

Takeover Protection through Narrative Disclosure

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Abstract

We assess the effect of hostile takeover susceptibility on narrative disclosure. We predict that firms use narrative disclosures as a takeover defense mechanism. Our results show that managers of firms with higher likelihood of receiving an unwelcome bid use more negative and pessimistic tone in their 10-K reports. Further, we show that the main result is in the subsample of firms with higher probability of experiencing a hostile takeover. We also show that firms using more negative and pessimistic disclosure tone are less likely to experience takeover threats. Our results are robust to the use of Constituency Statutes enactment as a plausible exogenous decrease in the need of firm-initiated internal antitakeover provisions.

1. Introduction

We examine the association between managerial strategic use of narrative disclosure tone and the existence of hostile takeover threats. We predict that firms use narratives as a takeover defense mechanism. In particular, we expect that managers use more pessimistic tone in 10-K reports to lower firm visibility and drive away bidders' attention, protecting themselves from takeovers. To assess whether pessimistic language acts as a defense mechanism, we study the use of negative tone, as well as analyze abnormal negative tone, which we denote pessimism.

Pessimism therefore means use of negative tone beyond what would be expected given the firm's fundamentals (such as performance, risk or complexity). This focus on negative and pessimistic tone allows us to contribute to prior work, as the effects of negative disclosure are scarce (e.g., Huang et al., 2014b), as prior literature usually focuses on the strategic use of positive rather than negative disclosure (e.g., Huang et al., 2014a; Bochkay et al., 2018).

US companies experienced several waves of hostile takeovers in the early 1980s. At the time of this heightened takeover environment, many rules were enacted at the state and firm level. The main goal of these rules was to protect managers from unexpected takeovers. Antitakeover provisions have been widely studied by previous literature. Previous studies analyze how antitakeover provisions affect managerial preferences and corporate governance (Bertrand and Mullainathan, 1999; 2003), firm value (Gompers et al., 2003) or shareholder wealth (DeAngelo and Rice, 1983). However, to the best of our knowledge, there is no previous study analyzing whether managers use more negative tone in their disclosures when confront higher probability of experiencing a hostile takeover. This is, whether managers use narrative disclosure to protect their companies from unwelcome bids. Takeover protection effectiveness depends not only on the type of protection adopted but also on the investors' view of firms' managers (Coates, 2000).

Understanding the consequences of higher probability of hostile takeovers and, thus, more antitakeover provisions (i.e., higher takeover protection) on narrative disclosure is important, as narratives are an efficient tool to disclose relevant information (Merkley, 2014) and have an impact on investors' decisions (Tetlock, 2007; Tetlock et al., 2008). Indeed, a growing literature shows that market participants consider not only firms' quantitative information but also its qualitative disclosures, and provides mounting evidence that narratives have economic consequences (Frazier et al., 1984; Gibbins et al., 1990; Tetlock, 2007; Tetlock et al., 2008; Feldman et al., 2010; Huang et al., 2014b). Companies disclosures are useful to stakeholders with different interests in the firm such as investors who want to discern their investment opportunities or financial analysts who issue their buy or sell recommendations. There is a debate in the literature about whether firms should issue accurate information to attract resource providers or whether issuing valuable information may attract rivals (Darrough and Stoughton, 1990; Verrechia, 1983) or potential acquirers.

Antitakeover provisions have the main goal of making the firm unattractive to potential unwelcome bidders. Some provisions such as *poison pills* or *pension parachutes* make the target less attractive to the acquirer. Other antitakeover provisions such as *fair price* or *silver parachutes* increase the acquisition price. *Director duties*, *unequal voting*, *supermajority*, *written consent*, *special meeting*, *black check* and *staggered boards* complicate that the bidder can acquire the control over the target company. Then, our main prediction is that a higher probability of confronting a hostile takeover is likely to increase the negative tone and pessimism used by managers in their 10-K disclosures. More negative tone and pessimism in firms' narratives is likely to dissuade potential acquirers as the firm looks less attractive.

However, the opposite may be true. As the type of narratives used by firms in their 10-K reports affect their returns (Feldman et al., 2010), it could be that firms subject to higher probability of receiving a hostile takeover, do not use a more pessimistic disclosure tone because this is likely to impair the market's perception of the company. This would be detrimental for shareholders and, eventually, for managers who can be dismissed for bad firm's results.

To test our predictions, we use the Cain et al. (2017)'s takeover index which is referred as *Hostile Takeover* in our study. The authors construct the takeover index using first the state-level variation of takeover activity which is plausibly exogenous to discretionary firm decisions. After analyzing which are the relevant takeover laws and court cases, they construct a firm-level index of hostile takeover susceptibility.² To measure negative tone, we use the Huang et al. (2014a) proxy of raw disclosure tone to construct our *Negative Tone* variable. The residual from the Huang et al. (2014a)'s model is our abnormal pessimistic disclosure variable (*Pessimism*).³ Our sample ranges from 1994 to 2013.

We report the following key findings. First, we find that firms more susceptible to hostile takeovers have more negative and pessimistic tone in their 10-K reports. Additional analyses show that the main effect is located in the subsample of firms located in states that have enacted the Inevitable Disclosure Doctrine (IDD). We follow Dey and White (2019) who claim that firms headquartered in states with IDD have higher probability of being acquired. We also find that the G-index from Gompers et al. (2003) and E-index from Bebchuk et al. (2009) have a positive relationship with negative tone and pessimism in firms' narratives. In addition, we show that

² The authors use 17 different takeover laws and court cases from year 1965 to 2014. To appease omitted variables concerns, their index is constructed using legal determinants as well as firms' characteristics such as aggregated capital liquidity and firm age. These firm characteristics are likely to affect the probability of receiving a hostile takeover bid but are not part of firms' discretionary decisions. We thank professor McKeon for making the index available at <http://pages.uoregon.edu/smckeon/>

³ We multiply both raw and abnormal disclosure tone variables by -1 to have a direct measure of pessimistic and abnormal pessimistic tone in 10-Ks.

firms with higher likelihood of having a hostile takeover bid that use more negative tone or pessimism in their disclosures are less likely to experience new acquisition threats. We also find that these firms show lower present and future prices. Finally, we show that hostile takeover susceptibility relates with lower present and future firm performance both in terms of returns. This is consistent with Cain et al. (2017) and Gompers et al. (2003) who show that antitakeover provisions relate with lower firm value which is in line with managerial entrenchment and agency costs. Also, these firms with higher probability of receiving hostile takeover bids engage in less accrual-based earnings management.

As robustness test, we use Constituency Statutes enactment as a plausible exogenous decrease in firms' need of internal antitakeover provisions. We find that firms incorporated in states that have enacted the Constituency Statutes (i.e., with less need for antitakeover protection) use less negative and pessimistic tone.

We contribute to prior work on firm-initiated takeover defenses by adding one defense mechanism through more negative disclosures. We also contribute to the literature on narratives and tone by looking at how narratives can be used to protect firms from unwelcome takeover bids. Most of previous literature focuses on positive tone and optimism in firms' narratives (e.g., Huang et al., 2014a). We offer a novel insight into cases where managers may opt for negative tone as a firm-initiated antitakeover defense which has not been explored in detail in prior research.

The remainder of Chapter 3 is structured as follows. Section 3.2 presents prior research and hypotheses, section 3.3 and 3.4 describe the methods, sample main results. Sections 3.5 and 3.6 present our additional analyses and robustness checks. Finally, section 3.7 concludes.

2. Prior Research and Hypothesis Development

2.1 Antitakeover Provisions

Until the late 1960s, there was less need for antitakeover protection as most business combinations occurred after managers of both companies agreed on a friendly takeover (Weston et al., 2003). However, during the 1960s, most of the friendly business combinations were substituted by tender offers. Tender offers allow potential acquirers to make the offer directly to the shareholders of the target firm without considering managers' opinion. Some tender offers were friendly, but others were not accepted by managers of the target companies and involved hostility (Weston et al., 2003).⁴

During the early 1980s, there were several waves of hostile takeover offers in the U.S. even to the largest public companies (Gompers et al., 2003) which lead to companies implementing mechanisms for takeover defenses and restrictions to shareholder rights. Some of these antitakeover provisions increase the managers' ability to stop an undesired bid or create constraints for shareholders to meet or vote. In addition to internal antitakeover provisions, many states enacted antitakeover laws providing further external protection to companies (e.g., Business Combination Law or Constituency Statutes).

Antitakeover provisions represent a source of controversy among practitioners and researchers (Straska and Waller, 2014). The main concern is whether antitakeover provisions can have detrimental consequences for shareholders wealth and capital allocation in markets. Straska and Waller (2014) survey theoretical and empirical studies related to antitakeover provisions and their effect on shareholder value. The authors state that the opponents of antitakeover provisions

⁴ The evolution of the takeover market generated a change in regulations. The 1968 Williams Act was created to amend the 1934 Securities Exchange Act and introduced provisions to make sure that both shareholders and managers have ex-ante information of a potential takeover bid, have time to evaluate it and the possibility of suing the bidder if it is considered necessary (Straska and Waller, 2014).

argument that giving more power to managers may increase their entrenchment, worsening agency problems, which may have negative effects on shareholders' value (Macey, 1988). On the other hand, antitakeover provisions defendants claim that these provisions allow managers to negotiate in better terms during takeovers and eliminate short-term oriented managerial decisions which would improve future firm value.

