Corporate Governance and Acquirer Returns

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Abstract

We examine whether corporate governance mechanisms, especially the market for corporate control, affect the profitability of firm acquisitions. We find that acquirers with more antitakeover provisions experience significantly lower announcement-period stock returns than other acquirers. We also find that acquiring firms operating in more competitive industries or separating the positions of CEO and chairman of the board experience higher abnormal announcement returns. Our results support the hypothesis that managers protected by more antitakeover provisions face weaker discipline from the market for corporate control and thus, are more likely to indulge in empire-building acquisitions that destroy shareholder value. They provide a partial explanation for why anti-takeover provision indices of Gompers, Ishii and Metrick and others are negatively correlated with shareholder value.

Keywords: Corporate Governance, Anti-takeover Provisions, Takeover Protection, Market for Corporate Control, Acquisitions, Acquisition Profitability, Agency Problems

JEL Classifications: G34, G14, D84, D21, D23

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Following a string of corporate scandals in the U.S., legislators and regulators rushed to enact corporate governance reforms, which resulted in the passage of the Sarbanes-Oxley Act of 2002. Yet, these reforms were instituted with little scientific evidence to support their purported benefits. The impact of these reforms continues to be strongly felt, with further reforms likely in the future, making our understanding of how major corporate governance mechanisms affect shareholder wealth of great economic import. A series of recent studies by Gompers, Ishii, and Metrick (GIM, 2003), Bebchuk, Cohen, and Ferrell (BCF, 2004), Bebchuk and Cohen (2005), and Cremers and Nair (2005) examine one important dimension of corporate governance, namely the market for corporate control. They document negative relations between various indices of anti-takeover provisions (ATPs) and both firm value and long-run stock return performance.[1, 2] However, it remains unclear exactly how or through what channels anti-takeover provisions negatively affect shareholder value. GIM hypothesize that anti-takeover provisions cause higher agency costs "through some combination of inefficient investment, reduced operational efficiency, or self-dealing", though they do not provide direct evidence to support their conjecture.[3] Our study directly examines the impact of a firm's anti-takeover provisions on its investment efficiency, and in particular, the shareholder wealth effects of its acquisitions.

Corporate acquisitions are among the largest firm investments and they can heighten the conflicts of interest between managers and shareholders inherent in large public corporations (Berle and Means (1932) and Jensen and Meckling (1976)). In addition, these corporate events are readily observable to outside investors. As a result, academic researchers have extensively studied merger and acquisition activity.[4] It is also well recognized that managers do not always make shareholder-value-maximizing acquisitions and they sometimes extract private benefits at the expense of shareholders. The free cash flow hypothesis in Jensen (1986) argues that managers realize large personal gains from empire building and predicts that firms with abundant cash flows, but few profitable investment opportunities are more likely to make value-destroying acquisitions, rather than returning the excess cash flow to shareholders. Lang, Stulz, and

Walkling (1991) test this hypothesis and report supportive evidence. Morck, Shleifer, and Vishny (1990) identify several types of acquisitions (including diversifying acquisitions and acquisitions of high growth targets) that can yield substantial benefits to managers, while at the same time hurting shareholders.

Fortunately, a number of corporate control mechanisms exist to help mitigate the manager-shareholder conflict of interest. In this paper, we primarily focus on one important component of corporate governance, i.e., the market for corporate control. Mitchell and Lehn (1990) find that the market for corporate control can discourage corporate empire building in that firms that make bad acquisitions have a higher likelihood of being acquired later. However, by substantially delaying the process and thereby raising the expected costs of a hostile acquisition, anti-takeover provisions reduce the probability of a successful takeover and hence the incentives of potential acquirers to launch a bid (Bebchuk, Coates, and Subramanian (2002, 2003) and Field and Karpoff (2002)).[5] In other words, ATPs undermine the ability of the market for corporate control to perform its ex post settling up function and to provide managers with proper incentives to maximize current shareholder wealth. Therefore, c*eteris paribus*, the conflict of interest between managers and shareholders is more severe at firms with more ATPs or, equivalently, firms less vulnerable to takeovers. This leads to the following ATP value destruction hypothesis: *Managers protected by more ATPs are more likely to indulge in value-destroying acquisitions since they are less likely to be disciplined for taking such actions by the market for corporate control.*[6, 7] This constitutes the primary hypothesis that we investigate.

In a sample of 3,333 completed acquisitions during the period between 1990 and 2003, we find strong support for the *ATP value destruction hypothesis*. More specifically, acquisition announcements made by firms with more ATPs in place generate lower abnormal bidder returns than those made by firms with fewer ATPs, and the difference is significant both statistically and economically. This result holds for all the corporate governance indices or subsets of ATPs we consider and it is robust to controlling for an array of other key corporate governance

mechanisms, including product market competition, leverage, CEO equity incentives, institutional ownership, and board of director characteristics.

In further analysis, we address the causality issue by examining two endogeneity-related alternative explanations for our empirical findings: reverse causality and spurious correlation. To investigate the first possibility, we limit our attention to acquiring firms that go public prior to 1990. This ensures that most of their takeover defenses are adopted prior to our acquisition sample period, since shareholder support of further ATP adoptions, especially staggered boards, was uncommon in the 1990s (Gompers et al. (2003) and Bebchuk and Cohen (2005)). The significant time gap between ATP adoption and acquisition makes it highly unlikely that these firms adopt ATPs immediately before or in anticipation of making bad acquisitions. We find that our full-sample results continue to hold in this subsample.

The negative effect of ATPs on bidder returns can also be attributed to CEO quality in that bad CEOs can adopt takeover defenses for entrenchment purposes *and* make bad acquisitions.[8] In other words, the relation between ATPs and bidder returns could be spurious. We address this omitted variable problem by controlling for bidder CEO quality proxied by pre-acquisition operating performance. We find that higher-quality CEOs indeed make better acquisitions for their shareholders. However, we continue to find that takeover defenses have significantly negative effects on bidder announcement returns.

We also uncover evidence regarding the value of several other corporate governance mechanisms. We find that firms operating in more competitive industries make better acquisitions, as do firms that separate the positions of CEO and Chairman of the board. The first piece of evidence supports product market competition acting as an important corporate governance device that discourages management from wasting corporate resources, while the second piece of evidence lends support to the recent call for the elimination of CEO/Chairman duality.

Our study makes two valuable contributions to the literature. First, we identify a clear and important channel through which takeover defenses destroy shareholder value. Our evidence suggests that anti-takeover provisions allow managers to make unprofitable acquisitions without facing a serious threat of losing corporate control. This is consistent with the agency-based interpretation GIM provide for why ATPs are related to shareholder wealth, i.e., ATPs generate shareholder-manager agency costs. In addition, our short-term event-study approach is not subject to the critiques levied on long-run event studies.[9]

We also substantially expand the set of governance mechanisms studied. This addition can be important since the negative correlation between ATPs and shareholder value could be spurious if alternative corporate control mechanisms are not independently chosen. We find that after introducing a wide range of other governance mechanisms, the marginal effect of ATPs on acquirer returns remains negative and significant.

Second, we contribute to the extensive literature on corporate governance by highlighting the role played by the market for corporate control in providing managerial incentives to increase shareholder wealth. Previous studies focus on the effects of takeover defenses on executive compensation ((Borokhovich et al. (1997), Bertrand and Mullainathan (1999), and Fahlenbrach (2004)), firm leverage (Garvey and Hanka (1999)), the cost of debt (Cremers, Nair, and Wei (2004) and Klock, Mansi, and Maxwell (2005)) and R&D expenditures (Meulbroek et al. (1990)), in addition to firm value and long term stock performance. Our evidence suggests that the market for corporate control has a strong and material impact on managers' efforts to make value-enhancing investments, and in particular profitable acquisitions. Our study is also related to Bebchuk and Cohen (2005), Bebchuk, Cohen, and Ferrell (2004), and Cremers and Nair (2005) in that we examine different subsets of the 24 anti-takeover provisions in the GIM index. Bebchuk, Cohen, and Ferrell document that some takeover defenses are more important than others. Our investigation of bidder returns reveals similar patterns.

The remainder of the paper is organized as follows. Section I describes our data sources and acquisition sample. Section II presents the empirical results on the impacts of corporate governance on the profitability of acquisitions. Section III concludes the paper.

I. Sample description

We extract our acquisition sample from the Securities Data Corporation's (SDC) U.S. Mergers and Acquisitions database. We identify 3,333 acquisitions made by 1,268 firms between January 1, 1990 and December 31, 2003 that meet the following criteria:

(1) The acquisition is completed.

(2) The acquirer controls less than 50% of target shares prior to the announcement and owns 100% of target shares after the transaction.

(3) The deal value disclosed in SDC is more than $1 million and is at least 1 percent of the acquirer's market capitalization measured on the 11th trading day prior to the announcement date.

(4) The bidder has annual financial statement information available from Compustat and stock return data (210 trading days prior to acquisition announcements) from the University of Chicago's Center for Research in Security Prices (CRSP) Daily Stock Price and Returns file.

(5) The bidder is included in the Investor Responsibility Research Center (IRRC) database of anti-takeover provisions.[10]

The IRRC published six volumes in years 1990, 1993, 1995, 1998, 2000, and 2002. They include detailed information on anti-takeover provisions at approximately 1,500 firms during each of the six publication years, with more firms covered in the more recent volumes. As GIM point out, these firms are large companies in the S&P 500 index and annual lists of the largest corporations published by Fortune, Forbes, and BusinessWeek. The IRRC expanded the sample in 1998 to include smaller firms and firms with high levels of institutional ownership. In each of

the six years, firms in the IRRC database represent more than 90% of the U.S. stock market capitalization (Bebchuk, Cohen, and Ferrell (2004)). Following GIM, we assume that during the years between two consecutive publications, firms have the same governance provisions as in the previous publication year. We obtain very similar results (unreported, but available upon request) if we assume that firms have the same governance provisions as in the next publication year or if we restrict our sample to the six years with IRRC volumes.

In Table I we present summary statistics of our sample acquisitions by announcement year. Beginning in 1991, the number of acquisitions in each year increases annually until it reaches its highest level in 1998. Then it drops off significantly before rebounding in 2002. The trend is very similar to that documented by Moeller, Schlingemann, and Stulz (2004). Table I also reports annual mean and median bidder market capitalization (measured 11 trading days before the announcement), deal value, and relative deal size, defined as the ratio of deal value to bidder market capitalization. Both deal value and bidder market capitalization appear to peak around the 1999-2000 "bubble" period, during which bidders also make larger acquisitions relative to their own market capitalizations.

Insert Table I here

II. Empirical results

A. Variable construction

In the next three subsections, we discuss the measurement of three categories of variables: acquirer return as our dependent variable, corporate governance (ATP) indices as our key explanatory variables, and bidder- and deal-specific characteristics as control variables.

A.1. Acquirer return

We measure bidder announcement effects by market model adjusted stock returns around initial acquisition announcements. We obtain the announcement dates from SDC's U.S. Mergers & Acquisitions database. We compute five-day cumulative abnormal returns (CARs) during the window encompassed by event days (-2, +2), where event day 0 is the acquisition announcement date.[11] We use the CRSP equally-weighted return as the market return and estimate the market model parameters over the period from event day -210 to event day -11.

