The Effect of CEO Conservatism on Mergers and Acquisitions Decisions

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Abstract

We examine the link between CEOs political ideology – conservatism – and their firms' investment decisions. We focus on the effect of CEO conservatism on M&A decisions. Our evidence indicates that politically conservative CEOs are less likely to engage in M&A activities. When they do undertake acquisitions, their firms are more likely to use cash as the method of payment, and the target firms are more likely to be public firms and to be from the same industry. Conditional on the merger, CEO conservatism appears to have a significantly positive impact on long-run firm valuation. However, we find no evidence that conservative CEOs create value in the short run. All our results hold after controlling for CEO overconfidence.

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1. Introduction

A growing literature has examined individual as well as corporate financial decisions in the context of a phenomenon known as "behavioral consistency," the notion that individuals' preferences, attitudes, and personal traits can translate consistently across various choice problems. For example, Cronqvist, Makhija and Yonker (2011) document the behavioral consistency of CEOs' leverage choices in the mortgages of their primary residences and the debt ratios of their firms. Bonaparte, Kumar and Page (2010), Hong and Kostovetsky (2012), and Jiang, Kumar and Law (2011) show that personal political preferences indeed have a significant influence on the investment decisions of individual investors and professional money managers, as well as on the forecasts of equity analysts. Similarly, Malmendier and Tate (2005) and Malmendier and Tate (2008) point out how CEO overconfidence can adversely impact their firms' capital expenditures and M&A decisions while Bertrand and Schoar (2003) analyze how other characteristics of CEOs, such as age, education, and region, can also affect their corporate decisions.

More recently, Hutton, Jiang and Kumar (2013) test whether the personal political ideology of CEOs influences the level of financial conservatism in their firms. Their evidence is consistent with the notion that CEOs with Republican orientation, who are generally viewed as following a politically more conservative ideology, would also make financially more conservative decisions for their firms. Their results show that firms with Republican CEOs exhibit more conservative corporate policies with lower leverage ratios, lower capital and R&D expenditure, less risky investment, higher dividend payouts, and greater profitability.

This paper extends the work of Hutton, *et al.* (2013) by examining the effect of CEO political conservatism on the merger and acquisition (M&A) decision of their firms. As in Hutton, *et al.*

(2013) and similarly in Hong and Kostovetsky (2012), we use CEOs' personal political contributions to identify their political orientations, and thereby to assess the degree of their political and fiscal conservatism. Linking the personal ideology of CEOs and their M&A decisions is important because acquisitions are among the most significant investment decisions the CEOs make, which can have a substantial impact on their shareholder wealth.

To empirically examine the effect of CEO conservatism on M&A decisions, we compile a sample of 1,007 publicly traded U.S. firms and 2,100 CEOs that are covered by the COMPUSTAT Execucomp with 12,928 CEO-year observations between 1993 and 2006. Our test contributes to the literature by shedding light on how CEO conservatism affects (1) the firm's choice of acquisition (external investment) over capital expenditure (internal investment), (2) the acquirer's choice of payment method (cash vs. stock), type of target (public vs. private firm), and deal type (focus increasing vs. diversification), and (3) the market's reaction to the M&A announcement and the long-run performance of the acquiring firm.

First, we test how likely conservative CEOs are to engage in mergers. We find that conservative CEOs are significantly less likely to engage in M&A activities. The results are robust after controlling for other CEO characteristics, such as CEO age, tenure, and gender, as well as standard M&A determinants namely, Tobin's q, size, free-cash-flow, leverage, R&D and capital expenditure, and industry concentration level. We use firm and year fixed effects to remove the within-firm and time effects. Our evidence is consistent with the view suggested in the previous literature (Jost, Glaser, Kruglanski and Sulloway (2003); Wilson (1973a); Kish, Netterberg and Leahy (1973)) that conservative individuals exhibit a strong disposition to preserve the status quo and are less likely to seek strong external stimulation and to engage in

sensation-seeking behavior. Our results indicate that this behavioral consistency of conservatives extends to their corporate investment/M&A decisions.

Using seemingly unrelated regressions (SUR), we further test conservative CEOs' choice of acquisition (external investment) over capital expenditure (internal investment). We find that conservative CEOs are negatively associated with external investment (M&A), but positively associated with internal investment (capital expenditure) after controlling for firm-level investment opportunity (Tobin's q) and industry concentration level. Their choice can be explained by the higher degree of uncertainty and asymmetry information in the environment surrounding external investment (M&A) addressed in Harford and Li (2007).

Regarding whether conservative CEOs prefer stock or cash as the method of payment for acquisitions, we find that they are significantly less likely to choose stock as a payment method. Gilson (1986) documents that stock payments lead to substantial offer delays in the United States due to security registration and shareholder approval requirements. Fishman (1989) argues that cash enables more rapid deal completion, thus lessening the risk of competitive bids. Furthermore, holding the acquisition price constant, using cash lowers the likelihood of bid rejection by target management and a competitive bid. Since using stock as the payment method would increase the uncertainty of successful completion of the deal, conservative CEOs are therefore less likely to use this payment method, and our evidence is consistent with this prediction.

CEOs with a conservative ideology are also significantly more likely to choose focus-increasing M&As. Glasgow and Cartier (1985) argue that conservatives tend to prefer familiar stimuli over unfamiliar stimuli. They are also more sensitive to the possibility of a loss.

diversifying M&As are shown to have a negative response to the announcement (Morck, Shleifer and Vishny (1988)) while similarly diversified firms too are seen to exhibit a diversification discount on valuation [Berger and Ofek (1995); Lang and Stulz (1994); Rajan, Servaes and Zingales (2000)]. Conservative CEOs are therefore more likely to acquire within-industry targets to the extent that their sensitivity to unfamiliar stimuli and the potential loss from diversifying merger is greater than non-conservative CEOs.

We also find that conservative CEOs are less likely to choose private targets and more likely to choose public targets. One possible explanation for the finding could be the difference in information availability on private/subsidiary and public targets. Less information on private targets makes the value of assets highly uncertain; this causes conservative CEOs to favor to acquire public targets.

To address the question of whether conservative CEOs add value to the firms by undertaking acquisitions, we analyze the market's reaction to M&A announcements. We find no statistically significant difference in market response to the announcement by firms with conservative or non-conservative CEOs in multivariate regression test. One possible reason for this finding is that M&A decisions made by CEOs with conservative ideology could be suboptimal in their decision making process. In Table 2 we document that conservative CEOs are less likely to use stock as the payment method (positive to the announcement returns), are more likely to conduct focus-increasing M&A (positive to the announcement returns), and are more likely to acquire public targets (negative to the announcement returns).

In particular, acquiring public targets could be a suboptimal decision in creating firm value. In conservative CEO perspectives, acquiring public targets is a safe choice due to As argued in

Fuller, Netter and Stegemoller (2002), due to the lack of liquidity in private and subsidiary targets, acquiring such firms can result in positive announcement returns. However, information on private and subsidiary targets is generally more opaque and is less available than public targets. Thus, given the preference for greater uncertainty avoidance, CEOs with conservative ideology are more likely to prefer acquiring public targets, resulting in negative market response.