Previous literature has extensively analyzed internal (i.e., firm-initiated antitakeover provisions) and external (i.e., state-initiated so they are state laws) antitakeover provisions. Gompers et al. (2003) develop an antitakeover index, the G-index, including 24 internal and external antitakeover provisions. In the same line, Bebchuk et al. (2009) analyze the relative importance of the 24 provisions included in the G- index and create an entrenchment index, the E-index, using 6 internal provisions (*staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments*). Most of prior studies consider firms with higher antitakeover protection (i.e., higher values of the G-index or E-index), poor corporate governance firms. Some provisions aim to decrease the attractiveness of the target firm (e.g, *poison pills* or *pension parachutes*). Other provisions increase the price of the target company in case of acquisition (e.g., *fair price* or *silver parachutes*). Antitakeover provisions such as *director duties, unequal voting, supermajority, written consent, special meeting, black check* and *staggered boards* decrease the probability that the potential acquirer can control the target firm. As example of external antitakeover provisions, *Business Combination laws* include a moratorium of 2 to 5 years for assets sales, mergers and 1 other types of transactions between blockholders and other firms. This can change in case

managers in the board approve the transaction. *Constituency Statutes* allow firms to consider the interests of both shareholders and non-financial stakeholders during takeover processes.⁵

An important number of previous studies have analyzed the consequences of the G-index and E-index in terms of returns (e.g., Gompers et al., 2003; Cremers et al., 2009), firm value (e.g., Bebchuk et al., 2009; Cremers and Ferrell, 2014), acquisition returns (Masulis et al., 2007) or takeover premiums (Sokolyk, 2011), among others. However, some studies criticize the use of these indexes as they could incorrectly measure takeover protection (Karpoff et al., 2016). The specific critics relate to the inclusion or exclusion of certain mechanisms, the equal weighting assigned to all the provisions and the potential measurement errors.⁶ Other criticisms relate to endogeneity concerns (e.g., Core et al., 2006; Bhagat et al., 2008; Brickley and Zimmerman, 2010) as the implementation of internal antitakeover provisions is a discretionary managers' decision.

Cain et al. (2017) create a takeover index analyzing 17 takeover laws and court cases and the hostile takeover hazard. They analyze these takeover laws for the period 1965 to 2014 and find that some of these laws such as poison pills or business combination laws have not a significant effect on hostile takeover activity. Other provisions such as fair price laws have effectively reduced hostile takeovers. To construct their index, the authors first focus on state-level variation in takeover activity and then create a firm-level index adding aggregated capital liquidity and firm age to decrease omitted variable concerns. Thus, their measure is plausible exogenous to discretionary firm decisions which differs from other measures such as G-index or E-index. The Cain et al. (2017) takeover index captures the hostile takeovers susceptibility of firms.

⁵ For a complete definition of the different internal and external antitakeover provisions see Appendix 10 in Gompers et al. (2003).

⁶ Some examples would be Cremers and Nair (2005), Brown and Caylor (2006), Romano et al. (2008) or Black et al. (2016).

2.2 Narrative Disclosure

Prior research documents that corporate narratives are efficient channels to disclose information (Merkley, 2014) with economic consequences for the firm (Frazier et al., 1984; Gibbins et al., 1990; Tetlock, 2007; Tetlock et al., 2008; Feldman et al., 2010; Huang et al., 2014b). Narrative disclosure helps managers to convey firm-specific information about their firms to market participants. In this line, Merkley (2014) shows that narratives possess reliable information content. The author finds that managers adjust R&D disclosures considering earnings performance to provide relevant information and not to obfuscate the real firm performance. Previous literature provides evidence that firm-level heterogeneity exists along narrative dimensions such as financial statements readability (e.g. Li, 2008), or disclosure tone (Frazier et al., 1984; Feldman et al., 2010).

Firms disclosures can be informative of the real firm's situation in terms of performance (Grossman, 1981; Milgrom, 1981). However, managerial disclosure is a discretionary managerial choice and, normally, it focuses on good news to affect stock prices in a favorably way and gives lower weight to negative news (Verrecchia, 1983; Dye, 1985). Previous studies such as Yermack (1997) or Aboody and Kasznik (2000) evidence that managers exploit their privileged information for personal gain. There are studies analyzing the effect of negative tone on investors. In this line, Tetlock et al. (2008) analyze the effect on investors of negative words in firm-related news. In particular, the authors find that firms with more proportion of negative words in financial firms' news are more likely to show lower earnings. Huang et al. (2014b) analyze analyst reports and find that investors react more strongly to negative than to positive narratives.

Thus, narrative disclosures have an important effect on investors and markets. However, there exists scarce literature on how negative tone in firms' 10-K disclosures can be used as a managerial strategy. Guo et al. (2017) show that firms with higher risk of competitors entry use more vague tone in their annual reports but, they do not analyze negative tone. Our argument is that the negative tone and pessimism in firms 10-K reports relate with a defense mechanism against potential unwelcome takeover bids. In this line, Fu and Liu (2017) find that firms with more antitakeover provisions (i.e., firms with higher takeover pressure) are more likely to issue management earnings forecast, specially those firms with negative earnings information. The authors explain that firms with more antitakeover provisions do not have short-term pressures because their managers are less likely to be fired for takeover reasons.

2.3 Takeover Protection and Narrative Disclosure

The different antitakeover provisions, both internal (i.e., firm-initiated) and external (i.e., state-initiated), have the common characteristic of making the target company less attractive to potential acquirers. When companies have higher probability of experiencing a hostile takeover, it seems plausible that their main goal is to keep away unwelcome potential acquirers.

Previous literature shows that managers are willing to report, in general, good news and withhold bad news, such as dividend cuts, to avoid negative market reactions when they need positive market reactions (e.g., Lang and Lundholm, 2000; Kothari *et al.*, 2009a; Ali *et al.*, 2015; Campbell, 2018). However, considering that narrative disclosure tone has an important effect on investors, it is likely that managers are prone to use more negative or pessimistic tone in their 10-K reports to avoid hostile takeovers.

Negative and pessimistic tone may impair the market's view of the company but, it is important to consider that antitakeover provisions give managers more power within the firm (i.e., higher managerial entrenchment). Then, it is likely that managers are less affected by the potential detrimental effects on firms of negative and pessimistic tone. Previous studies argue that managers' incentives to act depend on their losses and gains perceptions (e.g., Smith and Grimm, 1991; Smith et al., 1991). Then, managers are likely to use pessimistic tone if their perception of the benefits (i.e., avoid an unwelcome bid) surpasses the costs (i.e., potential detrimental effect on market perception of the firm). Regarding quantitative firms' strategies, McDonnell et al. (2019) show that firms subject to activist challenges engage in downward earnings management activities to reduce the audience's assessment of their performance. The main argument is that firms' outperformance can be interpreted as a signal that firms act in a dishonest way. Related to takeover literature, Servaes and Tamayo (2014) show that when a same-industry firm experiences a hostile takeover, other firms belonging to the same industry reduce capital expending and cash holdings and have larger leverage and shareholder payouts. The authors also find that these industry peers engage in more antitakeover provisions. Fu and Liu (2017) show that firms with more antitakeover provisions are more likely to engage in managerial earnings forecasts mainly when they have negative earnings. The authors explain that managers in firms with more antitakeover provisions are not short-term oriented, so they can concentrate their efforts in long-oriented strategies. This result may be also consistent with firms trying to protect themselves from unwelcome takeover bids showing their bad results which is likely to relate with more negative tone in disclosures. In this line, and regarding qualitative firms' strategies, Guo et al. (2017) show that firms use strategic narratives to avoid competitors' entries. In particular, the authors find that managers use more vagueness in their annual

disclosures to reduce potential entry firms' attention. Thus, we formulate the following hypothesis:

H: *Firms with higher probability of receiving a hostile takeover are likely to use more negative tone and pessimism in their narratives to protect the firm from unwelcome bidders.*

4. Empirical Constructs on Pessimism and Takeovers

We study the impact of hostile takeovers susceptibility on negative (*Negative Tone*) and pessimistic (*Pessimism*) disclosure tone in 10-K reports. To study whether managers use narratives to protect their companies from unwelcome bids, we propose the following model:

$$\text{Negative Tone (Pessimism)}_{it} = \alpha_s + \alpha_t + \beta \text{Hostile Takeover}_{it} + \gamma' X_{it} + \varepsilon_{it}, \quad (1)$$

where our dependent variable *Negative Tone* is measured following Huang et al. (2014a) as the level of *raw* disclosure tone in the 10-K reports (i.e., positive minus negative words scaled by total words) which are downloaded from EDGAR database and are parsed using a *php* algorithm. We multiply raw disclosure tone by -1 for the variable to have a direct relationship with pessimistic disclosure tone. We also use *Pessimism*, which is the residual from the Huang et al. (2014a) model multiplied by -1, as dependent variable. *Hostile Takeover* is the takeover index developed by Cain et al. (2017). The authors use a sample that ranges from 1965 to 2014 and include a full set of takeover laws and court cases. They apply the Akaike Information Criterion (AIC) to find which variables explain hostile takeover hazard. Once they have the model with the best AIC, the authors apply the estimated coefficients to construct their takeover index. In particular, the authors focus on state-level variation in takeover bids which is not very likely to be at the firm discretion. Then, they create a firm-level index adding aggregated capital liquidity

and firm age to assuage potential omitted variable issues. In model (1), i , t and s are the firm, time and industry indicators. Industry (SIC-2) and year fixed effects represented by α_s and α_t , respectively.⁷ Following Cain et al. (2017), we do not use firm fixed effects in our main regressions.⁸ The authors mention that the index is sticky over time and adding fixed effects may absorb the variation we are interested in analyzing. In this line, Cremers and Ferrell (2014) do not find statistically significant results when they add firm fixed effects in their G-index analysis. Following Huang et al. (2014a) we include the following control variables: *Earnings*, *Returns*, *Size*, *btm*, *Volatility Ret*, *Volatility Earn*, *Firm Age*, *Busseg*, *Geoseg*, *Loss*, *Earn change*, *afe* and *af*. All variables are defined in Appendix 1.

