MANAGERIAL ATTITUDES AND MERGER OUTCOMES

By

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ABSTRACT

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We examine the textual content of merger and acquisition related SEC filings in an effort to understand the role of managerial attitudes and beliefs in merger negotiations and outcomes. Using a textual algorithm to identify the degree to which filings of bidders and targets exhibit negative/cautious tones vs. positive/optimistic tones, we find that bidders employing the most optimistic language in their filings actually experience the worst long-run performance following the transactions. In contrast, bidding managers who appear to acknowledge and understand the risks of the transactions experience relatively better post-merger performance. For targets, we use the tone of their filings as a measure of how positive or negative their management teams are towards the proposed transaction. We find that target filings are more negative for deals with lower initial premiums, and that negative filings are associated with lower deal completion rates. For completed mergers, bidders are more likely to increase premia for resistant targets. Thus our analysis of the textual content of merger filings appears to give us a new method for investigating the role of bidder and target attitudes and beliefs on merger outcomes.

DEDICATION

To my family

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CHAPTER 1

Managerial Attitudes and Merger Outcomes: Evidence from Corporate Takeover Filings

1.1 Introduction

Mergers and acquisitions, or corporate takeovers, are among the biggest decision for corporate managers and shareholders. Takeover announcements are often associated with large stock price changes for bidders and targets, and hence information about the deal is very important to investors.

Once a tentative agreement is reached, managers will file for approval with the SEC and seek a shareholder vote to approve the deal. During the process, managers file required documents to the SEC and shareholders to explain the deal, the reason, outlook and the risk of the deal. These filings provide a good opportunity for shareholders to get information they may need to better evaluate the deal. Because the magnitude of the merger is big and information is asymmetric, the firms' investors will read the managerial filings very carefully and use them as an important information channel to reject or consent to the deal.

In this paper, we examine the textual content of merger and acquisition related SEC filings in an effort to understand the role of managerial attitudes and

beliefs in merger negotiations and outcomes. In particular, we employ a textual algorithm to identify the degree to which filings of both bidders and targets exhibit negative/cautious tones vs. positive/optimistic tones. For bidders, we employ the degree to which their filings ignore possible negative outcomes and risks as a measure of potential overconfidence. We feel this measure of overconfidence improves upon measures previously employed in M&A studies in that it specifically measures managerial merger-related overconfidence, and does so on a deal-by-deal basis. Consistent with the idea that overconfident bidders underestimate the risks of the transactions they enter into, we find that bidders employing the most optimistic language in their filings actually experience the worst long-run performance following the transactions. In contrast, bidding managers who appear to acknowledge and understand the risks of the transactions experience relatively better post-merger performance. These results suggest that under-appreciation of merger risks may be the (specific) driving force behind previous results linking merger performance with (general) managerial overconfidence.

For targets, we use the tone of their filings as a measure of how positive or negative their management teams are towards the proposed transaction. If this measure is related to the extent to which the team is resistant to the proposed deal, we can use it to gain a window into the generally unobserved merger negotiation process. Thus we can try to get an idea of the extent to which a tough negotiating stance increases or decreases target shareholder wealth. Consistent with the idea that our measure is to some extent related to target negotiating stance, we find that target filings are more negative for deals with lower initial premiums, and that negative filings are associated with lower deal completion rates. For completed mergers, bidders are more likely

to increase premia for resistant targets. Thus our analysis of the textual content of merger filings appears to give us a new method for investigating the role of bidder and target attitudes and beliefs on merger outcomes.

We examine the relationship between the deal premium paid and managerial tone choice. We find the bidder tone choice helps to explain the premium paid in the deal. The more negative tone the bidder uses in the filing, the less premium is paid in the takeover. The more optimistic tone the bidder uses in the filings, the more premium is paid in the takeover. We control for the firm financial constraints, free cash flow, corporate governance and other controls. The tone in the target filings is muted in the takeover premium.

We also examine the relationship between the manager tone choice and the firm characteristics. We find that the financial constraints help to explain the managerial tones as the firm is unconstrained, the manager tone will be more optimistic. Also the tone is more optimistic when the firm has more free cash flow. We also find that the corporate governance is more towards dictatorship, the more optimistic tone will be found in the filings, while the more democratic corporate will use more negative tones.

Roll(1986) is among the first to introduce the subject of overconfidence to financial research. Roll studies optimism and overconfidence as the "hubris" theory of acquisitions. One of the effects of hubris by managers in corporate takeovers is negative short and long-term stock price effects of acquiring firms, which is documented by Jensen and Ruback(1983), Andrade and Stafford (2004), Moeller, Schlingemann and Stulz (2004,2005), Rau and Vermaelen (1998).

There are a number of recent studies focusing on the effects of managerial over-

confidence on corporate performance. Hayward and Hambrick use the acquiring company's recent performance, recent media praise for the CEO, a measure of the CEO's self-importance, and a composite factor of these three variables and find a relationship between CEO hubris and premiums paid. Malmendier and Tate (2005) argue that managerial overconfidence can account for corporate investment distortions. They use panel data on personal portfolio and corporate investment decisions as a proxy for overconfidence and test the overconfidence hypothesis. They find that investment of overconfident CEOs is significantly more responsive to cash flow, particularly in equity-dependent firms.

Doukas and Petmezas (2007) study whether acquisitions by overconfident managers generate superior abnormal returns and whether managerial overconfidence stems from self-attribution. They use two proxies for overconfidence, (1) high order acquisition deals and (2) insider dealings and find evidence supporting the view that average stock returns are related to managerial overconfidence. They find that overconfident bidders realize lower announcement returns than rational bidders and exhibit poor long-term performance.

Malmendier and Tate (2008) study the role of CEO overconfidence in merger decisions. They use the CEOs personal over-investment in their company and their press portrayal as proxies for overconfidence. They find evidence that the odds of making an acquisition are much higher if the CEO is classified as overconfident. Landier and Thesmar (2009) study the effect of manager optimistic beliefs on financial contracting choices. They show that there is a separating equilibrium in the debt choice setting. Optimistic managers will choose the short-term debt, while realistic managers will choose long-term debt.

In this paper, we apply textual analysis tools to get a proxy for managerial overconfidence and use this to examine the managerial attitudes, overconfidence and the outcome of the deals. We use a simple and popular measure, the negative tone measure, as in Tetlock(2007) and Loughran and McDonald (2011), in those filings and use the tone measure to explain the takeover outcomes.

The textual analysis technique uses computational methods developed in linguistics and applied to finance research. Although we see the text filings, it was hard to compare and measure the information in the text. The benefit of textual analysis is to capture and quantitatively measure the qualitative information in the text filings. Tetlock(2007) examines the tone of the Wall Street Journal daily column and finds that media pessimism predicts market reactions to the negative sentiment. Tetlock, Saar-Tsechansky and Macskassy (2008) examine the negative tone in news reports about S&P 500 firms from 1980 to 2004 and find out that tones forecast low firm earning and stock prices. Hanley and Hoberg (2010) study the information content in firm IPO prospectus filings. Hanley and Hoberg show that firms whose filings contain greater information content have more accurate prices and less underpricing. Hoberg and Phillips (2010) use information in firms' annual reports to measure the similarity of the pairs of firms and find that firms are likely to merge if they describe their products similarly.

In this paper, we use a simple and popular negative tone measure to analyze the content of firm takeover filings. This method has been implemented in Tetlock Saar-Tsechansky and Macskassy (2008) and improved by Loughran and McDonald (2011), who developed on a specialized dictionary for financial firms. While the other papers show that qualitative information helps to reduce information asymmetry and

predict market reactions, this paper investigates the results of corporate takeovers, including the deal completion rate and premium changes.

We downloaded all merger and acquisition deals, excluding the financial firms, from 1994 to 2010 from the SDC Platinum dataset. We also downloaded the filings from the SEC Edgar website and keep the merger related filings, as PREM14A/C, DEFM14A/C, and S4 forms from the 1994-2010. We merge SDC M&A deals with the EDGAR filings using the historical CIK and CUSIP. The EDGAR filings are scanned using the programming language PERL and Loughran and McDonald's (2011) negative financial dictionary. We use the negative tone measure in our analysis to observe whether different levels of tone help to explain the deal outcomes in our sample.

We examine whether long-term performance is related to the tone of the filings. We construct our long-term performance using the size and book-to-market ratio adjusted buy-and-hold return as in Barber and Lyon(1997) and Rau and Vermaelen (1998). Our evidence indicates that although firms underperform on average, the long-term performance of the merged firm has a positive relation with the bidder's negative tone. The results hold for the one-year, three-year and five-year horizon. There is an insignificant relationship between long-term performance and the target's tone. The positive relationship between performance and the bidder's negative tone measure could be explained by manager overconfidence. As in Malmendier and Tate(2008), overconfident managers overestimate their future returns and are more likely to undertake takeovers. Overconfident managers tend to use a more confident tone in their filings and experience worse long-run performance.

For the target filings, we proposed that the negative tone is related to the target managers' resistance to the proposed deal. The target managers will use more

negative words in the filings when they want to more strongly resist the deal, will use fewer negative words in the filings when they want less resistance. We find evidence in the initial premiums; the target filings are more negative with lower initial premiums. We also find evidence that target manager resistance level and tougher negotiating stances affect takeover outcomes. We find evidence that tougher negotiating stances predict lower deal completion rates. However, the deal premium change rate is positively related to target manager tougher negotiating stances.

In summary, we find evidence that manager attitudes in corporate filings help to explain takeover outcomes. Our tone measure helps to understand the short-term and long-term performance of the target and merged firm, deal completion rates, premium revisions and shareholder welfare. This paper is organized as follows: in part 2, we review the motivation for this paper; in part 3, we review some literature and the textual analysis method; in part 4, we show the data generating and sample construction; in part 5, we discuss the results; in part 6, we conclude.

1.2 Motivation

Whether to participate in an M&A transactions is one of the most important decisions faced by corporate managers and shareholders. The target shareholders will give up control of the firm and the bidding shareholders will exchange significant assets for the control of the target. The bidding managers might build their empires and the target managers might lose or gain private benefits through the deal. If both shareholders and managers are rational and deal is fair, we should observe a fair distribution of the economic gains for both parties. Empirical results for the gains are skewed to the target , while the bidder receives insignificant gains. The

evidence for the target is very consistent. The CARs of the target are significantly positive and large in economic magnitude. In Betton, Eckbo and Thorburn(2008), the mean of the target CARs is 14.61%. The bidders' CARs are mixed. The initial bidders' CARs mean is 0.0073, and if the target is public the CARs mean is -0.0087. The long-term performance of the merged firm is negative, as in Rau and Vermaelen (1998) and Moeller, Schlingemann and Stulz (2005). The natural question to ask is why the short-term gains are not well shared by the target and bidder and why the bidder is willing to undertake a value destroying deal.

From an agency theory perspective, the bidders' CEO might want to buy the target because he wants to build the empire for his own benefit, as in Jensen and Meckling (1976) and Jensen and Murphy (1990). There are also some behavior explanations for takeovers, as in Shleifer and Vishny (2003) and Malmendier and Tate(2008). In Malmendier and Tate(2008), the authors show that CEO overconfidence can help to explain merger decisions. They argue that if the CEO is overconfident about the merged firm performance they are more likely to bid and overpay for the target and experience the underperformance in the long-term.

In this paper, we try to examine the effects of managerial attitudes on takeover outcomes. Even if bidding managers are attempting to maximize shareholder wealth, some managers may be more realistic, while others may overestimate the outcome of the deal. We think our overconfidence measure, based on the content of takeover filings, more directly reflects the manager's attitude toward the deal. We use the tone measure to measure the negative tone in the corporate takeover filings. The negative tone measure uses the Loughran and McDonald (2011) negative dictionary to measure the tone in the filings and relate them to the takeover outcome. We have

the following hypotheses.

If the bidding manager is overconfident, the long-run performance of the deal may be worse than deals undertaken by managers who can truthfully recognize the risk of the deal. It may be difficult for shareholders to distinguish the overconfident and realistic CEOs. An overconfident manager would presumably be more likely to bid than other firms and would be willing to pay more for the target. If our tone measure accurately indicates manager overconfidence, we would predict a negative relationship between the measure and long-term performance.

After seeing the market reaction towards the deal announcement, if the market is less favorable to the deal, the target manager will be more cautious and pass that information to the target shareholder, possibly causing the target shareholders to be tougher to negotiation . If the market is more favorable, the manager might use a more optimistic attitude and the shareholders might be less resistant to the deal. We find evidence from the tone choice after the announcement, deal premium change, deal completion prediction and the welfare change for the target.

1.3 Textual Analysis

Financial markets and investors are very sensitive to information regarding firms' future operations, cash flows and risk. Important information can move stock prices significantly in a short period of time. Investors can obtain firm related information through different channels, such as newspapers and wires, internet news disclosures and discussions, investment TV shows and formal SEC required filings. While this type of information is of great potential interest to academic researchers, measuring this information has been historically difficult. With the low cost of computation,

measurement of this information has become much more feasible for financial researchers .

Antweiler and Frank (2004) use the naive Bayesian method to apply the Yahoo internet stock message boards and measure the bullishness sentiment. Antweiler and Frank find that stock messages help predict market volatility. Tetlock (2007) uses General Inquirer and the Harvard psychosocial dictionary to measure the pessimism of the information in Wall Street Journal and shows that the pessimism in the content of media reports predicts the negative stock market return, followed by a reversion to fundamentals, and high trading volume. Tetlock Saar-Tsechansky and Macskassy (2008) examine the simple fraction of negative words in Wall Street Journal and Dow Jones News Service stories about S&P firms from 1980 to 2004 and find that the fraction of negative words in firm news forecasts low firm earning and stock prices show underreaction towards the negative news; the predictability is largest for the news focusing on firm fundamentals.

Li (2008) examines annual report readability, firm performance, and earnings persistence . Li uses the Fog index to measure company annual reports and finds that annual reports are harder to read when the firm has lower earnings and firm annual reports are easier to read when the firm has more persistent positive earnings. Hanley and Hoberg (2010) study the information contents in firm IPO prospectus filings. They use the cosine similarity method to separate the standard and informative components in the filings. Hanley and Hoberg show that greater information content is associated with more accurate prices and less underpricing. Hoberg and Phillips (2010) use the cosine similarity method to study the information in firms ' annual reports. They examine product descriptions and measure the similarity of pairs of

firms and find that firms are likely to merge if they describe their products similarly . They also find that the short-term and long-term gains are higher when the products are similar, and gains are higher if the target is less similar to the bidder's closest rivals. They claim the measure of product similarity is better than SIC classifications.

Loughran and McDonald (2011) apply a textual analysis on firm annual reports(10K) using a more refined dictionary than the Harvard psychosocial dictionary. Loughran and McDonald claim that the financial terms are neutral in finance documents while negative in general psychosocial documents. Loughran and McDonald find the tone of the document is related to stock returns, trading volume, volatility and unexpected earnings, etc.

Following the literature, we can see that the methods to retrieve the information in finance literature has evolved from simple counting to complicated computation over time (see Jurafsky and Martin (2009) for a summary of information processing techniques.) Loughran and McDonald (2011) argue that the "bag of words" technique performs best in processing financial filings. This method involves scanning files using dictionaries and calculating percentage of dictionary words, as in Tetlock (2007), Tetlock Saar-Tsechansky and Macskassy (2008) and Loughran and McDonald (2011). To better measure the tone of the document, many researchers use term weighting in calculating tone. Term weighting, in Jurafsky and Martin(2009) and Loughran and McDonald (2011), gives more weight to rare words, which might contain some unique information and controls for each file size.

Previous research uses negative word counts to measure the tone of a text. Loughran and McDonald (2011) show that word lists developed for other disciplines misclassify common words in financial text, for example the words tax , board, for-

eign, vice, and liability simply describe company operations while standard dictionaries interpret those words negatively. Loughran and McDonald (2011) search a large sample of 10Ks and generate a financial dictionary which is more appropriate in financial research.

In this paper, we construct our tone measure using the "bag of words" term weighted technique using Loughran and McDonald dictionary. Following the literature, we examine the negative tone as previous studies have found this measure more powerful than counting positive words, which tend to add little incremental information. (see Tetlock(2007), Kothari, Li and Short(2009)). After downloading the filings, all filings are scanned by the programming language PERL. For each filing, we use PERL to extract the abstract of the file. If the file is too short or has no abstract, we drop that filing, as it might not contain enough information. We also extract the company name, central index key (CIK), filing number and IRS number, which we use to merge with SDC and other datasets. If the filing has the necessary information, we scan the whole file using the Loughran and McDonald negative tone dictionary and generate the weighted tone measure. The formula for the term-weighting as in Loughran and McDonald(2011) and Jurafsky and Martin(2009) is

$$w_{i,j} = \begin{cases} \dfrac{(1+log(tf_{i,j}))}{(1+log(a))} log\dfrac{N}{df_i}, & if \quad tf_{i,j} \geq 1, \qquad (1.1) \\ 0, & otherwise. \qquad (1.1') \end{cases}$$

The idea of term weighting is to give rare words which might have more weighting than common words. The factors that term weighting considers are, 1) the importance of a term in the document as the frequency in such file; 2) normalization adjusted by

the file size; 3) the importance of the term in the entire dataset. In the formula, N is the total number of filings in the sample; df_i is the number of documents containing at least one occurrence of the i^{th} word; $tf_{i,j}$ is the raw count of the i^{th} word in the j^{th} document; and a is the average word count in the document. The weighting is given above. To get the measure, we get the weighted average from the scan.

