tests demonstrated that these differences are statistically significant.

The descriptive statistics to test Hypothesis 1, including the means, standard deviations, and correlations for all study variables, appear in Table 2 (n = 1,131). On average, acquiring firms include 18 (S.D. = 52.2) shareholders that own stock at the target firm, and these overlapping owners own 7.9 percent (S.D. = 15.7) of the acquiring firm. The number of overlapping owners correlates negatively with the acquiring firm’s shareholders’ gains (r = −0.20, p < 0.001). The average acquiring firm owns $28 billion in assets (S.D. = 102.5). Only 13 percent of the deals occur in the same or related industries, as defined by the two-digit SIC codes of the acquiring and target firms. Consistent with prior research (e.g., Coff, 1993), only one percent (S.D. = 0.10) of the deals in our sample are ‘hostile.’ Finally, more than half of the deals use cash payments (mean = 0.52; S.D. = 0.5), and on
Table 2. Summary statistics and correlations

<table>
<thead>
<tr>
<th>#</th>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
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<tr>
<td></td>
<td>Acquiring firm</td>
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<tr>
<td>1</td>
<td>Shareholder gains ($ million)</td>
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<td>2349.3</td>
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<td>2</td>
<td>Number of overlapping owners</td>
<td>18.29</td>
<td>52.2</td>
<td>−0.201***</td>
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<tr>
<td>3</td>
<td>Overlap % of acquirer</td>
<td>7.91</td>
<td>15.7</td>
<td>−0.070*</td>
<td>0.732***</td>
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<tr>
<td>4</td>
<td>Firm size (assets $ billion)</td>
<td>28.09</td>
<td>102.5</td>
<td>0.013</td>
<td>0.204***</td>
<td>0.125***</td>
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<tr>
<td>5</td>
<td>Same industry deal</td>
<td>0.13</td>
<td>0.3</td>
<td>0.023</td>
<td>0.244***</td>
<td>0.370***</td>
<td>−0.102***</td>
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<td>6</td>
<td>Growth</td>
<td>8.12</td>
<td>59.6</td>
<td>0.035</td>
<td>0.116***</td>
<td>0.055†</td>
<td>0.092*</td>
<td>0.051†</td>
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<td>7</td>
<td>Hostile deal</td>
<td>0.01</td>
<td>0.1</td>
<td>−0.011</td>
<td>0.078**</td>
<td>0.093**</td>
<td>−0.013</td>
<td>0.034</td>
<td>−0.054†</td>
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<td>8</td>
<td>Cash flows</td>
<td>0.07</td>
<td>0.2</td>
<td>−0.038</td>
<td>0.058*</td>
<td>0.073*</td>
<td>−0.147**</td>
<td>0.069*</td>
<td>0.291***</td>
<td>−0.002</td>
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<td>9</td>
<td>Prior performance</td>
<td>0.01</td>
<td>0.2</td>
<td>−0.046</td>
<td>0.105***</td>
<td>0.101***</td>
<td>0.045</td>
<td>0.065*</td>
<td>0.173***</td>
<td>0.009</td>
<td>0.431***</td>
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<td>10</td>
<td>Final ownership stake (%)</td>
<td>96.01</td>
<td>16.5</td>
<td>0.046</td>
<td>0.034</td>
<td>0.060*</td>
<td>−0.163***</td>
<td>0.100***</td>
<td>−0.093*</td>
<td>0.013</td>
<td>0.08**</td>
<td>0.009</td>
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<td>11</td>
<td>Payment in cash</td>
<td>0.52</td>
<td>0.5</td>
<td>0.033</td>
<td>−0.058*</td>
<td>0.001</td>
<td>0.020</td>
<td>0.024</td>
<td>−0.154***</td>
<td>0.086*</td>
<td>0.018</td>
<td>0.005</td>
<td>0.046</td>
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<tr>
<td>12</td>
<td>Prior M&amp;A experience</td>
<td>7.40</td>
<td>12.7</td>
<td>0.085**</td>
<td>0.018</td>
<td>−0.05†</td>
<td>0.46***</td>
<td>−0.102***</td>
<td>0.143***</td>
<td>−0.027</td>
<td>−0.022</td>
<td>−0.021</td>
<td>−0.053†</td>
<td>−0.024</td>
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<tr>
<td>13</td>
<td>Blockholder</td>
<td>0.51</td>
<td>0.5</td>
<td>0.010</td>
<td>−0.004</td>
<td>0.041†</td>
<td>−0.035*</td>
<td>0.041**</td>
<td>−0.004</td>
<td>0.053***</td>
<td>0.068***</td>
<td>0.064***</td>
<td>0.058***</td>
<td>0.059***</td>
<td>−0.044†</td>
</tr>
</tbody>
</table>

†p < 0.10; * p < 0.05; † p < 0.01; *** p < 0.001, two-tailed tests.
average, the acquiring firm attains 96 percent (S.D. = 16.5) final ownership stake in the target.