To construct the variable *Negative Tone*, we first need to calculate disclosure tone. For this, we examine 516,628,725 words containing 3,465,099 positive words and 7,595,709 negative words in a total of 30,122 10-K reports.⁹ The parsing method for 10-Ks is described in Appendix 2. Negative disclosure tone (*Pessimism*) is measured as positive words minus negative words scaled by total words and expressed in percentage and multiplied by -1 to have a direct relationship with pessimism. We use the Loughran and McDonald word lists of positive and negative words created specifically for financial documents.¹⁰ We use the 2014 updated version of their word list which contains 354 positive and 2,329 negative words (Loughran and McDonald, 2015). Their word list presents two important advantages. First, the list is more

⁷ If we use SIC-3 or SIC-4 our main results do not change.

⁸ Cain et al. (2017) explain in page 481 that “*firm fixed effects can be problematic when the variables in the model are slow-moving...*”.

⁹ These filings include 10-K, 10-K405, 10-KSB and 10-KSB40. All the amended reports (/A) are not considered because we focus on the first version of the report.

¹⁰ There exist other word lists in the accounting and finance literature: Harvard's General Inquirer (GI), Diction and the list developed by Henry (2008). However, these lists have some limitations such as not including relevant keywords common in financial reports (e.g. loss, impairment, adverse) which is the case of Henry's (2008) list (Loughran and McDonald, 2016). Harvard GI and Diction word lists have been used in many studies as they were the first word lists publicly available, but they are not created specifically for financial documents.

complete in terms of words included. Second, it is also customized to financial documents and specifically created from the 10-Ks making this list the most accurate to derive or proxy for managers' positive disclosure tone (Loughran and McDonald, 2016).

4. Sample and Results on Pessimism and Takeovers

We obtain financial and accounting data from Compustat and CRSP. Analysts data are obtained from IBES database. Merging these databases results in a total of 24,123 firm-year observations representing 2,157 US firms. We remove financial firms from the sample because their characteristics and disclosure tone differ from non-financial firms.¹¹ The final sample is comprised of 10,231 firm-year observations representing 1,241 non-financial firms between 1994 and 2013. Data for mergers and acquisitions is from Securities Data Company (SDC) Platinum database.

Table 1 presents the descriptive statistics of our main variables of interest. *Negative Tone* has a positive mean and median suggesting that managers in our sample use, on average, more negative disclosure tone in 10-K reports. *Pessimism* has a negative mean and median suggesting that, on average, managers in our sample use less pessimistic tone in their 10-Ks. *Hostile Takeover* represents the firms' probability of receiving a hostile takeover and has a mean of 0.176 and a median of 0.148. Table 2 presents the Pearson correlation coefficients. *Hostile Takeover* has a positive and significant correlation with *Negative Tone*. Surprisingly, we find that the correlation between *Hostile Takeover* and *Pessimism* is negative and significant.

¹¹ Some words such as *risk* and *casualty* have negative meaning in non-financial firms, but they might not be negative in the context of financial firms (Jegadeesh and Wu, 2013).

Table 3 Panel A shows the results for the main analysis. Columns (1), (2) and (3) show the relationship between *Hostile Takeover* and present and future *Negative Tone*. In every model, the *Hostile Takeover* coefficient is positive and statistically significant. Columns (4), (5) and (6) show the relationship between *Hostile Takeover* and present and future *Pessimism*. In every model, the *Hostile Takeover* coefficient is positive and statistically significant. These results confirm that firms with higher susceptibility to hostile takeovers use more negative and pessimistic disclosure tone in their 10-Ks. This is consistent with our argument that as narratives have an important effect on investors perception of the firm (Frazier et al., 1984; Gibbins et al., 1990; Tetlock, 2007; Tetlock et al., 2008; Feldman et al., 2010; Huang et al., 2014b), managers may use pessimistic disclosure tone to keep away unwelcome potential bidders. Thus, our hypothesis holds. Table 1 Panel B shows that managers use fewer positive words when they are more susceptible to hostile takeovers.¹²

5. Additional Analyses on Pessimism and Takeovers

Our main results should be stronger for the subsample of firms that are more attractive in terms of takeovers. In this line, Dey and White (2019) state that firms located in states that have enacted the IDD have higher probability of being acquired. This is in line with Chen et al. (2018) who find that IDD firms have higher probability of experiencing a takeover. IDD relates with trade secret protection regulations and emerge from a number of US court decisions. In firms located in states that have enacted the IDD, former employees cannot work for a competitor if the employee would inevitably need to use their trade secret knowledge in the rival company to

¹² Our main results remain unchanged if we control for CEO ability using the proxy developed by Demerjian et al. (2012). Untabulated results show that the coefficient for the CEO ability variable is positive but not significant.

correctly develop the job (Klasa et al., 2018; Li et al., 2018). Then, as IDD restricts competitors from acquiring private firm information from employees, it is likely that they try to obtain the trade secrets information by acquiring the firm (Tate and Yang, 2016). In addition, under IDD it is less likely that employees leave and transfer important firm information, so firms may increase organizational capital investment which would make the company more attractive to bidders.

Dey and White (2019) find that IDD relates with firms using more antitakeover provisions. We divide our sample in firms whose headquarter is in states that have enacted the IDD and firms headquartered in states without IDD.¹³ Table 4 shows that the main effect of *Hostile Takeovers* on *Negative Tone* and *Pessimism* is for the subsample of firms with IDD (Columns 1 and 2). This is expected as firms with IDD are more attractive to potential acquirers.

Many previous studies have used the G-index (Gompers et al., 2003) and the E-index (Bebchuk et al., 2009) to account for antitakeover provisions (e.g., Cremers and Ferrell, 2014; Sokolyk, 2011; Cremers et al., 2009; Bebchuk et al., 2009; Masulis et al., 2007; Gompers et al., 2003). However, these measures have been widely criticized because every provision has the same weight, there could be measurement errors (e.g., Black et al., 2016; Romano et al., 2008; Brown and Caylor, 2006; Cremers and Nair, 2005) or endogeneity issues as internal antitakeover provisions represent managerial decisions (e.g., Core et al., 2006; Bhagat et al., 2008; Brickley and Zimmerman, 2010). As these indexes are constructed using antitakeover provisions which main goal is to make the firm unattractive to unwelcome bidders, they should relate with more negative tone in firm disclosures. Table 5 shows that both G-index and E-index have a positive and statistically significant relationship with present and future *Negative Tone* and *Pessimism*.

¹³ Appendix 12 shows state and year of IDD enactment.

We also analyze whether the use of negative and pessimistic disclosure tone really protect firms from new takeover announcements. We use data from SDC database to obtain all the M&A announcements from 1993 to 2013. The dependent variable *Takeover threat* is a dummy variable that equals one if the firm experiences a new acquisition announcement threat and zero otherwise. Correlation between *Negative Tone* and *Takeover* is negative (-0.033) and statistically significant (p-value<0.01). For *Pessimism*, the correlation with *Takeover* is positive but not statistically significant. Correlation between *Hostile Takeover* and *Takeover* is positive (0.067) and statistically significant (p-value<0.01).

Table 6 shows the results for this analysis. We find a negative and statistically significant coefficient for the interaction between *Negative Tone* and *Hostile Takeover* in Column (1). Columns (3) and (4) show that the interaction between *Pessimism* and *Hostile Takeover* is negative and statistically significant for current and future takeover threats. These results show that firms with higher probability of experiencing an unwelcome takeover bid that are more negative or pessimistic in their narratives, are less likely to experience a new takeover threat. As expected, a higher probability of experiencing a hostile takeover (*Hostile Takeover* variable) relates positively with having a new acquisition threat. However, we only find statistical significance in Column (1).

Untabulated results show that the relationship between the interactions *Negative Tone*Hostile Takeover* and *Pessimism*Hostile Takeover* and having a hostile takeover threat is negative in most of the models, but we do not find statistical significance. The number of observations drop as we do not have many hostile takeover announcements in our sample. In our sample there is a 24.2% of firms experiencing a new acquisition threat. But we find that only a 0.5% of those firms experience a new hostile acquisition threat. This lack of significance for

hostile takeovers is in line with Cain et al. (2017) results. Thus, results in table 6 are in line with our argument that firms use negative and pessimistic tone in narratives as a defense mechanism against potential unwelcome takeover bids.

In addition, using CRSP delisting data due to merger-related issues, in untabulated results we find that firms with higher susceptibility to experience hostile takeovers that use more negative disclosure tone, are less likely to suffer a delisting because of merger-related situations. We find a negative but not significant coefficient for the relationship between firms' delisting given merger-related issues and the interaction between *Pessimism* and *Hostile Takeover*.