Interestingly, the analysis of long-term performance indicates that conservative CEOs add values to their firms. Over the five-year period of a post-M&A announcement, stocks of firms with conservative CEOs outperform those with non-conservative CEOs by 20.73% (significant at the 5% level). This finding is consistent with the result in Hutton, *et al.* (2013) that firms run by conservative CEOs have better operating performance. It is possible that more cautious management by conservative CEOs results in fewer mistakes and hence better performance.

We perform robustness checks for all our results, for example, by controlling for CEO overconfidence. Malmendier and Tate (2005) show that management overconfidence is an important aspect of CEO behavioral bias that has a significant impact on a firm's investment decisions. We show that our results remain unchanged after controlling for CEO overconfidence.

The rest of the paper is organized as follows. In Section 2, we develop the hypotheses concerning the effect of CEO conservatism on mergers. In Section 3, we describe the data and the conservatism measures. Section 4 presents the empirical results and their interpretations. We conclude in Section 5.

2. Hypotheses

The basic premise of our analysis is that CEOs' political conservatism is correlated with their conservatism when making their firms' financial and investment decisions. Carney, Jost, Gosling

and Potter (2008) show that left-right differences in ideologies exist and are related to their relative openness to changes versus the preservation of traditional values. Jost, *et al.* (2003) argue that conservatives exhibit a strong disposition to preserve the status quo while liberals are more willing to embrace changes and seek novelty. In particular, conservatives are less likely to seek strong external stimulation [Wilson (1973b)], less open to unconventional views [Jost and Thompson (2000)], less likely to engage in sensation seeking behaviors [Kish, *et al.* (1973)], and more cautious about making major changes in life (Feather 1979).

In addition, external (M&A) and internal investment (capital expenditure) decisions are the choice of CEOs since they are similar way of adding to a firm's asset base and productive capacity. Andrade and Stafford (2004) analyze industry patterns in M&A and internal investments (Capital expenditure) and find that M&A, like internal investment(Capital expenditure), are a means for firms to improve their capital base, in reponse to growth opportunity measured by Tobin's q and sales growth. However, Harford and Li (2007) report that the CEO treats internal investment (Capital expenditure) and M&A differently and argue that the incentives to undertake each differ as well due to the uncertainty and information in the environment surrounding a M&A.

Given these observations, we expect that politically conservative CEOs are more likely to be conservative in making financial decisions for their firms. Thus, this type of CEOs would be less likely to undertake major investment decisions such as mergers and acquisitions for their firms, and favor internal investment (capital investment) over external investment (M&A).

Hypothesis 1: CEOs who are politically conservative are less likely to engage in acquisitions than CEOs who are less conservative.

The M&A literature has documented negative announcement returns for acquirer's stocks in stock-finance mergers [e.g., Servaes (1991); Travlos (1987)]. In fact, the acquiring firms' poor stock performance goes beyond the announcement period. Agrawal, Jaffe and Gershon (1992b) document that post-acquisition stock returns are lower for acquisitions that are stock-financed than those that are cash-financed. Linn and Switzer (2001) find that acquiring firms experience significantly worse industry- and size-adjusted operating performance for up to five years following the acquisition. Now, if conservatives are more sensitive to the possibility of a loss as argued in Wilson (1973b), it is reasonable to expect that conservative CEOs would be more sensitive to potentially poor stock performance and hence would be less likely to choose stock as the method of payment for acquisitions.

Moreover, Wilson (1973b), Gillies and Campbell (1985), and McAllister and Anderson (1991) point out that conservatives also exhibit greater aversion to ambiguity, uncertainty, and complexity. While stock payments is documented in Gilson (1986) to have led to substantial offer delays in the United States, due to security registration and shareholder approval requirements, cash is shown by Fishman (1989) to enable more rapid deal completion and thereby lessen the risk of competitive bids. Martin (1996) also find that stock offers are more likely to be used than cash if there more uncertainty about the target. Holding the acquisition price constant, paying cash also lowers the likelihood of bid rejection by target firms. Thus, our second hypothesis predicts that conservative CEOs are less likely to choose stock as the payment method.

Hypothesis 2: Conservative CEOs are less likely to use stock as the method of payment than less-conservative CEOs.

There are many explanations for the different market reaction to the M&A with the different type of target[Chang (1998), Hansen and Lott (1996), and Fuller, *et al.* (2002)]. Particularly, Fuller, *et al.* (2002) argue that private targets are associated with positive announcement returns due to a liquidity effect for private/subsidiary target. The lack of liquidity on those targets makes the investments less attractive, resulting in price discount. Thus, with the higher sensitivity to the possibility of a loss [Wilson (1973a)], we can conjecture that conservative CEOs more likely favor to acquire private target. However, information about private and subsidiary targets is generally more opaque and is less available than public targets(information effect). Thus, given the preference for greater uncertainty avoidance, CEOs with conservative ideology are more likely to prefer acquiring public targets. Collectively, conservative CEOs' choice of type of target is not clear.

Hypothesis 3: Conservative CEOs are more likely to acquire public (Private) target if information effect for public target is greater (smaller) than liquidity effect for private/subsidiary target.

Ruth Glasgow, Cartier and Wilson (1985) argue that the conservatives also prefer familiar versus unfamiliar stimuli. Morck, Shleifer and Vishny (1990) find that diversifying M&A have negative (value-destroying) announcement returns. Other studies also document diversification discounts [Berger and Ofek (1995); Lang and Stulz (1994); Rajan, *et al.* (2000)]. If conservative CEOs indeed prefer familiar stimuli and are more sensitive to poor performance, we expect that they are more likely to engage in focus-increasing rather than diversifying acquisitions by pursuing within-industry targets.

Hypothesis 4: Conservative CEOs are more likely to acquire targets that are in the same industry.

Hutton, *et al.* (2013) provide evidence that managerial conservatism is a determinant in corporate financing, payout, and investment decisions. They report that CEOs with conservative ideology have lower level of leverage (financing policy), higher level of dividend payout (payout policy), higher level of profitability (operating side), and tend to avoid risky investment (less investment in capital expenditure and even less investment in R&D expenditure). They argue that the cautious financing decision and operating style leads firms less risky and more profitable whereas conservative investment policy may be costly to shareholders and then conclude that the impact of these policy choices on firm valuation is not clear.

However, many M&A studies document the major determinants of short term firm valuation (announcement returns) such as method of payment, type of target, and within-industry M&A, which are the CEOs' choices. As such, we can examine the impact of their policy choices on firm valuation. In general, cash offers are associated with greater abnormal announcement returns than stock offers [Travlos (1987), Fishman (1989), Brown and Ryngaert (1991)]. Hansen and Lott (1996) and Fuller, *et al.* (2002) report that acquiring private generates higher announcement returns. Also Comment and Jarrell (1995) find that increase in focus is consistent with shareholder wealth maximization. Thus, the short term firm value created/destroyed by M&A will be contingent on CEOs' choices (cash: (+), private (public):+(-), focus-increasing: (+)).

Regarding long term firm valuation, due to their conservative managing style, M&A made by conservative CEOs will outperform those by non-conservative CEOs.