We present analyses that test Hypothesis 1 in Table 3. The acquiring firm’s shareholder gains are adversely affected by the number of overlapping owners ($b = -0.26, p < 0.001$) and by overlapping ownership as a percentage of ownership of the acquiring firm ($b = -0.09, p < 0.01$). The changes in the R-square are significant. Thus, the analyses uniformly indicate that overlapping ownership relates negatively to shareholder gains, which implies that the spread of overlapping ownership is associated with suboptimal M&A deals. In turn, we cannot reject Hypothesis 1; in the presence of overlapping ownership, managers are less likely to undertake value-creating projects and face fewer constraints in their pursuit of value-destroying deals.5

5 Based on reviewer recommendations, we examined an additional measure of overlap (aggregate overlapping ownership), which considers facets of both the acquirer and target. We found that this overlap variable was negatively associated with M&A shareholder gains as predicted. We also created three additional control variables (joint prior performance of acquirer and target; joint firm size of acquirer and target; and joint growth of acquirer and target). While we lost some observations, our results were consistent with our predictions, even after controlling for these additional variables. The number of overlapping owners and percent of overlapping owners were both negatively associated with M&A gains.

Availability of corporate governance data significantly reduces our sample size, because databases such as IRRC and Execucomp cover only large U.S. companies. The average firm size for the full sample is $28$ billion, whereas that of acquirers for which we can find complete corporate governance information (i.e., board independence, CEO duality, board size, executive ownership, and stock options data) is $47$ billion ($t = -2.52, p < 0.01$). Moreover, the companies for which corporate governance data are available report better performance before they embark on the merger or acquisition (e.g., the restricted sample achieves an average ROA of six percent, whereas the ROA for the full sample is only one percent $[t = -8.4, p < 0.001]$).

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**Table 3. Owners on both sides of the deal and M&A shareholder gains**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Controls</th>
<th>Number of overlapping owners</th>
<th>Percent of overlapping owners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standardized estimate</td>
<td>$t$-stat</td>
<td>Standardized estimate</td>
</tr>
<tr>
<td>-----------------------------------</td>
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</tr>
<tr>
<td>Number of overlapping owners</td>
<td>-0.260</td>
<td>8.25***</td>
<td>-0.087</td>
</tr>
<tr>
<td>Percent of overlapping owners</td>
<td>-0.097</td>
<td>2.59**</td>
<td>-0.007</td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.028</td>
<td>-0.79</td>
<td>0.042</td>
</tr>
<tr>
<td>Same industry deal</td>
<td>0.028</td>
<td>0.91</td>
<td>0.096</td>
</tr>
<tr>
<td>Growth</td>
<td>0.051</td>
<td>1.54</td>
<td>0.074</td>
</tr>
<tr>
<td>Hostile deal</td>
<td>-0.014</td>
<td>-0.47</td>
<td>0.002</td>
</tr>
<tr>
<td>Cash flows</td>
<td>-0.054</td>
<td>-1.56</td>
<td>-0.050</td>
</tr>
<tr>
<td>Prior performance</td>
<td>-0.041</td>
<td>-1.20</td>
<td>-0.030</td>
</tr>
<tr>
<td>Final ownership stake</td>
<td>0.057</td>
<td>1.85†</td>
<td>0.078</td>
</tr>
<tr>
<td>Payment in cash</td>
<td>0.050</td>
<td>1.63</td>
<td>0.027</td>
</tr>
<tr>
<td>Prior M&amp;A experience</td>
<td>0.132</td>
<td>3.57***</td>
<td>0.108</td>
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<tr>
<td>Blockholder</td>
<td>0.025</td>
<td>0.65</td>
<td>0.010</td>
</tr>
<tr>
<td>Year controls</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Industry controls</td>
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<td></td>
<td>Yes</td>
</tr>
<tr>
<td>R-square (%)</td>
<td>2.9</td>
<td></td>
<td>8.6</td>
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<tr>
<td>Adjusted R-square</td>
<td>1.0</td>
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<td>6.6</td>
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<tr>
<td>Change in R-square</td>
<td>5.7***</td>
<td></td>
<td>0.7***</td>
</tr>
<tr>
<td>F value</td>
<td>1.5†</td>
<td></td>
<td>4.3***</td>
</tr>
</tbody>
</table>