Previous literature argues that firms with higher probability of experiencing unwelcome takeover bids have higher incentives to maximize the firm's price, so they are more expensive for the potential acquirers (Macey, 1988). Using negative or pessimist disclosure tone in narratives is likely to impair market's assessment of firms' value which, in turn, would decrease firms' prices. Salva and Zhang (2017) argue that financial bidders are specialized in identifying mispriced firms to buy them and obtain positive future benefits. On the other hand, strategic acquirers would focus on takeovers that provide them with synergistic gains. It is fair to assume that both financial and strategic bidders look for good firms in the capital markets. Table 7 shows the relationship between negative and pessimistic disclosure tone and present and future firm's price. Results show that *Hostile Takeover* has a positive and statistically significant relationship with firm price. This is consistent with the idea that potential bidders are likely to look for good firms to buy. We also find that firms with higher susceptibility to hostile takeovers that use more negative or pessimistic disclosure tone present lower present and future price. This is consistent with the idea that disclosure tone has an effect on markets' perception of firm value. It is interesting to note that the coefficients for *Negative Tone* and *Pessimism* are not statistically

significant. In addition, the coefficients sum of *Negative Tone*Hostile Takeover* and *Hostile Takeover* and the coefficients sum of *Negative Tone*Pessimism* and *Hostile Takeover* are not statistically significant. Our intuition is that though the use of negative or pessimistic narratives, managers can convince potential unwelcome bidders that their firms does not represent a good investment.¹⁴

Previous literature analyzes the relationship between antitakeover provisions and firm performance. In particular, Cain et al. (2017) show that higher hostile takeover susceptibility relates with lower firm value. This result is also consistent with Gompers et al. (2003) who show that their antitakeover index (the G-index) has a negative relationship with firm performance. Table 8 shows that, consistent with Cain et al. (2017), *Hostile Takeover* relates with lower present and future firm returns. This would link with the idea that higher probability of hostile takeovers makes firms to increase the antitakeover provisions which increases managerial entrenchment having detrimental effects on firm performance. We find that firms that use more pessimistic narratives have a negative and significant relationship with current returns. This is consistent with the potential costs of engaging in negative disclosure strategies as markets may have a negatively value the firm. We do not find significant relationship for the interaction between *Negative Tone (Pessimism)* and *Hostile Takeover*.

Our main results show that firms more subject to hostile takeovers use more negative and pessimistic disclosure tone as qualitative strategy to protect the firm from unwanted takeovers. Higher protection against potential unwelcome bidders may decrease the importance of complying short-term goals and allow managers to concentrate on long-term issues. This situation is likely to decrease the need for accrual-based earnings management. Table 9 shows

¹⁴ Untabulated results show that these results hold when the dependent variable is the target firm's price one day, one week or four weeks before the takeover deal.

that *Hostile Takeovers* relate with lower accrual-based earnings management. Accrual earnings management are calculated following Jones (1991).¹⁵ We find *Hostile Takeover* has a negative and statistically significant relationship with present and future accrual-based earnings management.¹⁶ We do not find significant results for the interaction between *Negative Tone (Pessimism)* and *Hostile Takeover*.¹⁷ Results in table 4 show that managers engage in less accrual-based activities when there is a higher probability of receiving an unwelcome bid. This is consistent with the idea that higher susceptibility to takeovers make firms to need more antitakeover provisions which, in turn, give more power to managers and decrease their need of meeting short-term goals. However, we do not find significant results for firms that use negative tone in hostile takeover environments.¹⁸

6. Robustness Checks on Pessimism and Takeovers

As robustness check, we use as a plausible exogenous decrease in firms' need of takeover protection, the Constituency Statutes enactment. Constituency Statutes allow directors to consider the effect of structural and operational decisions not only on shareholders, but also on the interests of non-financial stakeholders (see appendix 4 for data on the enactment of constituency statutes in all US). Their passage has two related consequences: (1) they increase stakeholder-oriented practices (e.g., Flammer and Kacperczyk, 2016), and also, (2) they act as *de facto* antitakeover protection laws (e.g., Bisconti 2009). To the extent that these Statues reduce the need of firm-initiated defensive actions and improve investment in socially responsible

¹⁵ Using the modified Jones model (Dechow et al., 1995) to proxy for accrual earnings management, our main results do not change.

¹⁶ We do not find conclusive results for real earnings management. If we use Zang (2012) to proxy for real earnings management (abnormal production minus abnormal discretionary expenses) we find that *Hostile Takeover* has a positive and significant relationship with real earnings management at time t. However, if we use the Roychowdhury (2006) proxy for real earnings management we do not find significant results.

¹⁷ Untabulated results show that we do not find significant results for abnormal pessimistic disclosure tone nor for the interaction between *Abn. Pessimism* and *Hostile Takeover*.

¹⁸ Untabulated results show that we do not find significant results for pessimism.

initiatives, we predict that they will lead to less negative and pessimistic disclosure tone.

Although Constituency Statutes are not simple antitakeover provisions (as they protect *all* stakeholders),¹⁹ these laws act as external antitakeover protection.

We follow studies such as Flammer and Kacperczyk (2016) or Gao et al. (2018), and exploit the quasi-natural experiment provided by the staggered enactment of Constituency Statutes in U.S. Table 10 shows the results. *Constituency Statutes* is a dummy variable that equals 1 for firms incorporated in states that have enacted the Statutes (treated firms) and 0 otherwise (control firms).²⁰ We control for E-index (Columns 1 and 3) and for G-index (Columns 2 and 4) to account for other internal and external antitakeover provisions that could be affecting firms' narratives. Results in Table 10 show that the coefficient for *Constituency Statutes* is negative and statistically significant. This shows that firms with lower need to protect themselves use a less negative and pessimistic tone in their 10-K reports.

In additional analyses, we find that firms more susceptible to hostile takeover bids that use more negative or pessimistic disclosure tone have lower prices. A potential concern could be that firms with higher levels of negative tone and pessimism in their disclosures attract potential acquirers. This would relate with a reverse causality issue where pessimism would determine firms' propensity to hostile takeovers. To deal with this issue, we perform the Granger Causality test. Untabulated results show that negative tone and pessimism in previous periods are not positive and significantly related with firms' susceptibility to a hostile takeover.

¹⁹ Although the nature of most Statutes is permissive (Bainbridge, 1992), they are legally enforceable and different with respect to the traditional shareholder primacy view (Orts, 1992; Stout, 2012). The legal enforceability of the Statutes has been shown in real business cases. For example, in a federal bankruptcy case, *In re McCalla Interiors, Inc.*, 228 B.R. 657 (United States Bankruptcy Court, N.D. Ohio 1998), the Court explicitly alluded the Ohio Constituency Statutes to defend the employees' and customers' interests.

²⁰ Appendix 13 shows state and year of Constituency Statutes enactment.

7. Summary and Conclusions

We analyze whether firms that are more likely to experience unwelcome takeover bids use negative and pessimistic disclosure tone as a mechanism defense against those potential acquirers. To proxy for firms' susceptibility to hostile takeovers we use the Cain et al. (2017) measure that contains takeover laws and cases as well as firm characteristics such as aggregated capital liquidity and firm age. As these elements are not likely to be at the managerial discretion, the Cain et al. (2017) proxy provides a plausible exogenous measure for firms' propensity to hostile takeovers. In particular, we find that firms with higher probability of experiencing an unwelcome takeover use more negative and pessimistic disclosure tone in their 10-K reports.

We also find that our main results are mainly located in the subsample of firms that are more attractive for potential acquirers (i.e., firms located in states that have enacted the IDD). Appendix 3 includes the list of cases where US state courts decided to adopt the IDD. We also find that firms in hostile takeovers environment that use more negative and pessimistic tone in their disclosures are less related with new takeover announcements. This is in line with our argument that pessimistic disclosure is used by firms as a defense mechanism against unwelcome takeover bids. We also find that these firms with higher propensity to unwelcome takeovers that use negative or pessimistic disclosure tone show lower prices. Finally, we find that the propensity to hostile takeovers relate with lower accrual-based earnings management activities and lower firm performance in terms of lower returns.

Our results are robust to the use of Constituency Statutes as an exogenous decrease in firms' need of internal antitakeover provisions. Additionally, using the Granger Causality test, we find that past negative or pessimistic disclosure tone is not related in a statistically significant way with firms' propensity to hostile takeovers.

Our study contributes to previous literature on negative narrative disclosure as most of previous studies focus on positive or optimistic disclosure tone. We also contribute to previous narrative disclosure literature showing that managers in firms more subject to unwelcome bids disclose more pessimistic narratives to protect the firm from potential acquirers.