The Longhran and McDonald dictionary is taken from their website `http://www.nd.edu/~mcdonald/Word_Lists.html`. We use the following steps to calculate the tone measure. We first calculate the raw frequency of each word using the Longhran and McDonald dictionary, then for each word, we count how many documents contain such word, we then count the total words in each file. Having those three steps, we can use the formula to calculate the weighting for each word. The tone measure is calculated using the weighting and frequency of dictionary.

1.4 Data

1.4.1 The Takeover Events

We use the Thomson Reuters SDC Platinum dataset to identify takeover events. Since electronic filing starts in 1993 and is not mandatory until 1997 and later, we begin our sample in 1994. We downloaded all merger and acquisition deals from January 1st 1994 to December 31 2010. We require the target and bidder both to be publicly traded companies. We also require the firms be listed on the NYSE, Amex or NASDAQ and have financial information on COMPUSTAT and trading information on CRSP. The firm's primary business should not be in the financial industry (SIC code should not be between 6000 and 6999) . We also exclude Leveraged Buyouts,

Spinoffs, Recapitalizations, Self-Tenders, Exchange Offers, Repurchases, Acquisitions of Remaining Interest, and Privatizations. We require the form of the deals to be either in MERGER or ACQUISITION. Initially , we get a sample size of 6126 takeover events. We do not require the deal to be completed at this moment, as we will study the takeover completion. We also collect the value of the deal, target and bidder CUSIP, deal completion status, deal premium change status, and deal payment information. The summary of the sample is in Table 1.

1.4.2 EDGAR Filings

To get the firms' reported information, we need to download firm filings from the EDGAR website. First, we downloaded all the index files from the EDGAR website. We then extracted all the addresses from the index file. For this project we are interested in the S-4, PREM14 and DEFM14 forms. We obtained all the forms from the January 1st 1994 to December 31 2010. There are 181,684 filings in our criteria. Following Loughran and McDonald, we exclude the amendment file, which might include only some incremental information. We downloaded 58,327 files from the EDGAR.

After downloading the filings, we construct the tone measure using the term weighting and use the Loughran and McDonald dictionary. Loughran and McDonald (2011) create the exhaustive dictionary from all 10K filings from 1994 and 2008, and show this dictionary is more suitable for the finance paradigm. Following the literature, we examine the negative tone as the positive words might actively means negative in the context and little increment information as in Tetlock(2007), Kothari, Li and Short(2009). The key variable in this paper is the negative tone measure using

Loughran and McDonald dictionary and term-weighting bag of words measure. The downloaded filings are scanned by the programming language PERL. For each filing, we use the PERL to extract the abstract of the file. If the file is too short or has no abstract, we drop that filing as it might not contain enough information. We also extract the company name, central index key (CIK), filing number and IRS number, which are critically important for the future merge with SDC and other dataset. If the filing has the valid information, we scan the whole file use the Loughran and McDonald negative tone dictionary and generate the weighted tone measure.

We follow the "bag of words" term weighted technique using Loughran and McDonald dictionary. We use PERL to scan the file and counting for the raw frequency for each word . We calculate for raw frequency of the dictionary. Then, we start with the dictionary, for each word in the dictionary, how many files contain such word. In this step, we control for the relative scarcity. Then, we calculate the total words in each file, used to normalize the frequency. The programming language PERL does all the counting based on file and dictionary . After we obtained the word frequencies , MATLAB is used to finish the tone measure calculation.

For many filings, we are also interested in different aspects of the deal, which might relate to specific interests of the investors. We are interested in board recommendation, financial advisor opinion, risk factors, reason for the merger, and background of the merger. Boards are assumed to have better information than the investors, so their opinions are important. Financial advisors are considered as the intermediary to with better information than average investors. Similarly, the risk factors and reasons for the merger are also of interest to investors. We scan the abstract and extract the interesting parts if they exist. If there are clearly titles for the

subjects, which are long enough, we include them and scan them using PERL and the same methodology as above. The specific parts sometimes are hard to clearly identify. We drop the parts if we can not clearly identify them . The sample size is smaller compared with the whole file. All the tone measure calculations use MATLAB, similar to the whole file tone measure calculation.

We merge the SDC takeover events and the EDGAR filings together using the historical CIK and historical CUSIP. For the firms with multiple filings, we choose the filing that is closest to the deal announcement date, so the filing will contain the most information to the shareholder and investors.

1.5 Results

1.5.1 Summary

In table 1, we report the summary statistics. The left part of table is the summary for the target, the right part is for the bidder. The upper part of the table is for completed deals, the lower part of the table is for the non-completed deals. After merging the EDGAR filings and SDC merger data files, we get 848 valid target filings that completed the deals, 110 target filings that did not complete the deals. We have 1,389 bidder filings for completed deals and 149 bidder filings for the non-completed deals. The completion ratio is similar to the SDC universe ratio. The fact that bidders have more filings may be due to their larger size and tendency to report more to the SEC, while the targets are smaller and may not file very complete information. The size of target is smaller than the bidder, as the mean of target is 1,558 million and 6,433 million of the bidder for completed deals. Targets in the non-completed

deals tend to be larger than those in completed deals. There is little difference in total assets between the completed deal bidders and non-completed deal bidders.

We calculated the mean of the tone measure of the target and bidder. For completed deals, the target tone is less than the bidder tone. When we compare the completed deals and non-completed deals, the non-completed deals have higher negative tone than the completed deals. The market to book ratio is also reported here. For the completed deals, the bidder has higher mean of the MB ratio 3.152, than the target 2.154. The bidder and target in non-completed deals have lower market to book ratios then the completed deals.

The median of the ROA for the targets of completed deals is 0.0253, which is less than that of bidder in those deals. The target of non-completed deals and bidder of non-completed deals have lower ROA, 0.0195 and 0.0287 respectively , than the completed deals . The leverage for the completed targets and completed bidders are similar, 0.212 and 0.222 respectively. The non-completed targets and bidders have higher leverage than those of the completed deals. The cash flow for the completed targets is 126.1, which is less than the bidders, 712.8. The non-completed targets have similar cash flows to those in the completed deals. The one-year stock return prior to the deal for the completed targets is 1.164, which is less than the bidders , 1.48. The non-completed targets have higher returns than the completed targets.

The mean word count is 77,760 words for the targets, and 100,946 for the bidders, which means the average filing from the bidder is larger than the target. The average announcement return for the target is 0.24, while the average announcement return for the bidder is -0.0282, which follows the literature on announcements as in Betton, Eckbo and Thorburn (2008). The long-term performance is negative for both target

and bidder, which follows the literature as in Moeller, Schlingemann and Stulz (2005). For the non-completed deals, we find that the negative tone is much more pronounced than in completed deals.

1.5.2 Long-term Returns

Long-term performance is of great interest to investors of both targets and bidders. If long-term returns are sufficiently large, target shareholders would approve of the deal . Likewise, the bidding shareholders also require satisfactory long-term performance as they wouldn't want destroy their own wealth. Previous research on long-run performance shows that the mergered firms underperform, as in Rau and Vermaelen (1998) and Moeller, Schlingemann and Stulz (2004,2005). One potential explanation is that, as in Malmendier and Tate(2008), the acquiring CEO may be overconfident and overestimate the future of the merged firm. In such a case the deal may be less optimal for bidding shareholders and lead to long-term underperformance. We employ the tone of the bidders' filings as a measure of managerial overconfidence.

In the section, we want to examine whether long-term performance is linked to the tone of the filings. Our hypothesis is that if the manager is overconfident, he will overestimate the performance of the firm and use fewer negative words, however, since he/she overestimates the future profits, the company will underperform. Because of this, we expect to observe lower negative tones leading to lower average returns. If the CEO is not overconfident and reports a more realistic level of risk in the deal, even if the tone is quite negative, the return should be higher than that of overconfident firms. We should observe a higher negative tone corresponds higher returns. We expect a positive correlation between the tone measure and performance.

There are many ways to calculate long-term performance. We use the matching and buy- and-hold methods similar to Barber and Lyon (1997), and Rau and Vermeanlen (1998) to calculate the long-term performance. This is a double sorting strategy on size and book-to- market ratio. First, we form ten size deciles at the end of each month of the corresponding market size. The breakpoint is based on the NYSE and AMEX size, because the NASDAQ might be too small and overweight on small firms, similar to Fama and French (1993). This deciles formation continues for each month. Within each decile, we sort the firm based on the book-to-market ratio into quintile. We construct fifty portfolios based on the size and book-to-market each month. The portfolio returns are calculated each month as the reference return. We define the abnormal return as the difference of the firm return and the corresponding portfolio return. We set the time horizons to be one year, three years , and five years. The summary statistics are in Table 1.

Before we run the regression on the long-term performance, it's helpful to look at the figures. In figure 1, we plot the 3-year post deal performance vs target tone measure. We do not observe a monotonic linear relationship between the 3-year post deal performance and the target tone measure. This might imply that the target tone has no clear impacts on the long-term performance. We could argue the size of the target is small relative to the bidder, or the bidding CEO makes the major decisions for the new merged firm. We also want to check the bidder's tone and long-term performance. Figure 2 shows the 3-year post deal performance vs the bidder tone quartiles. We observe a linear and positive relationship between the 3-year post deal performance and the bidder tone measure. This shape supports our hypothesis that the filing from the overconfident CEO will be positively correlated to the post deal

performance.

To check the robustness of the relationship we find in figure 2, we subdivide the sample based on the size, market to book ratio, financial constraints and corporate governance. In figure 3, we plot the three-year post merger performance on the bidder filing quartile in small size subsample. In figure 4, we plot the three-year post merger performance on the bidder filing quartile in big size group. We can see that the patterns of performance on the bidder tone are similar across size subsamples. In figure 5, we plot the three-year post merger performance on the bidder filing quartile in small market to book ratio subsample. In figure 6, we plot the three-year post merger performance on the bidder filing quartile in big market to book ratio subsample. We can see that the patterns of performance on the bidder tone are similar across market to book ratio subsamples. In figure 7, we plot the three-year post merger performance on the bidder filing quartile in financial constrained subsample. In figure 8, we plot the three-year post merger performance on the bidder filing quartile in financial unconstrained subsample. The financial constraints uses the Kaplan and Zingales index, financial constrained if KZ index is in the bottom 30 %, unconstrained if KZ index is in the top 30 %. We can see that the patterns of performance on the bidder tone are similar across financial constrained and unconstrained subsamples. In figure 9, we plot the three-year post merger performance on the bidder filing quartile in corporate governance dictatorship subsample. In figure 8, we plot the three-year post merger performance on the bidder filing quartile in corporate governance democracy subsample. The corporate governance data is from Gompers Ishii Metrick (2003), which is available from `http://faculty.som.yale.edu/andrewmetrick/data.html`.We can see that the patterns of performance on the bidder tone are similar across dictatorship

and democracy subsamples.

In Table 2, we report the regression results of the three-year post deal performance on bidder tone measure. Table 2 is a good illustration of Figure 4. The dependent variable is the three-year post deal relative return from buy and hold relative portfolio return , the key independent variable is bidder tone measure. In specification 1, we get a significant positive coefficient on bidder tone measure, 0.007 and p-value=0.002. The economic magnitude is also significant, one unit change of the tone measure corresponds to a 70 basis point change. Implying the more negative the tone in the bidder filings, the higher the return observed . It supports our overconfident CEO story.

In the main specification 2, we regress the three-year post deal performance on the bidder tone measure and some controls. We get the significant coefficient of the bidder tone measure, (coefficient = 0.007, and p-value =0.007). These again support our story that the negative tone measure is positively related to the post deal performance because of CEO overconfidence. The overconfident CEO chooses to use fewer negative words leading to a lower return . We also find the market-to-book has a significant negative coefficient, implying the higher the market-to- book, the lower the post-deal performance. In the previous one year, bidder stock return is negative and significant at -0.083 and p-value = 0.000. The CEO overconfidence story could offer an explanation as the firm stock price increases, the overconfident CEO is willing to bid on another firm and underperform in three-year horizon . In the other specification with one specific part tone measure, we find similar results with specification 2.

In this section, we examine the long-term performance with firm filings tone

measure. The long-term performance is based on the buy and hold double sorting size and book-to- market portfolio method, as in Barber and Lyon(1997) and Rau and Vermaelen (1998). In the unreported tables, we tested the one-year and five-year horizon. The results are quite consistent in different horizons. We fail to find the evidence for the target tone measure. We consistently find a positive correlation between the post deal performance and the bidder negative tone measure. This positive relationship supports our overconfident CEO story. The overconfident CEO tends to use fewer negative words and makes poor takeover decision. We observe this result in tone measure setting.

1.5.3 Short-term Return

We examine the tone choice by the manager after observing the market reaction towards the announcement. The short-term cumulative return for the deal announcement is well documented in the finance research. The short-term announcement is significantly positive around the deal announcement. As in Betton, Eckbo and Thorburn (2008), the mean of the initial target CAR is 14.61%. The short-term announcement for the bidder is not unanimous. In Officer (2003,2004), the bidder CAR with window (-3,3) is -1.2% for the total sample. In Moeller, Schlingemann and Stulz (2004,2005) the bidder CAR with window (-1,1) is 1.1% for the total sample, 2.3% for the small bidders and 0.1% for the large bidders. In this paper, the target CAR with window (-1,1) is 23.9% and the bidder CAR with window (-1,1) is -0.028% for the completed deals, which is similar to the existing literature.

As discussed in the hypothesis-testing portion , the target manager wants to negotiate more with the bidder . If the target manager observes the market reaction

is less than average, the target manager should use more cautious/negative tone in the filings so that the shareholders might take a tougher position when voting. We would expect the coefficient on the CARs to be negative and significant as in Figure 11.

To check the robustness of the relationship we find in figure 11, we subdivide the sample based on the size, market to book ratio, financial constraints and corporate governance. In figure 13, we plot the announced abnormal return on the target filing tone quartile in small size subsample. In figure 14, we plot the announced abnormal return on the target filing tone quartile in big size group. We can see that the patterns of performance on the target tone are similar across size subsamples. In figure 15, we plot the announced abnormal return on the target filing tone quartile in small market to book ratio subsample. In figure 16, we plot the announced abnormal return on the target filing tone quartile in big market to book ratio subsample. We can see that the patterns of performance on the target tone are similar across market to book ratio subsamples. In figure 17, we plot the announced abnormal return on the target filing tone quartile in financial constrained subsample. In figure 18, we plot the announced abnormal return on the target filing tone quartile in financial unconstrained subsample. The financial constraints uses the Kaplan and Zingales index, financial constrained if KZ index is in the bottom 30 %, unconstrained if KZ index is in the top 30 %. We can see that the patterns of performance on the target tone are similar across financial constrained and unconstrained subsamples. In figure 19, we plot the announced abnormal return on the target filing tone quartile in corporate governance dictatorship subsample. In figure 20, we plot the announced abnormal return on the target filing tone quartile in corporate governance democracy subsample. The

corporate governance data is from Gompers Ishii Metrick (2003), which is available from `http://faculty.som.yale.edu/andrewmetrick/data.html`. We can see that the patterns of performance on the target tone are similar across dictatorship and democracy subsamples.

In Table 3, we present the regression results of the target negative tone measure on the target CAR and some control variables. In specification 1, we run the target negative tone measure on the target CAR directly. The coefficient is negative and statistically significant. The economic magnitude is also significant, a one percent abnormal return change would result in a four percent change in the negative tone measure. Given the size of the deal, the results are both economically and statistically significant.

Specification 2 is the main regression. We regress target negative tone measure on the target CAR and some controls variables. The negative tone measure is significantly negative with coefficient -5.196. The economic magnitude is also significant as a one percent CAR change would result in a 5.196 percent change on the target tone measure. This result is similar to the Loughran and McDonald (2011) results on the firm 10K filings. The results show that the negative information in the filings can have negative impacts on returns. We also use the dummy variable cash merger, which is one if the deal is a cash deal, zero otherwise. We have a positive significant coefficient on the cash merger, implying that the payment of cash, rather than the stock, will lead to a positive return. This result is similar to Betton, Eckbo and Thorburn (2008).

We also find the coefficient of ROA is negative and significant at -0.148, implying that a high ROA target will receive a lower negative tone measure. The coefficient of

the leverage is significantly negative , implying that the higher the leverage the lower the negative tone measure. The relative size is significantly positive, implying that the larger the deal size , the more negative tone is used.

The specifications 3, 4, 5 and 6 use the extra measure of the filings. We include the Board Recommendation, Financial advisor opinion, risk factors , and reason for the merger. The negative tone measure is still negative in specifications 3 and 4. Due to the reduction in sample size , we do not want to make strong conclusions from those specifications .