Hypothesis 5: The announcement returns will be conditional on their determinant choices, but M&A made by CEOs with conservative ideology will outperform those by non-conservative CEOs due to the managing style in the long run.

3. Data

We draw the initial sample of CEOs from the Compustat Executive Compensation (Execucomp) database, which primarily covers firms in the S&P 1500 index from 1993 and 2006. Execucomp provides the full name, title, position, age, gender, and "Became CEO" date to compute their tenure of being the top executive for each fiscal year. Then we use the CEO information from Execucomp to identify the CEO's political contributions recorded by the Federal Election Commission (FEC).

We match the CEO's personal and political information obtained from ExecuComp and FEC with the M&A database. Securities Data Company (SDC) is used to obtain announcement dates and merger financing information for completed deals by our sample firms. We require that the acquiring firm obtains at least 51% of the target's shares (and hence control). We also require that the deal size be greater than $1 million. This criterion is important because acquisitions of small targets may not require active involvement of the acquirer's CEO. We exclude acquisitions where the targets are not either private or subsidiary. Firm-level accounting variables are obtained from COMPUSTAT (See Appendix for the definitions of variables). The Fama-French industry group information comes from Professor Kenneth French's data library. This procedure generates 1,007 firms, 2,100 CEOs and 12,928 CEO-year combinations.

Following Hong and Kostovetsky (2012), Hutton, et al. (2013), and others, we use CEO's political contributions to Republican and Democratic senate, house, presidential candidates and

party committees in political campaigns to determine their political affiliations. Individual donation data is obtained from the Federal Election Commission (FEC) website (www.fec.gov) from 1993 and 2006. Corporate CEOs can make contributions to political candidates or party committees either directly or indirectly. They can make contributions directly to candidates or party committees. They can also contribute indirectly through their companies' Political Action Committees (PACs). We use the direct contributions by CEOs to identify their political orientation because company PACs usually make simultaneous contributions to both parties [Cooper, Gulen and Ovtchinnikov (2010)].

To identify the political preferences of CEOs, we create the tenure-specific Republican dummy measure for each CEO. This dummy variable identifies strong Republican CEOs during their tenures. It takes the value of one if the CEO's political contributions during his/her entire tenure is all toward the Republican Party, and of zero if otherwise. The fact that this measure does not vary during the sample period captures the idea that party identification is developed and established in one's earlier years adolescence or early adulthood and remains fairly stable during the adult life [Green, Palmquist and Schickler (2002)] . Our measure of CEO political orientation also eliminates the potential noise that could be introduced by varying party popularity at given years.

We also construct an alternative index variable for party orientation, which is defined as the difference between a CEO's political contributions to the Republican Party candidates (or its committees) and those to the Democratic Party (or its committees) divided by the CEO's total contributions to both parties during his/her entire tenure. As in Hutton, et al. (2013), the measures here are based on self-revealed preferences (e.g., political donations) of CEOs and can therefore capture their embedded political identities and ideologies which they subscribe.

[Insert Table 1 here]

Table 1 presents the summary statistics of our sample. Panel A shows the differences in firm-specific and CEO-specific variables across CEOs. First, we examine the tendency of conservative CEOs on investments. As shown in Panel A, the M&A dummy shows that a lower proportion of CEOs with conservative ideology (44% of conservative CEOs) engages in M&A activities than non-conservative CEOs (47% of non-conservative CEOs). However, firms with conservative CEOs have, on average, a larger amount of capital expenditures compared to those with non-conservative CEOs. The initial finding is consistent with our first hypothesis that conservative CEOs are less likely to engage in M&A because of greater uncertainty and greater information asymmetry surrounding M&A, but they do prefer internal over external investments holding fixed their investment opportunities and industry competition levels [see Andrade and Stafford (2004)].

We next check the operating performance of firms. Hutton, *et al.* (2013) find that firms with conservative CEOs have higher profitability. Consistent with their findings, firms with conservative CEOs in our sample also have higher profitability, higher operating margin, and higher ROA than those with non-conservative CEOs. In our sample, firms with conservative CEOs have higher leverage. This is inconsistent with the finding in Hutton, *et al.* (2013). A possible explanation could be that firms with conservative CEOs in our sample have more tangible assets, enabling them to borrow more at lower costs.

Panel B presents the pairwise correlations between the conservative CEO measure and other CEO characteristics. The correlations are lower than 0.1 but CEO age displays higher than 0.1.

We will control for CEO age in our estimations to prevent their direct effects from contaminating our results.

4. CEO conservatism and acquisitions

To see whether CEOs' individual traits may influence their investment decisions, our main empirical analysis concerns the link between their personal ideology and their firms' investment choices. To address the question, we first investigate whether CEOs' preferences for internal vs. external investment, and in the event of acquisitions, their choices of payment method, target type, and deal characteristics (focus-increasing vs. diversification).

4.1. Merger frequency

To test the first hypothesis, we use the following probit regression specification:

$$\Pr\{Y_{it} = 1 | C_{it}, X_{it}\} = G(\beta_1 + \beta_2 C_{it} + X'_{it} B) \quad (1)$$

Y in the Eq. (1) is a dummy variable where 1 signifies that the CEO engages in M&A in a given year. *C* stands for the conservatism measure for CEOs. *X* is a set of control variables. *G* stands for the logistic distribution. In estimating Eq. (1), we use two proxies for *C*, both the dummy and the index variable.

Table 2 reports two sets of results related to the first hypothesis. In model (1) and (2), using the probit model described above, we test how likely conservative CEOs engage in M&A controlling for CEO age, tenure, founder, and gender. At the firm level, we include the following controls: size of acquirer, Tobin's q (control for investment opportunity), free cash flow (measure of internal resource), leverage, capital expenditure, R&D expenditure, Herfindahl index

(measure of industry competition), and a dummy variable for high tech industry. We also include industry and year fixe effect to control for within-industry variations and time trends in the likelihood of M&A.

[Insert Table 2 here]

The effect of CEO conservatism on merger frequency appears to be negative after including the controls and firm and year-fixed effects with standard errors robust to two-dimensional clustering effect from model (1) and (2). The estimate of the conservative dummy measure is

-0.0789 (t-statistic= -2.04), significant at 5%, and the estimate of the conservative index measure is -0.0596 (t-statistic=-1.80), significant at 10%. To address the economic significance of the effect of conservatism on M&A frequency, we compute the marginal effects. The marginal effect of the conservative dummy measure is -2% and the marginal effect of the continuous conservative measure is -1.4%.The finding support the notion of conservatism in that conservatives tend to prefer familiar rather than unfamiliar stimuli [Glasgow and Cartier (1985)] and also tend to exhibit the greater aversion to ambiguity, uncertainty, and complexity [Wilson (1973b), Gillies and Campbell (1985); McAllister and Anderson (1991)].