N = 1131.
†p < 0.10; *p < 0.05; **p < 0.01; ***p < 0.001, two-tailed tests.
† Dummy codes controlling for yearly effects and industry are not reported here for brevity.
We present the descriptive statistics, including the means, standard deviations, and correlations, for the study variables for testing Hypothesis 2 in Table 4 (n = 407). Because the two samples differ in terms of size and profitability, we present the results of the impact of corporate governance separately in Table 5.

Although we are interested in the moderating effects of corporate governance, we also control for the main effects of corporate governance (Table 5), but the overlapping ownership results remain essentially the same. The number of overlapping owners still relates negatively to shareholder gains (b = -0.42, p < 0.001), even when we introduce corporate governance variables into the model (b = -0.40, p < 0.001) (Table 5, Models 5b and 5c). Similarly, the percentage owned by overlapping owners relates negatively to shareholder gains (b = -0.17, p < 0.01), and this effect persists after we include the corporate governance variables (b = -0.16, p < 0.05) (Table 5, Models 5e and 5f).

Although managerial ownership (b = 0.10, p < 0.10, Model 5c; b = 0.12, p < 0.05, Model 5f) and stock options (b = 0.10, p < 0.10, Model 5f) relate only weakly to M&A gains, the main effects of the corporate governance variables do not contribute significantly to the model fit. Recent research findings that suggest the outside directors of acquiring firms earn twice as much as directors of matched firms (Certo et al., 2008) may explain why the main effects of the board of directors do not relate significantly to shareholder gains for acquiring firms. For both Models 5c and 5f, the change in R-square is not significant.

Yet corporate governance variables moderate the relationship between overlapping ownership and shareholder gains from M&As. For both Models 5d and 5g, the interactions significantly improve model fit (change in R-square = 7.3, p < 0.001; change in R-square = 6.4, p < 0.001, respectively). Rather than creating value directly, corporate governance may resolve some agency problems, especially in ambiguity-ridden scenarios, as in the case of heterogeneous ownership interests. Board independence interacts positively and significantly with both the number (b = 0.69, p < 0.01, Model 5d) and the percentage (b = 0.53, p < 0.05, Model 5g) of overlapping owners, whereas board size has a negative moderating effect (b = -0.19, p < 0.05; b = -0.21, p < 0.001, respectively). Furthermore, CEO duality has a negative moderating effect on the acquiring firm’s shareholder gains (b = -0.34, p < 0.01, Model 5d; b = -0.23, p < 0.05, Model 5g).

That is, smaller boards, with high proportions of independent directors and structural independence from the CEO can better constrain the pursuit of value-destroying deals. We present the moderating effects of board independence and CEO duality on the relationship between overlapping ownership and shareholder gains from the M&A event in Figures 1 and 2.

DISCUSSION AND CONCLUSION

The steady growth of institutional ownership has created a situation of overlapping ownership that has significant and negative implications for acquirer returns in the context of mergers and acquisitions. Although the value-creation effect of M&As continues to be questioned within academic circles, we are not aware of any research that investigates the issues that we raise herein. Overall, we draw attention to how heterogeneity of principal interests that arise in specific situations in advanced economies, combined with low constraints on managerial discretion of self-interested agents, is associated with a unique principal-principal agent dilemma of three-way divergent interests between owners with overlapping interests, owners lacking overlapping interests, and managers.