Appendix 1 Variables Definition

VARIABLES	DEFINITION	SOURCE
Negative Tone	Disclosure tone calculated as the difference between positive words and negative words scaled by total number of words in each firm-year 10-K report and expressed in percentage. It is multiplied by -1 to have a direct relationship with pessimistic tone.	Loughran and McDonald word list and <i>php algorithm</i>
Pessimism	Abnormal pessimism disclosure calculated as the residual of the model from Huang et al. (2014a). It is multiplied by 100 to ease interpretation. It is multiplied by -1 to have a direct relationship with abnormal pessimistic tone.	Loughran and McDonald word list, <i>php algorithm</i> , COMPUSTAT, CRSP, IBES.
Hostile Takeover	The takeover propensity index is calculated as the probability for a firm of suffering a hostile takeover considering 17 different antitakeover provisions and several firm-specific characteristics (capital liquidity and firm age).	http://pages.uoregon.edu/smckeon/
Positive Words	Count of the total number of positive words in each firm-year 10-K filing.	Loughran and McDonald word list and <i>php algorithm</i>
Negative Words	Count of the total number of negative words in each firm-year 10-K filing.	Loughran and McDonald word list and <i>php algorithm</i>
Total Words	Count of the total number of words in each firm-year 10-K filing.	Loughran and McDonald word list and <i>php algorithm</i>
Accrual EM	Accrual-based earnings management calculated as the absolute value of the residual of the model created by Jones (1991).	COMPUSTAT and Jones (1991)
Constituency Statutes	Indicator variable that equals 1 if the company is incorporated in a state that has enacted the constituency statutes by year t and later and 0 otherwise.	Karpoff and Wittry (2018)
E-index	Index of internal antitakeover firm's provisions.	Bebchuk et al. (2008) and RiskMetrics
G-index	Index of internal and external antitakeover firm's provisions. In its calculation, we do not add the external antitakeover provisions considered by Gompers et al. (2003).	Gompers et al. (2003) and RiskMetrics
Takeover threat	Indicator variable that equals 1 if the firm experiences a new acquisition threat (using the announcement date) and 0 otherwise.	SDC Platinum
Earnings	Earnings before extraordinary items.	COMPUSTAT
Returns	Contemporaneous annual stock returns calculated using CRSP monthly return data.	CRSP
Size	Logarithm of firm market value.	COMPUSTAT
btm	Book-to-market ratio.	COMPUSTAT
Volatility Ret	Standard deviation of stock returns over the last five fiscal years.	CRSP
Volatility Earn	Standard deviation of earnings over the last five fiscal years.	COMPUSTAT

VARIABLES	DEFINITION	SOURCE
Firm Age	Logarithm of 1 plus the firm age calculated from the first year the firm entered the CRSP dataset.	COMPUSTAT
Busseg	Logarithm of 1 plus the number of business segments, or 1 if the value is missing form Compustat.	COMPUSTAT
Geoseg	Logarithm of 1 plus the number of geographic segments, or 1 if the value is missing form Compustat.	COMPUSTAT
Loss	It is an indicator variable that equals 1 if earnings before extraordinary items are negative and 0 otherwise.	COMPUSTAT
Earn change	Difference between earnings before extraordinary items in period t versus period t-1 scaled by total assets.	COMPUSTAT
afe	Analyst forecast error, defined as IBES earnings per share minus the median of the most recent analysts' forecasts, deflated by stock price per share at the end of the fiscal year.	IBES
af	Analyst consensus forecast for one-year-ahead earnings per share scaled by stock price per share at the end of the fiscal year to control for managerial assessment about future performance.	IBES

Appendix 2 Cleaning 10-K Reports

The first step is obtaining the 10-K filings. We download them from SEC's Electronic Data Gathering, Analysis and Retrieval (EDGAR). We use a customized web crawling algorithm created with *php* programming language. The types of 10-K reports downloaded are the following: 10-K, 10-K405, 10-KSB and 10-KSB40.

We realized that several filings contain little or none information before year 1996. After contacting directly with the SEC, we received this information: "*not all documents filed with the Commission by public companies will be available on EDGAR. Companies were phased into EDGAR filing over a three-year period, ending May 6, 1996. As of that date, all public domestic companies were required to make their filings on EDGAR, except for filings made in paper because of a hardship exemption. Third-party filings with respect to these companies, such as tender offers and Schedules 13D, are also filed on EDGAR.*" More information appears in <https://www.sec.gov/edgar/aboutedgar.htm>. We remove those filings that appear empty or with scarce information.

After downloading all the 10-Ks filings corresponding to firms in our database, we go through the following steps:

- 1) Clean all filings by removing every HTML tags.
- 2) Exclude the filer's name, CIK number and firm address. This is, we exclude the cover page (the *header*).
- 3) Remove all the tables and exhibits because these items are more likely to contain template language that is less meaningful to measure disclosure tone (Loughran and McDonald, 2011).
- 4) Our algorithm eliminates *capital letters* (command *ignore case*).
- 5) We do not eliminate *the stop words* as they should be part of the number of total words of each 10-K.
- 6) Our algorithm eliminates the *punctuation*. For example, the set of words '*increase. The*' is equivalent to *increase and the* without considering punctuation or capital letters. This can be achieved using the *regular expressions* existing in *php* programming language. A regular expression, also known as *regex*, is a sequence of characters that forms a search pattern. Regular expressions consist of constants and operator symbols that denote sets of strings and operations over these sets, respectively.

Appendix 3 Inevitable Disclosure Doctrine Enactment

State	Precedent-Setting Case(s)	Date	Decision
Arkansas	Southwestern Energy Co. v. Eickenhorst, 955 F. Supp. 1078 (W.D. Ark. 1997)	3/18/1997	Adopt
Connecticut	Branson Ultrasonics Corp. v. Stratman, 921 F. Supp. 909 (D. Conn. 1996)	2/28/1996	Adopt
Delaware	E.I. duPont de Nemours & Co. v. American Potash & Chem. Corp., 200 A.2d 428 (Del. Ch. 1964)	05/05/1964	Adopt
Florida	Fountain v. Hudson Cush-N-Foam Corp., 122 So. 2d 232 (Fla. Dist. Ct. App. 1960)	07/11/1960	Adopt
	Del Monte Fresh Produce Co. v. Dole Food Co. Inc., 148 F. Supp. 2d 1326 (S.D. Fla. 2001)	5/21/2001	Reject
Georgia	Essex Group Inc. v. Southwire Co., 501 S.E.2d 501 (Ga. 1998)	6/29/1998	Adopt
Illinois	Teradyne Inc. v. Clear Communications Corp., 707 F. Supp. 353 (N.D. 111. 1989)	02/09/1989	Adopt
Indiana	Ackerman v. Kimball Intl Inc., 652 N.E.2d 507 (Ind. 1995)	07/12/1995	Adopt
Iowa	Uncle Bs Bakery v. ORourke, 920 F. Supp. 1405 (N.D. Iowa 1996)	04/01/1996	Adopt
Kansas	Bradbury Co. v. Teissier-duCros, 413 F. Supp. 2d 1203 (D. Kan. 2006)	02/02/2006	Adopt
Massachusetts	Bard v. Intoccia, 1994 U.S. Dist. LEXIS 15368 (D. Mass. 1994)	10/13/1994	Adopt
Michigan	Allis-Chalmers Manuf. Co. v. Continental Aviation & Eng. Corp., 255 F. Supp. 645 (E.D. Mich. 1966)	2/17/1966	Adopt
	CMI Intl, Inc. v. Internet Intl Corp., 649 N.W.2d 808 (Mich. Ct. App. 2002)	4/30/2002	Reject
Minnesota	Surgidev Corp. v. Eye Technology Inc., 648 F. Supp. 661 (D. Minn. 1986)	10/10/1986	Adopt
Missouri	H&R Block Eastern Tax Servs. Inc. v. Enchura, 122 F. Supp. 2d 1067 (W.D. Mo. 2000)	11/02/2000	Adopt
New Jersey	Natl Starch & Chem. Corp. v. Parker Chem. Corp., 530 A.2d 31 (N.J. Super. Ct. 1987)	4/27/1987	Adopt
New York	Eastman Kodak Co. v. Powers Film Prod., 189 A.D. 556 (N.Y.A.D. 1919)	12/05/1919	Adopt
North Carolina	Travenol Laboratories Inc. v. Turner, 228 S.E.2d 478 (N.C. Ct. App. 1976)	6/17/1976	Adopt
Ohio	Procter & Gamble Co. v. Stoneham, 747 N.E.2d 268 (Ohio Ct. App. 2000)	9/29/2000	Adopt
Pennsylvania	Air Products & Chemical Inc. v. Johnson, 442 A.2d 1114 (Pa. Super. Ct. 1982)	2/19/1982	Adopt
Texas	Rugen v. Interactive Business Systems Inc., 864 S.W.2d 548 (Tex. App. 1993)	5/28/1993	Adopt
	Cardinal Health Sta_ng Network Inc. v. Bowen, 106 S.W.3d 230 (Tex. App. 2003)	04/03/2003	Reject
Utah	Novell Inc. v. Timpanogos Research Group Inc., 46 U.S.P.Q.2d 1197 (Utah D.C. 1998)	1/30/1998	Adopt
Washington	Solutech Corp. Inc. v. Agnew, 88 Wash. App. 1067 (Wash. Ct. App. 1997)	12/30/1997	Adopt

This table lists a setting of previous legal cases where US state courts decided to adopt the Inevitable Disclosure Doctrine (IDD). There are also three cases (Florida, Michigan and Texas) in which courts rejected IDD after adopting it. *Source: Klasa et al. (2018).*

Appendix 4 Constituency Statutes Enactment

State	Year
Arizona	1987
Connecticut	1988
Florida	1989
Georgia	1989
Hawaii	1989
Idaho	1988
Illinois	1985
Indiana	1986
Iowa	1989
Kentucky	1988
Louisiana	1988
Maine	1985
Maryland	1999
Massachusetts	1989
Minnesota	1987
Mississippi	1990
Missouri	1986
Nebraska	1988
Nevada	1991
New Jersey	1989
New Mexico	1987
New York	1987
North Carolina	1993
North Dakota	1993
Ohio	1984
Oregon	1989
Pennsylvania	1990
Rhode Island	1990
South Dakota	1990
Tennessee	1988
Texas	2003
Vermont	1998
Virginia	1988
Wisconsin	1987
Wyoming	1990

Source: Karpoff and Wittry (2018)