As a follow-up test, we use a simultaneous equation approach to investigate how conservative ideology is related to two different types of investments: external investment (M&A) and internal investment (capital expenditure). We estimate a system of equations using seemingly unrelated regression (SUR), in which the residuals are correlated.

$$X_{i,t} = f(CEO\ conservatism + Controls) + \varepsilon_{i,t} \qquad (2)$$

$$Y_{i,t} = h(CEO\ conservatism + Controls) + \gamma_{i,t} \qquad (3)$$

In the above, *i* indexes firms, *t* indexes years, $X_{i,t}$ is the external investment decision (M&A), and $Y_{i,t}$ is the internal investment decision (Capital expenditure). From this specification, we analyze whether the conservative ideology has similar or differential effects on two investment decisions. Within the specification, the likelihood of external investment and that of capital expenditure are simultaneously estimated by regression on the set of control variables and the main variable – CEO conservatism.

Models (3) and (4) in Table 2 estimate the system of two equations with the M&A dummy and the capital expenditure measure normalized by the total assets as the dependent variables. The regression results show that firms with conservative CEOs are less likely to engage in M&A but they are positively associated with capital expenditure, consistent with our hypothesis. Notably, our results are also consistent with the implications of Andrade and Stafford (2004). In their comparative study of mergers and internal corporate investment at the industry and firm levels, they find that both merger and internal investment are positively related to the firm's Tobin's q but differently related to industry landscape. In our models (3) and (4), the signs of Tobin's q are positive on both dependent variables but the signs of industry competition variable are opposite.

4.2. Method of payments, type of targets, and diversification

Next we examine CEOs' choice of method of payments, type of targets and diversification and examine the effect of their choices on announcement returns. The method of payment, the type of target, and diversification are the important determinants of acquirer returns. Studies that examine the method of payment include Myers and Majluf (1984), Hansen (1987), Martin (1996), Fuller, *et al.* (2002), while those that focus on the type of target include Hansen and Lott

(1996), Chang (1998), Mulherin and Boone (2000), and Fuller, *et al.* (2002). The topic of diversification are in Berger and Ofek (1995), Lang and Stulz (1994), and Rajan, *et al.* (2000). We use a probit regression specification to explore CEOs' choices of these determinants.

$$\Pr\{Y_{it} = 1 | C_{it}, X_{it}\} = G(\beta_1 + \beta_2 C_{it} + X'_{it} B) \qquad (4)$$

Y in Eq. (4) is a dummy variable where 1 signifies that the CEO uses stock as payment in models (1) and (2) of Table 3. *Y* in models (3) and (4) is a binary variable where 1 signifies that the type of target firm in M&A is private. In models (5) and (6), the dependent variable is a binary variable where 1 signifies that the first two digits of SIC code are identical for the acquirer and the target.

[Insert Table 3 here]

Table 3 reports the regression results. In models (1) and (2), we find that firms are less likely to use stock as payment. The estimates in model (1) are -0.3381 (t-statistic=-4.42) and -0.2768 (t-statistic=-4.13) after controlling for CEO characteristics and firm characteristics, respectively. Their marginal effects are -3.6% and -4.4%, respectively. This result can be explained by the nature of CEO ideology. Given the uncertainty in bidders' stock offer as a method of payment [Gilson (1986), Fishman (1989)], selecting cash payment is consistent with greater uncertainty aversion exhibited by conservative CEOs. Also reported in Hutton, *et al.* (2013) and shown in Table 1, firms with conservative CEOs tend to have more cash holdings due to the better operating performance (higher ROA, profitability, and operating margin). When they have enough cash-holding, bidders are less likely to face financing constraints.

Next we test the relation between CEO conservatism and the type of target. Many studies identify the type of target as an important determinant to announcement returns. Fuller, *et al.* (2002) argue that the differential market reactions to the acquisitions of private or subsidiary

versus public targets are that bidders can acquire private or subsidiary firms at a lower price because these targets, unlike public firms, lack of liquidity. Indeed, there are significant differences in information availability on private or subsidiary targets relative to public targets. Unlike information on public targets that is more readily available, acquirers must collect private information and hence must incur higher information costs when buying a non-public target.

In term of conservative ideology, the conservatives display greater aversion to uncertainty and a loss. Thus, conservative CEOs' choice between private/subsidiary and public target is not clear because their choices depend on the size of liquidity effect (Price effect) and information effect. In models (3) and (4) of Table 3, we find that conservative CEOs' are less likely to acquire private targets and more likely to acquire public targets. The estimate is -0.1959 (t-statistic=-3.07) in models (3), and -0.1749 (t-statistic=-3.19) in model (4). Their marginal effects are -4.0% and -3.6%, respectively.

We use diversification as a proxy for conservative CEOs' tendency for status quo. First, due to their status quo tendency and less degree of informational asymmetry for the targets within the same industry, they are more inclined to conducting focus-increasing M&A. In addition, there is much evidence in the literature documenting a diversification discount [Berger and Ofek (1995); Lang and Stulz (1994); Rajan, *et al.* (2000)]. If the conservative ideology is associated with a loss aversion and a preference for similarity, then conservative CEOs are more likely to pursue deals that are focus-increasing. We find that conservative CEOs are indeed more likely to complete focus-increasing M&A, compared with non-conservative CEOs. In models (5) and (6) of Table 3, the estimate for the conservative CEO dummy is 0.0869 (t-statistic=1.79), significant at 5%, and that for the conservative CEO index variable is 0.0917 (t-statistic=2.25), significant at 10%. Their marginal effects are -1.2% and -1.1%, respectively.

4.3. Value consequences

We test whether CEO conservatism has a positive or negative impact on firm valuation in both the short term and the long term. For the short-term effect, we follow standard event study methodology to compute acquirers' cumulative abnormal returns (CARs) for the three-day period (-1, 1) around the announcement date. We estimate the abnormal returns using a market adjusted model:

$$AR_i = r_i - r_m$$

where r_i is the return on acquirer i and r_m is the daily return on the CRSP value-weighted index.

[Insert Table 4 here]

Table 4 reports the average abnormal announcement returns. The market response to M&A by conservative CEOs is not significantly different from that by non-conservative CEOs. This result suggests that CEO conservatism may not have a positive impact on firm valuation. Possible explanation is that as shown in the previous tests, there is a tendency for conservative CEOs to choose the determinants in a consistent way with their conservative ideology. For example, they are more(less) likely to use cash (stock) as a method of payment, are likely to acquire within-industry targets, and are more likely to acquire public targets after controlling for other factors. However, each choice would affects the announcement abnormal returns differently (cash payment (+), focus-increasing (+), and public target (-)). Thus, the effect of CEO conservatism on short-term firm valuation could be unclear.

In the long-run performance analysis, however, we see that conservative CEOs outperform non-conservative CEOs over the five-year post M&A announcement. We use buy-and-hold average

abnormal returns over holding periods that extend from one to five years following M&A announcements. The buy-and-hold abnormal return (BHAR) for each event firm is calculated:

$$BHAR_{(i,a,b)} = \prod_{t=a}^{b}(R_{it} + 1) - \prod_{t=a}^{b}(R_{mt} + 1) \qquad (5)$$

where *ER(i,a,b)* = Excess return for event firm *i* over the time period from day *a* to day *b*; R_{it} is the return on the common stock of event firm *i* on day *t*; and R_{mt} is the return on the stock of the matched firm on day *t*. Matched firms are selected using the following sets of matching criteria: size and ratio of book to market value of equity. The post-announcement long-term abnormal returns do not include the abnormal returns over days -1 through 0 relative to the announcement date. If an event firm is delisted before the end of the buy-and-hold period, its truncated return series is still included in the analysis, and it is assumed to earn the daily return of the benchmark for the remainder of the period.