As shown in Panel A of Table II, the average five-day CAR for the whole sample is 0.215%, significantly different from zero at the 5% level. For transactions financed exclusively with cash, the mean CAR is about 0.798%, which is highly significant. In contrast, for deals at least partially financed with stock, the average CAR is approximately -0.292%, which is significant at the 10% level.[12] Acquisitions of subsidiary targets are associated with the highest bidder returns, with an average CAR of 1.373%. The next most profitable deals are acquisitions of private targets with an average CAR of 0.76%. Deals involving public targets generate the lowest abnormal returns to bidder shareholders, with an average CAR of -1.484%. All three means are significantly different from zero. We observe the same pattern for median CARs. These results are consistent with those in prior studies such as Moeller, Schlingemann, and Stulz (2004).

Insert Table II here

A.2. Corporate governance indices

The IRRC publications cover 24 unique anti-takeover provisions, from which GIM construct their governance index by adding one point for each provision that enhances managerial power. Firms with higher GIM indices are viewed as having weaker shareholder rights since it is more difficult and costly for shareholders to remove managers at these firms. GIM find that firms with more ATPs are associated with lower long-run stock returns and firm values. BCF go

beyond the GIM results by creating a more parsimonious ATP index based on six key provisions, which they consider to be most important from a legal standpoint. The six provisions are staggered boards, limits to shareholder bylaw amendments, limits to shareholder charter amendments, supermajority requirements for mergers, poison pills, and golden parachutes. BCF show that their index has a stronger association with long-run stock returns and firm value than the GIM index does and that an index of the other 18 provisions is not significantly related to firm value. Finally, Bebchuk and Cohen (2005) focus on one key anti-takeover provision, specifically a staggered board, and find that it leads to significantly lower firm value. For expositional convenience, we label the staggered board indicator as an index as well. We consider all three indices and separately examine their effects on bidder returns. The means and medians of these indices, reported in Panel B of Table II, are very similar to what GIM, BCF, and Bebchuk and Cohen (2005) report. All three indices are significantly and negatively correlated with acquisition announcement CARs.

In Panel C of Table II, we conduct some univariate analyses of our hypothesis. We form two portfolios using three different classification schemes, two based on the GIM index and one based on the BCF index. In the first GIM-index-based classification, we follow the convention in GIM and assign bidders with a GIM index of 5 or below to a "Democracy" portfolio and bidders with a GIM index of 14 or above to a "Dictatorship" portfolio. This approach has the advantage of pitting two extreme portfolios against each other, but the small sample size of the two portfolios (234 and 240 acquisitions, respectively) could work against us finding statistically significant evidence both within and between portfolios. Therefore, in an alternative GIM-index-based classification, we assign bidders with a below-sample-median GIM index to the "Democracy" portfolio and bidders with an above-sample-median GIM index to the "Dictatorship" portfolio. In the BCF-index-based classification, the "Democracy" portfolio is composed of bidders with BCF index values below the sample median and the "Dictatorship" portfolio is composed of bidders with BCF index values above the sample median.

For all three classifications, "Democracy" bidders on average experience positive CARs around acquisition announcements, while "Dictatorship" bidders experience negative CARs. The statistical significance is highest for the BCF classification and lowest for the first GIM classification. Tests for differences in means or medians indicate that acquisitions made by "Democracy" firms generate significantly higher CARs than those made by "Dictatorship" firms. Again, the results are most pronounced for the BCF classification and least pronounced for the first GIM classification. A comparison of the results from the two GIM classification schemes indicates that under the first classification, the magnitude of the difference between the mean or median CARs of the "Democracy" and "Dictatorship" portfolios is larger under the first classification, while the statistical significance is stronger under the second classification. This result suggests that sample size does play a role here.

The negative relations between ATP indices and bidder returns that we observe in Panels B and C of Table II are consistent with our hypothesis, but they do not allow us to draw reliable inferences, since neither the simple correlation nor the univariate analysis takes into account the correlations between ATP indices and other determinants of bidder returns. For example, the different announcement returns of dictatorship and democracy portfolios could be an artifact of the two portfolios having different acquisition characteristics, such as different frequencies of payment methods and target listing status. This follows from the fact that these acquisition characteristics are associated with substantially different announcement effects, as shown in Panel A of Table II.[13] Therefore, before we can draw any conclusions, we need to control for all the important variables shown in prior research to affect acquirer announcement returns.

A.3. Other determinants of acquirer returns

We consider two categories of factors that are related to acquirer returns: bidder characteristics and deal characteristics.

Bidder characteristics:

The bidder traits that we control for are firm size, Tobin's Q, leverage, and free cash flow (FCF), all of which are measured at the fiscal year end prior to acquisition announcement, and pre-announcement stock price runup, which is measured over the 200-day window from event day -210 to event day -11. Moeller, Schlingemann, and Stulz (2004) find robust evidence that bidder size is negatively correlated with acquirer return measured by announcement-period CAR. They interpret this size effect as evidence supporting the managerial hubris hypothesis (Roll (1986)), since they find that larger acquirers on average pay higher premiums and make acquisitions that generate negative dollar synergies. An alternative explanation is that large firm size serves as a rather effective takeover defense, since it takes more resources to acquire a larger target. Thus, we should expect that managers in larger firms are more entrenched and more likely to make value-reducing acquisitions. In our empirical tests, we define firm size as the log transformation of the acquirer's total assets (Compustat item 6).

Prior studies find that an acquirer's Tobin's Q has an ambiguous effect on CAR. Lang, Stulz, and Walking (1991) and Servaes (1991) document a positive relation for tender offer acquisitions and public-firm acquisitions, respectively, while Moeller, Schlingemann, and Stulz (2004) find a negative relation in a comprehensive sample of acquisitions. We define Tobin's Q as the ratio of a bidder's market value of assets over its book value of assets, where the market value of assets is computed as the book value of assets minus the book value of common equity (item 60) plus the market value of common equity (item 25×item 199).

Based on Jensen's (1986) free cash flow hypothesis, we also control for the acquirer's financial leverage and free cash flow (FCF). Leverage is an important governance mechanism, since higher debt levels help reduce future free cash flows and limit managerial discretion.[14] Leverage also provides incentives for managers to improve firm performance, since managers have to cede significant control to creditors and often lose their jobs if their firms fall into financial distress.[15] There is also evidence that leverage is related to a firm's takeover protection

(Garvey and Hanka (1999)), which makes controlling for leverage even more relevant. We follow the existing literature by including leverage as a control variable, rather than incrementally adding it as a governance variable in our later regressions. We expect leverage to have a positive effect on CAR. On the other hand, the free cash flow hypothesis predicts a negative coefficient for current FCF, since managers at firms with more free cash flows have more resources available to them to engage in empire building. However, higher free cash flows can also proxy for better recent firm performance, which could be correlated with higher-quality managers, who tend to make better acquisition decisions. Therefore, FCF could turn out to be either positively or negatively related to acquirer announcement returns. Leverage is defined as a firm's book value of long-term debt (item 9) and short-term debt (item 34) divided by its market value of total assets, and FCF is equal to operating income before depreciation (item 13) minus interest expense (item 15) minus income taxes (item 16) minus capital expenditures (item 128), scaled by book value of total assets.

Finally, given the evidence in GIM and related studies that firms with more ATPs have worse stock returns, we control for bidder stock price runup before the acquisition announcement in order to isolate the effect of ATPs from that of prior stock performance. We measure the bidder's pre-announcement stock price runup by the bidder's buy-and-hold abnormal return over the 200-day window (event days -210, -11) with the CRSP value-weighted market index as the benchmark.

Deal characteristics:

The deal characteristics that we control for include target ownership status, method of payment, relative deal size, prior M&A activity in the target's industry, industry relatedness of the acquisition and whether the bidder and the target are both from high-tech industries.

Using a sample of firms making multiple acquisitions, Fuller, Netter, and Stegemoller (2002) find that acquirers experience significantly negative abnormal returns when buying public

firms and significantly positive abnormal returns when targets are private companies or subsidiaries. Their interpretation is that bidders capture a liquidity discount when buying private or subsidiary targets. Moeller et al. (2004) report similar results, but they also find that acquiring subsidiary targets generate the highest abnormal bidder returns. To take this evidence into account, we create three indicator variables denoted by *public, private* and *subsidiary* to represent targets in these three categories.

The method of payment is also related to the stock market response to acquisition announcements. It is well known that bidders experience significantly negative abnormal returns when they pay for their acquisitions with equity and this is generally attributed to the adverse selection problem in equity issuance analyzed by Myers and Majluf (1984).[16] We create two indicator variables denoted by *stock-deal* and *all-cash-deal. Stock-deal* equals 1 for acquisitions financed partially or fully with stock or zero otherwise, and the reverse is true for the *all-cash-deal* indicator. Chang (1998) and Fuller et al. (2002) report that the stock price impact of stock-financed deals is less negative or even positive when the target is privately held. They attribute this to the creation of new block holders in the bidder when closely held private target companies are purchased with stock. Thus, bidding shareholders may benefit from the active monitoring of their firm by these newly created blockholders.

In order to fully capture the effects of target ownership status and deal payment method, we interact the 3 target status indicators with the 2 method-of-payment indicators to create six mutually exclusive and exhaustive deal categories: *public all-cash-deal, public stock-deal, private all-cash-deal, private stock-deal, subsidiary all-cash-deal* and *subsidiary stock-deal.* To avoid perfect multicollinearity with the intercept, we exclude the *subsidiary stock-deal* indicator from the regression equations.

We control for relative deal size since studies by Asquith et al. (1983) and Moeller et al. (2004) find that bidder announcement returns increase in relative deal size, although the reverse is true for the subsample of large bidders in Moeller et al. We measure recent M&A activities in the

target industry, denoted as *industry M&A*, in the same way as Moeller et al. construct their industry M&A activity measure, except that we focus on the one year prior to the announcement of each deal, instead of the concurrent year of each deal to avoid any potential look-ahead bias. Our main results do not change if we use Moeller et al.'s measure.

We also create a binary variable, *high-tech*, which is equal to one if a deal is between two companies in high-tech industries defined by Loughran and Ritter (2004) or zero otherwise, and then interact it with relative deal size. We expect the interaction term to have a negative effect on bidder return since it is difficult for technology companies of relatively comparable sizes to integrate smoothly due to the importance of human capital and intellectual property at these companies, which are often lost due to the higher employee turnover caused by acquisitions. Acquirers in these high-tech transactions are more likely to underestimate the associated costs and overestimate the synergies generated by the combination.

We classify an acquisition as diversifying if the target and the bidder do not share a Fama-French industry, and we create a binary variable, denoted as *diversifying acquisition*, that is equal to 1 for diversifying acquisitions and zero otherwise. Morck, Shleifer, and Vishny (1990) find that diversifying acquisitions usually destroy shareholder value, while potentially benefiting self-interested managers. Diversification can increase the expected utility of poorly diversified risk-averse managers by reducing firm risk (Amihud and Lev (1981)). Managers can also acquire unrelated assets that fit their own strength so that it is more costly for shareholders to replace them (Shleifer and Vishny (1989)). However, recent research on the "diversification discount" (see, for example, Villalonga (2004a, b) and Campa and Kedia (2002)) shows that diversification does not necessarily lead to lower firm value and sometimes is associated with higher firm value. Thus, the predicted effect of diversifying acquisitions on bidder returns is ambiguous.