1.5.4 Premium Change

For the target shareholders, one of the most important pieces of information is the takeover premium from the bidder. If the premium is appropriate, the target shareholder would sell their stake. If the premium is too low, they might reject the offer, or if the risk is too high, they may want to have the premium revised.

Eckbo and Langohr (1989) study the effect of disclosure rules and payment method, cash or stock , on tender offer premiums. Officer (2003, 2004) studies the termination and collar condition in the takeover premium. Bates and Lemmon (2003) study the termination in the deal negotiation and termination . In this section, we examine the relationship between the takeover premium revision and the filing tone measure.

In the SDC dataset, there is a dummy variable for the premium change, we download all the premium change events and check the exact date of the premium change and compare with the filing dates extracted from the filings. If the premium change happens before our filing date, we cannot conclude the shareholder filing and

vote affect the premium change. For all the premium change observations , we check the exact dates and read the premium offer to make sure the premium change is after our filing reaches the investors. In the regression, all the observations are events that change the premium after the shareholder vote.

Table 4 examines the relation between the target premium change and the target tone measure. The dependent variable is the premium change, which is a dummy variable, equalling 1 if premium changed after the filing date, equalling 0 otherwise. In specification 1, we have the tone measure coefficient at 0.012 and p-value=0.000, the coefficient is positive and significant on the target tone measure. The marginal effect on the target tone measure is 0.0023, also economically meaningful. In specification 2, we again obtain target tone measure of 0.022 and p-value = 0.000, a significantly positive coefficient for the tone measure. The marginal effect is 0.0034, also economically meaningful.

These results show that the more negative the tone of the target filing, the more likely the takeover premium will change. This result makes sense as the target shareholder reads more negative tone in the filings, the more likely they are to demand a premium revision . The coefficient of ROA is 1.171, positive and significant, implying the higher ROA of the target, the more likely the takeover premium will change. The leverage is also positive, meaning the higher the leverage the more likely the premium will change. The specifications from 3 to 6 are adding board recommendation, financial advisor opinion, risk factors , and reason for the merger. We can see that the key variable, the target tone measure, is still significantly positive.

In an unreported table, we examine the deal premium change and the bidder tone measure. Similar to Table 4 variable definitions , we run the probit regression

of premium change on the negative tone measure. We fail to find the significance of the bidder tone measure when simply regressing the tone measure. We calculated the marginal significance on specification 2. We think the effects of the bidder filings are much weaker than the target filings. We only observed marginal significance on the bidder tone measure.

1.5.5 Deal Completion

The sample collected the firms filing to the SEC and seeking voting approval from shareholders. The shareholders review the information from the filing and decide whether to vote for or against the proposed deal. Since the outcome of the deal depends on the shareholders' vote, it is a very good opportunity to examine the negative information impact on deal completion . The natural conjecture is that the more negative information in the filing, the less likely the shareholders will approve it; the less negative information in the filing, the more likely the shareholders are to approve it . The target and bidding management might have different attitudes toward the completion of the deal, so we might observe and expect different results between the target and bidders.

In Table 5, we predict the deal completion using the target tone measure in the probit regression. We obtained the merger and acquisition events from the SDC database. The SDC provides information on completed and incomplete deals . We merge all the takeover firms, completed or noncompleted, with the EDGAR filings. The detailed filings and summary statistics can be found in Table 1.

We define the dummy variable "deal completion", equal to 1 if the deal was completed, 0 otherwise. In Table 10, the deal completion is the dependent variable.

We ran the standard probit regression of the deal completion and target tone measure. In specification 1, the target tone measure is -.010 and p-value=0.006, negative and significant. Suggesting that the more negative tone in target filing, the less likely the deal completes. The marginal effect of the target tone measure is -0.0019, which is economically meaningful. In specification 2, we calculated target tone measure coefficient at -0.012 and p-value = 0.027, negative and significant. The marginal effect for the target tone measure is -0.0024, also economically meaningful. The results support our prediction of the negative tone on the deal completion. We also calculated a negative coefficient on the leverage, implying the higher the leverage of the target, the less likely the deal will complete.

In an unreported table, we examine the deal completion with bidder tone measure. We define the dummy variable deal completion as the dependent variable. In the specification 1 and 2 , we obtained negative coefficients on the tone measure, however we fail to find significance of the bidder tone measure that predicts the deal completion. The cash merger dummy variable is negative and significant, meaning that the bidding shareholders are more likely to reject the deal if the payment is cash, as the shareholder may worry the managers will use free cash flow to destroy value, as in Jensen (1986).

The shareholders voting on the deal completion is a crucial stage for the takeover. We find evidence that deal completion could be forecasted by the target negative tone measure. The more negative the tone in the filings, the less likely the deal is to complete. The forecasting relationship is not clearly pronounced by the bidder.

1.5.6 Welfare Effects

We also examine the welfare effect for the target shareholders. The welfare is defined as the cumulative stock return from the three days after the deal announcement till the deal completion or termination. We choose the timing of t+3 because we want to separate the announcement effect from the welfare effects. We want to see the effect of manager tone choice on shareholder welfare . As discussed in the hypothesis portion , target managers may want to negotiate with the bidder and take a better position in the negotiation, suggesting tone choice may be related to the welfare of target shareholders. If the bidding managers are overconfident, they will overestimate the future performance of the company and overpay for the target. There might also be some realistic managers who can more realistically estimate the deal. The bidding manager's tone choice is mixed, so we do not expect one clear direction on the welfare.

In Table 6, we report the welfare change on the target tone choice. As we can see from the main specification (2), the coefficient of the tone measure is significantly negative , suggesting that the target manager chooses a more negative tone and the welfare for the shareholder is less . If target managers want to a tough position in the negotiation, they might use more negative words, which may result in the failure of the deal. If the deal fails , the target shareholder might lose more compared to a successful deal. If the deal is successful, the tough negotiation attitudes from the target manager might in the end result in a better premium . The effects of the target manager attitude are mixed. In the regression results, we find the negative coefficient, so the loss of welfare in a failed deal is more pronounced than the deal

premium revision. We also find the negative coefficients on the board recommendation and financial advisor opinion measures.

1.5.7 Textual Tone Measure and Option Based Overconfidence Measure

We use the textual analysis to construct the tone measure from the filings and use it as the managerial overconfidence proxy. The previous literature, Malmendier and Tate (2005, 2008) and Campbell Gallmeyer Johnson Rutherford Stanley (2001) use the CEO holding the deep in the money option as the proxy for the overconfidence. We argue that the option based overconfidence measure is a measure that averaging many other factors in the overconfidence in a relative long term, it might not be able to capture the deal attitude from the manager. Our measure is directly target to the deal and cleaner about the manager's tone in the deal. We report the correlation matrix in the table 7. As we can see from table 7, the correlation coefficient between the raw tone measure of bidder and weighted tone measure is 0.2587, positively correlated. The correlation coefficient between the raw tone measure of bidder and the option based overconfidence measure is 0.0789, still positively correlated while not highly correlated. The correlation coefficient between the weighted tone measure of bidder and the option based overconfidence measure is -0.1291, negatively correlated. The results show that the textual measure is different from the option based overconfidence measure.

We also examine the correlation matrix of target filing tone and option based overconfidence measure. the correlation coefficient between the raw tone measure of target and weighted tone measure is -0.0377. The correlation coefficient between

the raw tone measure of target and the option based overconfidence measure is -0.0338. The correlation coefficient between the weighted tone measure of target and the option based overconfidence measure is 0.0589. The results also show that the textual measure is different from the option based overconfidence measure.

1.5.8 Deal Premium and Managerial Tone

The amount of deal premium paid by the bidder is an important decision for the bidder manager to make. The amount of premium will determine if the deal will be accept and the amount would be related to the firm performance in the future. It's very important to understand the deal premium. We want to examine if the managerial tone has anything to do with the amount of premium paid. In table 8, the dependent variable is the takeover premium reported from SDC as takeover premium over target one month price prior to the deal announcement. Following the literature, the firm financial condition and corporate governance, such as financial constraints, free cash flow might affect the deal premium. We control for the above effects, the financial constraints are from Kaplan and Zingales index,if KZ index is in the top 30%, we consider it as financial constrained. If the KZ index is in the bottom 30%, we consider it as financial unconstrained. The free cash flow is calculated as operating income before depreciation less interest expense less income taxes less capital expenditures. GIM corporate governance index is from Gompers Ishii Metrick (2003).

In specification (2), we find the bidder tone measure is -0.292, which means the more optimistic the bidder tone, the more premium paid tone both economical and statistical significant. The dummy variable unconstrained is significant. In specifi-

cation (3) we control for the free cash flow. We find that the bidder tone is -0.322, also economical and statistical significant. In final specification (5), the coefficient of bidder tone measure is still significant. We also control for other variables, such as market to book ratio, ROA, leverage, total assets, stock run-ups, cash merger and others.

For the completeness, we also analysis the deal premium and target tone measure. In table 9, we run the similar regression specification with the target variables. We do not find the target tone measure has significant relation with the deal premium paid, while other variables might have significant relationship with the deal premium paid.

1.5.9 Tone and Firm Characteristics

If the textual analysis of the manager tone choice can help us understand the takeover results, we might expect those manager tone choice information should connect with the firm characteristics. As in the previous literature, the firm financial condition, such as the financial constraints, free cash flow and corporate governance could impact the manager decision. We expect there are some relation from the manager's tone and the firm characteristics. We run the regression of the manager tone choice on the financial constraints, free cash flow, corporate governance and other firm controals variables. In table 10, specification (1), we find significant relation between the unconstrained dummy and tone choice. The coefficient is -8.92, both economical and statistical significant. If the firm is financially unconstrained, the tone will be more optimistic. In specification (2), if the firm is financially constrained, the tone will be more negative If firm has more free cash flow, the tone will be more opti-

mistic. The more dictatorship of firm governance, the more optimistic the tone will be. Those relations hold when we add standard firm controls. We also find similar results in the target filings, while not as strong in the bidder regression. In table 11, we have significant relation of the financial unconstrained firm in specification (1). In specification (2), if the firm is constrained, the more negative tone will be in the filing. The free cash flow is negative significant in all specification, which means the more free cash flow, the more optimistic the tone will be used in the filing. The regression results in table 10 and table 11 show that the firm characteristics have impact on the managers tone choice, so the tone choices have important economical meaning for investors to digest.

1.5.10 Robustness Check

So far, we have documented the relationship between managerial attitudes from company filings and takeover outcomes . One of the major findings is the long-term performance of bidder could be inversely related to the tone of the filings. We interpret that as a proxy for managerial overconfidence. It is very important to use the correct measure of long-term performance. There might be bias in the post-deal performance calculation.

The bias could come from the survival bias. One may argue that some of the worse performing firms might drop from the sample during the periods used in the long-term performance calculation, leading to inaccuracies. We solve the problem by referring back to the CRSP delisting dataset. CRSP delisting dataset reports the delisting date, delisting return and other information related to the delisted firms. The delisting bias could affect our results and lower the explanatory power. In the

regressions, if firms in the sample are not delisted, it remains the same . If a firm is delisted, we check the delisting date and delisting return from the CRSP. CRSP may not report the delisting return, in which case we will adjust the delisting return to the stock last reported monthly return . The final regression is the delisting return adjusted and survival bias free.

In the unreported tables, we calculate the regression using all the available delisting returns . The results for the delisting adjusted return are quite similar to the original results. We observe similar coefficients and significance in both sets of regressions . Our results are not affected by the survival bias.

1.6 Conclusions

Corporate takeovers are among the biggest deals companies can undertake . The deals often contain the complex trading and involve certain risks. The information in related filings is very important to investors. In this paper, we use the recent textual analysis technique to analyze corporate takeover filings and find evidence that managerial attitudes in the filings help explain takeover results. We started with the SDC Platinum Merger and Acquisition dataset. Then, we downloaded the firm takeover filings from the SEC EDGAR website and used a term weighting scheme and the Loughran and McDonald (2011) negative financial dictionary to construct our negative tone measure for those filings.

We use the weighted negative tone measure as a proxy for managerial overconfidence. If the manager is overconfident, he might use more positive words and fewer negative words. If the manager is more realistic, the opposite may be true . We use tone measure as a proxy for the managerial overconfidence. We find that long-term

firm performance is inversely related to the level of overconfidence. Overconfident managers experience worse performance, while realistic managers experience the better performance.

For the target, we use the negative tone measure as the proxy for the tough negotiation stances of target managers. The higher the level of negative tone, the tougher the negotiation will be. We find evidence that deal completion and premium revisions are associated with the filing tone of target. If the filing of target is too negative, the shareholder would be less likely to approve the deal or more likely to request a premium revision. We find such evidence in the probit regression, where the more negative the tone in the filings the less likely the target shareholder is to approve the deal and more likely the deal premium is to be revised.

APPENDIX

APPENDIX 1

Tables

Tabel A.1: Summary Statistics

This table summarize the tone measure of the company's filings and some financial information in the sample. Tone measure is calculated using the Loughran and McDonald negative tone measure and term-weighting method. Board recommendation, financial advisor opinions, risk factor, reason for the merger and background of the merger are those parts clearly identified and calculated the same way as the tone measure. Market-to-book is defined as the ratio of the market value of the firm assets to the book value of the firm assets. ROA is defined as operating income before depreciation divided by total assets. Leverage is defined as long-term plus and short-term debt normalized by total assets. Total assets are from COMPUSTAT. Stock one year return is the stock return prior to the deal announcement. Announcement return is the cumulative return around deal announcement. The 1,3,5 year relative performance are the relative performance of the matching size and book-to-market firms.

Completed Deals								
	Target				Bidder			
	mean	se(mean)	Median	N	mean	se(mean)	Median	N
Tone measure	27.38	0.462	23.62	848	33.88	0.432	30.67	1389
Board Recommendation	6.848	0.993	3.466	303	7.657	1.013	2.986	504
Financail Advisor Opinion	5.249	1.335	1.166	338	4.435	1.014	1.278	526
Risk Factors	14.79	1.237	6.870	259	14.96	0.684	8.183	832
Reasons for the Merger	6.539	1.819	2.127	223	7.454	1.494	1.781	390
Background of Merger	7.248	0.733	3.156	438	7.676	0.838	2.219	707
Market to Book	2.154	0.0777	1.568	739	3.152	0.140	1.927	1256
ROA	-0.0717	0.0117	0.0253	739	-0.0123	0.00706	0.0413	1254
Leverage	0.212	0.00938	0.141	739	0.222	0.00607	0.187	1256
Total Assets	1558	180.2	186.6	739	6433	604.0	963.4	1256
Relative Transaction Size	0.851	0.139	0.187	592	1.094	0.0822	0.414	1256
Cash Flow	126.1	21.38	9.397	739	712.8	75.38	72.65	1254
Stock one year return	1.164	0.0321	1.060	800	1.480	0.0330	1.253	1357
Value of Transanction	2399	265.6	366.9	848	2190	219.5	304.2	1389
Word counts	77760	1947	60268	848	100946	5019	80283	1389
Announcement return	-0.240	0.0101	-0.192	773	-0.0282	0.00277	-0.0219	1349
1 year relative return	-0.0114	0.0238	-0.0660	741	-0.0918	0.0182	-0.168	1366
3 year relative return	-0.154	0.0397	-0.252	742	-0.257	0.0371	-0.456	1367
5 year return	-0.319	0.0477	-0.344	743	-0.532	0.0503	-0.727	1367

Table A.1 (cont'd)

	Incompleted deals							
	mean	se(mean)	p50	N	mean	se(mean)	p50	N
Tone measure	31.50	1.575	26.32	110	35.01	1.497	31.83	149
Board Recommendation	4.483	0.724	3.368	39	10.43	4.510	3.945	55
Financail Advisor Opinion	2.217	0.512	1.500	31	4.532	2.087	0.925	42
Risk Factors	13.34	3.236	4.875	31	16.54	2.178	9.617	83
Reasons for the Merger	8.844	3.322	2.626	24	10.31	5.234	2.626	26
Background of Merger	9.494	1.925	5.707	47	10.91	2.863	2.772	67
Market to Book	1.861	0.222	1.291	98	2.857	0.280	1.835	130
ROA	-0.0745	0.0359	0.0195	98	-0.0134	0.0155	0.0287	130
Leverage	0.240	0.0207	0.220	98	0.246	0.0186	0.221	130
Total Assets	1953	435.3	258.6	98	6501	3169	929.0	130
Relative Transaction Size	0.971	0.160	0.453	76	1.132	0.192	0.425	130
Cash Flow	125.5	42.80	18.62	98	475.2	160.0	36.24	130
Stock one year return	1.509	0.287	1.074	104	1.362	0.0766	1.155	145
Value of Transanction	3097	890.9	348.7	110	2686	688.0	282	149
Word counts	84054	5081	67778	110	97866	7710	74021	149

Table A.2 Three year After Deal Performance on Bidder Filing Attitude

This table reports the regression estimates from the linear regression of the three-year buy-and-hold return on the bidder tone measure and other controls. The dependent variable is buy-and-hold return of the merged firm return. The relative performance is calculated by matching the size and book to market ratio.. The tone measure is the term-weighted measure using Loughran and McDonald(2011) negative dictionary. The board recommendation, financial advisor opinion, risk factors , reason for the merger are those calculated tone measure if those parts could be clean identified. Cash merger is the dummy variable, equal 1 if if the deal is all cash, 0 otherwise. Market-to-book is defined as the ratio of the market value of the firm assets to the book value of the firm assets. ROA is defined as operating income before depreciation divided by total assets. Leverage is defined as long-term plus and short-term debt normalized by total assets. Total assets are from COMPUSTAT. Stock one year return is the stock return prior to the deal completion. The standard errors are reported in the parenthesis.