[Insert Table 5 here]

Using matching method with size and book-to-market ratio as matching criteria (see Liu, Szewczyk and Zantout (2008)], we find that M&A conducted by conservative CEOs outperform those by non-conservative CEOs over 5 years. In Table 5, the abnormal buy and hold returns for M&A by conservative CEOs are 11.27% whereas BHARs for M&A by non-conservative CEOs are -9.46%. The difference between two BHARs is 20.73% (t-statistic=2.31). This result is interesting when compared with the results of other post-merger long-term studies reporting poor post-merger performance. Much of long term post-merger studies report that acquirer experience

significantly negative abnormal returns over one to three(five) years after the merger [Agrawal, Jaffe and Mandelker (1992a) ; Andrade, Mitchell and Stafford (2001)]. Especially, Agrawal, *et al.* (1992a) reports that acquirers suffer a significant wealth loss of approximately 10 percent over the five years following the merger completion. The wealth loss over the five years for the mergers driven by non-conservative CEOs is -9.46 percent which is consistent with the finding of Agrawal, *et al.* (1992a). Meanwhile the abnormal buy and hold returns for M&A by conservative CEOs are 11.27%. Thus, the result suggests that different managers' different managing style may have an impact of the post-merger long term performance.

[Insert Table 6 here]

The result from the time-series analysis is also confirmed with a cross-sectional analysis. Table 6 reports the result of the cross-sectional regression of BHAR on conservative CEOs. We show that time-series result holds in the cross-sectional analysis. After controlling for CEO characteristics (age, tenure, and gender) and for deal characteristics (size, relative size, type of target, method of payment, deal attitude (Friendly vs. Hostile) and tender offer), we find that M&A by conservative CEOs outperform those by non-conservative CEOs. The coefficient for the conservative CEO dummy is 0.22 (t-statistic=1.93) and that for the conservative CEO index variable is 0.109 (t-statistic=1.73). Thus, while conservative CEOs may make suboptimal investment decisions for short-term by following their conservative preference, they do manage their firms in a way that ultimately enhance their firm value in the long run.

4.4. Overconfidence

Malmendier and Tate (2008) analyze the effect of CEO overconfidence on corporate M&A decisions. They find that the level of CEO overconfidence has an impact on merger frequency, merger financing, and deal quality, resulting in significantly negative announcement returns. Since the level of CEO overconfidence is another dimension of his or her personal beliefs and traits, we include an overconfidence variable and re-do the regression analyses. To construct the CEO overconfidence measure, we follow Campbell, Gallmeyer, Johnson, Rutherford and Stanley (2011).[2] Panel A in Table 7 shows a pairwise correlation between the conservative measure and the overconfidence measure. The correlation is negative but is less than 0.1, implying that conservatism and overconfidence are in opposite directions but are not strongly correlated. Panel B in Table 7 confirms that our previous results hold even after controlling for overconfidence and for the same set of controls used earlier.

[Insert Table 7 here]

5. Conclusion

We analyze the effect of CEO conservatism on M&A decisions. Given the evidence in the literature that CEOs' behavioral consistency plays an important role in certain decisions of their firms, we examine specifically whether the same conservatism would also impact their firms' M&A decisions and whether M&A by conservative CEOs have value implications. In our analysis, we use a CEO's political contribution to determine the CEO's level of conservatism.

We find that conservative CEOs are significantly less likely to engage in M&A activities. This result holds whether we identify such CEOs with a dummy variable or an index variable. The result is also robust to controlling for standard M&A determinants (Q, size, free-cash-flow,

[2] See Campbell*, et al.* (2011) to see how to construct CEO overconfidence measureCampbell*, et al.* (2011)

leverage) as well as using firm and year fixed effects to remove the time and year effects. Our analysis also tests the likelihood that conservative CEOs would choose stock versus cash as method of payment. Consistent with the notion of being conservative, we find that conservative CEOs are indeed significantly less likely to use stock as payment method. We also find that conservative CEOs are more likely to prefer focus-increasing M&A as they are more likely to acquire the within-industry targets. This result is consistent with the argument that conservatives have the greater tendency for status quo and the greater concern for better performance.

To address the question of whether conservative CEOs add value to their firms in their M&A, we analyze the market's reaction to M&A announcements. In a multivariate regression test, we find no statistically significant difference in market response to the announcement between conservative and non-conservative CEOs. However, the long-term performance analysis shows that conservative CEOs do add value to their firms. Over the five years of post-mergers announcement, conservative CEOs outperform non-conservative CEOs by 20.73% (significant at 5%). Our finding is consistent with that in Hutton, *et al.* (2013) who show that firms run by conservative CEOs tend to have better operating performance.

Table1. Summary statistics

The table reports summary statistics of our sample. The sample consists of 1,007 publicly traded U.S. firms and 2,100 CEOs covered by the COMPUSTAT Execucomp with 12,928 CEO-year observations between 1993 and 2006. Panel A is the summary statistics of firms with conservative CEOs (taking value of 1) versus firms with non-conservative CEOs (taking value of 0). Panel B provides the correlations in CEOs characteristics. Financial variables are reported in $mil. ***, **, and * indicate statistical significance at 1%, 5% and 10% level, respectively. The definitions of other variables are in the Appendix.

Panel A. Summary statistics

	All		1		0		Diff (1-2)	
	N	Mean	N	Mean	N	Mean		
M&A Dummy	12,928	0.45	5,628	0.44	7,310	0.47	-0.03	***
Asset	12,928	8.51	5,628	8.61	7,310	8.43	0.19	***
Sales	12,928	8.01	5,628	8.16	7,310	7.90	0.26	***
Book to Market	12,928	0.45	5,628	0.46	7,310	0.44	0.02	***
Tobin's Q	12,928	2.17	5,628	2.03	7,310	2.28	-0.25	***
Profitability	12,928	0.11	5,628	0.12	7,310	0.11	0.01	***
Operating Margin	12,928	0.19	5,628	0.21	7,310	0.17	0.04	***
Free Cash Flow	12,928	0.08	5,628	0.09	7,310	0.08	0.01	***
ROA	12,928	0.13	5,628	0.14	7,310	0.13	0.01	***
Capital Expenditure	12,928	0.05	5,628	0.05	7,310	0.05	0.00	**
R&D	12,928	0.03	5,628	0.02	7,310	0.03	-0.01	***
Tangibility	12,928	0.30	5,628	0.33	7,310	0.28	0.05	***
Leverage	12,928	0.23	5,628	0.24	7,310	0.22	0.02	***
Firm Age	12,928	3.17	5,628	3.25	7,310	3.11	0.14	***
CEO Age	12,928	55.76	5,628	56.75	7,310	55.00	1.75	***
CEO Tenure	12,928	7.57	5,628	8.08	7,310	7.19	0.89	***
Gender	12,928	0.00	5,628	0.00	7,310	0.01	-0.01	***
Founder	12,928	0.06	5,628	0.06	7,310	0.06	0.00	