Table 1 Descriptive statistics

	N	Mean	STD	Min	Q1	Median	Q3	Max
Negative Tone	10,231	0.645	0.529	-2.229	0.267	0.628	0.981	4.596
Pessimism	10,231	-0.039	0.457	-2.607	-0.331	-0.063	0.220	3.741
Hostile Takeover	10,231	0.176	0.097	0.020	0.099	0.148	0.246	0.427
Positive Words	10,231	202	146	0	82	183	291	1,714
Negative Words	10,231	432	373	0	128	346	644	5,029
Total Words	10,231	29,008	21,126	92	13,244	26,522	40,502	464,821
Accrual EM	10,158	0.084	0.080	0.000	0.027	0.059	0.114	0.395
Real EM	9,524	0.052	0.422	-2.745	0.142	0.063	0.298	2.020
Constituency Statutes	10,231	0.311	0.463	0	0	0	1	1
E-index	8	2	2	0	1	2	4	6
G-index	8	4	3	0	2	4	6	15
Earnings	10,231	0.044	0.100	-1.308	0.019	0.051	0.087	1.247
Returns	10,231	0.012	0.035	-0.072	-0.008	0.012	0.033	0.086
Size	10,231	7.538	1.641	3.513	6.337	7.488	8.700	10.954
btm	10,231	0.479	0.672	0.000	0.166	0.330	0.586	18.373
Volatility Ret	10,231	0.122	0.067	0.041	0.074	0.104	0.148	0.361
Volatility Earn	10,231	0.049	0.051	0.002	0.016	0.029	0.061	0.200
Firm Age	10,231	2.479	0.484	0	2.197	2.565	2.833	3.258
Busseg	10,231	1.067	0.375	0	1	1	1	3.401
Geoseg	10,231	1.122	0.448	0	1	1	1	4.060
Loss	10,231	0.177	0.381	0	0	0	0	1
Earn change	10,231	-0.004	0.065	-0.248	-0.022	0.000	0.018	0.236
afe	10,231	-0.009	0.037	-1.107	-0.006	0.000	0.002	0.409
af	10,231	0.057	0.068	-0.084	0.029	0.049	0.071	1.955

The sample comprises 10,231 firm-year observations for the period 1994-2013. All variables are defined Appendix 1.

Table 2 Correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Negative Tone	1										
(2) Pessimism	0.841	1									
(3) Hostile Takeover	<i>-0.024</i>	<i>0.024</i>	1								
(4) Positive Words	0.346	0.039	-0.085	1							
(5) Negative Words	0.672	0.379	-0.082	0.865	1						
(6) Total Words	0.388	0.112	-0.066	0.835	0.824	1					
(7) Accrual EM	0.058	0.008	-0.119	0.075	0.066	0.050	1				
(8) Real EM	0.033	<i>0.026</i>	0.059	0.020	0.034	0.030	0.066	1			
(9) Constituency Statutes	-0.111	-0.071	-0.094	-0.087	-0.123	-0.098	<i>-0.022</i>	0.037	1		
(10) E-index	0.178	0.010	0.047	0.340	0.320	0.284	0.000	0.057	0.053	1	
(11) G-index	-0.002	-0.007	0.114	0.016	-0.001	-0.001	0.010	<i>0.027</i>	0.008	0.370	1

The sample comprises 10,231 firm-year observations for the period 1994-2013. The table shows the Pearson correlation coefficients. Bold numbers indicate statistical significance at 1%, italic numbers indicate significance at 5%. All variables are defined Appendix 1. All the continuous variables are winsorized at the 1% and 99% to mitigate the effect of outliers.

Table 3 Hostile takeover and pessimistic disclosure tone

PANEL A: Hostile takeover, negative and pessimistic disclosure tone						
	(1)	(2)	(3)	(4)	(5)	(6)
	Negative Tone	Negative Tone _{t+1}	Negative Tone _{t+2}	Pessimism	Pessimism _{t+1}	Pessimism _{t+2}
Hostile Takeover	0.409*** (2.875)	0.353** (2.475)	0.308** (2.120)	0.334** (2.346)	0.278* (1.920)	0.255* (1.727)
Earnings	-0.502*** (-4.362)	-0.659*** (-4.867)	-0.590*** (-4.283)	0.193 (1.556)	0.140 (0.976)	-0.015 (-0.103)
Returns	0.002 (0.013)	-0.710*** (-4.246)	-1.064*** (-6.415)	-0.397** (-2.481)	-0.200 (-1.072)	-0.715*** (-3.698)
Size	0.019** (2.201)	0.028*** (3.163)	0.030*** (3.258)	-0.019** (-2.142)	-0.005 (-0.573)	0.000 (0.012)
btm	0.042*** (2.598)	0.051*** (2.979)	0.071*** (3.487)	-0.032 (-1.643)	-0.022 (-1.148)	-0.013 (-0.633)
Volatility Ret	0.490*** (3.993)	0.752*** (5.849)	0.989*** (7.508)	0.227* (1.765)	0.349*** (2.610)	0.492*** (3.738)
Volatility Earn	1.996*** (10.646)	1.585*** (8.231)	1.343*** (6.511)	-0.029 (-0.152)	-0.087 (-0.430)	0.070 (0.319)
Firm Age	-0.013 (-0.491)	-0.021 (-0.782)	-0.016 (-0.560)	0.005 (0.198)	0.006 (0.225)	0.011 (0.398)
Busseg	-0.030 (-1.600)	-0.030 (-1.368)	-0.034 (-1.320)	-0.018 (-0.930)	-0.010 (-0.419)	-0.005 (-0.161)
Geoseg	-0.029 (-1.344)	-0.045* (-1.798)	-0.056* (-1.914)	0.016 (0.712)	0.011 (0.436)	0.000 (0.002)
Loss	0.131*** (6.540)	0.176*** (8.234)	0.159*** (7.011)	0.045** (2.167)	0.138*** (6.111)	0.112*** (4.666)
Earn change	0.823*** (8.199)	0.538*** (5.433)	0.336*** (3.176)	0.476*** (4.411)	0.480*** (4.543)	0.206* (1.773)
afe	-0.330* (-1.945)	-0.503*** (-2.959)	-0.323** (-1.966)	0.241 (1.074)	-0.126 (-0.611)	-0.100 (-0.450)
af	0.006 (0.048)	0.329* (1.906)	0.407** (2.322)	-0.171 (-1.252)	0.083 (0.385)	0.120 (0.462)
Industry FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Observations	10,231	9,552	8,822	10,231	9,361	8,577
Adj. R-sqr.	0.372	0.380	0.369	0.130	0.132	0.132

PANEL B: Hostile takeover, negative and positive words				
	(1)	(2)	(3)	(4)
	Positive Words	Positive Words _{t+1}	Negative Words	Negative Words _{t+1}
Hostile Takeover	-1.319*** (-3.104)	-1.467*** (-3.147)	-0.555 (-1.259)	-0.661 (-1.357)
Controls	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Observations	10,130	9,439	10,130	9,439
Adj. R-sqr.	0.816	0.816	0.835	0.836

The sample comprises 10,231 firm-year observations for the period 1994-2013. Panel A shows the relationship between *Hostile Takeover*, pessimistic and abnormal pessimistic disclosure tone. Panel B shows the relationship between *Hostile Takeover*, *Positive Words* and *Negative Words*. For the sake of interpretation, *Positive Words* is the natural logarithm of 1 plus total number of positive words in each 10-K report. *Negative Words* is the natural logarithm of 1 plus total number of

negative words in each 10-K report. Models are estimated using industry (SIC-2) and year fixed effects. Standard errors are clustered by firm and t-statistics are in parenthesis. All variables are defined in Appendix 1. All the continuous variables are winsorized at 1% and 99% to mitigate the effect of outliers. ***, **, and * represent significance levels at the 1%, 5%, and 10 % levels, respectively.

Table 4 Hostile takeover and disclosure tone by IDD subsamples

	<i>Firms with IDD</i>		<i>Firms without IDD</i>	
	(1) Negative Tone	(2) Pessimism	(3) Negative Tone	(4) Pessimism
Hostile Takeover	0.476*** (2.756)	0.405** (2.337)	0.371* (1.759)	0.313 (1.477)
Earnings	-0.541*** (-3.273)	0.083 (0.451)	-0.423*** (-2.953)	0.344** (2.309)
Returns	0.083 (0.377)	-0.286 (-1.241)	-0.020 (-0.102)	-0.453** (-2.201)
Size	0.012 (1.113)	-0.029** (-2.533)	0.023* (1.928)	-0.013 (-1.025)
btm	0.032* (1.751)	-0.042* (-1.809)	0.057*** (2.676)	-0.018 (-0.689)
Volatility Ret	0.419*** (2.787)	0.136 (0.860)	0.467** (2.502)	0.196 (1.002)
Volatility Earn	1.878*** (6.924)	-0.191 (-0.694)	2.088*** (8.078)	0.097 (0.365)
Firm Age	-0.015 (-0.415)	-0.001 (-0.015)	-0.007 (-0.209)	0.008 (0.222)
Busseg	-0.047* (-1.688)	-0.031 (-1.085)	-0.030 (-1.110)	-0.021 (-0.784)
Geoseg	-0.028 (-0.908)	0.010 (0.331)	-0.014 (-0.511)	0.037 (1.341)
Loss	0.101*** (3.631)	0.014 (0.478)	0.161*** (5.879)	0.074*** (2.620)
Earn change	0.738*** (5.080)	0.418*** (2.726)	0.894*** (7.000)	0.516*** (3.716)
afe	-0.615*** (-3.004)	-0.028 (-0.080)	-0.098 (-0.453)	0.443** (1.968)
af	0.082 (0.631)	-0.120 (-0.774)	-0.067 (-0.394)	-0.226 (-1.277)
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Observations	5,508	5,508	4,695	4,695
Adj. R-sqr.	0.340	0.107	0.433	0.199

The sample comprises 5,508 firm-year observations for the period 1994-2013. This table shows the relationship between *Hostile Takeover* and pessimistic disclosure tone by subsamples of firms located in states with and without IDD. Models are estimated using industry (SIC-2) and year fixed effects. Standard errors are clustered by firm and t-statistics are in parenthesis. All variables are defined in Appendix 1. All the continuous variables are winsorized at 1% and 99% to mitigate the effect of outliers. ***, **, and * represent significance levels at the 1%, 5%, and 10 % levels, respectively.