In particular, in M&A contexts investors with stock interests in both the acquiring and target firms have different perspectives on the proposed business combination than do investors in only the acquiring firm. For example, in 2005, Institutional Shareholder Services (ISS) recommended

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4 The constraining impact of corporate governance was further tested in subsample analyses, based on reviewer recommendations. When the CEO simultaneously serves as chairman, both number of overlapping owners and percentage of overlapping owners are negatively and significantly related to returns. In contrast, the estimates for the non-duality sample are not significant. With respect to board independence, we find both number of overlapping owners and percentage of overlapping owners are negatively and significantly related to returns for the low independence sample, while the estimates are not significant for the high independence sample. Finally, with respect to board size, we find both number of overlapping owners and percentage of overlapping owners are negatively and significantly related to returns for the large board sample and insignificant in the small board sample.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
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<th>2</th>
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<th>16</th>
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<td>Acquiring firm CAR shareholder gains ($ million)</td>
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<tr>
<td>Number of overlapping owners</td>
<td>28.59</td>
<td>75.8</td>
<td>−0.307&lt;sup&gt;***&lt;/sup&gt;</td>
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<tr>
<td>Overlap % of acquirer</td>
<td>8.76</td>
<td>17.0</td>
<td>−0.124&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.757&lt;sup&gt;***&lt;/sup&gt;</td>
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<tr>
<td>Firm size (assets billion)</td>
<td>47.13</td>
<td>139.8</td>
<td>−0.073</td>
<td>0.176&lt;sup&gt;**&lt;/sup&gt;</td>
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<tr>
<td>Same industry deal</td>
<td>0.14</td>
<td>0.3</td>
<td>−0.022</td>
<td>0.446&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.554&lt;sup&gt;***&lt;/sup&gt;</td>
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<td>Growth</td>
<td>5.25</td>
<td>7.6</td>
<td>−0.048</td>
<td>0.139&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.021</td>
<td>0.240&lt;sup&gt;**&lt;/sup&gt;</td>
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<tr>
<td>Hostile deal</td>
<td>0.03</td>
<td>0.2</td>
<td>−0.009</td>
<td>0.086&lt;sup&gt;†&lt;/sup&gt;</td>
<td>0.097&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.022</td>
<td>0.074&lt;sup&gt;†&lt;/sup&gt;</td>
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<tr>
<td>Cash flows</td>
<td>0.11</td>
<td>0.1</td>
<td>−0.058</td>
<td>0.051</td>
<td>0.066</td>
<td>−0.282&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.035</td>
<td>0.238&lt;sup&gt;**&lt;/sup&gt;</td>
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<tr>
<td>Prior performance</td>
<td>0.06</td>
<td>0.1</td>
<td>−0.075&lt;sup&gt;†&lt;/sup&gt;</td>
<td>0.135&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.114&lt;sup&gt;**&lt;/sup&gt;</td>
<td>−0.100&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.115&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.317&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.063</td>
<td>0.525&lt;sup&gt;***&lt;/sup&gt;</td>
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</tr>
<tr>
<td>Final ownership stake (%)</td>
<td>95.24</td>
<td>18.5</td>
<td>0.059</td>
<td>0.044</td>
<td>0.069</td>
<td>−0.164&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.102&lt;sup&gt;**&lt;/sup&gt;</td>
<td>−0.208&lt;sup&gt;***&lt;/sup&gt;</td>
<td>−0.016</td>
<td>−0.086&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.068</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payment in cash</td>