	(1)	(2)	(3)	(4)	(5)	(6)
Tone measure	0.007***	0.007***				
	[0.002]	[0.002]				
Board Recommendation			0.001			
			[0.002]			
Financial Advisor Opinion				-0.002**		
				[0.001]		
Risk Factors					-0.002	
					[0.003]	
Reason for the Merger						0.002
						[0.002]
Cash Merger		0.094	0.013	-0.184	-0.148	0.081
		[0.106]	[0.167]	[0.175]	[0.119]	[0.279]
Market to Book		-0.008**	-0.007	-0.016*	-0.012***	-0.014***
		[0.004]	[0.005]	[0.009]	[0.004]	[0.005]
ROA		0.022	-0.491	-0.313	-0.479	-0.338
		[0.172]	[0.541]	[0.320]	[0.336]	[0.242]
Leverage		0.073	-0.565	-0.168	-0.123	0.127
		[0.190]	[0.384]	[0.326]	[0.277]	[0.332]
Total Assets		-0.000	-0.000***	-0.000	-0.000	-0.000***
		[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Relative Size		0.000	-0.012	0.008	0.001	0.001
		[0.009]	[0.027]	[0.013]	[0.009]	[0.008]

Table A.2 (cont'd)

Cash Flow		-0.000	0.000	0.000	0.000	0.000
		[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
One year Stock Return		-0.083***	-0.137***	-0.045	-0.081***	-0.031
		[0.022]	[0.038]	[0.041]	[0.024]	[0.032]
Constant	-0.487***	-0.380***	0.129	-0.129	-0.063	-0.271**
	[0.074]	[0.099]	[0.220]	[0.154]	[0.126]	[0.115]
Observations	1,367	1,224	462	478	749	349
R-squared	0.006	0.016	0.035	0.014	0.019	0.044

Table A.3 Target Manager Tone Choice After the Announcement of The Deal

This table reports the regression estimates from the linear regression of the target manager tone choice after they observe the market reaction upon the deal announcement. The dependent variable is the target manager tone choice. The tone measure is the term-weighted measure using Loughran and McDonald(2011) negative dictionary. The board recommendation, financial advisor opinion, risk factors , reason for the merger are those calculated tone measure if those parts could be clean identified. Cash merger is the dummy variable, equal 1 if if the deal is all cash, 0 otherwise. Market-to-book is defined as the ratio of the market value of the firm assets to the book value of the firm assets. ROA is defined as operating income before depreciation divided by total assets. Leverage is defined as long-term plus and short-term debt normalized by total assets. Total assets are from COMPUSTAT. Stock one year return is the stock return prior to the deal completion. The standard errors are reported in the parenthesis.

	(1)	(2)	(3)	(4)	(5)	(6)
CAR	-4.126**	-5.196***	-2.560	-0.076	-1.734	4.245
	[1.824]	[1.694]	[1.783]	[1.757]	[5.311]	[3.018]
Cash Merger		-5.128***	-0.149	1.282	-8.924***	7.967
		[1.077]	[1.415]	[1.678]	[2.549]	[5.406]
Market to Book		-0.194	-0.194	-0.272	-0.169	0.280
		[0.196]	[0.290]	[0.368]	[0.336]	[0.396]
ROA		-9.722***	0.619	-0.968	-29.946***	-0.232
		[3.299]	[1.064]	[0.877]	[4.174]	[3.887]
Leverage		-5.633***	2.971	-0.485	-3.684	-4.710
		[2.053]	[3.505]	[1.075]	[5.271]	[3.780]
Total Assets		0.000**	-0.000	0.000	-0.000	0.000
		[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Relative Size		0.300***	0.077	2.328***	0.493***	-0.129
		[0.092]	[0.330]	[0.771]	[0.176]	[0.100]
Cash Flow		-0.001	0.003**	-0.000	-0.001	-0.003
		[0.001]	[0.002]	[0.000]	[0.001]	[0.002]
One year Stock Return		-0.363	-0.099	-0.077	-0.370	0.296
		[0.769]	[0.636]	[0.394]	[0.594]	[0.539]
Constant	28.172***	30.262***	6.170***	0.723	14.388***	2.508**
	[0.643]	[1.530]	[2.006]	[2.611]	[2.736]	[1.014]
Observations	773	511	193	216	180	148
R-squared	0.007	0.129	0.022	0.381	0.302	0.045

Table A.4 Target Premium Change prediction Probit Regression

This table reports the regression estimates from the probit regression to predict the premium change using target tone and other controls. The dependent variable is the dummy for the premium change, which equals 1 if deal completed, 0 otherwise. The tone measure is the term-weighted measure using Loughran and McDonald(2011) negative dictionary. The board recommendation, financial advisor opinion, risk factors , reason for the merger are those calculated tone measure if those parts could be clean identified. Cash merger is the dummy variable, equal 1 if if the deal is all cash, 0 otherwise. Market-to-book is defined as the ratio of the market value of the firm assets to the book value of the firm assets. ROA is defined as operating income before depreciation divided by total assets. Leverage is defined as long-term plus and short-term debt normalized by total assets. Total assets are from COMPUSTAT. Stock one year return is the stock return prior to the deal completion.

	(1)	(2)	(3)	(4)	(5)	(6)
Tone measure	0.012***	0.022***				
	[0.003]	[0.006]				
Board Recommendation			0.015**			
			[0.007]			
Financial Advisor Opinion				-0.091		
				[0.061]		
Risk Factors					0.012	
					[0.008]	
Reason for the Merger						0.004
						[0.003]
Cash Merger		-0.219	-0.142	-0.440	0.464	-0.426
		[0.174]	[0.330]	[0.299]	[0.405]	[0.311]
Market to Book		-0.009	-0.014	-0.083	0.025	-0.047
		[0.038]	[0.043]	[0.094]	[0.035]	[0.082]
ROA		1.171***	0.149	1.011	1.395**	1.314*
		[0.423]	[0.390]	[0.618]	[0.654]	[0.687]
Leverage		1.037***	1.617***	0.839**	0.891*	0.928**
		[0.275]	[0.600]	[0.363]	[0.496]	[0.385]
Total Assets		0.000	-0.000	-0.000	-0.000	0.000
		[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Relative Size		-0.001	0.001	-0.003	-0.029	-0.060
		[0.018]	[0.037]	[0.037]	[0.038]	[0.080]
Cash Flow		-0.000	0.000	0.000	0.000	-0.000
		[0.000]	[0.000]	[0.000]	[0.000]	[0.001]
One year Stock Return		-0.151	-0.175	-0.110	-0.322*	-0.012

Table A.4 (cont'd)

		[0.095]	[0.124]	[0.107]	[0.189]	[0.078]
Constant	-1.574***	-1.824***	-1.523***	-0.928***	-1.157***	-1.160***
	[0.113]	[0.246]	[0.284]	[0.301]	[0.333]	[0.295]
Observations	917	568	207	229	191	159

Table A.5 Target Deal Completion prediction Probit Regression

This table reports the regression estimates from the probit regression to predict the deal completion using target tone and other controls. The dependent variable is the dummy for the deal completion, which equals 1 if deal completed, 0 otherwise. The tone measure is the term-weighted measure using Loughran and McDonald(2011) negative dictionary. The board recommendation, financial advisor opinion, risk factors , reason for the merger are those calculated tone measure if those parts could be clean identified. Cash merger is the dummy variable, equal 1 if if the deal is all cash, 0 otherwise. Market-to-book is defined as the ratio of the market value of the firm assets to the book value of the firm assets. ROA is defined as operating income before depreciation divided by total assets. Leverage is defined as long-term plus and short-term debt normalized by total assets. Total assets are from COMPUSTAT. Stock one year return is the stock return prior to the deal completion.

	(1)	(2)	(3)	(4)	(5)	(6)
Tone measure	-0.010***	-0.012**				
	[0.004]	[0.005]				
Board Recommendation			0.008			
			[0.011]			
Financial Advisor Opinion				0.004		
				[0.005]		
Risk Factors					0.017	
					[0.012]	
Reason for the Merger						-0.001
						[0.003]
Cash Merger		-0.131	-0.184	-0.040	-0.502	-0.854***
		[0.147]	[0.261]	[0.255]	[0.410]	[0.320]
Market to Book		0.009	-0.004	0.097	0.018	0.042
		[0.043]	[0.053]	[0.091]	[0.047]	[0.093]
ROA		-0.388	-0.585	-0.402	0.210	-1.077
		[0.275]	[0.489]	[0.431]	[0.447]	[0.891]
Leverage		-0.416*	-0.606	-0.080	-0.959*	-0.328
		[0.228]	[0.526]	[0.364]	[0.553]	[0.428]
Total Assets		-0.000	-0.000	0.000	0.000	0.000
		[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Relative Size		-0.005	-0.001	-0.017	-0.007	-0.031
		[0.014]	[0.032]	[0.023]	[0.016]	[0.024]

Table A.5 (cont'd)

Cash Flow		0.000	0.000	-0.000	-0.000	-0.001
		[0.000]	[0.000]	[0.000]	[0.000]	[0.001]
One year						
Stock Return		0.008	0.012	-0.043	-0.055	0.823*
		[0.070]	[0.111]	[0.105]	[0.073]	[0.445]
Constant	1.488***	1.599***	1.313***	1.231***	1.479***	0.920**
	[0.119]	[0.233]	[0.293]	[0.272]	[0.306]	[0.418]
Observations	958	598	223	242	204	167

Table A.6 Target Shareholder Welfare Change on Target Manager Attitude

This table reports the regression estimates from the linear regression of the target shareholder welfare change on the target tone measure and other controls. The dependent variable is the target shareholder welfare change from the deal announcement till the termination or completion. The tone measure is the term-weighted measure using Loughran and McDonald(2011) negative dictionary. The board recommendation, financial advisor opinion, risk factors , reason for the merger are those calculated tone measure if those parts could be clean identified. Cash merger is the dummy variable, equal 1 if if the deal is all cash, 0 otherwise. Market-to-book is defined as the ratio of the market value of the firm assets to the book value of the firm assets. ROA is defined as operating income before depreciation divided by total assets. Leverage is defined as long-term plus and short-term debt normalized by total assets. Total assets are from COMPUSTAT. Stock one year return is the stock return prior to the deal completion. The standard errors are reported in the parenthesis.

	(1)	(2)	(3)	(4)	(5)	(6)
Tone measure	-0.000	-0.002*				
	[0.001]	[0.001]				
Board Recommendation			-0.002**			
			[0.001]			
Financial Advisor Opinion				-0.001**		
				[0.000]		
Risk Factors					-0.001	
					[0.003]	
Reason for the Merger						0.000
						[0.001]
Cash Merger		-0.067**	-0.055	-0.083**	-0.127**	-0.097***
		[0.026]	[0.037]	[0.034]	[0.062]	[0.037]
Market to Book		-0.014***	-0.010	-0.006	-0.023**	-0.013**
		[0.005]	[0.006]	[0.006]	[0.011]	[0.005]
ROA		-0.088	-0.070	-0.064	-0.292	0.004
		[0.080]	[0.086]	[0.080]	[0.282]	[0.084]
Leverage		-0.021	0.010	-0.018	-0.141	-0.010
		[0.053]	[0.091]	[0.050]	[0.145]	[0.053]
Total Assets		0.000	-0.000	0.000	-0.000	-0.000
		[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Relative Size		0.004	0.005	-0.000	0.005	-0.003***
		[0.006]	[0.006]	[0.002]	[0.007]	[0.001]

Table A.6 (cont'd)

Cash Flow		0.000	0.000*	0.000**	0.000**	0.000
		[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
One year Stock Return		0.018	-0.008	-0.001	0.017	0.004
		[0.017]	[0.027]	[0.021]	[0.022]	[0.010]
Constant	0.079***	0.151***	0.108**	0.125***	0.180***	0.161***
	[0.026]	[0.040]	[0.054]	[0.042]	[0.069]	[0.045]
Observations	841	583	216	237	197	164
R-squared	0.000	0.037	0.059	0.057	0.053	0.055

Table A.7 Correlation Matrix of Tone Measure and Option Based Overconfidence Measure

This table reports the correlation matrix of the tone measure based on the textual analysis The acuqiror correlation matrix is reported in the top panel and the target correlation matrix is reported in the bottom panel. The raw tone measure is caluclated as the raw ratio of the negative dictionary on the total words reported. The weighted tone measure is calculated based on the term-weighting method based on the Loughran and McDonald (2011) and Jurafsky and Martin (2008). The option based overconfidence measure is based on the Malmendier and Tate (2005) and Campbell Gallmeyer Johnson Rutherford Stanley (2011) method. The correlation coefficients are reported in the table.

Acquiror	raw tone measure	weighted tone measure	option based tone measure
raw tone measure	1		
weighted tone measure	0.2587	1	
option based tone measure	0.0789	-0.1291	1

Target	raw tone measure	weighted tone measure	option based tone measure
raw tone measure	1		
weighted tone measure	-0.0377	1	
option based tone measure	-0.0338	0.0589	1

Table A.8 Deal Premium and Bidder Managerial Tone Choice

This table reports the regression estimates from the linear regression of the takeover deal premium on bidder tone measure and other controls. The dependent variable is the takeover deal premium, which is reported in SDC as the deal price over the target price one month before the deal announcement. The tone measure is the term-weighted measure using Loughran and McDonald(2011) negative dictionary. The unconstrained is the dummy variable using the Kaplan and Zingales index, 1 if KZ index is in the bottom 30 \%, 0 otherwise, The constrained is the dummy variable using the Kaplan and Zingales index, 1 if KZ index is in the top 30 \%, 0 otherwise. Free cash flow is calculated as operating income before depreciation less interest expense less income taxes less capital expenditures. GIM corporate governance index is from Gompers Ishii Metrick (2003). Market-to-book is defined as the ratio of the market value of the firm assets to the book value of the firm assets. ROA is defined as operating income before depreciation divided by total assets. Leverage is defined as long-term plus and short-term debt normalized by total assets. Total assets are from COMPUSTAT. Stock run up is the stock return prior to the deal completion. Cash merger is the dummy variable, 1 for cash merger, 0 otherwise. The relative size is the ratio of deal value to the firm total assets. The standard errors are reported in the parenthesis.

	(1)	(2)	(3)	(4)	(5)
	Premium	Premium	Premium	Premium	Premium
VARIABLES	1 month	1 month	1 month	1 month	1 month
Bidder Tone	-0.104	-0.292**	-0.322**	-0.162	-0.328**
	[0.132]	[0.141]	[0.149]	[0.154]	[0.166]
Unconstrained		-12.247***			3.381
		[4.603]			[8.685]
Constrained					23.280
					[37.844]
Free Cash Flow			-16.443		-9.479
			[23.147]		[58.726]
GIM Governance				-0.729	-1.520**
				[0.628]	[0.655]
Market to Book	0.258	0.012	0.284	0.565	-0.147
	[0.426]	[0.376]	[0.398]	[0.771]	[0.765]
ROA	-26.512	-28.472	-51.189**	-26.249	-17.917
	[16.171]	[19.042]	[23.216]	[24.888]	[29.696]
Leverage	-16.551	-30.140***	-28.797***	-26.696**	-29.233**
	[11.303]	[8.745]	[9.797]	[10.910]	[12.800]
Total Assets	0.000	0.000	0.000	0.000	0.000
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Stock Run up	5.429***	5.670***	4.595**	5.508***	5.486***
	[1.659]	[1.962]	[2.043]	[2.022]	[2.024]
cash_merger	1.491	1.593	5.009	6.942	5.844
	[4.480]	[3.996]	[4.317]	[5.970]	[5.035]

Table A.8 (cont'd)

rlsize	0.298	0.206	0.857	-1.562	-0.250
	[0.432]	[0.492]	[0.684]	[2.160]	[2.253]
Constant	43.760***	60.730***	52.696***	50.058***	59.426***
	[5.908]	[7.996]	[7.504]	[9.906]	[12.478]
Observations	1,239	1,071	951	531	428
R-squared	0.028	0.049	0.051	0.046	0.070

Table A.9 Deal Premium and Target Managerial Tone Choice

This table reports the regression estimates from the linear regression of the takeover deal premium on target tone measure and other controls. The dependent variable is the takeover deal premium, which is reported in SDC as the deal price over the target price one month before the deal announcement. The tone measure is the term-weighted measure using Loughran and McDonald(2011) negative dictionary. The unconstrained is the dummy variable using the Kaplan and Zingales index, 1 if KZ index is in the bottom 30 %, 0 otherwise, The constrained is the dummy variable using the Kaplan and Zingales index, 1 if KZ index is in the top 30 %, 0 otherwise. Free cash flow is calculated as operating income before depreciation less interest expense less income taxes less capital expenditures. GIM corporate governance index is from Gompers Ishii Metrick (2003). Market-to-book is defined as the ratio of the market value of the firm assets to the book value of the firm assets. ROA is defined as operating income before depreciation divided by total assets. Leverage is defined as long-term plus and short-term debt normalized by total assets. Total assets are from COMPUSTAT. Stock run up is the stock return prior to the deal completion. Cash merger is the dummy variable, 1 for cash merger, 0 otherwise. The relative size is the ratio of deal value to the firm total assets. The standard errors are reported in the parenthesis.