We present summary statistics of all these variables in Table III. Given the large firm composition of the IRRC database, it is not surprising that acquirers in our sample are substantially larger than those found in Moeller et al. (2004). For example, the book value of total

assets for the average (or median) acquirer in our sample is $9.0 (or 1.9) billion, compared to only $2.6 (or 0.3) billion in Moeller et al. (2004, Table 3, p. 210). Our bidders have lower leverage and Tobin's Q, and smaller relative deal size.[17] The Pearson correlation matrix in Table IV shows that firm size is positively related to all three takeover defense indices. Therefore, the large-firm dominance in our sample potentially reduces the cross-sectional variation in ATP index levels, and thus should work against finding significant ATP effects.

Insert Tables III and IV here

B. Regression results

B.1. Initial regressions

In controlling for all known determinants of bidder returns, we recognize that some bidder and deal characteristics could be endogenously determined. Potential candidates include Tobin's Q and pre-announcement stock price runup, which could proxy for firm performance; leverage, which can be chosen to restrain management investment decisions; free cash flow, which is highly correlated with firm performance; and method of payment, which Faccio and Masulis (2005) find is related to bidder financial condition and ownership structure. The presence of such variables in the regressions could potentially bias the coefficient estimates of our governance indices. Therefore, we first estimate a set of regressions that are largely free of the endogeneity associated with these variables. Specifically, we substitute industry-median Tobin's Q, leverage, and free cash flow for their firm-level counterparts following Gillan, Hartzell, and Starks (2003) and exclude M&A-currency-related variables since we are unable to find industry-level surrogates for them. We also omit the *diversifying acquisition* indicator as a regressor, since we find (in unreported results) that firms with more ATPs are more likely to make diversifying acquisitions, suggesting that the *diversifying acquisition* indicator is endogenous.

We present estimates for our initial regression model of bidder returns in Table V. The t-statistics are adjusted for heteroskedasticity and bidder clustering. The dependent variable is the five-day CAR around each acquisition announcement. The key explanatory variables are the three anti-takeover provision indices introduced earlier. Since they are highly correlated with each other, we separately examine their effects on bidder returns. We find that all three ATP indices have significantly negative effects on CAR, which supports the hypothesis that managers at firms with more ATPs on average make poorer acquisitions. We also find that the explanatory power of the models is quite similar with adjusted R^2 ranging from 5.1% to 5.3%. Having excluded from our regressions all firm traits and deal characteristics that are clearly endogenously determined, we conclude that our finding of a significant negative ATP effect does not appear to be driven by any obvious endogeneity associated with these explanatory variables.[18]

Insert Table V here

B.2. Baseline regressions

In Table VI we report the results from our baseline regressions, controlling for all the bidder traits and deal characteristics described in Section A.3., regardless of whether they are potentially endogenous. All three ATP indices have significantly negative coefficients, indicating that the findings in Table V are not due to the omission of many bidder and deal characteristics included in earlier studies of bidder announcement returns. The coefficient estimate of the GIM index is -0.107 with a *t*-statistic of 2.49, indicating that each additional anti-takeover provision reduces bidder shareholder value by about 0.1%. Given that a typical "dictatorship" firm has 10 more provisions than a typical "democracy" firm according to GIM's classification, the former will underperform the latter by approximately 1%, a nontrivial number relative to the average acquisition announcement effect or CAR of 0.215%. The BCF index used in regression (2) has a

coefficient of -0.333, significant at the 0.1% level. In other words, the addition of one more ATP to the BCF index lowers bidder returns by about 0.33%.

Insert Table VI here

To better compare the economic significance of the GIM index and the BCF index, we calculate the changes in CAR in response to one standard deviation increase in the two indices, respectively. We find that *ceteris paribus*, bidder returns decrease by 0.290% (0.435%) per one standard deviation increase in the GIM (BCF) index, suggesting that the effect of the BCF index on bidder returns is 1.5 times greater than that of the GIM index. This is consistent with the BCF finding that the six ATPs in the BCF index are among the most important in terms of their effects on firm value and stock returns. However, further research is warranted to assess whether BCF's claim holds for other major firm decisions beyond acquisitions.

Finally, we find that acquirers with staggered boards experience abnormal returns approximately 0.52% lower than those experienced by acquirers without staggered boards. For the average bidder in our sample, this translates into a loss of close to $30 million in shareholder value.

For our control variables, both the magnitude and statistical significance of the parameter estimates are fairly stable across the three model specifications shown in Table VI. Most of the parameter estimates for the control variables are consistent with the findings of Moeller et al. (2004), especially for their large-acquirer subsample. Specifically, we observe that (i) bidder size has a significantly negative effect on bidder returns; (ii) Tobin's Q has a negative effect on bidder returns that becomes significant in the absence of stock price runup; (iii) leverage has a positive, albeit insignificant, effect on bidder returns, suggesting that leverage does have some power in preventing managers from making bad acquisitions; (iv) free cash flow has an insignificant effect on bidder returns; (v) target industry M&A activity, which is a proxy for potential competing

bidders, has a negative effect on bidder returns that becomes significant in the absence of year fixed effects; and (vi) bidder returns are lower, albeit insignificantly, for diversifying acquisitions. We also find that (vii) bidder pre-announcement stock price runup has a significantly negative effect on bidder returns, and (viii) bidder returns are lower in deals combining two high-tech companies and this effect becomes stronger as relative deal size rises.[19]

Our acquisition classification scheme decomposes our sample into six deal types based on M&A currency and target ownership status. It yields very significant parameter estimates for all five indicators included in the regressions. Given that the indicator for acquisitions of subsidiary targets with stock currency is excluded from the regressions to avoid perfect multicollinearity, the signs and magnitudes of these parameter estimates provide us with some interesting observations. Since all five coefficients are negative, we draw the conclusion that acquisitions of subsidiary targets with stock financing, the omitted deal type, generate the highest bidder returns. Ordering the five coefficients from lowest to highest in terms of shareholder acquisition gains, we find that the least profitable deals are (i) partially or fully stock-financed public targets, followed by (ii & iii) cash-financed public targets and cash-financed private targets, (iv) partially or fully stock-financed private targets, and finally (v) cash-financed subsidiary targets. Holding the method of payment constant, public-target acquisitions are associated with the lowest abnormal returns, while subsidiary-target acquisitions are associated with the highest, with private-target acquisitions in between, echoing the findings of Moeller et al. (2004). Holding constant target ownership status, stock financing increases bidder returns in deals involving private or subsidiary targets, confirming and extending the evidence reported in Chang (1998) and Fuller et al. (2002), while the reverse is true in deals involving public targets. In addition, it appears that the difference in acquirer returns between public-target acquisitions and private-target acquisitions is primarily due to stock-financed transactions, since the two types of deals generate similar stock price reactions when they are cash financed.

B.3. Controlling for other governance mechanisms

So far our results suggest that managers who are more vulnerable to the market for corporate control make better acquisitions. However, we have not controlled for other governance mechanisms that could mitigate the conflict of interest between managers and shareholders. This omission is especially problematic given possible interdependencies among various control mechanisms found in studies by Pound (1992), Gillan, Hartzell, and Starks (2003), and Cremers and Nair (2005). In this section, we investigate whether the observed difference in average M&A announcement returns between high and low ATP index firms can be explained by cross-sectional differences in product market competition, CEO equity incentives, institutional ownership, or board characteristics.

Product market competition

Leibenstein (1966) and Hart (1983) argue that product market competition has a disciplinary effect on managerial behavior. Shleifer and Vishny (1997) suggest that product market competition is perhaps the most effective mechanism to eliminate managerial inefficiency. Managers of firms operating in more competitive industries are less likely to shirk or put valuable corporate resources into inefficient uses, since the margin for error is thin in these industries and any missteps by managers can be quickly exploited by competitors, seriously jeopardizing firms' prospects for survival and managers' prospects for keeping their jobs. Therefore, we expect firms in more competitive industries to make better acquisitions. Following Gillan, Hartzell, and Starks (2003), we try to capture the competitive structure of an industry with two different measures. The first is the Herfindahl index, calculated as the sum of squared market shares of all COMPUSTAT firms in each Fama-French (1997) industry. The second is each industry's median ratio of selling expenses to sales, which Titman and Wessels (1988) argue acts as a proxy for product uniqueness.[20] Industries with lower Herfindahl indices and industries where member firms have similar products have more competitive product markets. For each year, we define an

industry as competitive (unique) if the industry's Herfindahl index (median ratio of selling expense to sales) is in the bottom (top) quartile of all 48 Fama-French industries.

Table VII presents regression results controlling for these two measures of product market competition. As expected, the competitive industry indicator has a significantly positive coefficient, while the product uniqueness indicator has a significantly negative one. These regression estimates suggest that managers at firms facing greater product market competition make better acquisitions. It is noteworthy that the negative effects of the ATP indices on bidder returns become even stronger than in Table VI. As a robustness test, we replace the competitive industry and product uniqueness indicators with industry fixed effects in the bidder return regressions. The results (unreported) on the three ATP indices remain qualitatively the same.

Insert Table VII here

CEO equity incentives:

Equity ownership and well-designed executive compensation plans can help align the interests of managers with those of shareholders. Datta, Iskandar-Datta, and Raman (2001) find a significantly positive relation between bidder managers' equity-based compensation (EBC) and bidder announcement-period abnormal returns. Similar to Datta et al. (2001), we define EBC as the percentage of equity-based compensation in a CEO's annual compensation package, with equity-based pay defined as the value of stock options and restricted stock grants.[21] Lewellen, Loderer, and Rosenfeld (1985) find that bidder returns are increasing in bidder managers' stock ownership. Therefore, we use a CEO equity ownership measure that includes both stock and options. We also construct a dollar measure of CEO wealth sensitivity to stock price following the algorithm developed by Core and Guay (2002). We obtain CEO compensation and ownership data from *ExecuComp*. Requiring *ExecuComp* coverage of our bidder firms reduces our sample of acquisitions to 2,522. Regression results (unreported for brevity, but available upon request) show

that none of the CEO incentive measures has significant marginal explanatory power in explaining bidder announcement returns.[22] Not surprisingly, all three ATP indices continue to exhibit significantly negative effects on bidder returns.

Institutional ownership:

Cremers and Nair (2005) find evidence that the market for corporate control is effective only when a firm's internal corporate governance is strong, and vice versa. They use two different proxies for internal governance: percentage stock ownership by a firm's largest institutional blockholder, defined as an institutional investor with at least 5% equity ownership (BLOCK), and aggregate percentage stock ownership in a firm by 18 public pension funds (PP). By requiring data on BLOCK and PP, we again lose observations, leaving us in this case with 3,266 acquisitions. We include BLOCK and PP jointly in our regressions because of their low cross correlation (Cremers and Nair (2005)). The results show that the parameter estimates of all the ATP indices remain significantly negative, suggesting that our earlier findings are not caused by the ATP indices acting as a proxy for an internal corporate monitoring effect (these results are not reported, but available upon request). In fact, BLOCK has an insignificantly positive effect on CAR, while PP has an insignificantly negative effect. This is consistent with the existing evidence that public pension funds activism does not increase shareholder value (Cremers and Nair (2005), Wahal (1996), Gillan and Starks (2000), and Karpoff et al. (1996))).[23, 24]

Board characteristics:

Monitoring by the board of directors is another important internal control mechanism. The primary responsibilities of a board of directors include (i) advising, monitoring, evaluating, and, if necessary, replacing managers, (ii) designing executive compensation, and (iii) approving major corporate decisions such as mergers and acquisitions. We control for CEO/Chairman duality, board size and board independence, three attributes shown in prior work to affect how

effectively a board functions. Specifically, Core, Holthausen, and Larcker (1999) find that CEO/Chairman duality is associated with higher CEO compensation, and Goyal and Park (2002) find that CEO/Chairman duality reduces the sensitivity of CEO turnover to firm performance. Yermack (1996) documents an inverse relationship between board size and firm value. While there is no consensus on whether a more independent board leads to better overall firm performance (Bhagat and Black (1999) and Hermalin and Weisbach (2003)), evidence does exist that firms with a majority of independent directors make major corporate decisions in the best interests of shareholders. For instance, Weisbach (1988) finds that when boards are dominated by independent directors, CEO turnover is more sensitive to firm performance. Brickley, Coles, and Terry (1994) find that the stock market reacts positively (negatively) to the adoption of poison pills by firms with (without) independent boards. More relevant to our study, Byrd and Hickman (1992) find in a sample of tender offers that independent boards are associated with higher bidder returns.