<td>0.56</td>
<td>0.5</td>
<td>0.092&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.063</td>
<td>0.020</td>
<td>−0.111&lt;sup&gt;***&lt;/sup&gt;</td>
<td>−0.022</td>
<td>−0.204&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.102&lt;sup&gt;†&lt;/sup&gt;</td>
<td>0.058</td>
<td>0.012</td>
<td>0.048</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Prior M&amp;A experience</td>
<td>10.23</td>
<td>15.8</td>
<td>−0.065</td>
<td>0.007</td>
<td>−0.065</td>
<td>0.497&lt;sup&gt;**&lt;/sup&gt;</td>
<td>−0.063</td>
<td>0.214&lt;sup&gt;***&lt;/sup&gt;</td>
<td>−0.035</td>
<td>−0.113&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.076&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.130&lt;sup&gt;***&lt;/sup&gt;</td>
<td>−0.067</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blockholder experience</td>
<td>0.67</td>
<td>0.5</td>
<td>0.058</td>
<td>−0.121&lt;sup&gt;**&lt;/sup&gt;</td>
<td>−0.064</td>
<td>−0.316&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.032</td>
<td>−0.056</td>
<td>0.091&lt;sup&gt;†&lt;/sup&gt;</td>
<td>0.097&lt;sup&gt;†&lt;/sup&gt;</td>
<td>0.085&lt;sup&gt;†&lt;/sup&gt;</td>
<td>0.069</td>
<td>0.137&lt;sup&gt;**&lt;/sup&gt;</td>
<td>−0.205&lt;sup&gt;***&lt;/sup&gt;</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board independence</td>
<td>0.65</td>
<td>0.2</td>
<td>−0.019</td>
<td>0.037</td>
<td>0.082&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.036</td>
<td>0.062</td>
<td>−0.187&lt;sup&gt;***&lt;/sup&gt;</td>
<td>−0.019</td>
<td>−0.048</td>
<td>−0.016</td>
<td>0.093&lt;sup&gt;†&lt;/sup&gt;</td>
<td>0.028</td>
<td>−0.257&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.027</td>
<td>1</td>
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<td></td>
</tr>
<tr>
<td>Board size</td>
<td>10.76</td>
<td>3.7</td>
<td>−0.121&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.158&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.037</td>
<td>0.672&lt;sup&gt;**&lt;/sup&gt;</td>
<td>−0.035</td>
<td>0.178&lt;sup&gt;**&lt;/sup&gt;</td>
<td>−0.049</td>
<td>−0.115&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.074&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.070</td>
<td>−0.118&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.364&lt;sup&gt;***&lt;/sup&gt;</td>
<td>−0.365&lt;sup&gt;***&lt;/sup&gt;</td>
<td>−0.074&lt;sup&gt;†&lt;/sup&gt;</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO duality</td>
<td>0.73</td>
<td>0.4</td>
<td>−0.018</td>
<td>−0.001</td>
<td>−0.019</td>
<td>0.234&lt;sup&gt;**&lt;/sup&gt;</td>
<td>−0.010</td>
<td>0.016</td>
<td>0.044</td>
<td>−0.060</td>
<td>0.040</td>
<td>0.001</td>
<td>−0.058</td>
<td>0.091&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.064</td>
<td>0.172&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.229&lt;sup&gt;***&lt;/sup&gt;</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Managerial ownership (%)</td>
<td>2.10</td>
<td>5.6</td>
<td>0.058</td>
<td>−0.016</td>
<td>0.018</td>
<td>−0.093&lt;sup&gt;†&lt;/sup&gt;</td>
<td>0.024</td>
<td>0.181&lt;sup&gt;**&lt;/sup&gt;</td>
<td>−0.044</td>
<td>0.070</td>
<td>0.060</td>
<td>−0.112&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.095&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.036</td>
<td>0.101&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.111&lt;sup&gt;***&lt;/sup&gt;</td>
<td>−0.207&lt;sup&gt;***&lt;/sup&gt;</td>
<td>0.063</td>
<td>1</td>
</tr>
<tr>
<td>CEO stock options ($ million)</td>
<td>5.07</td>
<td>17.2</td>
<td>0.033</td>
<td>0.011</td>
<td>−0.005</td>
<td>0.092&lt;sup&gt;†&lt;/sup&gt;</td>
<td>0.023</td>
<td>−0.003</td>
<td>0.055</td>
<td>−0.049</td>
<td>−0.088&lt;sup&gt;†&lt;/sup&gt;</td>
<td>−0.013</td>
<td>−0.071</td>
<td>−0.036</td>
<td>−0.062</td>
<td>0.121&lt;sup&gt;**&lt;/sup&gt;</td>
<td>0.129&lt;sup&gt;**&lt;/sup&gt;</td>
<td>−0.006</td>
<td>−0.233&lt;sup&gt;**&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