	(1)	(2)	(3)	(4)	(5)
	Premium 1	Premium	Premium	Premium 1	Premium
VARIABLES	month	1 month	1 month	month	1 month
Target Tone	-0.174	-0.074	-0.338	-0.110	0.072
	[0.186]	[0.297]	[0.241]	[0.309]	[0.414]
Unconstrained		-10.263			20.939**
		[7.426]			[9.980]
Constrained					-513.062**
					[188.824]
Free Cash Flow				-116.024***	-11.984
				[43.754]	[56.462]
GIM Governance			-2.390*		1.010
			[1.335]		[1.939]
Market to Book	-1.168	-2.057	-1.260	-5.494***	-3.836
	[0.918]	[1.458]	[1.766]	[1.686]	[4.110]
ROA	-18.223	-10.922	11.314***	49.183**	-135.933**
	[11.856]	[21.001]	[3.137]	[23.921]	[65.504]
Leverage	5.502	-18.622	2.374	-34.596**	2.213
	[16.806]	[18.315]	[12.387]	[14.985]	[26.178]
Total Assets	-0.001***	-0.000	-0.000	-0.001	-0.000
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Stock Run up	-2.143	1.343	-5.032	1.807	-17.380
	[2.449]	[3.391]	[8.189]	[2.672]	[12.247]

Table A.9 (cont'd)

cash_merger	-1.364	-2.690	-0.133	6.734	8.606
	[5.332]	[10.898]	[5.909]	[7.557]	[10.375]
rlsize	1.801***	1.549***	-0.879	1.253**	0.249
	[0.388]	[0.482]	[3.110]	[0.561]	[6.268]
Constant	52.848***	52.839***	75.921***	53.970***	29.057
	[9.461]	[14.859]	[21.975]	[13.299]	[32.756]
Observations	567	130	151	117	47
R-squared	0.029	0.062	0.062	0.296	0.313

Table A.10 Bidder Tone and Firm Characteristics

This table reports the regression estimates from the linear regression of the Bidder tone choice on the firm characteristics. The dependent variable is the bidder managerial tone measure. The tone measure is the term-weighted measure using Loughran and McDonald(2011) negative dictionary. The unconstrained is the dummy variable using the Kaplan and Zingales index, 1 if KZ index is in the bottom 30 \%, 0 otherwise, The constrained is the dummy variable using the Kaplan and Zingales index, 1 if KZ index is in the top 30 \%, 0 otherwise. Free cash flow is calculated as operating income before depreciation less interest expense less income taxes less capital expenditures. GIM corporate governance index is from Gompers Ishii Metrick (2003). Market-to-book is defined as the ratio of the market value of the firm assets to the book value of the firm assets. ROA is defined as operating income before depreciation divided by total assets. Leverage is defined as long-term plus and short-term debt normalized by total assets. Total assets are from COMPUSTAT. Stock run up is the stock return prior to the deal completion. Cash merger is the dummy variable, 1 for cash merger, 0 otherwise. The relative size is the ratio of deal value to the firm total assets. The standard errors are reported in the parenthesis.

	(1)	(2)	(3)	(4)	(5)
	Bidder	Bidder	Bidder	Bidder	Bidder
VARIABLES	Tone	Tone	Tone	Tone	Tone
Uniconstrained	-8.920***				-6.490***
	[0.972]				[1.033]
Constrainted		9.604***			
		[1.865]			
Free Cash Flow			-15.675***		
			[4.039]		
GIM Governance				-0.559***	
				[0.192]	
Market to Book					0.097
					[0.067]
ROA					-10.832***
					[2.674]
Leverage					-10.369***
					[2.192]
Total Assets					-0.000***
					[0.000]
Stock Run-up					-1.040***
					[0.366]
Constant	39.494***	32.827***	32.832***	34.181***	41.276***
	[0.831]	[0.459]	[0.460]	[1.952]	[1.132]
Observations	1,260	1,260	1,119	561	1,176
R-squared	0.069	0.026	0.037	0.012	0.128

Table A.10 (cont'd)

VARIABLES	(6) Bidder Tone	(7) Bidder Tone	(8) Bidder Tone	(9) Bidder Tone
Uniconstrained				-5.679**
				[2.242]
Constrainted	4.991**			19.500**
	[2.248]			[8.205]
Free Cash Flow		-12.872***		9.647
		[4.318]		[11.865]
GIM Governance			-0.580***	-0.231
			[0.196]	[0.217]
Market to Book	0.042	0.057	-0.536	-0.119
	[0.069]	[0.067]	[0.379]	[0.345]
ROA	-13.341***	-9.920***	-23.288***	-22.104**
	[3.008]	[3.262]	[6.428]	[8.605]
Leverage	-11.056***	-10.189***	-10.604***	-11.806***
	[2.232]	[2.371]	[3.441]	[3.518]
Total Assets	-0.000***	-0.000***	-0.000***	-0.000***
	[0.000]	[0.000]	[0.000]	[0.000]
Stock Run-up	-1.015***	-1.133***	-1.260*	-0.759
	[0.355]	[0.387]	[0.738]	[0.716]
Constant	36.903***	36.887***	41.592***	41.600***
	[0.956]	[1.061]	[2.809]	[3.340]
Observations	1,176	1,042	560	451
R-squared	0.102	0.089	0.082	0.130

Table A.11 Target Tone Choice and Firm Characteristics

This table reports the regression estimates from the linear regression of the target tone choice on the firm characteristics. The dependent variable is the target managerial tone measure. The tone measure is the term-weighted measure using Loughran and McDonald(2011) negative dictionary. The unconstrained is the dummy variable using the Kaplan and Zingales index, 1 if KZ index is in the bottom 30 %, 0 otherwise, The constrained is the dummy variable using the Kaplan and Zingales index, 1 if KZ index is in the top 30 %, 0 otherwise. Free cash flow is calculated as operating income before depreciation less interest expense less income taxes less capital expenditures. GIM corporate governance index is from Gompers Ishii Metrick (2003). Market-to-book is defined as the ratio of the market value of the firm assets to the book value of the firm assets. ROA is defined as operating income before depreciation divided by total assets. Leverage is defined as long-term plus and short-term debt normalized by total assets. Total assets are from COMPUSTAT. Stock run up is the stock return prior to the deal completion. Cash merger is the dummy variable, 1 for cash merger, 0 otherwise. The relative size is the ratio of deal value to the firm total assets. The standard errors are reported in the parenthesis.} The standard errors are reported in the parenthesis.

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Target Tone	Target Tone	Target Tone	Target Tone	Target Tone
Uniconstrained	-4.446**				-4.244*
	[2.100]				[2.273]
Constrainted		7.095*			
		[4.225]			
Free Cash Flow			-9.993***		
			[3.542]		
GIM Governance				-0.386	
				[0.289]	
Market to Book					-0.317
					[0.682]
ROA					-7.851
					[7.100]
Leverage					-6.501
					[4.864]
Total Assets					0.000
					[0.000]
Stock Run-up					1.740
					[1.576]
Constant	31.539***	28.629***	28.276***	28.952***	30.557***
	[1.667]	[1.080]	[1.008]	[2.835]	[2.870]
Observations	218	218	198	205	194
R-squared	0.020	0.019	0.042	0.008	0.065

Table A.11 (cont'd)

VARIABLES	(6) Target Tone	(7) Target Tone	(8) Target Tone	(9) Target Tone
Uniconstrained				-5.976
				[5.792]
Constrainted	6.311			-21.901
	[5.172]			[89.946]
Free Cash Flow		-12.889**		-88.656***
		[5.865]		[19.495]
GIM Governance			-0.575**	-0.401
			[0.283]	[0.450]
Market to Book	-0.566	-0.727	-0.047	0.970
	[0.681]	[0.582]	[0.349]	[1.275]
ROA	-7.358	-0.756	0.254	33.546
	[7.640]	[8.143]	[1.552]	[27.306]
Leverage	-8.670*	-8.898*	1.163	-16.922**
	[5.215]	[5.118]	[3.757]	[8.382]
Total Assets	-0.000	0.000	0.000***	-0.000
	[0.000]	[0.000]	[0.000]	[0.000]
Stock Run-up	1.890	2.812*	-0.759	3.505
	[1.592]	[1.650]	[1.564]	[3.538]
Constant	29.056***	27.992***	29.935***	35.428***
	[2.760]	[2.680]	[3.666]	[10.387]
Observations	194	176	204	60
R-squared	0.063	0.099	0.065	0.392

APPENDIX 2

Figures

Figure A.1: 3 Year Performance and Target Tone Measure

This figure plot the 3 Year Performance vs the target filing measure quartile. The horizontal axis is the quartile of the target tone measure. The vertical axis is the 3 Year Performance average by the filing quartile.

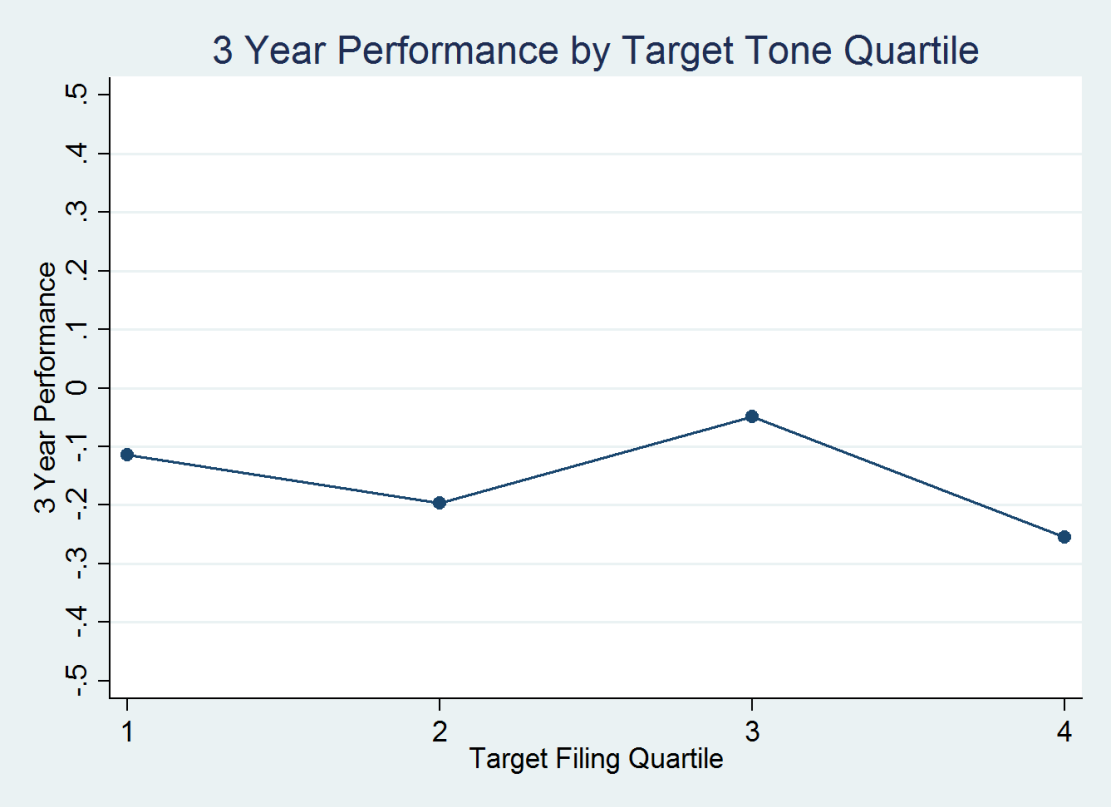


Figure A.2: 3 Year Performance and Bidder Tone Measure

This figure plot the 3 Year Performance vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the 3 Year Performance average by the filing quartile.