Table 5 Antitakeover provisions and disclosure tone

	(1) Negative Tone	(2) Negative Tone _{t+1}	(3) Negative Tone	(4) Negative Tone _{t+1}	(5) Pessimism	(6) Pessimism _{t+1}	(7) Pessimism	(8) Pessimism _{t+1}
E-index	0.020** (2.166)	0.021** (2.184)			0.018* (1.904)	0.016* (1.675)		
G-index			0.007** (2.365)	0.005** (2.044)			0.006** (2.198)	0.004 (1.320)
Earnings	-0.644*** (-5.036)	-1.022*** (-6.934)	-0.642*** (-5.007)	-1.022*** (-6.903)	0.120 (0.974)	-0.434*** (-2.670)	0.122 (0.990)	-0.434*** (-2.664)
Returns	0.623*** (4.350)	0.093 (0.648)	0.631*** (4.408)	0.101 (0.700)	0.188 (1.274)	0.538*** (3.670)	0.195 (1.320)	0.542*** (3.702)
Size	-0.102*** (-6.126)	-0.080*** (-4.747)	-0.103*** (-6.186)	-0.080*** (-4.778)	-0.139*** (-7.727)	-0.086*** (-4.671)	-0.140*** (-7.779)	-0.087*** (-4.687)
btm	0.004 (0.376)	0.010 (0.720)	0.004 (0.369)	0.010 (0.723)	-0.070*** (-2.967)	-0.039 (-1.522)	-0.070*** (-2.963)	-0.039 (-1.516)
Volatility Ret	-0.050 (-0.438)	0.212* (1.833)	-0.056 (-0.484)	0.205* (1.769)	-0.390*** (-3.327)	-0.030 (-0.246)	-0.394*** (-3.363)	-0.035 (-0.292)
Volatility Earn	1.019*** (4.768)	0.373* (1.763)	1.021*** (4.761)	0.376* (1.767)	-1.047*** (-4.742)	-0.861*** (-3.848)	-1.045*** (-4.719)	-0.857*** (-3.814)
Firm Age	0.102 (1.434)	0.043 (0.587)	0.097 (1.360)	0.041 (0.553)	-0.036 (-0.501)	-0.068 (-0.876)	-0.042 (-0.583)	-0.069 (-0.890)
Busseg	-0.028 (-1.373)	-0.021 (-0.977)	-0.027 (-1.276)	-0.019 (-0.881)	-0.020 (-0.936)	-0.006 (-0.258)	-0.018 (-0.853)	-0.005 (-0.195)
Geoseg	0.020 (0.950)	0.018 (0.827)	0.019 (0.914)	0.017 (0.788)	0.058*** (2.836)	0.074*** (3.338)	0.058*** (2.795)	0.074*** (3.296)
Loss	0.066*** (4.275)	0.117*** (6.705)	0.065*** (4.252)	0.117*** (6.665)	-0.015 (-0.975)	0.094*** (4.985)	-0.015 (-0.991)	0.094*** (4.961)
Earn change	0.928*** (9.657)	0.797*** (8.753)	0.930*** (9.632)	0.796*** (8.713)	0.683*** (6.716)	0.761*** (7.736)	0.685*** (6.695)	0.761*** (7.712)
afe	-0.509*** (-2.716)	-0.463** (-2.392)	-0.501*** (-2.699)	-0.453** (-2.350)	-0.007 (-0.034)	-0.149 (-0.689)	0.000 (0.000)	-0.142 (-0.658)
af	-0.181** (-2.365)	0.329*** (3.460)	-0.178** (-2.305)	0.333*** (3.490)	-0.314*** (-3.834)	0.074 (0.667)	-0.311*** (-3.779)	0.077 (0.697)
Firm FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Observations	8,870	8,156	8,870	8,156	8,870	8,038	8,870	8,038
Adj. R-sqr.	0.693	0.700	0.693	0.700	0.586	0.581	0.585	0.581

The sample comprises 8,870 firm-year observations for the period 1994-2013. Models are estimated using firm and year fixed effects. Standard errors are clustered by firm and t-statistics are in parenthesis. All variables are defined in Appendix 1. All the continuous variables are winsorized at 1% and 99% to mitigate the effect of outliers. ***, **, and * represent significance levels at the 1%, 5%, and 10 % levels, respectively.

Table 6 Negative and pessimistic disclosure tone and takeover threat

	(1)	(2)	(3)	(4)
	Takeover threat	Takeover threat _{t+1}	Takeover threat	Takeover threat _{t+1}
Negative Tone*Hostile Takeover	-0.236** (-2.322)	-0.148 (-1.475)		
Negative Tone	0.057*** (2.993)	0.044** (2.213)		
Pessimism*Hostile Takeover			-0.240** (-2.053)	-0.201* (-1.779)
Pessimism			0.058*** (2.731)	0.055** (2.471)
Hostile Takeover	0.208** (2.110)	0.108 (1.078)	0.060 (0.844)	0.015 (0.200)
Earnings	0.171** (2.359)	0.078 (0.940)	0.150** (2.074)	0.054 (0.655)
Returns	-0.953*** (-6.666)	-0.233 (-1.518)	-0.945*** (-6.606)	-0.223 (-1.456)
Size	0.031*** (7.025)	0.032*** (7.226)	0.031*** (7.224)	0.033*** (7.451)
btm	0.007 (0.929)	0.009 (1.115)	0.008 (1.077)	0.009 (1.234)
Volatility Ret	0.069 (0.784)	-0.253*** (-2.840)	0.064 (0.733)	-0.254*** (-2.850)
Volatility Earn	0.104 (0.961)	0.122 (1.078)	0.152 (1.447)	0.170 (1.554)
Firm Age	0.033** (2.568)	0.013 (0.942)	0.030** (2.329)	0.011 (0.801)
Busseg	0.017 (1.197)	0.016 (1.028)	0.016 (1.146)	0.016 (0.993)
Geoseg	-0.017 (-1.304)	0.006 (0.364)	-0.019 (-1.402)	0.004 (0.274)
Loss	-0.018 (-1.223)	-0.007 (-0.437)	-0.016 (-1.114)	-0.006 (-0.347)
Earn change	0.045 (0.533)	0.091 (1.063)	0.059 (0.694)	0.104 (1.214)
afe	-0.032 (-0.245)	-0.077 (-0.481)	-0.046 (-0.343)	-0.088 (-0.550)
af	0.123* (1.702)	0.111 (1.280)	0.130* (1.789)	0.118 (1.355)
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Observations	10,231	9,161	10,231	9,161
Adj. R-sqr.	0.065	0.065	0.065	0.065

The sample comprises 10,231 firm-year observations for the period 1994-2013. Models are estimated using industry (SIC-2) and year fixed effects. Standard errors are clustered by incorporation state and t-statistics are in parenthesis. All variables are defined in Appendix 1. All the continuous variables are winsorized at 1% and 99% to mitigate the effect of outliers. ***, **, and * represent significance levels at the 1%, 5%, and 10 % levels, respectively.

Table 7 Hostile takeover, disclosure tone and price

		(1) Price	(2) Price _{t+1}	(3) Price	(4) Price _{t+1}
Negative Tone*Hostile Takeover	β_1	-12.762*** (-2.665)	-12.829** (-2.398)		
Negative Tone	β_2	-1.329 (-1.316)	-0.935 (-0.815)		
Pessimism*Hostile Takeover	β_3			-9.290* (-1.785)	-11.752** (-2.019)
Pessimism	β_4			-1.649 (-1.573)	-0.932 (-0.779)
Hostile Takeover	β_5	15.186*** (3.276)	17.290*** (3.388)	6.883* (1.681)	9.117** (2.086)
Earnings	β_6	13.134*** (4.058)	12.032*** (3.166)	15.103*** (4.642)	13.965*** (3.702)
Returns	β_7	94.972*** (20.836)	72.051*** (13.101)	93.710*** (20.430)	71.039*** (12.888)
Size	β_8	7.008*** (32.935)	6.094*** (26.067)	6.880*** (32.164)	5.972*** (25.505)
btm	β_9	0.239 (0.727)	-0.346 (-0.988)	-0.018 (-0.053)	-0.569 (-1.615)
Volatility Ret	β_{10}	-17.367*** (-5.033)	-24.516*** (-6.330)	-18.812*** (-5.431)	-25.771*** (-6.641)
Volatility Earn	β_{11}	-23.349*** (-4.406)	-28.244*** (-4.834)	-29.628*** (-5.708)	-33.793*** (-5.842)
Firm Age	β_{12}	-3.484*** (-4.468)	-3.952*** (-4.623)	-3.587*** (-4.573)	-4.068*** (-4.730)
Busseg	β_{13}	-0.721 (-1.003)	-0.441 (-0.521)	-0.704 (-0.980)	-0.450 (-0.531)
Geoseg	β_{14}	-0.603 (-0.824)	-0.021 (-0.024)	-0.470 (-0.645)	0.070 (0.080)
Loss	β_{15}	-3.413*** (-6.279)	-3.048*** (-4.754)	-3.727*** (-6.833)	-3.298*** (-5.170)
change Earn	β_{16}	-14.284*** (-5.699)	-9.511*** (-3.204)	-15.315*** (-6.211)	-10.433*** (-3.564)
afe	β_{17}	-13.270*** (-3.328)	-2.351 (-0.348)	-11.581*** (-2.855)	-0.903 (-0.133)
af	β_{18}	-9.732*** (-3.971)	-6.883** (-2.334)	-10.220*** (-4.073)	-7.331** (-2.464)
Significance $\beta_1 + \beta_5$		0.612	0.383	-	-
Significance $\beta_3 + \beta_5$		-	-	0.729	0.726
Industry FE		YES	YES	YES	YES
Year FE		YES	YES	YES	YES
Observations		10,231	9,090	10,231	9,090
Adj. R-sqr.		0.621	0.526	0.620	0.525

The sample comprises 10,231 firm-year observations for the period 1994-2013. Models are estimated using industry (SIC-2) and year fixed effects. Standard errors are clustered by incorporation state and t-statistics are in parenthesis. All variables are defined in Appendix 1. All the continuous variables are winsorized at 1% and 99% to mitigate the effect of outliers. ***, **, and * represent significance levels at the 1%, 5%, and 10 % levels, respectively.