*p < .10; †* p < .05; *p < .01; **p < .001, two-tailed tests.
Table 5. Owners on both sides of the deal: moderating impact of corporate governance on M&A shareholder gains

<table>
<thead>
<tr>
<th>Variable</th>
<th>Controls</th>
<th>Number of overlapping owners</th>
<th>Percent of overlapping owners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 5a</td>
<td>Model 5b</td>
<td>Model 5c</td>
</tr>
<tr>
<td>Number of overlapping owners</td>
<td>−0.417</td>
<td>−0.404</td>
<td>−0.404</td>
</tr>
<tr>
<td>Percent of overlapping owners</td>
<td>−0.038</td>
<td>−0.058</td>
<td>0.006</td>
</tr>
<tr>
<td>Firm size</td>
<td>−0.085</td>
<td>−1.63†</td>
<td>0.103</td>
</tr>
<tr>
<td>Same industry deal</td>
<td>0.025</td>
<td>0.41</td>
<td>0.062</td>
</tr>
<tr>
<td>Growth</td>
<td>0.001</td>
<td>0.02</td>
<td>0.022</td>
</tr>
<tr>
<td>Hostile deal</td>
<td>−0.105</td>
<td>−1.71†</td>
<td>−0.072</td>
</tr>
<tr>
<td>Cash flows</td>
<td>−0.089</td>
<td>−1.48†</td>
<td>−0.063</td>
</tr>
<tr>
<td>Prior performance</td>
<td>0.104</td>
<td>1.96†</td>
<td>0.123</td>
</tr>
<tr>
<td>Final ownership stake</td>
<td>0.119</td>
<td>2.22*</td>
<td>0.108</td>
</tr>
<tr>
<td>Payment in cash</td>
<td>−0.047</td>
<td>−0.68†</td>
<td>−0.063</td>
</tr>
<tr>
<td>Prior M&amp;A experience</td>
<td>0.016</td>
<td>0.23</td>
<td>−0.045</td>
</tr>
<tr>
<td>Blockholder</td>
<td>−0.049</td>
<td>−0.90</td>
<td>0.004</td>
</tr>
<tr>
<td>Board independence</td>
<td>−0.046</td>
<td>−0.68†</td>
<td>−0.080</td>
</tr>
<tr>
<td>CEO duality</td>
<td>−0.014</td>
<td>−0.28†</td>
<td>−0.028</td>
</tr>
<tr>
<td>Managerial ownership</td>
<td>0.097</td>
<td>1.79†</td>
<td>0.113</td>
</tr>
<tr>
<td>CEO stock options</td>
<td>0.081</td>
<td>1.62</td>
<td>0.067</td>
</tr>
<tr>
<td>BOD independence * Overlap</td>
<td>0.692</td>
<td>2.73**</td>
<td>0.531</td>
</tr>
<tr>
<td>Board size * Overlap</td>
<td>−0.187</td>
<td>−2.09*</td>
<td>−0.206</td>
</tr>
<tr>
<td>CEO duality * Overlap</td>
<td>−0.355</td>
<td>−2.60**</td>
<td>−0.226</td>
</tr>
<tr>
<td>CEO ownership * Overlap</td>
<td>0.055</td>
<td>0.38</td>
<td>0.045</td>
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<tr>
<td>CEO options * Overlap</td>
<td>0.019</td>
<td>0.30</td>
<td>0.029</td>
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<tr>
<td>Year controls</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Industry controls</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>R-square (%)</td>
<td>6.9</td>
<td>19.1</td>
<td>20.4</td>
</tr>
<tr>
<td>Adjusted R-square</td>
<td>1.4</td>
<td>14.1</td>
<td>14.3</td>
</tr>
<tr>
<td>Change in R-square</td>
<td>12.2**</td>
<td>1.3</td>
<td>7.3***</td>
</tr>
<tr>
<td>F value</td>
<td>1.2</td>
<td>3.8**</td>
<td>3.3***</td>
</tr>
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</table>

N = 407.  
† p < 0.10; * p < 0.05; ** p < 0.01; *** p < 0.001, two-tailed tests.  
a Dummy codes controlling for yearly effects and industry are not reported here for brevity.
that institutional investors vote against the proposed merger of Computer Horizons with Analysts International, stating that despite value creating potential, that value is being transferred to Analysts International, the target firm (CBR, 2005). According to the transfer of wealth hypothesis, shareholders of the acquiring firm would lose value if management overpaid for the target. In this case, losses at the acquiring firm for an overlapping shareholder could be offset by gains at the target firm; therefore, the overlapping owners as shareholders of the target would enjoy higher returns from the value transferred from the acquirer’s shareholders.