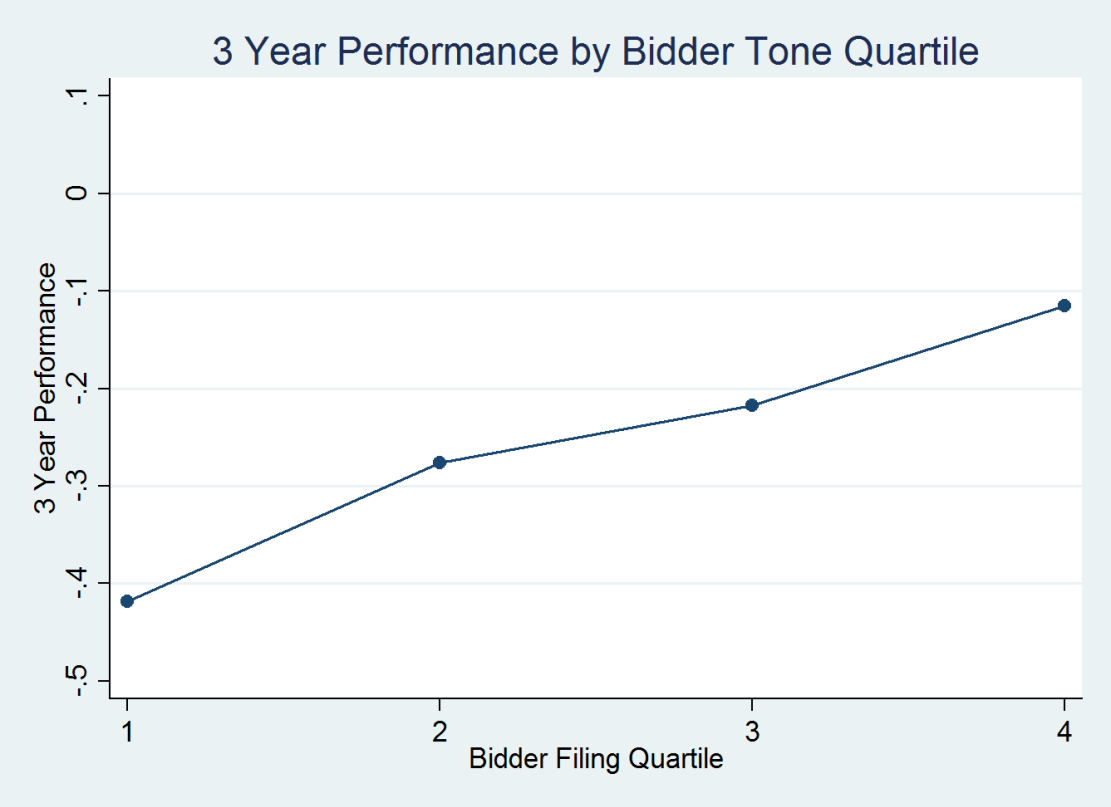


Figure A.3: 3 Year Performance and Bidder Tone Measure Small Size

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

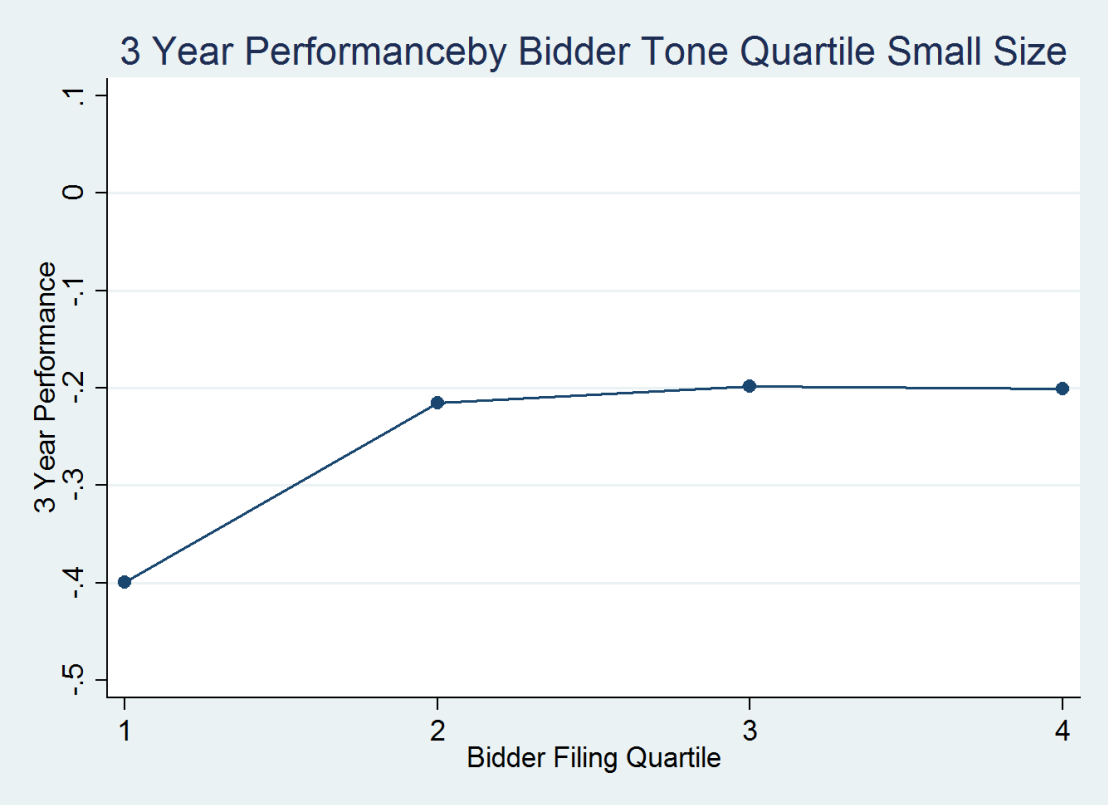


Figure A.4: 3 Year Performance and Bidder Tone Measure Big Size

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

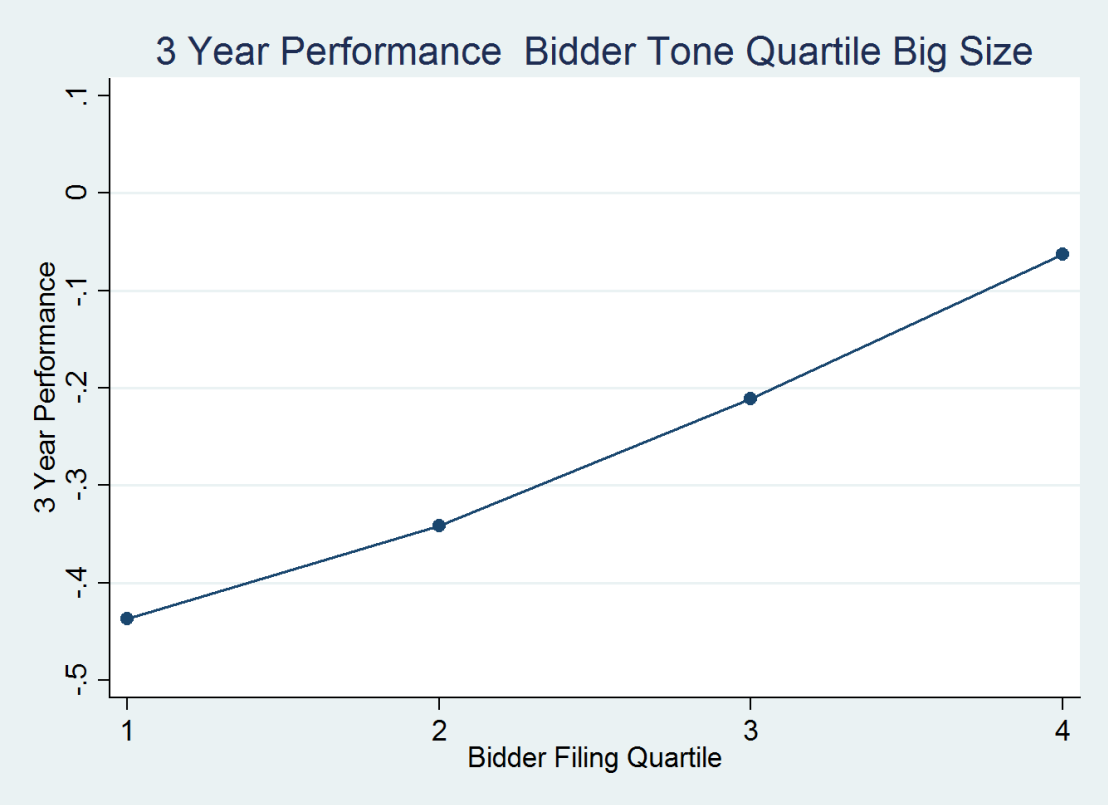


Figure A.5: 3 Year Performance and Bidder Tone Measure Small M/B

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

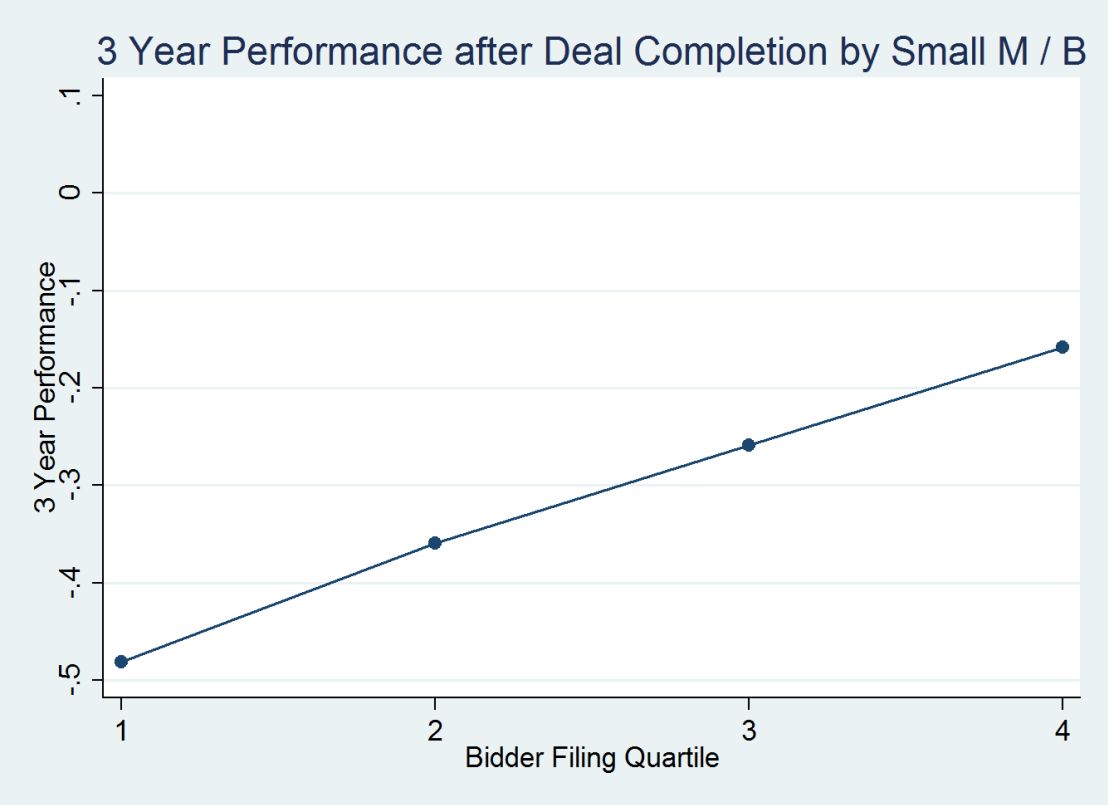


Figure A.6: 3 Year Performance and Bidder Tone Measure Big M/B

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

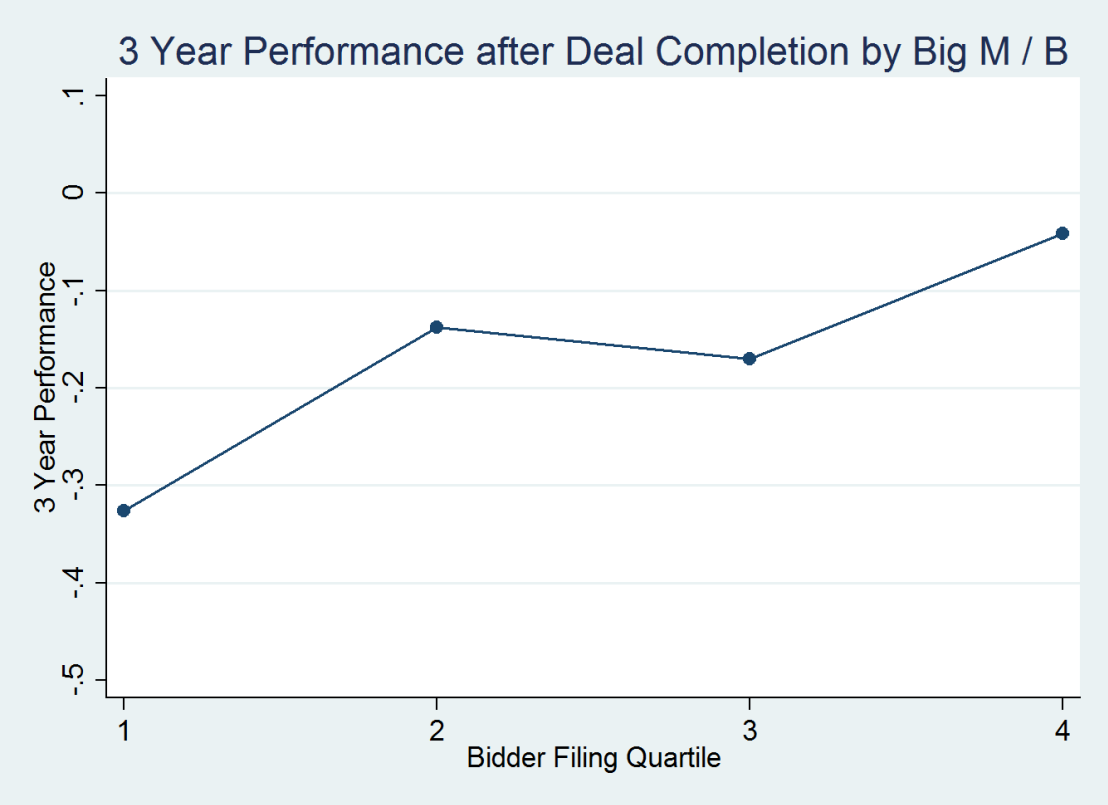


Figure A.7: 3 Year Performance and Bidder Tone Measure Financial Constrained

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

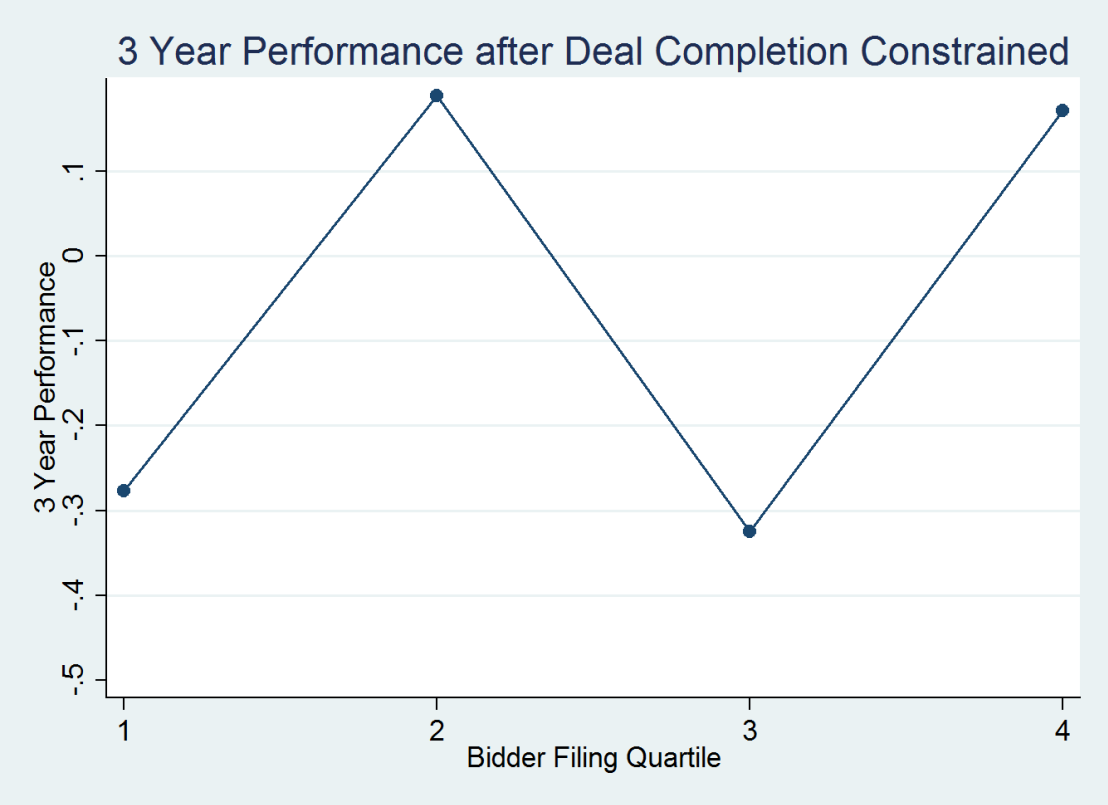


Figure A.8: 3 Year Performance and Bidder Tone Measure Financial Unconstrained

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

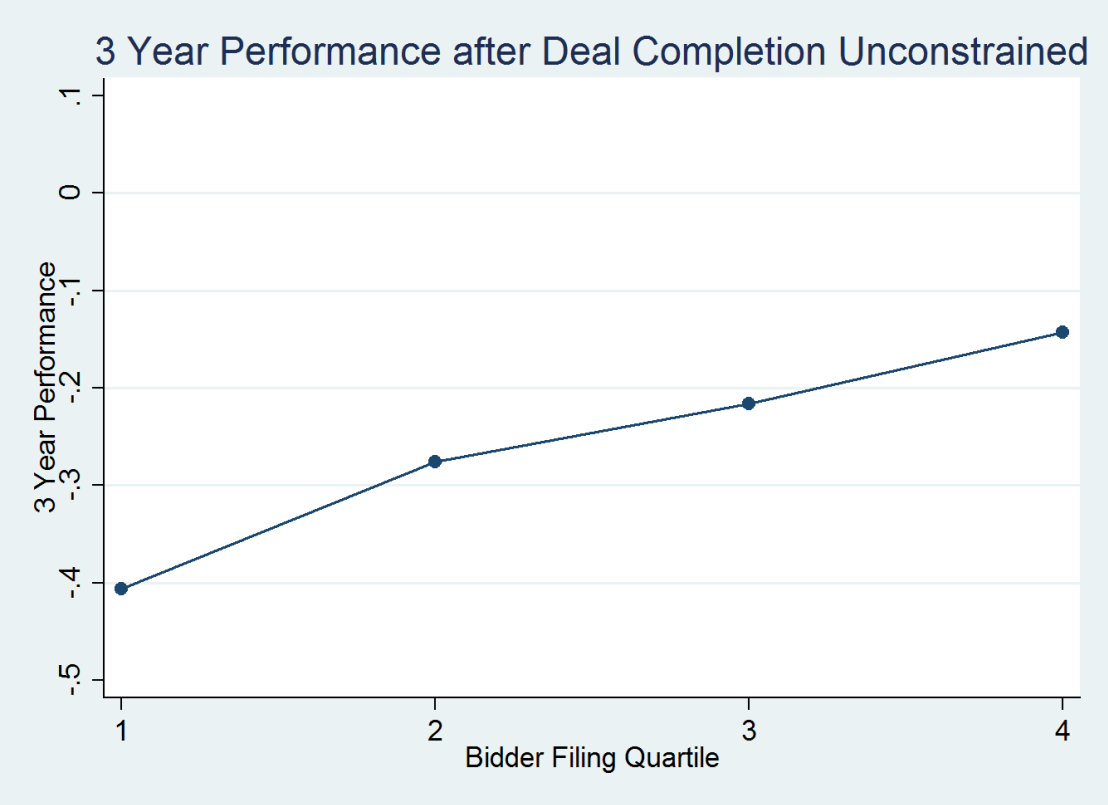


Figure A.9: 3 Year Performance and Bidder Tone Measure Dictatorship

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

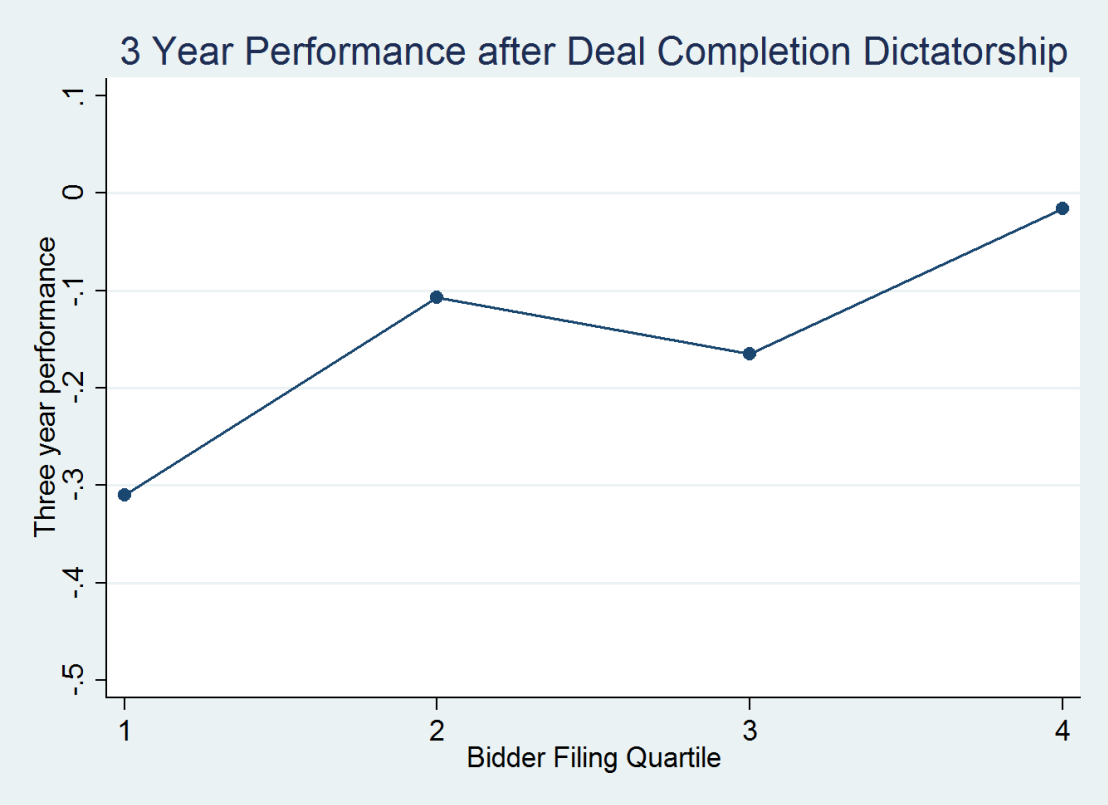


Figure A.10: 3 Year Performance and Bidder Tone Measure Democracy

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

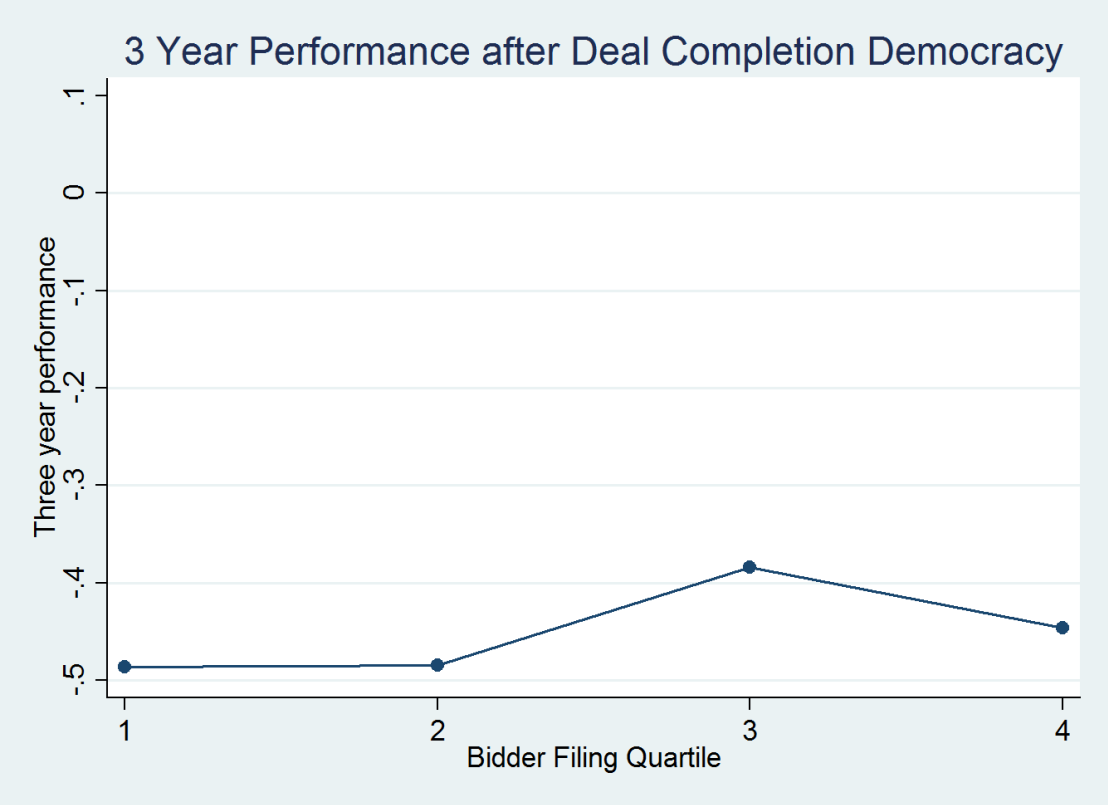


Figure A.11: Target CAR and Tone Measure

This figure plot the target announcement abnormal return vs the target filing measure quartile. The horizontal axis is the quartile of the target tone measure. The vertical axis is the target CAR average by the filing quartile.