Table 8 Hostile takeover and firm performance

	(1)	(2)	(3)	(4)
	Returns	Returns _{t+1}	Returns	Returns _{t+1}
Hostile Takeover	-0.014*** (-3.144)	-0.010* (-1.934)	-0.011*** (-3.042)	-0.008** (-2.033)
Negative Tone	-0.001 (-0.555)	-0.000 (-0.320)		
Negative Tone*Hostile Takeover	0.004 (0.768)	0.004 (0.663)		
Pessimism			-0.003** (-2.372)	0.002 (1.317)
Pessimism*Hostile Takeover			0.010 (1.523)	-0.008 (-1.083)
Earnings	0.013** (1.986)	-0.001 (-0.106)	0.014** (2.112)	-0.001 (-0.177)
Size	0.003*** (11.057)	0.000 (0.162)	0.003*** (11.116)	0.000 (0.229)
btm	-0.006*** (-6.735)	-0.004*** (-5.784)	-0.006*** (-6.878)	-0.004*** (-5.793)
Volatility Ret	0.145*** (17.488)	0.043*** (5.185)	0.145*** (17.592)	0.043*** (5.218)
Volatility Earn	-0.010 (-1.258)	-0.010 (-1.129)	-0.010 (-1.333)	-0.010 (-1.126)
Firm Age	0.001 (1.551)	-0.001 (-0.854)	0.001 (1.630)	-0.001 (-0.807)
Busseg	0.001 (0.701)	0.001 (1.367)	0.001 (0.668)	0.001 (1.409)
Geoseg	-0.001 (-1.260)	-0.002** (-2.381)	-0.001 (-1.182)	-0.002** (-2.421)
Loss	-0.009*** (-6.427)	0.001 (0.503)	-0.008*** (-6.359)	0.001 (0.510)
Earn change	0.070*** (9.415)	0.017** (2.309)	0.070*** (9.570)	0.017** (2.335)
afe	0.035* (1.708)	-0.082*** (-4.764)	0.035* (1.740)	-0.082*** (-4.784)
af	-0.103*** (-5.993)	0.038*** (3.582)	-0.103*** (-6.073)	0.039*** (3.643)
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Observations	10,231	9,156	10,231	9,156
Adj. R-sqr.	0.376	0.215	0.376	0.215

The sample comprises 10,231 firm-year observations for the period 1994-2013. Models are estimated using industry (SIC-2) and year fixed effects. Standard errors are clustered by firm and t-statistics are in parenthesis. All variables are defined in Appendix 1. All the continuous variables are winsorized at 1% and 99% to mitigate the effect of outliers. ***, **, and * represent significance levels at the 1%, 5%, and 10 % levels, respectively.

Table 9 Hostile takeover and earnings management

	(1)	(2)	(3)	(4)
	Accrual EM	Accrual EM _{t+1}	Accrual EM	Accrual EM _{t+1}
Hostile Takeover	-0.078*** (-2.918)	-0.115*** (-3.969)	-0.086*** (-3.664)	-0.103*** (-3.339)
Negative Tone	-0.001 (-0.128)	-0.007* (-1.735)		
Negative Tone*Hostile Takeover	-0.014 (-0.801)	0.025 (1.409)		
Pessimism			0.001 (0.323)	-0.003 (-0.668)
Pessimism*Hostile Takeover			-0.024 (-1.455)	0.004 (0.177)
Earnings	-0.085*** (-6.320)	-0.020 (-1.625)	-0.084*** (-6.061)	-0.017 (-1.438)
Returns	-0.007 (-0.221)	0.114*** (3.053)	-0.008 (-0.265)	0.113*** (3.073)
Size	0.007*** (4.400)	-0.002 (-0.835)	0.007*** (4.426)	-0.002 (-0.903)
btm	-0.007*** (-6.114)	-0.004*** (-4.292)	-0.008*** (-7.202)	-0.004*** (-4.820)
Volatility Ret	0.071*** (5.575)	0.037*** (3.006)	0.070*** (5.600)	0.036*** (2.955)
Volatility Earn	-0.041*** (-3.057)	-0.091*** (-6.288)	-0.047*** (-3.039)	-0.097*** (-7.585)
Firm Age	-0.044*** (-11.079)	-0.047*** (-8.152)	-0.044*** (-10.952)	-0.049*** (-9.104)
Busseg	0.002 (1.027)	0.005* (1.757)	0.002 (1.047)	0.005* (1.763)
Geoseg	-0.000 (-0.189)	-0.002 (-0.899)	-0.000 (-0.144)	-0.002 (-0.882)
Loss	0.001 (0.649)	-0.004 (-1.670)	0.001 (0.566)	-0.004* (-1.699)
Earn change	0.012 (0.526)	-0.001 (-0.138)	0.011 (0.534)	-0.003 (-0.309)
afe	0.005 (0.228)	-0.039* (-1.774)	0.006 (0.276)	-0.037* (-1.715)
af	0.026* (2.019)	0.001 (0.031)	0.026** (2.048)	0.001 (0.021)
Industry FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Observations	10,057	8,912	10,057	8,912
Adj. R-sqr.	0.236	0.243	0.236	0.243

The sample comprises 10,057 firm-year observations for the period 1994-2013. Models are estimated using industry (SIC-2) and year fixed effects. The dependent variable is *Accrual EM* which is calculated following Jones (1991). Standard errors are clustered by firm and t-statistics are in parenthesis. All variables are defined in Appendix 1. All the continuous variables are winsorized at 1% and 99% to mitigate the effect of outliers. ***, **, and * represent significance levels at the 1%, 5%, and 10 % levels, respectively.

Table 10 Constituency statutes and disclosure tone

	(1) Negative Tone	(2) Negative Tone	(3) Pessimism	(4) Pessimism
Constituency Statutes	-0.092*** (-4.124)	-0.093*** (-4.194)	-0.103*** (-5.867)	-0.104*** (-5.837)
E-index	0.020* (1.858)		0.018 (1.613)	
G-index		0.007*** (2.811)		0.005** (2.320)
Earnings	-0.641*** (-7.605)	-0.640*** (-7.597)	0.123* (1.693)	0.123* (1.697)
Returns	0.619*** (4.585)	0.629*** (4.879)	0.184 (1.128)	0.194 (1.237)
Size	-0.102*** (-6.298)	-0.103*** (-6.547)	-0.139*** (-8.350)	-0.139*** (-8.614)
btm	0.004 (0.561)	0.004 (0.578)	-0.070*** (-3.934)	-0.070*** (-3.943)
Volatility Ret	-0.050 (-0.592)	-0.058 (-0.686)	-0.390*** (-4.602)	-0.397*** (-4.676)
Volatility Earn	1.020*** (4.608)	1.022*** (4.512)	-1.046*** (-4.995)	-1.044*** (-4.886)
Firm Age	0.100*** (3.326)	0.098*** (3.231)	-0.038 (-1.430)	-0.040 (-1.493)
Busseg	-0.028 (-1.602)	-0.027 (-1.474)	-0.020 (-1.077)	-0.018 (-0.971)
Geoseg	0.019 (0.677)	0.019 (0.660)	0.058** (2.134)	0.057** (2.099)
Loss	0.066*** (6.348)	0.066*** (6.409)	-0.015 (-1.404)	-0.015 (-1.456)
Earn change	0.927*** (11.385)	0.929*** (11.448)	0.682*** (9.203)	0.684*** (9.284)
afe	-0.512*** (-4.637)	-0.505*** (-4.869)	-0.011 (-0.084)	-0.004 (-0.032)
af	-0.182*** (-3.994)	-0.179*** (-3.982)	-0.316*** (-5.713)	-0.312*** (-5.803)
Firm FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Observations	8,870	8,870	8,870	8,870
Adj. R-sqr.	0.694	0.693	0.586	0.585

The sample comprises 8,870 firm-year observations for the period 1994-2013. Models are estimated using firm and year fixed effects. Standard errors are clustered by incorporation state and t-statistics are in parenthesis. All variables are defined in Appendix 1. All the continuous variables are winsorized at 1% and 99% to mitigate the effect of outliers. ***, **, and * represent significance levels at the 1%, 5%, and 10 % levels, respectively.

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