Panel B. Correlation

	Conservative CEO	Gender	Age
Conservative CEO	1		
Gender	-0.041	1	
Age	0.117	-0.038	1
Founder	0.001	-0.013	0.024

Table2. Propensity to engage in M&A activity

The table reports the results of probit regressions in (1) and (2) and the estimated relations between M&A decision and the level of capital expenditure using SUR (Seemingly unrelated regressions in (3) and (4). In (1) and (2), the dependent variable is binary where 1 signifies that the CEO engages in M&A in a given year. In (3) and (4), M&A binary variable and the level of capital expenditure normalized by total asset are used as dependent variables. Conservative CEO (Dummy) is binary where 1 signifies that the CEO donates only to Republicans. Conservative CEO is defined as the difference between the CEO's political contributions to Republican and Democratic party-affiliated candidates or party committees divided by the CEO's total contribution s to Republican and Democrat-affiliated committees. In parentheses are *t*-values based on standard errors robust to heteroskedasticity and clustering by firm and year. and clustering by firm and year. All models are estimated with the year and industry fixed effects. ***, **, and * indicate statistical significance at 1%, 5% and 10% level, respectively. The definitions of other variables are in the Appendix.

	(1)	(2)	(3)		(4)	
Variables	M&A	M&A	M&A	Capital Expenditure	M&A	Capital Expenditure
Conservative CEO Dummy	-0.0789**		-0.0181**	0.0016**		
	(-2.04)		(-2.11)	(2.10)		
Conservative CEO		-0.0596*			-0.0127*	0.0016***
		(-1.80)			(-1.75)	(2.61)
CEO age	-1.2322***	-1.2414***	-0.2814***	-0.0019	-0.2836***	-0.0018
	(-7.51)	(-7.57)	(-7.99)	(-0.63)	(-8.06)	(-0.60)
Tenure	0.1147***	0.1121***	0.0250***	0.0017***	0.0243***	0.0018***
	(4.78)	(4.67)	(4.75)	(3.74)	(4.64)	(3.87)
Female Dummy	0.1073	0.1166	0.0446	-0.0152**	0.0470	-0.0153***
	(0.34)	(0.37)	(0.65)	(-2.55)	(0.69)	(-2.58)
Founder Dummy	0.0208	0.0216	0.0034	0.0014	0.0037	0.0014
	(0.29)	(0.30)	(0.21)	(1.03)	(0.23)	(1.01)
Size	0.2316***	0.2299***	0.0507***	-0.0014***	0.0503***	-0.0013***
	(15.60)	(15.50)	(15.99)	(-4.91)	(15.87)	(-4.77)
Tobin's Q	0.0249**	0.0249**	0.0042***	0.0006***	0.0042***	0.0006***
	(2.09)	(2.09)	(3.17)	(4.93)	(3.17)	(4.93)
Free cash flow	-1.2252***	-1.2260***	-0.1647***	-0.0497***	-0.1649***	-0.0498***
	(-4.44)	(-4.43)	(-3.77)	(-13.12)	(-3.77)	(-13.14)
Leverage	0.7458***	0.7394***	0.1569***	0.0006	0.1552***	0.0007
	(5.48)	(5.43)	(5.49)	(0.24)	(5.44)	(0.29)
Capital Expenditure	-2.6636***	-2.6597***				
	(-5.25)	(-5.24)				
R&D Expenditure	0.9492**	0.9661**	0.2476**	-0.0440***	0.2516**	-0.0443***
	(2.05)	(2.08)	(2.51)	(-5.14)	(2.55)	(-5.19)
Industry Competition	-5.2498*	-5.1882	-1.3659**	0.2801***	-1.3531**	0.2800***
	(-1.66)	(-1.64)	(-2.07)	(4.91)	(-2.06)	(4.91)
High Tech Dummy	0.5896***	0.5877***	0.1457***	0.0016	0.1454***	0.0017
	(9.88)	(9.85)	(11.35)	(1.44)	(11.32)	(1.48)
Constant	2.1889***	2.2254***	0.9496***	0.0764***	0.9578***	0.0760***
	(3.30)	(3.36)	(6.63)	(6.16)	(6.69)	(6.13)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	12,928	12,928	12,928	12,928	12,928	12,928
R-squared	0.08	0.08	0.11	0.34	0.11	0.34

Table3. CEO conservatism and method of payment, type of target, and focus-increasing

The table displays the results of probit regressions with different dependent variables. The dependent variable in (1) and (2) is a binary variable where 1 signifies that the M&A was financed using only stock. The dependent variable in (3) and (4) is a binary variable where 1 signifies that the type of target firm in M&A is private. In the (5) and (6), the dependent variable is a binary variable where 1 signifies that the first two digits of SICs of acquirer and target are same. Conservative CEO (Dummy) is binary where 1 signifies that the CEO donates only to Republicans. Conservative CEO is defined as the difference between the CEO's political contributions to Republican and Democratic party-affiliated candidates or party committees divided by the CEO's total contributions to Republican and Democrat-affiliated committees. . In parentheses are *t*-values based on standard errors robust to heteroskedasticity and clustering by firm and year. and clustering by firm and year. All models are estimated with the year and industry fixed effects. ***, **, and * indicate statistical significance at 1%, 5% and 10% level, respectively. The definitions of other variables are in the Appendix.

	Method of payments		Type of target		Focus-increasing	
	(1)	(2)	(3)	(4)	(5)	(6)
Variables	Model	Model	Model	Model	Model	Model
Conservative CEO Dummy	-0.3381***		-0.1959***		0.0869*	
	(-4.42)		(-3.07)		(1.79)	
Conservative CEO		-0.2768***		-0.1749***		0.0917**
		(-4.13)		(-3.19)		(2.25)
CEO age	-0.7616**	-0.8104***	-0.1644	-0.1940	0.8476***	0.8524***
	(-2.51)	(-2.68)	(-0.65)	(-0.76)	(4.07)	(4.10)
Tenure	0.1007**	0.0951*	-0.0458	-0.0506	-0.0630**	-0.0601**
	(2.07)	(1.95)	(-1.12)	(-1.24)	(-2.12)	(-2.03)
Female Dummy	0.2678	0.3092	-0.4013	-0.3776	0.5489	0.5452
	(0.55)	(0.64)	(-0.94)	(-0.89)	(1.51)	(1.50)
Founder Dummy	0.1746	0.1792	0.0020	0.0074	0.3338***	0.3325***
	(1.25)	(1.28)	(0.02)	(0.07)	(3.29)	(3.27)
Size	-0.1897***	-0.1983***	-0.1879***	-0.1934***	-0.3342***	-0.3318***
	(-6.27)	(-6.55)	(-6.92)	(-7.11)	(-17.98)	(-17.89)
Tobin's Q	0.1172***	0.1149***	0.0360**	0.0356**	-0.0152***	-0.0151***
	(3.62)	(3.57)	(2.22)	(2.23)	(-2.79)	(-2.78)
Free cash flow	-2.8990***	-2.9303***	-0.4580	-0.4614	0.4455*	0.4390*
	(-6.53)	(-6.62)	(-1.30)	(-1.31)	(1.81)	(1.79)
Leverage	-2.2610***	-2.2867***	-0.5479**	-0.5496**	-0.4040***	-0.3995***
	(-8.08)	(-8.20)	(-2.35)	(-2.37)	(-2.66)	(-2.63)
Dividend Dummy	-0.0858	-0.0719			1.5258**	1.5007**
	(-0.56)	(-0.46)			(2.08)	(2.06)
Industry Competition	-27.0132***	-27.5371***	-12.7932**	-12.7220**	8.1020**	8.1133**
	(-2.66)	(-2.69)	(-2.07)	(-2.06)	(2.00)	(2.01)
High Tech Dummy	0.3296***	0.3343***	0.3637***	0.3652***	0.1048	0.1081
	(3.30)	(3.35)	(4.61)	(4.62)	(1.48)	(1.52)
Deal Value	0.2073***	0.2064***	-0.2909***	-0.2913***	-1.0357**	-1.0459**
	(7.63)	(7.58)	(-10.91)	(-10.93)	(-2.04)	(-2.06)
Relative Value	-0.1473	-0.1569	-2.7087***	-2.7106***		
	(-1.14)	(-1.21)	(-5.26)	(-5.26)		
Focus Dummy	0.0420	0.0490	-0.3293***	-0.3265***		
	(0.53)	(0.61)	(-4.96)	(-4.92)		