Our results also support our contentions that institutional ownership overlap creates problems for nonoverlapping owners of the acquiring firms. The nonoverlap and overlap sample comparison offers some interesting insights. Value destruction occurs in the overlapping sample rather than in the nonoverlapping sample, which represents preliminary evidence that ownership overlap creates additional agency problems that have hitherto not been considered in the M&A context. Further analysis of the more versus less overlapping subsamples sheds additional light on this point. A cursory analysis indicates that the extent of overlap matters (i.e., the greater the overlap, the worse the value destruction). These results therefore suggest that institutional ownership overlap in the M&A context creates unique agency problems. Agency formulations need to be amended to consider the implications of such overlaps.

The multivariate results also suggest that institutional ownership overlap is negatively associated with acquirer returns, even after we control for the traditional determinants of such returns. Both measures of overlap (i.e., number and percentage) indicate value destruction. However, the number of overlapping owners apparently has greater implications for value destruction than does the percentage measure. While overlapping ownership creates a situation in which monitoring may be compromised by the heterogeneity of ownership interests, our findings suggest that as the number of overlapping institutional owners increases, it may provide legitimacy to managers who pursue suboptimal deals by gaining approval from more shareholders. Limited research indicates that mergers usually receive proxy voting approval, however a high level of variance exists because some mergers receive approval by the barest of margins (Burch, Morgan, and Wolf, 2004). When more institutional owners are involved in the overlap, researchers may want to pursue a coalitional approach to understanding the merger process (i.e., Leech, 1987). Specifically, as the overlap numbers or stakes increase, a dominant overlap coalition may be able to disregard the interests of nonoverlapping owners.

In addition to compromising monitoring, ownership heterogeneity may provide managers with a unique opportunity to pursue their own interests by expanding the firm. Prior research indicates that managerial hubris is positively related to the acquisition premiums paid to the target (Hayward and Hambrick, 1997). Hubris, combined with ownership overlaps, could no doubt compound the problem. According to our results, and in conjunction

Figure 1. Percentage of owners on both sides of the deal and shareholder gains in M&A events: moderating effect of board independence. This figure is available in color online at Wiley Online Library (wileyonlinelibrary.com)

Figure 2. Percentage of owners on both sides of the deal and shareholder gains in M&A events: moderating effect of CEO duality. This figure is available in color online at Wiley Online Library (wileyonlinelibrary.com)
with managerial theories, overlaps may promote overpayment for the target and consequently have adverse effects on the value of the acquirer. Although the main goal of this study has been to identify agency problems associated with owner overlaps, it also behooves us to reconsider traditional solutions premised on monitoring and incentive alignment. Several meta-analyses (Dalton et al., 1998; 1999; 2003) question the link between governance facets and firm performance, suggesting that it may be more useful to consider these mechanisms in the context of overt conflicts between owners and managers. Furthermore, we must consider the ability of multiple corporate governance mechanisms to constrain agency problems, in line with the substitution arguments offered by Rediker and Seth (1995). Therefore, we considered three facets of monitoring and two facets of incentive alignment.

We also provide some initial evidence that corporate governance, and monitoring by boards in particular, can ameliorate the negative impact of heterogeneous ownership. Boards characterized by more independent directors, with separate chairperson and CEO, and smaller boards, have a positive moderating effect on the gains from M&A events in the presence of overlapping owners. Surprisingly though, we did not find moderating effects for incentive-alignment mechanisms such as executive ownership and stock option incentives. Consistent with Wright and colleagues (2002b), we find some evidence of the main effects of managerial ownership and options compensation on acquirer returns, but we do not find any significant interaction effects with respect to incentive alignment and ownership overlap, even though the main effects suggest a positive but weak effect on shareholder gains for the acquiring firms.7 Recent work by Coates and Kraakman (2007) provides evidence that links CEO tenure and M&A propensity, such that the odds for CEO turnover double during the fifth year on the job, accompanied by a doubling of the M&A deals undertaken. The incentive-alignment effect of ownership thus could be undermined by CEO concerns about job security. Because implementing M&As is complex, CEOs might prefer to prolong their tenure in the firm and safeguard their firm-specific human capital by taking on additional M&A deals. With regard to stock options, we again find some evidence for their association with acquirer returns. However, recent research (e.g., O’Connor et al., 2006; Sanders and Hambrick, 2007) challenges whether stock options are universally beneficial; instead, they may drive managerial behavior that could lead to very positive or very negative outcomes. Stock options could encourage CEOs to undertake high variance projects and thus engage in M&A deals that might be extremely value destructive or value creating.