We obtain board data from the IRRC database for the period from 1996 to 2001. We create an indicator that equals one if a firm's CEO is also chairman of the board (COB) and equals zero otherwise. We define board size as the number of directors on a board. We create another indicator that equals one if more than 50% of directors on a board are independent or zero otherwise. IRRC classifies a director as independent if he or she is not involved in any affiliation that may compromise the ability or incentive of the director to perform oversight duties in the best interests of shareholders. This includes family associations, financial contracts with the firm, inter-locking directors and executives of other companies with business relationships with the firm. Requiring the availability of board of director information reduces the sample size by half, leaving us with 1,646 acquisitions.

Table VIII presents regression estimates when controlling for CEO/COB duality, board size and independence. All three ATP indices continue to have significantly negative effects on bidder returns. CEO/Chairman duality has a significant negative effect on bidder returns,

suggesting that separating the two positions can help rein in empire building by CEOs, cause them to be more selective in their acquisition decisions, and thus lead to greater shareholder wealth. Neither board size nor board independence is significantly related to bidder announcement returns. Our results do not change if we set the threshold level for board independence at 60%, instead of 50%, replace the independent-board indicator with the proportion of independent directors on the board, or employ piecewise measures of board independence used by Byrd and Hickman (1992).[25]

Insert Table VIII here

Finally, we simultaneously control for all the aforementioned corporate governance mechanisms in a subsample of 1,479 acquisitions where the necessary data is available. Un-tabulated results again confirm the robustness of our findings of ATP effects.

C. Endogeneity

As is the case for many corporate governance studies, endogeneity issues prevent us from concluding that ATPs *cause* managers to make bad acquisitions. One form of the endogeneity problem is reverse causality, i.e., rather than ATPs leading to bad acquisitions, it could be that managers planning to pursue empire building or make unprofitable acquisitions may first adopt ATPs to preclude being disciplined by the market for corporate control.[26] To examine this possibility, we focus on a subsample of bidders that went public prior to 1990, after which institutional investors began to consistently vote against staggered boards and other takeover defenses (Bebchuk and Cohen (2005)).[27] For these firms, the reverse-causality scenario is unrealistic, since most of their important ATPs, especially staggered boards, are adopted in the 1980s, while the acquisitions we examine take place in the 1990s, and primarily the late 90s (see

Table I). We find that our full-sample results continue to hold and are actually stronger in this subsample (unreported, but available upon request).

The other form of the endogeneity problem is an omitted variable bias. The concern is that some unobservable bidder traits could be responsible for both the level of takeover protection in a firm and the profitability of its acquisitions. One factor, which may have this property, is management quality. It is conceivable that bad CEOs make poor acquisitions and adopt ATPs to entrench themselves. To address this concern, we follow Morck, Shleifer, and Vishny (1990) and measure bidder CEO quality by industry-adjusted operating performance over the three years prior to the acquisition announcement.

Estimates presented in Table IX show that bidder announcement returns are significantly and positively related to past firm performance, which suggests that CEOs of better quality do make better acquisitions for their shareholders. This is in line with the results in Morck, Shleifer, and Vishny (1990). More importantly, we continue to find significantly negative coefficients for the three ATP indices we consider. Therefore, our earlier results do not appear to be driven by management quality.

Insert Table IX here

D. Sensitivity tests

D.1. A dummy variable approach

So far we have treated the ATP indices as continuous variables. In this section, we take an alternative approach in classifying bidders as dictatorship vs. democracy firms based on the GIM index and the BCF index, respectively. Specifically, we create a dummy variable, denoted as *Dictatorship-GIM*, that is equal to 1 for bidders with an above-sample-median GIM index and zero otherwise. Another dummy variable, denoted as *Dictatorship-BCF*, is similarly defined. We re-estimate the bidder-return regressions in Table VII after replacing the GIM and the BCF

indices with these two dummy variables and report the coefficient estimates in Table X. We find that both dummy variables have significantly negative coefficients, suggesting that bidders in the dictatorship portfolio based on either the GIM index or the BCF index experience significantly lower abnormal returns upon acquisition announcements. This result further supports the earlier evidence obtained when the two indices are treated as continuous variables.

Insert Table X here

D.2. ATP changes during acquisitions

As GIM point out, the ATP indices are relatively stable at the firm level. This remains true in our sample of bidders. Out of the 3,333 acquisitions in our sample, 2,567 are such that the bidder has IRRC coverage in both the pre-acquisition publication year and the post-acquisition publication year. For the bidders in these deals, the mean *absolute* change in the GIM index from the pre-acquisition publication year to the post-acquisition publication year is 0.62 and the median is 0, virtually the same as those reported by GIM for the IRRC universe between two consecutive publication years (0.60 for the mean and 0 for the median).

However, if bidders experience changes in ATPs as a direct result of the acquisitions, our experimental design, which uses pre-acquisition bidder ATP indices to explain bidder announcement abnormal returns, could be problematic.[28] To address this issue, we first randomly select 50 acquisitions whose bidders experience changes in ATPs from the pre-acquisition publication year to the post-acquisition publication year. For these 50 deals, we read the news reports in *WSJ* around the announcement and completion of each acquisition and we do not find any mention of ATP changes for any of the deals. We then limit our sample to acquisitions whose bidders do not experience any changes in the ATP indices from the pre-acquisition publication year to the post-acquisition publication year. We re-estimate the bidder-return regressions in

Table VII using these subsamples and report the coefficient estimates in Table XI. All three ATP indices continue to have significantly negative effects on bidder returns.

Insert Table XI here

Note that the three regressions presented in Table XI use three subsamples of different sizes. Of the 2,567 acquisitions for which we are able to track the change in bidder ATPs from the pre-acquisition publication year to the post-acquisition publication year, 1,461 (or 56.91%) are such that the bidder experiences no change in the GIM index, 1,906 (or 74.25%) are such that the bidder experiences no change in the BCF index, and 2,495 (or 97.20%) are such that the bidder experiences no change in the staggered-board provision.

D.3. Other sensitivity tests

Our results are also robust to the following alternative specifications of our empirical tests: (i) bidder abnormal announcement returns are alternatively measured over event days (-1, 1), (-1, 0), (0, 1), and (-5, 5); (ii) bidder abnormal returns are alternatively calculated by subtracting the bidder's mean daily stock return over the pre-event period (-70, -11) or by subtracting the contemporaneous CRSP value-weighted daily return; (iii) minimum relative deal size is raised to 5%; (iv) only the first acquisition made by a bidder during our sample period is examined to minimize attenuation due to market anticipation of the event; (v) announcements of acquisitions which are not completed are included in our sample; (vi) the sample is expanded to include transactions where post-acquisition shareholdings are less than 100%, but more than 50% of target shares; (vii) we exclude acquisitions where acquirers hold a sizable proportion of target shares prior to announcements (alternative cutoff points: 20%, 30% and 40%), since acquirers could have effective control over targets prior to these transactions; and (viii) we control for the bidder's pre-acquisition percentage ownership in the target.

Furthermore, our results are also robust to (ix) measuring firm size by the market value of equity or the market value of assets (defined as the book value of debt plus the market value of equity); (x) adding controls for bidder stock return volatility, bidder firm age, and bidder CEO age and tenure; (xi) excluding acquisitions made in the "bubble" period, i.e., years 1999 and 2000; (xii) limiting acquisitions to the 1990 - 1999 period as in the GIM study; (xiii) excluding large-loss acquisitions or large-gain acquisitions or both, where we follow Moeller et al. (2005) in defining large-loss (or gain) acquisitions as those that generate more than $1 billion loss (or gain) for bidder shareholders over the five day announcement period; (xiv) excluding bidders in the following regulated industries: defense, transportation, utility, and financial services; (xv) introducing two regulated industry indicators, one for bidders in the defense, transportation, and utility industries and the other for bidders in financial services; (xvi) replacing *all-cash-deal* and *stock-deal* indicators with the percentage of the deal's value financed with stock, which is a continuous variable ranging from 0 to 1; (xvii) measuring bidder free cash flow as a ratio of cash flow from operating activities (item 308) to the book value of total assets; (xviii) scaling the bidder's free cash flow by deal value or interacting the bidder's free cash flow with an binary variable that is equal to one (zero) if the bidder's Tobin's Q is below (above) sample median; (xix) including an indicator variable for bidders incorporated in states with stronger state takeover protections (specifically Indiana, Massachusetts, Ohio and Pennsylvania), and a separate indicator for bidders incorporated in Delaware; (xx) including an indicator variable for cases where bidder managers' shareholdings in their own stock are alternatively above 20%, 30%, or 40% prior to acquisitions; (xxi) controlling for pre-acquisition bidder excess cash holdings, following Harford (1999); (xxii) introducing controls for bidder industry-median volatility and bidder industry homogeneity, which are measured as in Parrino (1997); (xxiii) controlling for bidder industry M&A activity; (xxiv) including an indicator variable for cases where there are competing bids; or (xxv) including an indicator variable for hostile bids.

We obtain qualitatively similar results when we separately estimate bidder return regressions for the subsamples of public-target acquisitions, private-target regressions, subsidiary regression, cash-financed acquisitions and stock-financed acquisitions. Our results continue to hold when we repeat all of our analyses in a quantile regression framework to reduce the influence of potential outliers. We also estimate a probit model where the dependent variable is equal to one if an acquisition is associated with a positive bidder return and zero otherwise and the explanatory variables are identical to those used in Table VII. We find that all three ATP indices have significant and negative effects on the probability of an acquisition generating a positive announcement effect. We construct an alternative ATP index using only the poison pill and staggered board provisions and find that it also has a significantly negative effect on bidder returns and has nearly as much explanatory power as the BCF index.

E. Implications

Our evidence suggests that at least part of the performance differential between high ATP-index firms and low ATP-index firms documented by GIM and subsequent studies is due to poorer acquisition investments made by high ATP-index firms. However, given the low frequency of acquisitions, they are unlikely to be the primary explanation for the 8.5% abnormal stock returns enjoyed by democracy firms over dictatorship firms. From 1990 to 2003, there are 2,066 democracy firm-years (GIM-index<=5) and 1,234 dictatorship firm-years (GIM-index>=14) in the IRRC universe. Of the 3,333 acquisitions in our sample, democracy firms completed 234 deals and dictatorship firms completed 240 deals, which is consistent with the GIM finding that dictatorship firms are more frequent acquirers. Based on these numbers, it appears that an average dictatorship firm makes about 0.2 acquisitions per year. When we multiply this acquisition frequency by the approximate 1% difference in the average announcement return between dictatorship and democracy firms, we find that the magnitude is too small to explain a substantial part of the GIM finding.

