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Jae Bum KIM
Singapore Management University, jbkim@smu.edu.sg

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Jae B. Kim

School of Accountancy
Singapore Management University
60 Stamford Road
Singapore 178900
jbkim@smu.edu.sg

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Abstract

This study examines the effect of accounting flexibility on managers' forecasting behavior prior to seasoned equity offerings (SEOs). Although SEO firms have a strong incentive to convey optimistic information to boost the pre-SEO stock price, they also face enhanced litigation risk arising from SEO-related regulations. Thus, I hypothesize that managers will release positive news through their forecasts (relative to the prevailing analyst consensus) prior to an SEO only if they have the accounting flexibility to manage subsequent reported earnings to meet or exceed their forecasts. I find that managers with greater accounting flexibility are more likely to issue a forecast prior to the SEO and that their forecasts are more likely to convey positive news and are more specific. Furthermore, I find no effect of accounting flexibility for non-SEO control firms or for non-SEO periods. My results suggest that when managers experience a tension between the incentive for voluntary disclosure and high litigation risk, accounting flexibility is an important factor that determines their forecasting behavior.

JEL classification: M41; G32; G14

Keywords: Voluntary disclosure; Management earnings forecast; Accounting flexibility; Seasoned equity offerings

1. Introduction

This study examines the effect of accounting flexibility on managers' forecasting behavior prior to seasoned equity offerings (SEOs). Prior studies predict that firms that plan to raise capital through SEOs have an incentive to increase their voluntary disclosures to reduce information asymmetry and/or to provide optimistic information to lower their cost of equity and boost the stock price (e.g., Frankel et al. 1995; Lang and Lundholm 2000; Jo and Kim 2007). However, a competing factor that dampens the incentive for voluntary disclosure is the increased threat of litigation associated with equity offerings due to the provisions of Section 11 of the Securities Act of 1933, in addition to the general provisions of Section 10b-5 of the 1934 Act.[1] In view of the high litigation risk, managers will voluntarily disclose optimistic information prior to an SEO only if they can subsequently issue earnings reports that deliver their expectations. One way to achieve this is to manage subsequent reported earnings to make up for any shortfalls relative to their forecasts (see Kasznik 1999). In this paper, I hypothesize that managers of SEO firms will be more likely to make voluntary disclosures and issue forecasts that convey more optimistic information relative to the prevailing analyst consensus when they have sufficient accounting flexibility to achieve realized earnings that meet or beat their forecasts.

The literature on SEOs examines whether managers' voluntary disclosures and earnings management behavior around SEOs reflect attempts to increase the proceeds from equity offerings. Frankel et al. (1995) show that, relative to other firms, firms that frequently access the equity and debt markets have a higher tendency to issue management forecasts; however, these

[1] Firms with equity offerings face additional threat of litigation under Section 11 of the Securities Act of 1933. Unlike Section 10b-5 of the Securities Exchange Act of 1934, in lawsuits brought under Section 11, plaintiffs do not have to prove that they relied on false or misleading information provided by the offering firms. In fact, a decline in stock price between the offering date and the lawsuit date can be taken as initial evidence of damage, and defendant firms have the burden to prove that other factors contributed to the stock price decline. In addition, Section 5(c) of the 1933 Securities Act, the so called "gun-jumping" law, regulates SEO firms' disclosure activity for the purpose of preventing any attempt to "condition the market" prior to the equity offering, regardless of the intent of such disclosures.

firms are not more likely to forecast during the nine-month period prior to an offering. Similarly, Lang and Lundholm (2000) find no change in the frequency of management forecasts over a period of six months preceding an SEO. These results suggest that, on average, incentives to disclose additional information prior to an SEO are overshadowed by the threat of litigation faced by these firms.

On the other hand, Lang and Lundholm (2000) find that SEO firms that issue management forecasts earn higher pre-announcement returns but experience larger price declines at the announcement of the SEO, suggesting that the disclosure activity may be an effort to "hype" the stock to obtain high valuations from investors. By contrast, Frankel et al. (1995) show that management forecasts prior to SEOs are not systematically higher than analysts' existing expectations, implying that legal liability, in fact, effectively deters the disclosure of overly optimistic information. I argue that managers are likely to issue earnings forecasts that convey more positive news relative to the prevailing analyst consensus even in the face of litigation risk if they believe they can achieve subsequent earnings that will meet or exceed their forecasts.[2] Managers' ability to meet or beat their forecasts can be enhanced if they have the accounting flexibility to manage earnings by inflating accruals. Hence, I hypothesize that prior to an SEO, managers of firms with greater accounting flexibility for managing earnings will be more likely to issue forecasts and to issue forecasts that convey more optimistic information compared to the prevailing analyst consensus.[3]