Public Target Dummy	1.0376***	1.0367***				
	(12.34)	(12.31)				
Stock Payment Dummy			0.7219***	0.7237***		
			(9.00)	(9.03)		
Constant	3.0071**	3.2246**	3.4336***	3.5632***	1.9295**	1.9544**
	(2.31)	(2.49)	(3.26)	(3.39)	(2.23)	(2.25)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5,830	5,830	5,830	5,830	5,830	5,830

Table4. Market Response to the announcement of M&A bids

The table reports market response to the announcement of M&A bids. The event window is from the one-day before through the one day after the announcement of the bid. The dependent variable is the Cumulative abnormal return on the bidder's stock from the one-day before through the one day after the announcement of the bid. Cumulative abnormal returns are calculated by taking the daily return on the bidder's common equity and subtracting expected returns. Expected returns are the daily return on the CRSP value-weighted index. In parentheses are *t*-values based on standard errors robust to heteroskedasticity and clustering by firm and year. All models are estimated with the year and firm fixed effects. ***, **, and * indicate statistical significance at 1%, 5% and 10% level, respectively. The definitions of other variables are in the Appendix.

VARIABLES	(1) Model	(2) Model	(3) Model	(4) Model
Conservative CEO dummy	0.0015		0.0049	
	(0.76)		(0.94)	
Conservative CEO		0.0009		0.0049
		(0.52)		(1.21)
Price run-up	-0.0050	-0.0049	-0.0084	-0.0083
	(-1.08)	(-1.08)	(-1.24)	(-1.24)
Target Premium			-0.0000	-0.0000
			(-0.28)	(-0.29)
Female Dummy	-0.0215	-0.0218	-0.1095**	-0.1094**
	(-0.82)	(-0.83)	(-1.99)	(-2.00)
CEO age	0.0101	0.0103	0.0310	0.0319
	(1.10)	(1.13)	(1.56)	(1.61)
Tenure	-0.0031**	-0.0031**	-0.0047	-0.0045
	(-2.15)	(-2.13)	(-1.52)	(-1.48)
Founder Dummy	0.0093**	0.0093**	0.0082	0.0082
	(2.41)	(2.41)	(0.82)	(0.82)
Focus Dummy	0.0006	0.0006	0.0017	0.0015
	(0.27)	(0.26)	(0.36)	(0.33)
Stock Payment Dummy	-0.0031	-0.0032	-0.0008	-0.0008
	(-1.01)	(-1.03)	(-0.16)	(-0.16)
Public Target Dummy	-0.0176***	-0.0176***	0.0221	0.0227
	(-5.77)	(-5.74)	(0.63)	(0.65)
Deal Attitude	0.0052	0.0053	0.0113	0.0114
	(0.63)	(0.63)	(1.31)	(1.31)
Deal Value	-0.0000	-0.0000	-0.0082***	-0.0081***
	(-0.00)	(-0.00)	(-4.43)	(-4.42)
Relative Value	-0.0169***	-0.0168***	-0.0096	-0.0096
	(-2.71)	(-2.69)	(-1.02)	(-1.02)
Tender Offer	0.0122**	0.0122**	0.0132**	0.0132**
	(2.57)	(2.57)	(2.37)	(2.39)
Size	-0.0033***	-0.0033***	0.0053**	0.0053**
	(-3.26)	(-3.24)	(2.43)	(2.46)
Tobin's Q	0.0009**	0.0009**	0.0039***	0.0039***
	(2.10)	(2.09)	(6.30)	(6.30)
Free cash flow	-0.0084	-0.0081	-0.0992	-0.0974

	(-0.24)	(-0.23)	(-0.90)	(-0.90)
Leverage	0.0132	0.0134	0.0490*	0.0495**
	(1.38)	(1.40)	(1.93)	(1.98)
Capital Expenditure	0.0245	0.0247	-0.0317	-0.0307
	(0.90)	(0.90)	(-0.38)	(-0.37)
R&D Expenditure	-0.0261	-0.0263	-0.0147	-0.0146
	(-0.79)	(-0.80)	(-0.16)	(-0.16)
High Tech Dummy	0.0009	0.0009	0.0019	0.0018
	(0.26)	(0.26)	(0.28)	(0.28)
Industry Competition	-0.2613*	-0.2620*	0.1586	0.1544
	(-1.68)	(-1.68)	(0.25)	(0.24)
Constant	0.0223	0.0213	-0.1982**	-0.2027**
	(0.57)	(0.55)	(-2.16)	(-2.23)
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Observations	4,623	4,623	1,100	1,100
R-squared	0.04	0.04	0.13	0.13

Table5. Long-run performance

This table reports the long-term buy-and-hold average abnormal returns over holding periods that extend from one to five years following M&A announcements. The buy-and-hold abnormal return (BHAR) for each event firm is calculated in the table as:

$$BHAR_{(i,a,b)} = \prod_{t=a}^{b}(R_{it} + 1) - \prod_{t=a}^{b}(R_{mt} + 1)$$

Where *ER(i,a,b)* = Excess return for event firm *i* over the time period from day *a* to day *b*, *Rit* is the return on the common stock of event firm *i* on day *t,* and *Rmt* is the return on the stock of the matched firm on day *t*. Matched firms are selected using the following sets of matching criteria: size and ratio of book to market value of equity. The post-announcement long-term abnormal returns do not include the abnormal returns over days -1 through 0 relative to the announcement date. If an event firm is delisted before the end of a buy-and-hold period, its truncated return series is still included in the analysis, and it is assumed to earn the daily return of the benchmark for the remainder of the period. The statistical significance of each of the BHAARs is tested using the parametric *t*-test, based on the cross sectional standard deviations. ***, **, and * indicate statistical significance at 1%, 5% and 10% level, respectively.