Although our results cannot fully explain the governance premium documented by GIM and others, the negative effect of ATPs on bidder announcement returns that we document is economically significant. For example, the 1% difference in average announcement returns between dictatorship bidders and democracy bidders translates into $56 million in shareholder value based on the average bidder market capitalization (also see related discussions in section II.B.2).

As we noted in the introduction, acquisitions are only one form of corporate investment and we focus on them because of their large scale and visibility. While we document that acquisitions are one example of a major investment decision gone bad, our results are consistent with managers protected from the market for corporate control more generally pursuing inefficient investment projects. Thus, even without acquisition activity, we would expect to observe firms with weaker takeover protection exhibiting superior performance. Consistent with this conjecture, Cremers and Nair (2005) and Core, Guay, and Rusticus (2005) find that even among firms not involved in any merger and acquisition activity, firms with fewer ATPs have significantly better long-run performance than firms with more ATPs. This finding suggests a fundamental difference in the quality of investment decisions made by these two groups of firms.

Another implication of our results is that the stock market does not appear to have perfect foresight about a firm's acquisition activity. The market may have an expectation about the profitability or net present value (NPV) of an acquisition based on what it knows prior to the acquisition's actual announcement, but the stock price change around the actual announcement indicates that the market receives new information, i.e., surprises, regarding the size, timing and other details of the deal and updates its expectation accordingly. That acquirers with good corporate governance experience higher announcement-period stock returns than acquirers with poor corporate governance suggests that the valuation effects of these surprises are related to the quality of the acquirers' corporate governance. This is in contrast to the finding of Core, Guay,

and Rusticus (2005) that the market seems to fully anticipate the inferior operating performance of poor-governance firms and the superior operating performance of good-governance firms.[29]

III. Conclusions

The market for corporate control is an important corporate governance mechanism. It provides managers with proper incentives to maximize shareholder value by performing an ex-post settling up function (Mitchell and Lehn (1990)). Due to the cross-sectional differences in the adoption of anti-takeover provisions, managers at different firms are subject to varying levels of discipline from the takeover market. Those at firms with more anti-takeover provisions are more insulated from the discipline imposed by the market for corporate control and thus are more likely to display self-serving behavior.

Focusing on corporate acquisition decisions, we find that bidders with more anti-takeover provisions experience significantly lower abnormal returns around acquisition announcements. This result is robust to controlling for bidder characteristics, deal features, and other corporate governance mechanisms, and is stronger when we focus on a subset of anti-takeover provisions that Bebchuk, Cohen and Ferrell (2004) distill from the corporate governance index constructed by Gompers, Ishii, and Metrick (2003). Our evidence suggests that managers facing more pressure from the market for corporate control tend to make better acquisition decisions.

By incorporating bidder vulnerability to takeovers, product market competition, and CEO/Chairman duality into the analysis along with other corporate control mechanisms, this study represents the most complete investigation to date of the effect of corporate governance on acquirer announcement returns. It establishes a causal link that goes from anti-takeover provisions to shareholder value, and provides a partial explanation for the findings in Gompers, Ishii, and Metrick (2003) and several subsequent studies that firms with more takeover defenses are associated with lower shareholder value.

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Footnotes:

[1] The GIM index is based on 24 ATPs, the BCF index is based on 6 out of the 24 ATPs, and the Bebchuk-Cohen index is a binary variable based on whether a firm has a staggered board. Cremers and Nair primarily analyze the effects of the GIM index, but they also construct an alternative index composed of three ATPs. The governance index of each firm is equal to the number of ATPs the firm has. Therefore, the more ATPs a firm has in place, the higher its governance index. For a detailed description of these ATPs, refer to the appendix in GIM.

[2] Another strand of literature evaluates the shareholder wealth effects of ATPs using short-term event-study methodology, where firms' stock returns are analyzed following the announcements of ATP adoptions or amendments. Early studies include DeAngelo and Rice (1983), Linn and McConnell (1983), Malatesta and Walkling (1988) and Ryngaert (1988). See Bhagat and Romano (2001) for a survey of the literature.

[3] GIM show that firms with more ATPs have higher capital expenditures and make more acquisitions, but they do not investigate the shareholder wealth consequences of these actions. Given that some acquisitions increase bidder shareholder value, more acquisitions are not necessarily bad for bidder shareholders.

[4] Earlier studies include Morck, Shleifer, and Vishny (1990) and Lang, Stulz, and Walkling (1991) while more recent studies include Datta, Iskandar-Datta, and Raman (2001) and Bliss and Rosen (2001). Jensen and Ruback (1983), Jarrell, Brickley, and Netter (1988) and Andrade, Mitchell, and Stafford (2001) provide comprehensive reviews of the literature.

[5] Bebchuk and Cohen (2003) and Subramanian (2002) also document that states with more anti-takeover statutes are better able to retain local companies and attract out-of-state companies to incorporate in these states, which indicates that managers perceive these statutes to be effective.

[6] This is not to suggest that managers are not penalized for empire building by other corporate governance mechanisms. For example, Lehn and Zhao (2005) find that CEOs who make bad

acquisitions are more likely to be fired by the board of directors. We control for these other corporate governance mechanisms later in our analysis.

[7] We arrive at the same empirical implication if we interpret the corporate governance indices in GIM and follow-up studies more broadly as proxies for the balance of power between managers and shareholders as in GIM or the degree of managerial entrenchment as in BCF. As long as it is more difficult or more costly to replace managers at firms with more takeover defenses, we would expect managers at firms with more (fewer) ATPs to make worse (better) acquisitions in terms of shareholder wealth maximization.

[8] We borrow the term "bad CEOs" from Morck, Shleifer, and Vishny (1990) to describe CEOs who lack the innate ability to manage their firms.

[9] Barber and Lyon (1997), Fama (1998) and Lyon, Barber, and Tsai (1999) discuss a number of these methodological problems. Of course, our short-run approach assumes informational efficiency of the stock market and that the immediate acquirer stock price reaction to an acquisition announcement provides an unbiased estimate of the acquisition's profitability from the acquiring shareholders' perspective. It should be noted that acquirer stocks experience heavy trading by sophisticated investors around these events, which should ensure that their stock prices fully reflect publicly available information. However, if the market is fundamentally inefficient, and instead consistently over- or under- reacts to acquisition announcements and only corrects its mis-reaction much later, then announcement period abnormal returns will not accurately capture the shareholder-wealth effects of these acquisitions. Nevertheless, given the serious methodological concerns that long-run stock return studies raise and the controversial nature of the evidence they produce (see Mitchell and Stafford (2000) and Andrade, Mitchell, and Stafford (2001) for detailed discussions of the evidence for acquisition activity), we have chosen to focus on short run stock price reactions instead.

[10] GIM and the related studies we previously discussed exclude firms with dual-class shares from their study, which we do as well.

[11] For a random sample of 500 acquisitions from 1990 to 2000, Fuller, Netter, and Stegemoller (2002) find that the announcement dates provided by SDC are correct for 92.6% of the sample and are off by no more than two trading days for the remainder. Thus, using a 5-day window over event days (-2, 2) captures most, if not all, of the announcement effect, without introducing substantial noise into our analysis.

[12] For acquisitions financed entirely with stock, the average CAR is about -1% and highly significant.

[13] Our initial analysis indicates that this is unlikely to be the case. For example, examining deals by method of payment, we find that more profitable, cash financed deals are as frequent or more frequent in dictatorship firms than in democracy firms, depending on how we define democracy and dictatorship firms; examining deals by target listing status, we find that subsidiary acquisitions, which generate the highest bidder returns, are equally likely in the two portfolios. Neither of these findings is consistent with the results in Panel C.

In the robustness section, we further examine this issue by repeating our analysis for each of the five categories of acquisitions in Panel A of Table II and rule out differences in the frequency of M&A currency choices and target listing status as credible explanations for our findings.

[14] Stulz (1990) develops an optimal leverage model that trades off the advantages of leverage in discouraging managers from empire building when FCFs are high with disadvantage of inhibiting profitable investments when FCFs are low.

[15] Gilson and Vetsuypens (1994) and Baird and Rasmussen (2001) discuss some of the legal rights of creditors and why they can exert control over firms in financial distress. Gilson (1989, 1990) presents evidence on CEO and board turnover when firms slip into financial distress.

[16] For example, Travlos (1987), Amihud et al. (1990), Servaes (1991) and Brown and Ryngaert (1991) find that bidders experience significantly negative abnormal returns on the announcement of stock-financed acquisitions, but not on the announcement of cash-financed acquisitions.

[17] Our sample is more similar to their large-acquirer subsample.

[18] Although there is no extant evidence in the literature, relative deal size, public/private target indicators, and high-tech combination dummy could all be endogenous. The effects of governance indices on bidder returns remain significantly negative if we remove them from our regressions as well.

[19] In the absence of the interaction term between high-tech combination indicator and relative deal size, the high-tech combination indicator has a negative but insignificant coefficient.

[20] One shortcoming of the Herfindahl index calculated using COMPUSTAT firms only is that it does not take into account international competition or the market shares of foreign companies. The industry-median ratio of selling expenses to sales, though based on COMPUSTAT data as well, is less subject to this criticism, to the extent that U.S. companies in making their marketing decisions take into account both domestic and foreign competitors.

[21] Datta et al. (2001) use a slightly different definition in that they ignore restricted stock awards and limit equity-based pay to stock option grants only. Even if we use their definition, we are still unable to replicate their results while our other findings remain the same.

[22] Qiu (2004) also finds an insignificant coefficient for the EBC measure in regressions of acquirer returns.

[23] We obtain similar results for PP and BLOCK when we further explore the complementarity between internal and external governance mechanisms by focusing on bidders less insulated from the market for corporate control, based on any of our three takeover defense indices.

[24] We also investigate the effect of individual blockholdings on bidder returns, using the WRDS blockholder database. Specifically, we create three variables to proxy for the monitoring by

individual blockholders: an indicator variable that is equal to one if a bidder has at least one non-officer director holding at least 5% of bidder stock and zero otherwise, the number of bidder non-officer directors with blockholdings of 5% or more, and the aggregate share ownership percentage of bidder non-officer director blockholders. We find that all three measures have positive, but insignificant effects on bidder announcement returns, while the three ATP indices continue to have significant and negative effects on bidder announcement returns.

[25] Board size continues to have an insignificant coefficient when we replace it with its residual from regressing it on firm size and industry dummies. Board independence continues to have an insignificant coefficient when we classify outside directors over 70 years old, who may be less active monitors, and outside directors sitting on three or more corporate boards, who may be overly busy, as not independent. We also examine whether bidder returns are adversely affected when either the board has no nominating committee or the CEO is a member of the committee and find that this attribute has no significant effect on bidder returns.

[26] We emphasize the word "planning" since we examine bidders' ATPs prior to the acquisitions we study.

[27] On the other hand, IPO firms in the 1990s often have staggered boards and other takeover defenses in place before going public, as documented in Daines and Klausner (2001) and Field and Karpoff (2002). For these firms, the reverse causality argument applies since it is possible that IPO firms adopt takeover defenses prior to going public, in anticipation of making bad acquisitions once they are public.

[28] We thank the referee for bringing this issue to our attention.

[29] We thank the associate editor for pointing out this implication.

Table I. Sample distribution by announcement year

The sample consists of 3,333 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. Variable definitions are in the Appendix.