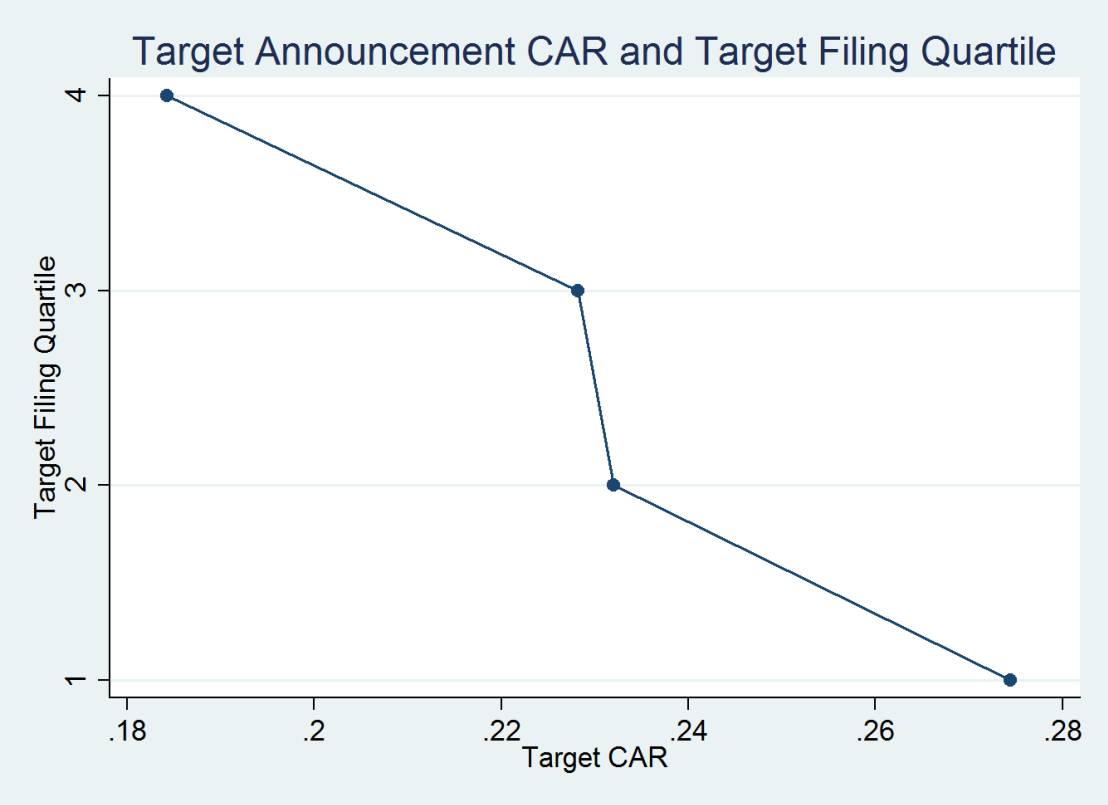


Figure A.12: Bidder CAR and Tone Measure

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

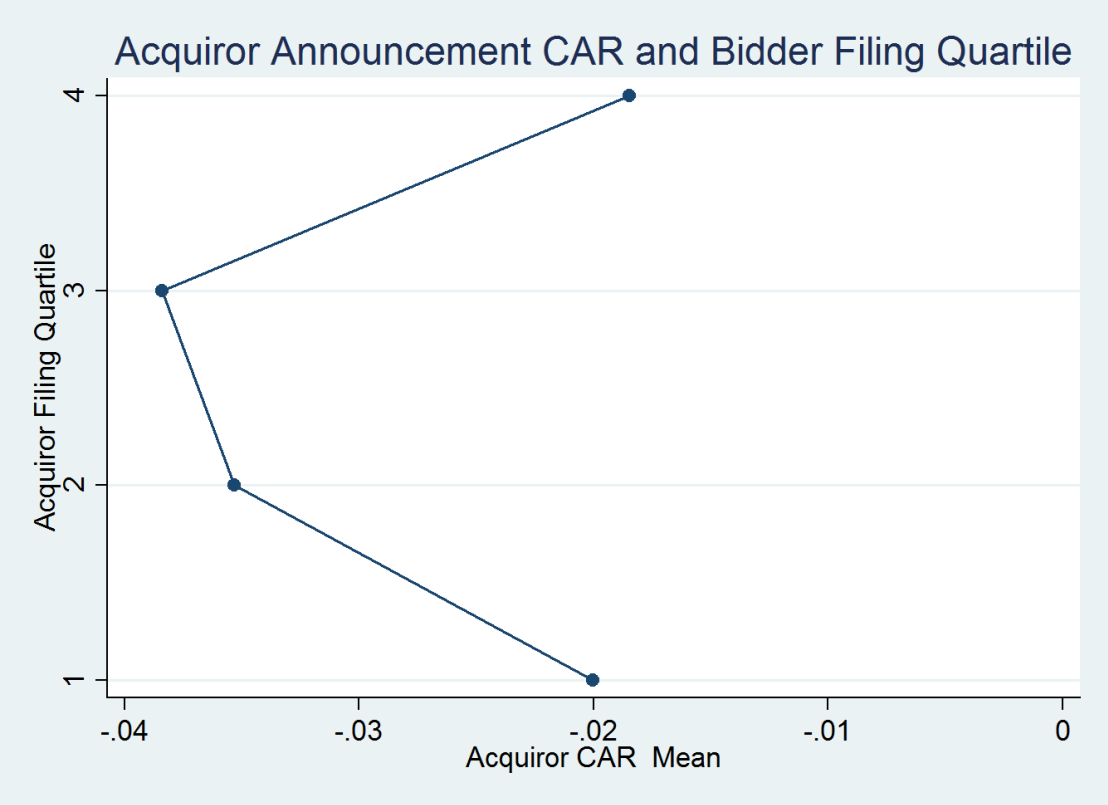


Figure A.13: Target CAR and Tone Measure Small Size

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

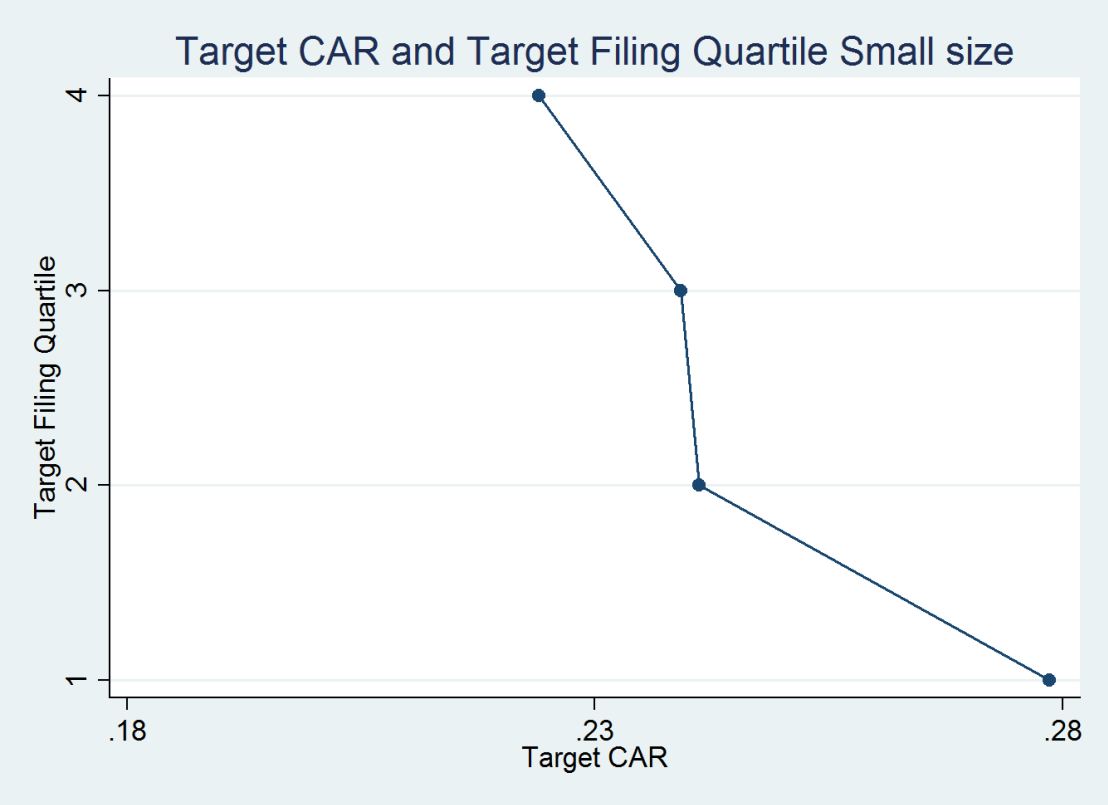


Figure A.14: Target CAR and Tone Measure Big Size

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

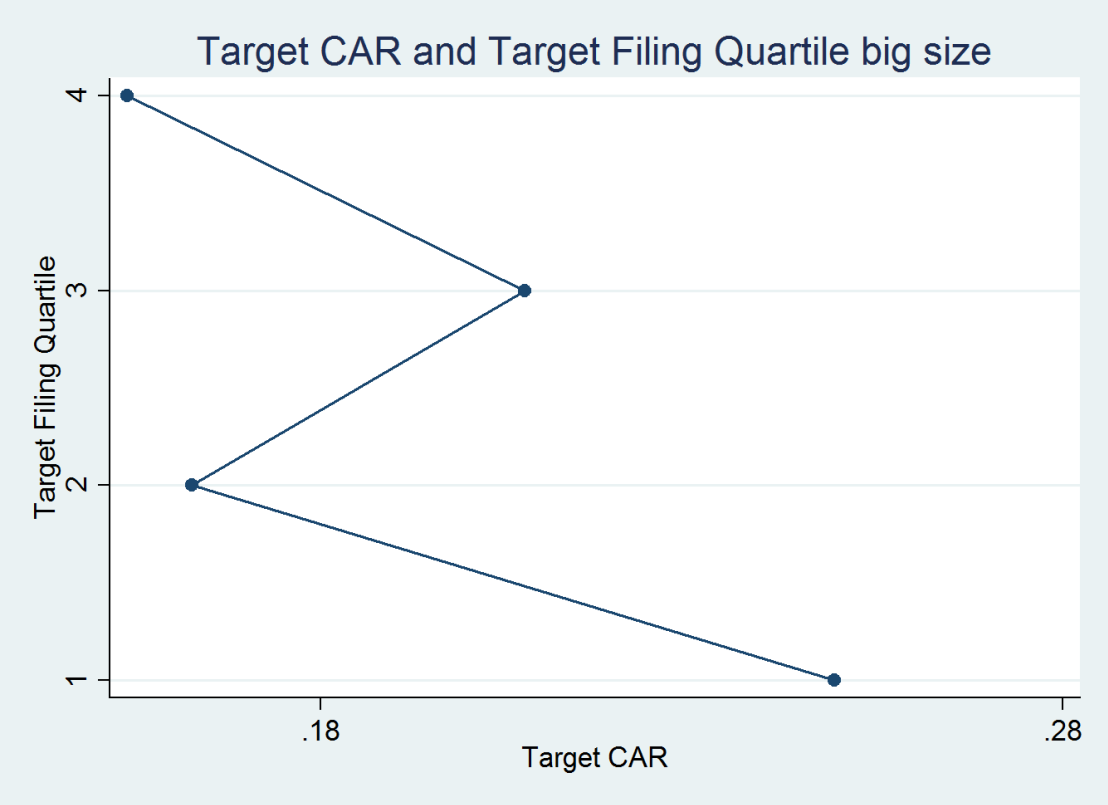


Figure A.15: Target CAR and Tone Measure Small M/B

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

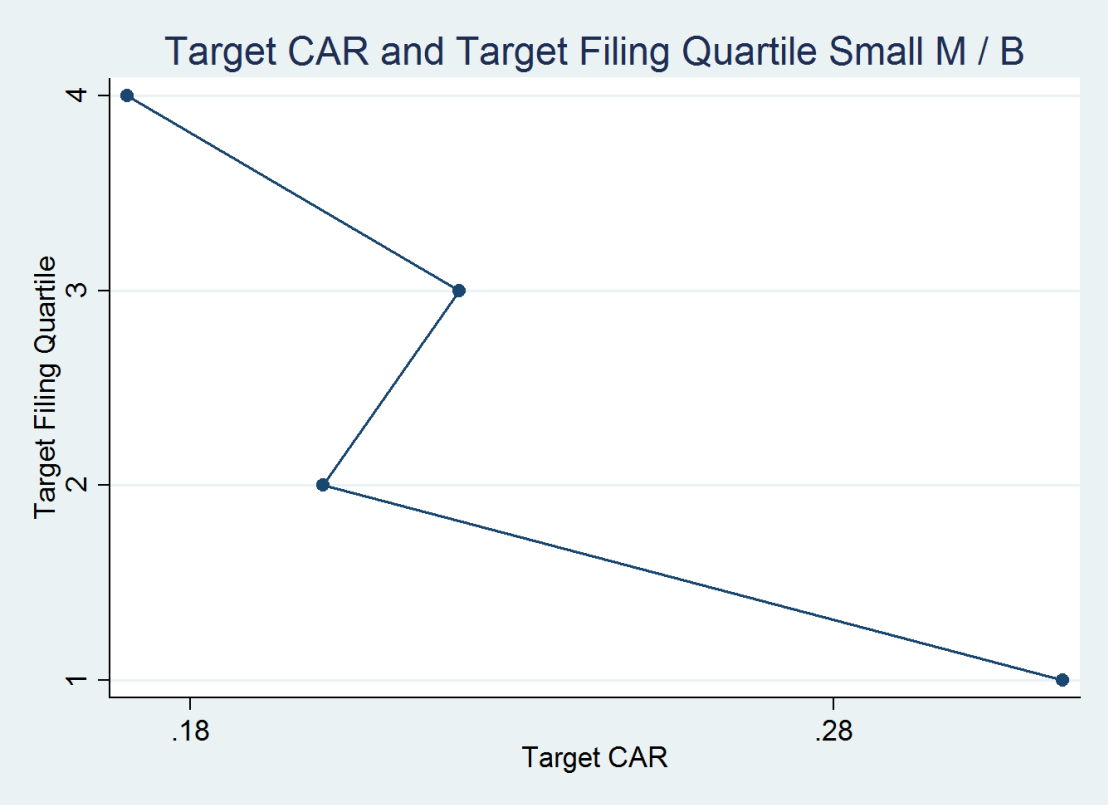


Figure A.16: Target CAR and Tone Measure Big M/B

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

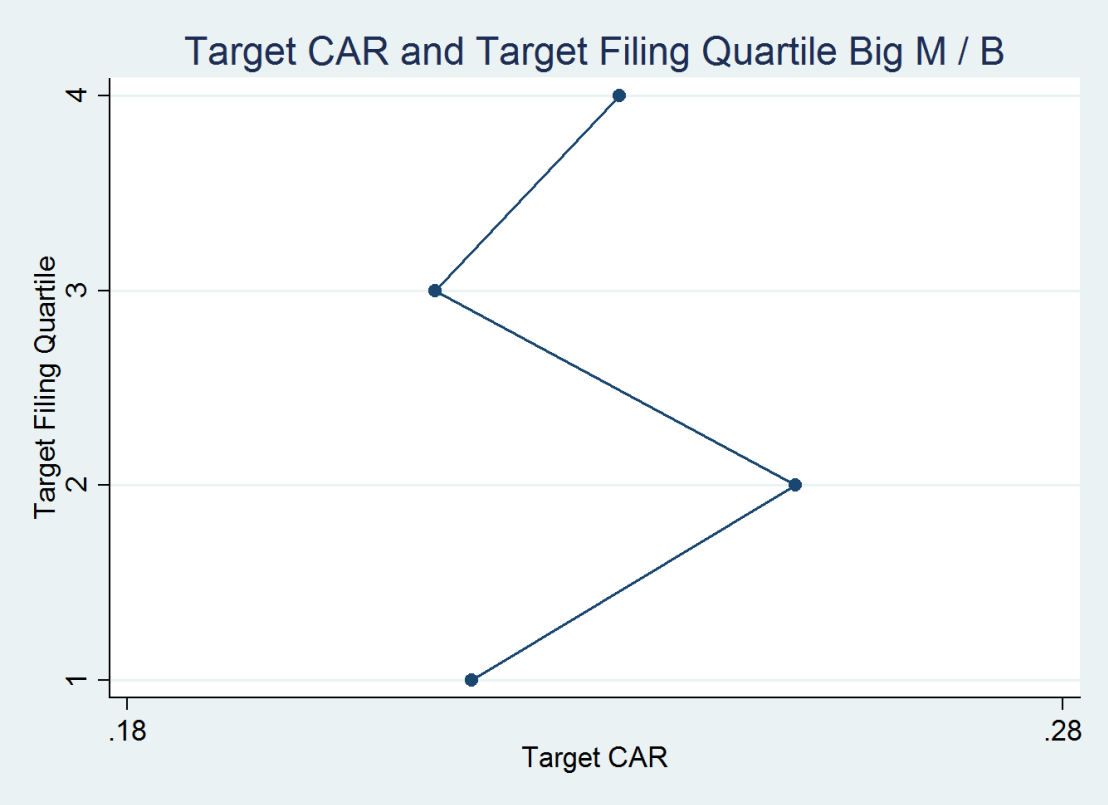


Figure A.17: Target CAR and Tone Measure Financial Constrained