		Mean Buy-and-Hold Average Abnormal Returns (%)				
	Number of obs.	1 year	2 years	3 years	4 years	5 years
(1) Full sample	3,557	-4.42	-7.83	-5.88	-5.67	-5.74
(2) Conservative	637	0.65	-0.21	-1.74	7.05	11.27
(3) Non-conservative	2,920	-5.53	-9.95	-6.79	-8.45	-9.46
Difference(2)-(3)		6.19**	9.3*	5.05	15.5**	20.73**
t-statistic for difference		(2.15)	(1.77)	(0.84)	(2.26)	(2.31)

Table6. Cross sectional regression of BHAR (buy-and-hold average abnormal returns) on conservative CEOs

This table reports the results of the cross-sectional regression analysis of the post-announcement buy-and-hold abnormal returns to the M&A-event firms *BHARj* on conservative CEO measures with the several control variables. The specified model is:

$$BHAR_j = \beta_0 + \beta_1 CONSERVATIVE\_CEO + CONTROLS + \varepsilon_J$$

In parentheses are *t*-values based on standard errors robust to heteroskedasticity. ***, **, and * indicate statistical significance at 1%, 5% and 10% level, respectively. The definitions of other variables are in the Appendix.

Variables	(1)	(2)
Conservative CEO(Dummy)	**0.220****	
	(1.93)	
Conservative CEO		**0.109***
		(1.73)
CEO age	0.878***	0.859***
	(2.77)	(2.72)
Tenure	-0.105***	-0.104***
	(-2.78)	(-2.77)
Female dummy	0.365	0.384
	(1.25)	(1.32)
Deal size	-0.001	-0.001
	(-0.97)	(-0.84)
Relative size	0.340**	0.342**
	(2.08)	(2.09)
Private target	0.133	0.129
	(1.57)	(1.52)
Subsidiary target	0.146	0.151
	(1.54)	(1.58)
Stock payment	0.0001	0.001
	(0.24)	(0.14)
Cash payment	-0.0001	-0.001
	(-1.40)	(-1.39)
Acquirer Size	0.03	0.025
	(1.29)	(1.08)
Deal attitude	-0.206	-0.216
	(-1.08)	(-1.13)
Tender offer	-0.111	-0.106
	(-1.00)	(-0.96)
Adj. R-squared (%)	0.50	0.42
Observations	3,501	3,501

Table7. CEO conservatism and overconfidence

The panel A in the table shows the correlation between conservative and overconfidence measure (Malmendier and Tate (2005)). The panel B repeats the previous regression analysis with overconfidence measure. The dependent variable in model (1) is binary where 1 signifies that the CEO engages in M&A in a given year. The dependent variable in model (2) is binary where 1 signifies that the CEO use stock as a method of payment for merger bid. The dependent variable in model (3) is binary where 1 signifies that the firm made a focus-increasing merger bid in a given year. The dependent variable in model (4) is the CAR (cumulative abnormal return) on the bidder's stock from the two-day before through the two day after the announcement of the bid. The dependent variable in model (5) is the 5-year BHAR (post-announcement buy-and-hold abnormal returns. The coefficients in model (1), (2) and (3) are presented as odds ratios. All standard errors in Panel B are robust to heteroskedasticity and clustering by firm and year. *p*-values are reported in parentheses. ***, **, and * indicate statistical significance at 1%, 5% and 10% level, respectively. The definitions of other variables are in the Appendix.

Panel A. Correlations with confidence and conservatism

	Conservative	Overconfidence
Conservatism	1	
Overconfidence	-0.033	1

Panel B. Previous regressions with confidence and conservatism measures

	(1)	(2)	(3)	(4)	(5)
Conservatism	0.85**	0.69***	1.21*	-0.00	0.22**
	(0.02)	(0.003)	(0.09)	(0.99)	(0.04)
Overconfidence	1.42***	1.59***	0.86	0.65***	0.29
	(0.00)	(0.00)	(0.16)	(0.00)	(0.67)
Controls	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	No
Year fixed effects	Yes	Yes	Yes	Yes	No
Observations	9,766	3,569	3,569	3,568	3,501

Appendix A: Definitions of variables

Variables	Definitions
CEO characteristics	
Conservative CEO	Defined as the difference between the CEO's political contributions to Republican and Democratic party-affiliated candidates or party committees divided by the CEO's total contribution s to Republican and Democrat-affiliated committees.(Hutton, Jiang and Kumar(2011)
Conservative CEO dummy	Binary where 1 signifies that the CEO donates only to Republicans
CEO age	Log of CEO age in the given year
CEO tenure	Log of the number of years the CEO had held his/her current position in a given year with a given firm
Gender	Binary variable where 1 signifies that the CEO is female
Founder	Binary variable where 1 signifies that the CEO is founder
Overconfident CEO	Binary variable where 1 signifies that the CEOs hold stock options that are more than 67% in the money (Malmendier and Tate(2005) and Campbell et al (2011))
Firm characteristics	
Firm size	Log of book value of total assets (item6).
Book leverage	Book value of debts (item34 + item9) over market value of total assets (item6−item60 + item25 ∗ item199).
Cash holdings	Cash and short term investments(Item1) divided by total assets(Item6)
R&D expenditures	R&D expenditures (Item46) divided by total assets (Item6). Missing values are substituted with zero, unless indicated
Capital expenditures	Capital expenditures divided by total assets(Item6)
Tobin's *Q*	Market value of assets over book value of assets: (item6−item60 + item25 ∗ item199)/item6.
Free cash flow	Operating income before depreciation (item13) – interest expenses (item15) – income taxes (item16) – capital expenditures (item128), scaled by book value of total assets (item6)
High tech	Binary variable where 1 signifies that acquirer and target are both from high tech industries whose SICs are in 3571,3572,3575,3577,3578,3661,3663,3669,3674,3812,3823,3825, 3826,3827,3829,3841,3845,4812,4813,4899,7370,7371,7372,7373,7374,7375,7378,7379. This classification is defined by Loughran and Ritter (2004)
Sales Growth	Sales(Item12) divided by lag sales
Profitability	Operating income before depreciation(item13)+Total interest rate and related expense(Item15)-Deferred taxes and investment tax credit(Item35) divided by total asset(Item6)
Operating margin	Operating income before depreciation(item13) divided by sales(Item12)
ROA	Operating income before depreciation(item13) divided by total asset(Item6)
Industry competition	Measured by the Herfindahl index
Tangibility	Total property, plant and equipment(Item 141) divided by total assets(Item6)
Deal Characteristics	
Public target	Binary variable where 1 signifies 1 that the target is public
Private target	Binary variable where 1 signifies1 that the target is private
Subsidiary target	Binary variable where 1 signifies1 that the target is subsidiary
Cash payment	Binary variable where 1 signifies that the payment is cash
Stock payment	Binary variable where 1 signifies that he payment is cash
Focus	Binary variable where I signifies that the first 2 digits of SICs of the acquirer and the

	target are same
Relative value	Deal value (from SDC) over bidder market value of equity defined above
Deal attitude	Binary variable where 1 signifies when the deal is defined as "friendly"
Tender	Binary variable where 1 signifies when a tender offer is launched for the target

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