Year	Number of acquisitions	Percentage of sample	Mean acquirer marketcap ($mil) (Median)	Mean deal value ($mil) (Median)	Mean relative size (Median)
1990	119	3.6	1,793	177	0.12
			(616)	(40)	(0.05)
1991	110	3.3	1,954	207	0.17
			(843)	(68)	(0.07)
1992	120	3.6	1,755	108	0.09
			(936)	(51)	(0.05)
1993	213	6.4	1,725	148	0.12
			(1,122)	(52)	(0.05)
1994	226	6.8	2,576	231	0.13
			(1,387)	(74)	(0.05)
1995	238	7.1	2,447	316	0.15
			(1,158)	(71)	(0.07)
1996	241	7.2	3,954	576	0.16
			(1,913)	(115)	(0.06)
1997	247	7.4	5,302	516	0.16
			(2,276)	(160)	(0.07)
1998	409	12.3	5,580	825	0.16
			(2,528)	(145)	(0.07)
1999	321	9.6	10,597	1,200	0.20
			(2,450)	(210)	(0.07)
2000	265	8.0	12,733	1,396	0.22
			(3,006)	(260)	(0.08)
2001	250	7.5	7,385	797	0.15
			(2,418)	(155)	(0.06)
2002	306	9.2	5,785	454	0.13
			(1,116)	(90)	(0.06)
2003	268	8.0	5,731	647	0.15
			(1,548)	(104)	(0.07)
Total	3,333	100.0	5,594	626	0.16
			(1,607)	(108)	(0.06)

Table II. Announcement abnormal returns and governance indices

The sample consists of 3,333 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. Variable definitions are in the Appendix. For each of the two classifications in Panel C, the first row is reserved for means and the second row for medians. [a], [b], and [c] stand for statistical significance based on two-sided tests at the 1%, 5%, and 10% level, respectively.

Panel A: Announcement abnormal returns

		Whole sample	All Cash	Some Stock	Public Target	Private Target	Subsidiary Target
CAR (-2,+2)	Mean	0.215 [b]	0.798 [a]	-0.292 [c]	-1.484 [a]	0.760 [a]	1.373 [a]
	Median	0.105 [c]	0.660 [a]	-0.430 [b]	-1.194 [a]	0.718 [a]	0.866 [a]
Number of obs.		3,333	1,551	1,782	1,098	1,177	1,058

Panel B: Anti-takeover provision indices

	Mean	Median	Correlation with CAR
GIM	9.45	9	-0.043 [a]
BCF	2.24	2	-0.060 [a]
Staggered board	0.61	1	-0.046 [a]

Panel C: Differences in CARs

		Democracy (1)	Dictatorship (2)	Difference (1)-(2)	t/z statistics for tests in difference
GIM-classification (I): (Democracy: index <=5; Dictatorship: index >=14)	Mean	0.663	-0.298	0.961	1.55
	Median	0.888 [b]	-0.378	1.266	2.35 [b]
	Number of obs.	234	240		
GIM-classification (II): (Democracy: index <=9; Dictatorship: index >=10)	Mean	0.468 [a]	-0.050	0.518	2.28 [b]
	Median	0.386 [a]	-0.220	0.606	2.76 [a]
	Number of obs.	1,708	1,625		
BCF-classification: (Democracy: index <=2; Dictatorship: index >=3)	Mean	0.572 [a]	-0.241	0.813	3.54 [a]
	Median	0.435 [a]	-0.303 [b]	0.738	4.16 [a]
	Number of obs.	1,872	1,461		

Table III. Summary statistics

The sample consists of 3,333 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. Variable definitions are in the Appendix.

Variable	Mean	Stdev	Q1	Median	Q3
Panel A: *CAR and anti-takeover provision indices*					
CAR	0.215	6.586	-3.086	0.105	3.475
GIM index	9.45	2.72	7	9	11
BCF index	2.24	1.31	1	2	3
Staggered board	0.61	0.49	0	1	1
Panel B: *Bidder characteristics*					
Total assets ($mil)	9,005	38,713	599	1,880	6,623
Market capitalization ($mil)	5,594	17,844	639	1,607	4,189
Tobin's Q	1.98	1.91	1.11	1.43	2.09
Free Cash Flow	0.03	0.09	0.02	0.03	0.07
Leverage	0.15	0.13	0.05	0.13	0.23
Stock price run-up	0.10	0.61	-0.16	0.03	0.23
Panel C: *Deal characteristics*					
Public (dummy)	0.33	0.47	0	0	1
Private (dummy)	0.35	0.48	0	0	1
Subsidiary (dummy)	0.32	0.47	0	0	1
All cash (dummy)	0.46	0.50	0	0	1
Diversifying acquisition (dummy)	0.20	0.40	0	0	0
Relative deal size	0.16	0.28	0.03	0.06	0.16
High-tech (dummy)	0.19	0.39	0	0	0
Industry M&A	0.05	0.09	0.01	0.02	0.06

Table IV. Pearson correlation matrix

The sample consists of 3,333 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. *P*-values are shown in parentheses. Variable definitions are in the Appendix.

Variable	CAR	GIM	BCF	Staggered board	Log(assets)	Tobin's Q	Leverage	FCF	Stock price run-up	Public Target	Private Target	Subsidiary Target	All cash	Divers-ifying
GIM	-0.043													
	(0.01)													
BCF	-0.060	0.721												
	(0.00)	*(0.00)*												
Staggered board	-0.046	0.497	0.651											
	(0.00)	*(0.00)*	*(0.00)*											
Log(assets)	-0.114	0.205	0.118	0.105										
	(0.01)	*(0.00)*	*(0.00)*	*(0.00)*										
Tobin's Q	-0.047	-0.188	-0.184	-0.114	-0.200									
	(0.01)	*(0.00)*	*(0.00)*	*(0.00)*	*(0.00)*									
Leverage	0.016	0.088	0.091	0.068	0.199	-0.339								
	(0.34)	*(0.00)*	*(0.03)*	*(0.01)*	*(0.38)*	*(0.00)*								
FCF	0.008	0.036	0.004	0.002	-0.007	0.197	-0.329							
	(0.66)	*(0.04)*	*(0.83)*	*(0.91)*	*(0.68)*	*(0.00)*	*(0.00)*							
Stock price run-up	-0.105	-0.098	-0.077	-0.023	-0.043	0.310	-0.075	-0.030						
	(0.00)	*(0.00)*	*(0.00)*	*(0.19)*	*(0.01)*	*(0.00)*	*(0.00)*	*(0.08)*						
Public	-0.180	0.045	0.026	0.006	0.321	0.033	-0.071	0.048	0.018					
	(0.00)	*(0.01)*	*(0.13)*	*(0.73)*	*(0.00)*	*(0.06)*	*(0.00)*	*(0.01)*	*(0.31)*					
Private	0.061	-0.102	-0.039	-0.006	-0.272	0.066	-0.092	0.015	0.062	-0.518				
	(0.00)	*(0.00)*	*(0.02)*	*(0.72)*	*(0.00)*	*(0.00)*	*(0.00)*	*(0.38)*	*(0.00)*	*(0.00)*				
Subsidiary	0.120	0.060	0.014	0.000	-0.045	-0.100	0.165	-0.064	-0.081	-0.478	-0.504			
	(0.00)	*(0.00)*	*(0.41)*	*(0.99)*	*(0.01)*	*(0.00)*	*(0.00)*	*(0.00)*	*(0.00)*	*(0.00)*	*(0.00)*			
All cash	0.083	0.044	0.032	0.017	-0.100	-0.094	0.070	0.027	-0.085	-0.352	-0.060	0.417		
	(0.00)	*(0.01)*	*(0.07)*	*(0.32)*	*(0.00)*	*(0.00)*	*(0.00)*	*(0.12)*	*(0.00)*	*(0.00)*	*(0.00)*	*(0.00)*		
Diversifying	0.013	0.030	0.038	0.030	-0.121	0.007	-0.003	0.057	-0.014	-0.109	0.044	0.065	0.093	
	(0.44)	*(0.08)*	*(0.03)*	*(0.09)*	*(0.00)*	*(0.69)*	*(0.87)*	*(0.00)*	*(0.43)*	*(0.00)*	*(0.01)*	*(0.00)*	*(0.00)*	
Relative size	-0.019	0.011	0.012	-0.011	-0.078	-0.081	0.166	-0.064	-0.044	0.155	-0.160	0.008	-0.154	-0.022
	(0.27)	*(0.51)*	*(0.50)*	*(0.54)*	*(0.00)*	*(0.00)*	*(0.00)*	*(0.79)*	*(0.01)*	*(0.00)*	*(0.00)*	*(0.65)*	*(0.00)*	*(0.21)*

Table V. Initial regression analysis of bidder returns

The sample consists of 3,333 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. The dependent variable is the bidder's 5-day cumulative abnormal return in percentage points. Variable definitions are in the Appendix. In parentheses are *t*-statistics based on standard errors adjusted for heteroskedasticity (White (1980)) and acquirer clustering. [a], [b], and [c] stand for statistical significance based on two-sided tests at the 1%, 5%, and 10% level, respectively. All regressions control for year fixed effects, whose coefficient estimates are suppressed.

	(1)	(2)	(3)
Anti-takeover Provisions:			
GIM-index	-0.096 [b]		
	(-2.22)		
BCF-index		-0.324 [a]	
		(-3.62)	
Staggered board			-0.597 [b]
			(-2.30)
Firm & Industry Characteristics:			
Log(total assets)	-0.318 [a]	-0.329 [a]	-0.332 [a]
	(-3.82)	*(-3.99)*	*(-4.02)*
Industry Tobin's Q	-0.751 [c]	-0.849 [c]	-0.792 [c]
	(-1.70)	*(-1.92)*	*(-1.78)*
Industry free cash flow	3.560	3.424	3.310
	(1.15)	*(1.12)*	*(1.07)*
Industry leverage	0.972	0.822	0.802
	(0.56)	*(0.47)*	*(0.46)*
Deal Characteristics:			
Industry M&A	-0.233	-0.321	-0.402
	(-0.16)	*(-0.22)*	*(-0.27)*
Relative deal size	0.373	0.373	0.354
	(0.64)	*(0.64)*	*(0.61)*
High-tech	0.679	0.644	0.697
	(1.48)	*(1.40)*	*(1.51)*
High-tech × relative deal size	-6.467 [a]	-6.455 [a]	-6.460 [a]
	(-3.30)	*(-3.29)*	*(-3.29)*
Public target	-2.435 [a]	-2.417 [a]	-2.426 [a]
	(-7.61)	*(-7.56)*	*(-7.60)*
Private target	-0.796 [a]	-0.771 [a]	-0.754 [a]
	(-2.72)	*(-2.64)*	*(-2.59)*
Intercept	5.749 [a]	5.790 [a]	5.368 [a]
	(4.66)	*(4.74)*	*(4.39)*
Number of Obs.	3333	3333	3333
Adjusted R^2	5.1%	5.3%	5.1%

Table VI. Baseline regression analysis of bidder returns

The sample consists of 3,333 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. The dependent variable is the bidder's 5-day cumulative abnormal return in percentage points. Variable definitions are in the Appendix. In parentheses are *t*-statistics based on standard errors adjusted for heteroskedasticity (White (1980)) and acquirer clustering. [a], [b], and [c] stand for statistical significance based on two-sided tests at the 1%, 5%, and 10% level, respectively. All regressions control for year fixed effects, whose coefficient estimates are suppressed.