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

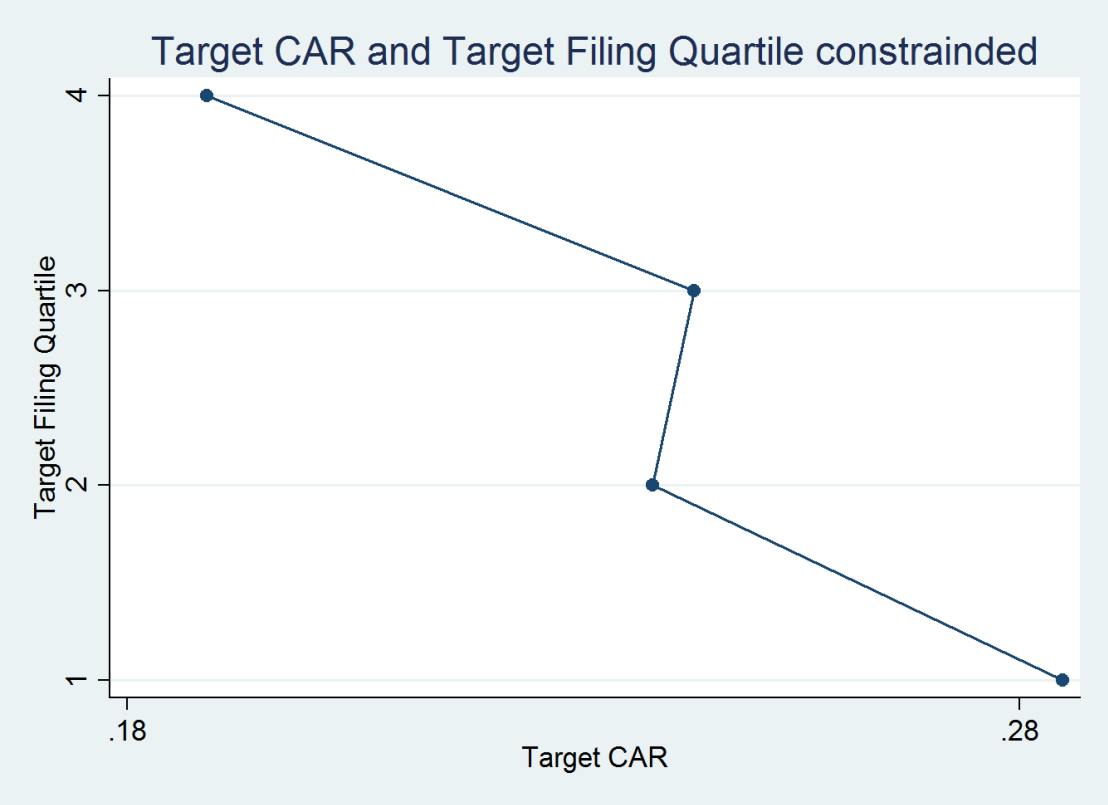


Figure A.18: Target CAR and Tone Measure Financial Unconstrained

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

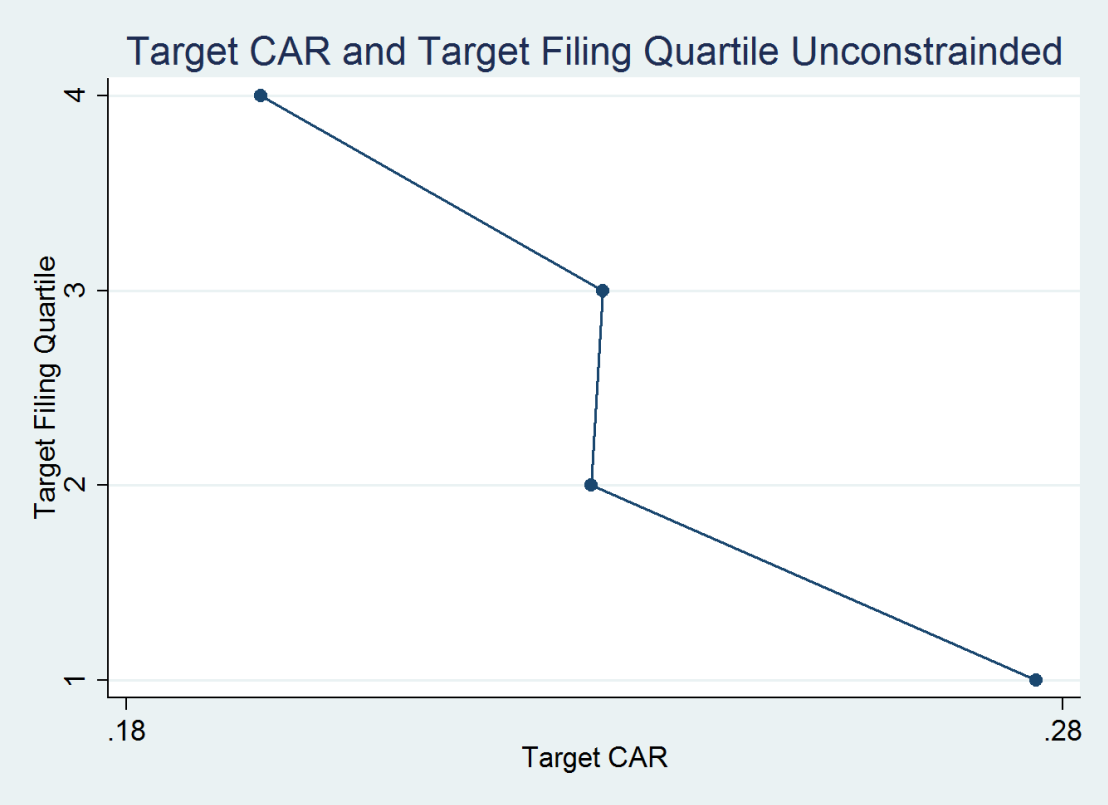


Figure A.19: Target CAR and Tone Measure Dictatorship

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.

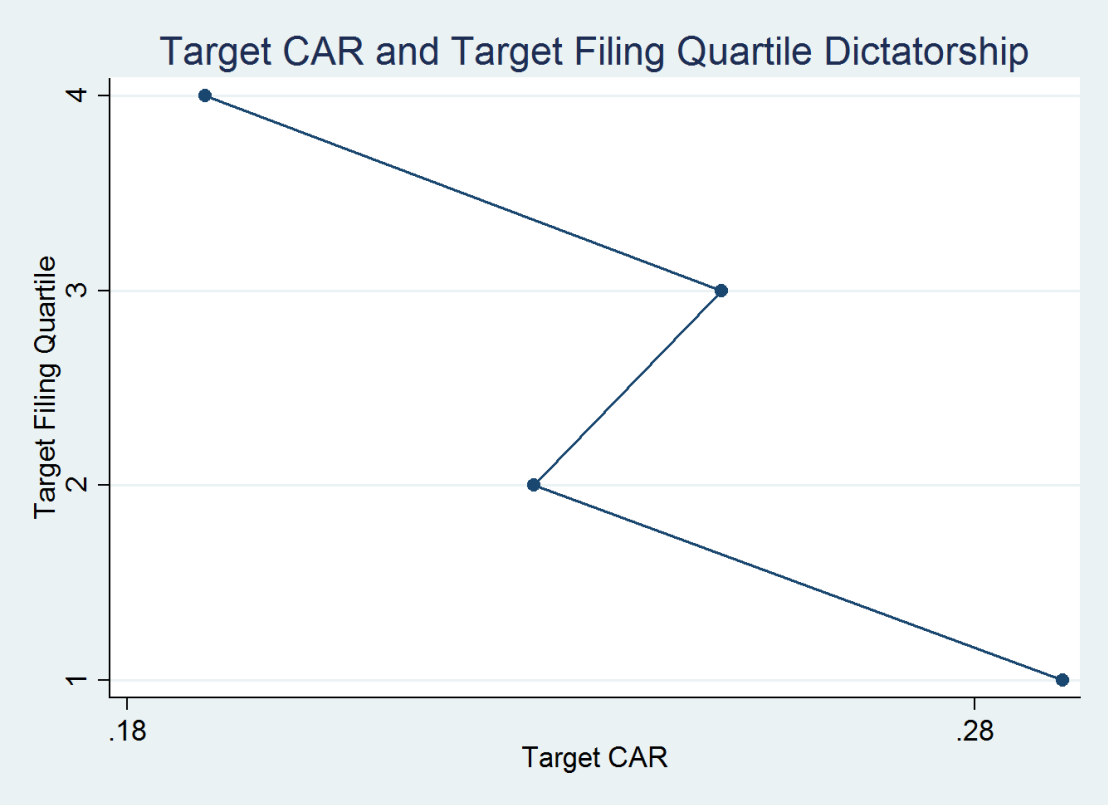
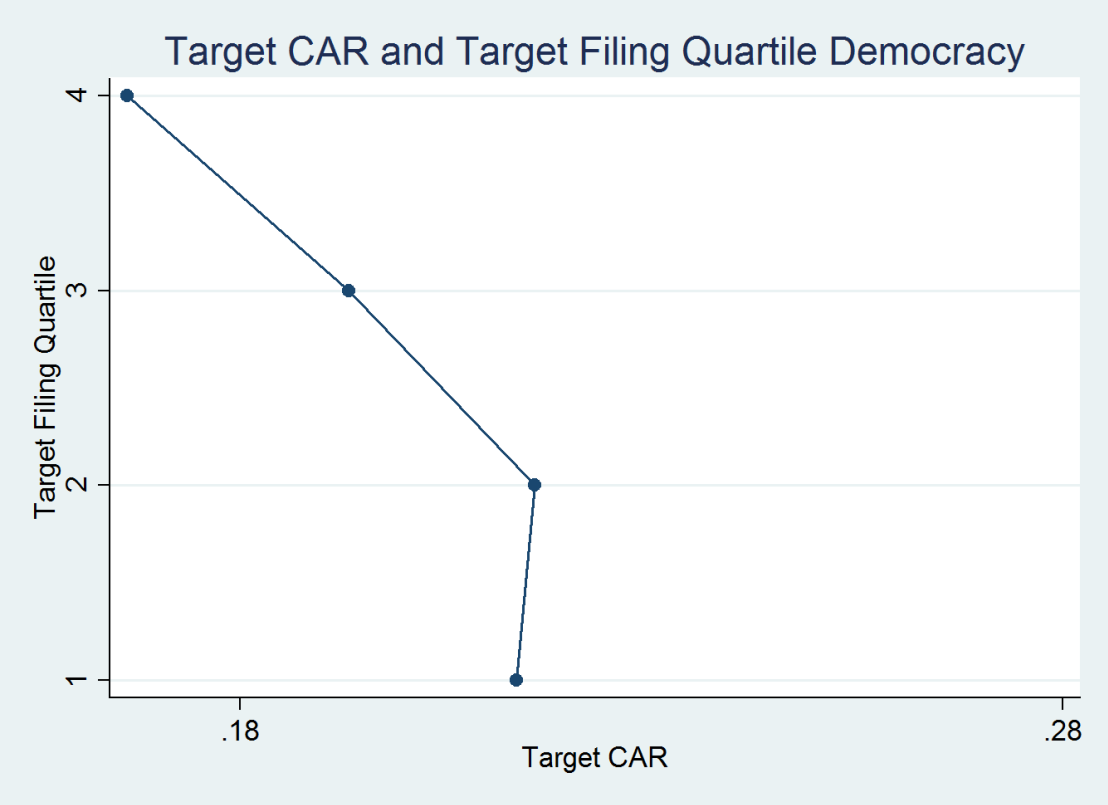


Figure A.20: Target CAR and Tone Measure Democracy

This figure plot the bidder announcement abnormal return vs the bidder filing measure quartile. The horizontal axis is the quartile of the bidder tone measure. The vertical axis is the bidder CAR average by the filing quartile.



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