If managerial interests coincide with the interests of some owners and not others, it raises the question of the relativity of agency problems. For example, what portion of shareholders should benefit from a deal before we can conclude that managers are acting in the interests of the shareholders? Approval of the M&A deal by a greater majority might increase the perceived legitimacy of the deal, which would raise some regulatory implications. Should companies be required to disclose the portion of their shareholders that are owners on both sides of the deal? These considerations are important not only in terms of the outcomes of M&A deals but also with regard to the boundary of the firm, to the extent that heterogeneous principal interests may affect firms’ choices among different governance structures, such as M&As, alliances, or divestitures (e.g., Villalonga and McGahan, 2005). Wang and Zajac (2007) suggest that alliances are more versatile than acquisitions; additional research should examine whether managers are more inclined to pursue suboptimal strategies if they deem them beneficial for themselves and a subset of owners.

Our study is not without limitations. While we consider several measures of ownership overlap, a consideration of finer measures might provide a more in-depth understanding of the mechanisms by which overlapping ownership matters. For example, we aggregate overlapping owners, but owners’ interests may differ both within and between groups. According to research on ownership heterogeneity (David et al., 1998; Hoskisson et al., 2002), institutional investors may have heterogeneous interests (based on pressure sensitivity, temporal horizon, or activism). By focusing on the five

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7 The results in Table 5 (Models 5c, 5f) indicate that the main effects for CEO ownership and stock option compensation are not statistically significant at conventional levels (p < 0.05) for three of the four cases. However, a power analysis indicates that though our sample size is more than adequate for detecting medium and large effect sizes (r = 0.20 and higher; power ≥ 0.99), the power for detecting small effect sizes (r = 0.10) is 0.64 (Cohen, 1977).
or 10 largest institutional owners and the overlap in their portfolio holdings, further research could offer even more interesting results. Alternatively, in an extension of Dharwadkar et al.’s (2008) work, some blockholders could be portfolio investors, whereas others could be less diversified owners (e.g., family). Blockholders that are portfolio investors and are on both sides of the deal should behave differently than blockholders that are only on the acquirer’s side of the deal.

Furthermore, large owners on both sides of the deal may have potential informational advantages that nonoverlapping owners lack. Corporate governance researchers studying emerging markets have been cognizant of principal-principal conflicts wherein some large owners extract the benefits of control at the expense of minority owners through the use of pyramid structures, cross-ownership, and/or dual-class equity mechanisms (Bebchuk, Kraakman, and Triantis, 2000; Chang, 2003; Dharwadkar et al., 2000; Hoskisson et al., 2005). Typically, these large owners can use tunneling by transferring resources from companies where they have fewer cash flow rights to the ones where they have more cash flow rights (e.g., Bertrand, Mehta, and Mullainathan, 2002; Hoskisson et al., 2005). In the M&A context, overlapping institutional owners may facilitate the transfer of firm value from the acquirer to the target, knowing well that they may enjoy positive abnormal returns at the target. While the stronger institutional context and the more fragmented ownership structure in the United States relative to those in emerging markets should alleviate some of these concerns, future research should examine more closely the extent and the process of ownership influence on M&A outcomes. Furthermore, it would be interesting to examine the trading behaviors of large overlapping owners prior to the acquisition. Large owners might reduce their stakes in the acquirer and increase their stakes in the target, or they could take advantage of merger arbitrage opportunities by taking short positions in the acquirer and long positions in the target.

We also consider five corporate governance mechanisms: board independence, board leadership, board size, managerial ownership, and options compensation. Due to data availability, we focus on larger firms to test our governance arguments. Considering other governance mechanisms (e.g., board member ownership/compensation) might be fruitful, especially in light of the importance of board monitoring in our findings. Finally, our study focuses on short-term value-creation issues. Further research could benefit from considering the longer-term valuation prospects of M&As, as well as whether acquisitions with more wealth transfer from nonoverlapping to overlapping owners are more likely to be divested in the future, or experience dismal long-term performance.

A single study cannot provide irrefutable evidence about the importance of institutional ownership overlap in the context of M&As, but our research highlights a unique agency issue. Overall, we provide evidence that overlapping institutional ownership relates negatively to acquirer returns and that some corporate governance mechanisms can alleviate this problem. Our results further suggest that it is essential to move beyond the narrow effects of ownership structure at a focal firm and consider as well the possibility of ownership overlap in M&A contexts.

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