	(1)	(2)	(3)
Anti-takeover Provisions:			
GIM-index	-0.107 [b]		
	(-2.49)		
BCF-index		-0.333 [a]	
		(-3.73)	
Staggered board			-0.524 [b]
			(-2.03)
Bidder Characteristics:			
Log(total assets)	-0.301 [a]	-0.313 [a]	-0.319 [a]
	(-3.59)	*(-3.76)*	*(-3.81)*
Tobin's Q	-0.085	-0.099	-0.079
	(-0.68)	*(-0.78)*	*(-0.64)*
Free cash flow	1.902	1.898	1.775
	(0.86)	*(0.85)*	*(0.80)*
Leverage	0.678	0.749	0.726
	(0.64)	*(0.70)*	*(0.69)*
Stock price run-up	-0.906 [b]	-0.905 [a]	-0.886 [b]
	(-2.54)	*(-2.57)*	*(-2.50)*
Deal Characteristics:			
Industry M&A	-1.096	-1.256	-1.277
	(-0.77)	*(-0.88)*	*(-0.90)*
Relative deal size	0.209	0.192	0.186
	(0.36)	*(0.34)*	*(0.32)*
High-tech	0.420	0.398	0.460
	(0.92)	*(0.87)*	*(1.01)*
High-tech × relative deal size	-6.078 [a]	-6.082 [a]	-6.091 [a]
	(-3.15)	*(-3.15)*	*(-3.05)*
Diversifying acquisition	-0.269	-0.256	-0.274
	(-0.88)	*(-0.85)*	*(-0.90)*
Public target × stock deal	-3.902 [a]	-3.859 [a]	-3.839 [a]
	(-7.29)	*(-7.24)*	*(-7.19)*
Public target × all-cash deal	-2.082 [a]	-2.053 [a]	-2.068 [a]
	(-3.34)	*(-3.31)*	*(-3.32)*
Private target × all-cash deal	-1.969 [a]	-1.925 [a]	-1.903 [a]
	(-3.53)	*(-3.47)*	*(-3.41)*
Private target × stock deal	-1.689 [a]	-1.645 [a]	-1.593 [a]
	(-3.10)	*(-3.03)*	*(-2.94)*
Subsidiary target × all-cash deal	-1.472 [a]	-1.468 [a]	-1.427 [a]
	(-2.90)	*(-2.90)*	*(-2.81)*
Intercept	6.045 [a]	5.850 [a]	5.402 [a]
	(5.69)	*(5.78)*	*(5.41)*
Number of Obs.	3,333	3,333	3,333
Adjusted R^2	6.2 %	6.4 %	6.2 %

Table VII. Controlling for product market competition

The sample consists of 3,333 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. The dependent variable is the bidder's 5-day cumulative abnormal return in percentage points. Variable definitions are in the Appendix. In parentheses are *t*-statistics based on standard errors adjusted for heteroskedasticity (White (1980)) and acquirer clustering. [a], [b], and [c] stand for statistical significance based on two-sided tests at the 1%, 5%, and 10% level, respectively. All regressions control for year fixed effects, whose coefficient estimates are suppressed.

	(1)	(2)	(3)
Anti-takeover Provisions:			
GIM-index	-0.114 [a]		
	(-2.65)		
BCF-index		-0.359 [a]	
		(-3.99)	
Staggered board			-0.594 [b]
			(-2.30)
Product market competition:			
Competitive industry	0.550 [b]	0.602 [b]	0.597 [b]
	(2.12)	*(2.31)*	*(2.28)*
Unique industry	-0.746 [b]	-0.764 [b]	-0.721 [b]
	(-2.16)	*(-2.20)*	*(-2.06)*
Bidder Characteristics:			
Log(total assets)	-0.369 [a]	-0.386 [a]	-0.390 [a]
	(-4.33)	*(-4.56)*	*(-4.59)*
Tobin's Q	-0.048	-0.061	-0.042
	(-0.40)	*(-0.51)*	*(-0.35)*
Free cash flow	2.124	2.142	2.011
	(0.99)	*(0.98)*	*(0.93)*
Leverage	0.736	0.835	0.822
	(0.69)	*(0.78)*	*(0.77)*
Stock price run-up	-0.956 [a]	-0.958 [a]	-0.935 [a]
	(-2.67)	*(-2.71)*	*(-2.63)*
Deal Characteristics:			
Industry M&A	-0.300	-0.430	-0.491
	(-0.21)	*(-0.30)*	*(-0.34)*
Relative deal size	0.223	0.208	0.200
	(0.38)	*(0.36)*	*(0.34)*
High-tech	0.916 [b]	0.907 [c]	0.945 [b]
	(1.96)	*(1.95)*	*(2.02)*
High-tech × relative deal size	-6.144 [a]	-6.159 [a]	-6.170 [a]
	(-3.18)	*(-3.19)*	*(-3.20)*
Diversifying acquisition	-0.184	-0.164	-0.185
	(-0.60)	*(-0.54)*	*(-0.60)*
Public target × stock deal	-3.955 [a]	-3.914 [a]	-3.891 [a]
	(-7.41)	*(-7.36)*	*(-7.30)*
Public target × all-cash deal	-2.064 [a]	-2.035 [a]	-2.053 [a]
	(-3.32)	*(-3.29)*	*(-3.31)*
Private target × all-cash deal	-2.020 [a]	-1.980 [a]	-1.953 [a]
	(-3.62)	*(-3.57)*	*(-3.51)*
Private target × stock deal	-1.761 [a]	-1.724 [a]	-1.665 [a]
	(-3.24)	*(-3.18)*	*(-3.08)*
Subsidiary target × all-cash deal	-1.492 [a]	-1.490 [a]	-1.443 [a]
	(-2.95)	*(-2.95)*	*(-2.85)*
Intercept	6.363 [a]	6.170 [a]	5.685 [a]
	(6.05)	*(6.15)*	*(5.75)*
Number of Obs.	3,333	3,333	3,333
Adjusted R^2	6.5 %	6.8 %	6.5 %

Table VIII. Controlling for board characteristics

The sample consists of 1,646 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. The dependent variable is the bidder's 5-day cumulative abnormal return in percentage points. Variable definitions are in the Appendix. In parentheses are *t*-statistics based on standard errors adjusted for heteroskedasticity (White (1980)) and acquirer clustering. [a], [b], and [c] stand for statistical significance based on two-sided tests at the 1%, 5%, and 10% level, respectively. All regressions control for year fixed effects, whose coefficient estimates are suppressed.

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	(1)	(2)	(3)
Anti-takeover Provisions:			
GIM-index	-0.161 [b]		
	(-2.48)		
BCF-index		-0.529 [a]	
		(-3.86)	
Staggered board			-0.913 [b]
			(-2.43)
Board Characteristics:			
CEO/Chairman duality	-0.701 [c]	-0.615	-0.736 [c]
	(-1.76)	*(-1.55)*	*(-1.85)*
Board size	-0.064	-0.058	-0.065
	(-1.29)	*(-1.14)*	*(-1.27)*
Independent board dummy	0.048	0.171	-0.030
	(0.11)	*(0.38)*	*(-0.07)*
Product Market Competition:			
Competitive industry	0.671 [c]	0.778 [b]	0.780 [b]
	(1.78)	*(2.06)*	*(2.06)*
Unique industry	-0.867	-0.917 [c]	-0.869
	(-1.63)	*(-1.71)*	*(-1.60)*
Bidder & Deal Characteristics:			
Log(total assets)	-0.232 [c]	-0.273 [b]	-0.246 [c]
	(-1.72)	*(-2.04)*	*(-1.83)*
Tobin's Q	-0.013	-0.036	-0.011
	(-0.10)	*(-0.28)*	*(-0.09)*
Free cash flow	7.028 [a]	6.927 [b]	6.904 [b]
	(2.61)	*(2.51)*	*(2.51)*
Leverage	3.122 [c]	3.213 [b]	3.070 [c]
	(1.91)	*(1.96)*	*(1.88)*
Stock price run-up	-0.916 [b]	-0.898 [b]	-0.864 [b]
	(-2.23)	*(-2.21)*	*(-2.11)*
Industry M&A	-1.856	-2.036	-2.196
	(-0.93)	*(-1.00)*	*(-1.08)*
Relative deal size	-0.787	-0.838	-0.835
	(-1.04)	*(-1.11)*	*(-1.10)*
High-tech	1.141 [c]	1.209 [c]	1.191 [c]
	(1.67)	*(1.77)*	*(1.73)*
High-tech × relative deal size	-7.007 [a]	-7.014 [a]	-6.933 [a]
	(-3.09)	*(-3.12)*	*(-3.08)*
Diversifying acquisition	0.114	0.127	0.115
	(0.26)	*(0.29)*	*(0.26)*
Public target × stock deal	-3.146 [a]	-3.131 [a]	-3.082 [a]
	(-3.76)	*(-3.76)*	*(-3.69)*
Public target × all-cash deal	-1.424	-1.417	-1.435
	(-1.40)	*(-1.40)*	*(-1.41)*
Private target × all-cash deal	-1.455	-1.433	-1.376
	(-1.55)	*(-1.54)*	*(-1.47)*
Private target × stock deal	-1.429 [c]	-1.438 [c]	-1.311
	(-1.65)	*(-1.67)*	*(-1.52)*
Subsidiary target × all-cash deal	-0.548	-0.576	-0.474
	(-0.65)	*(-0.69)*	*(-0.56)*
Intercept	6.104 [b]	6.154 [b]	5.615 [b]
	(2.23)	*(2.21)*	*(2.09)*
Number of Obs.	1,646	1,646	1,646
Adjusted R^2	7.3 %	7.8 %	7.3 %

Table IX. Controlling for management quality

The sample consists of 3,200 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. The dependent variable is the bidder's 5-day cumulative abnormal return in percentage points. As in Morck et al. (1990), industry-adjusted operating income growth is defined as ($EBITDA_{t-1}$ - $EBITDA_{t-4}$)/$EBITDA_{t-4}$, adjusted for industry median. Other variable definitions are in the Appendix. In parentheses are *t*-statistics based on standard errors adjusted for heteroskedasticity (White (1980)) and acquirer clustering. [a], [b], and [c] stand for statistical significance based on two-sided tests at the 1%, 5%, and 10% level, respectively. All regressions control for year fixed effects, whose coefficient estimates are suppressed.

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	(1)	(2)	(3)
Anti-takeover Provisions:			
GIM-index	-0.108 [b]		
	(-2.45)		
BCF-index		-0.364 [a]	
		(-3.95)	
Staggered board			-0.700 [a]
			(-2.66)
Bidder Management Quality:			
Operating income growth rate	0.005 [a]	0.005 [a]	0.005 [a]
	(6.95)	*(7.36)*	*(7.19)*
Product Market Competition:			
Competitive industry	0.509 [c]	0.567 [b]	0.569 [b]
	(1.92)	*(2.13)*	*(2.13)*
Unique industry	-0.546	-0.559	-0.527
	(-1.57)	*(-1.61)*	*(-1.51)*
Bidder & Deal Characteristics:			
Log(total assets)	-0.351 [a]	-0.368 [a]	-0.369 [a]
	(-4.01)	*(-4.26)*	*(-4.27)*
Tobin's Q	-0.086	-0.098	-0.081
	(-0.65)	*(-0.75)*	*(-0.63)*
Free cash flow	1.480	1.399	1.347
	(0.73)	*(0.69)*	*(0.67)*
Leverage	1.272	1.403	1.375
	(1.14)	*(1.26)*	*(1.24)*
Stock price run-up	-0.997 [a]	-1.002 [a]	-0.976 [a]
	(-2.74)	*(-2.79)*	*(-2.71)*
Industry M&A	-0.738	-0.864	-0.915
	(-0.50)	*(-0.58)*	*(-0.62)*
Relative deal size	0.278	0.266	0.248
	(0.45)	*(0.41)*	*(0.40)*
High-tech	1.008 [b]	0.985 [b]	1.013 [b]
	(2.13)	*(2.09)*	*(2.13)*
High-tech × relative deal size	-7.477 [a]	-7.476 [a]	-7.470 [a]
	(-3.94)	*(-3.94)*	*(-3.91)*
Diversifying acquisition	-0.172	-0.159	-0.174
	(-0.56)	*(-0.52)*	*(-0.57)*
Public target × stock deal	-3.769 [a]	-3.725 [a]	-3.699 [a]
	(-7.10)	*(-7.05)*	*(-6.99)*
Public target × all-cash deal	-1.869 [a]	-1.829 [a]	-1.852 [a]
	(-2.96)	*(-2.91)*	*(-2.94)*
Private target × all-cash deal	-1.850 [a]	-1.801 [a]	-1.768 [a]
	(-3.28)	*(-3.22)*	*(-3.15)*
Private target × stock deal	-1.521 [a]	-1.482 [a]	-1.413 [a]
	(-2.81)	*(-2.74)*	*(-2.62)*
Subsidiary target × all-cash deal	-1.318 [a]	-1.313 [a]	-1.255 [b]
	(-2.61)	*(-2.61)*	*(-2.49)*
Intercept	6.026 [a]	5.892 [a]	5.431 [a]
	(5.54)	*(5.68)*	*(5.30)*
Number of Obs.	3,200	3,200	3,200
Adjusted R^2	6.9 %	7.2 %	7.0 %

Table X. A dummy variable approach

The sample consists of 3,333 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. The dependent variable is the bidder's 5-day cumulative abnormal return in percentage points. Variable definitions are in the Appendix. In parentheses are *t*-statistics based on standard errors adjusted for heteroskedasticity (White (1980)) and acquirer clustering. [a], [b], and [c] stand for statistical significance based on two-sided tests at the 1%, 5%, and 10% level, respectively. All regressions control for year fixed effects, whose coefficient estimates are suppressed.

	(1)	(2)
Anti-takeover Provisions:		
Dictatorship-GIM	-0.541 [b]	
	(-2.34)	
Dictatorship-BCF		-0.859 [a]
		(-3.71)
Product market competition:		
Competitive industry	0.546 [b]	0.614 [b]
	(2.10)	*(2.35)*
Unique industry	-0.732 [b]	-0.764 [b]
	(-2.11)	*(-2.20)*
Bidder Characteristics:		
Log(total assets)	-0.375 [a]	-0.388 [a]
	(-4.42)	*(-4.59)*
Tobin's Q	-0.040	-0.045
	(-0.33)	*(-0.37)*
Free cash flow	2.022	2.072
	(0.94)	*(0.95)*
Leverage	0.725	0.836
	(0.68)	*(0.78)*
Stock price run-up	-0.956 [a]	-0.965 [a]
	(-2.66)	*(-2.70)*
Deal Characteristics:		
Industry M&A	-0.335	-0.267
	(-0.23)	*(-0.19)*
Relative deal size	0.231	0.198
	(0.40)	*(0.34)*
High-tech	0.930 [b]	0.923 [b]
	(1.99)	*(1.97)*
High-tech × relative deal size	-6.162 [a]	-6.211 [a]
	(-3.22)	*(-3.26)*
Diversifying acquisition	-0.172	-0.156
	(-0.56)	*(-0.51)*
Public target × stock deal	-3.939 [a]	-3.903 [a]
	(-7.38)	*(-7.31)*
Public target × all-cash deal	-2.060 [a]	-2.052 [a]
	(-3.31)	*(-3.31)*
Private target × all-cash deal	-2.000 [a]	-2.009 [a]
	(-3.59)	*(-3.61)*
Private target × stock deal	-1.743 [a]	-1.730 [a]
	(-3.21)	*(-3.18)*
Subsidiary target × all-cash deal	-1.485 [a]	-1.498 [a]
	(-2.93)	*(-2.96)*
Intercept	5.581 [a]	5.762 [a]
	(5.62)	*(5.79)*
Number of Obs.	3,333	3,333
Adjusted R^2	6.4 %	6.7 %

Table XI. Bidders that experience no changes in ATP indices during acquisitions

The whole sample consists of 3,333 completed U.S. mergers and acquisitions (listed in SDC) between 1990 and 2003 made by firms covered by the IRRC anti-takeover provision database. The subsamples consist of acquisitions whose bidders experience no changes in ATP indices during acquisitions. The dependent variable is the bidder's 5-day cumulative abnormal return in percentage points. Variable definitions are in the Appendix. In parentheses are *t*-statistics based on standard errors adjusted for heteroskedasticity (White (1980)) and acquirer clustering. [a], [b], and [c] stand for statistical significance based on two-sided tests at the 1%, 5%, and 10% level, respectively. All regressions control for year fixed effects, whose coefficient estimates are suppressed.

	(1)	(2)	(3)
Anti-takeover Provisions:			
GIM-index	-0.159 [b]		
	(-2.53)		
BCF-index		-0.354 [a]	
		(-3.27)	
Staggered board			-0.799 [a]
			(-2.68)
Product market competition:			
Competitive industry	0.502	0.311	0.737 [b]
	(1.36)	*(0.94)*	*(2.48)*
Unique industry	-0.545	-0.806 [c]	-0.780 [c]
	(-1.19)	*(-1.82)*	*(-1.89)*
Bidder Characteristics:			
Log(total assets)	-0.190	-0.403 [a]	-0.417 [a]
	(-1.62)	*(-3.81)*	*(-4.33)*
Tobin's Q	0.183	0.028	0.006
	(0.73)	*(0.16)*	*(0.05)*
Free cash flow	6.252 [b]	5.636 [c]	4.880 [c]
	(2.28)	*(1.72)*	*(1.88)*
Leverage	3.372 [b]	2.815 [b]	2.580 [b]
	(2.05)	*(2.11)*	*(2.23)*
Stock price run-up	-0.888	-1.549 [a]	-0.990 [a]
	(-1.50)	*(-4.40)*	*(-2.62)*
Deal Characteristics:			
Industry M&A	-0.455	-0.790	-0.336
	(-0.28)	*(-0.46)*	*(-0.21)*
Relative deal size	0.223	-0.581	0.031
	(0.38)	*(-0.76)*	*(0.05)*
High-tech	0.638	1.225 [b]	0.819
	(0.91)	*(2.07)*	*(1.54)*
High-tech × relative deal size	-4.018	-6.821 [b]	-5.246 [a]
	(-1.47)	*(-2.52)*	*(-2.73)*
Diversifying acquisition	-0.168	-0.342	-0.226
	(-0.39)	*(-0.89)*	*(-0.65)*
Public target × stock deal	-3.955 [a]	-3.139 [a]	-3.666 [a]
	(-7.41)	*(-4.76)*	*(-6.03)*
Public target × all-cash deal	-2.287 [a]	-1.556 [c]	-1.981 [a]
	(-3.34)	*(-1.80)*	*(-2.61)*
Private target × all-cash deal	-0.173	-1.730 [b]	-1.849 [a]
	(-0.19)	*(-2.33)*	*(-2.83)*
Private target × stock deal	-0.088	-1.318 [c]	-1.842 [a]
	(-0.13)	*(-1.94)*	*(-2.98)*
Subsidiary target × all-cash deal	-0.090	-1.174 [c]	-1.376 [b]
	(-0.13)	*(-1.77)*	*(-2.41)*
Intercept	2.852 [c]	6.170 [a]	5.382 [a]
	(1.73)	*(6.15)*	*(4.88)*
Number of Obs.	1,461	1,906	2,495
Adjusted R^2	4.2 %	8.0 %	6.9 %

Appendix: Variable Definitions

Variable	Definitions
Panel A: Abnormal returns and anti-takeover provision indices	
CAR (-2,+2)	Five-day cumulative abnormal return (in percentage points) calculated using the market model. The market model parameters are estimated using the return data for the period (-210,-11).
GIM index	Taken from GIM (2003), based on 24 anti-takeover provisions. Higher index levels correspond to more managerial power.
BCF index	Taken from BCF (2004), based on 6 anti-takeover provisions. Higher index levels correspond to more managerial power.
Staggered board	Dummy variable: 1 if the bidder has a staggered board, 0 otherwise.
Panel B: *Bidder characteristics*	
Firm size	Log of book value of total assets (item6)
Market capitalization	Number of shares outstanding multiplied by the stock price at the 11th trading day prior to announcement date.
Tobin's Q	Market value of asset over book value of asset: (item6-item60+item25*item199)/item6
Leverage	Book value of debts (item34+item9) over market value of total assets (item6-item60+item25*item199)
Free cash flow	Operating income before depreciation (item13)–interest expense (item15)–income taxes (item16)–capital expenditures (item128), scaled by book value of total assets (item6).
Stock price run-up	Bidder's buy-and-hold abnormal return (BHAR) during the period (-210,-11). The market index is the CRSP value-weighted return.
Panel C: *Deal characteristics*	
Public target	Dummy variable: 1 for public targets, 0 otherwise.
Private target	Dummy variable: 1 for private targets, 0 otherwise.
Subsidiary target	Dummy variable: 1 for subsidiary targets, 0 otherwise.
All-cash deal	Dummy variable: 1 for purely cash-financed deals, 0 otherwise.
Stock deal	Dummy variable: 1 for deals at least partially stock-financed, 0 otherwise.
Diversifying acquisition	Dummy variable: 1 if bidder and target do not share a Fama-French industry, 0 otherwise.
Relative deal size	Deal value (from SDC) over bidder's market capitalization, defined above.
High-tech	Dummy variable: 1 if bidder and target are both from the high-tech industries defined by Loughran and Ritter (2004), 0 otherwise.
Industry M&A	The value of all corporate control transactions for $1 million or more reported by SDC for each prior year and Fama-French industry divided by the total book value of assets of all Compustat firms in the same Fama-French industry and year.
Panel D: *Other governance mechanisms*	
Competitive industry	Dummy variable: 1 if bidder's industry is in the bottom quartile of all 48 Fama-French industries annually sorted by the Herfindahl index, 0 otherwise, where the Herfindahl index is computed using all COMPUSTAT firms with valid data on sales (item12).

Unique industry	Dummy variable: 1 if bidder's industry is in the top quartile of all 48 Fama-French industries annually sorted by industry-median product uniqueness, 0 otherwise, where product uniqueness is defined as selling expense (item189) scaled by sales (item12).
CEO equity-based pay	Percentage of equity-based compensation in bidder CEO's total compensation, with equity-based pay defined as the value of stock option and restricted stock grants.
CEO equity ownership	Bidder CEO's percentage ownership of her firm, including both stock and stock options.
CEO wealth sensitivity to stock price	The dollar change in the value of a CEO's stock and option portfolio per 1% change in stock price, estimated using the algorithm developed by Core and Guay (2002).
BLOCK	Fraction of bidder's common stock held by bidder's largest institutional blockholder (at least 5%)
PP	Fraction of bidder's common stock held by the 18 largest public pension funds as a group. See Cremers and Nair (2005) for fund identities.
CEO/Chairman duality	Dummy variable: 1 if bidder CEO is also the Chairman of the board, 0 otherwise.
Board size	Number of directors on bidder's board.
Independent Board	Dummy variable that is equal to 1 if over 50% of bidder directors are independent or 0 otherwise.

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