By "accounting flexibility," I mean the extent to which managers can manage reported

[2] In fact, prior studies show that firms increase their reported earnings by using discretionary accruals around SEOs to temporarily increase stock prices (Teoh et al. 1998; Rangan 1998), to rationally respond to anticipated market behavior at the offering announcement (Shivakumar 2000), or to maintain prior overvaluation (Chen et al. 2009).

[3] I use the words "optimistic information" to mean more positive news content of management forecasts relative to the prevailing analyst consensus (not relative to the actual reported earnings). Throughout this study, "positive news forecasts" and "good news forecasts" are used interchangeably to describe management forecasts that convey more optimistic information relative to the analyst consensus.

earnings to achieve a desired level of earnings. Barton and Simko (2002) argue that due to the articulation between the income statement and the balance sheet, upward earnings management in previous periods will be partly reflected in a higher level of net operating assets on the balance sheet, constraining managers' ability to optimistically bias the reported earnings of the current period. These authors show that the beginning balance of net operating assets scaled by sales (NOA), a proxy for the accumulation of previous earnings management efforts, is negatively related to the likelihood of meeting or beating analyst consensus forecasts. Following Barton and Simko (2002), several other studies also use NOA to capture constraints to upward earnings management (e.g., Baber et al. 2011; Das et al. 2011). Based on these prior studies, I measure the accounting flexibility available for earnings management by the negative of NOA.[4] Furthermore, to focus on firm-specific accounting choices and to control for industry effects, I use the industry-adjusted variable as an empirical measure of accounting flexibility.[5]

To examine the effect of accounting flexibility on managers' forecasting behavior prior to the announcement of SEOs, this study specifically considers three aspects of management earnings forecasts: (i) issuance, (ii) news content, and (iii) specificity (e.g., point or range). For my empirical tests, I collect a sample of 480 SEO firms, along with a size and industry-matched control sample of non-SEO firms. I use the matched control sample design to test whether the hypothesized effect of accounting flexibility on managers' forecasting behavior is more prevalent in SEO firms given their incentive structure.

[4] Accounting flexibility can also be interpreted as the extent to which net assets on the balance sheet are *conservatively* stated, that is, the negative of NOA captures the degree of understatement in net asset values due to conservative accounting. To the extent that more conservatively stated balance sheets can provide managers with greater opportunity to manage reported earnings toward a benchmark, this variable captures firms' accounting flexibility for earnings management.

[5] Similar to Barton and Simko (2002), I measure the size of net operating assets by normalizing them with respect to sales, i.e., I use the inverse of the net operating asset turnover to reflect higher or lower accumulation of net operating assets relative to the normal level required to achieve reported sales. Since there are likely to be systematic differences in NOA across industries that are unrelated to over- or under-statement of net assets, I control for industry effects as recommended by DeFond (2002).

Note that managers in general (i.e., not just those with an imminent SEO) might utilize accounting flexibility in their forecasting behavior. Managers may try to benefit from a boost to their stock price by issuing a forecast conveying optimistic information for reasons other than equity offerings, such as stock price-based incentives when compensation and wealth are tied to the firm's share price (Nagar et al. 2003) or insider trading incentives (Noe 1999; Cheng and Lo 2006). Although prior studies do not consider accounting flexibility in examining the effect of these incentives on management forecasts, such incentives might lead to managers being more likely to issue a forecast and to issue more positive news forecasts when they have greater accounting flexibility, even in non-SEO periods.[6] Given this possibility, I examine managers' forecasting behavior for both SEO firms and matched non-SEO firms in the main analysis. However, because SEO firms experience a tension between a strong incentive to boost the stock price on the one hand and high litigation risk on the other, I expect accounting flexibility to have a stronger effect on managers' forecasting behavior for SEO firms than for non-SEO firms.[7]

The empirical results show that accounting flexibility has an impact on managers' forecasting decisions. First, I find evidence that accounting flexibility is significantly positively related to the probability of issuing management forecasts over the nine-month period prior to the SEO announcement. Moreover, this relation is significant for SEO firms but not for non-SEO firms. This implies that, given the strong incentive to maximize the offering proceeds in the face of high litigation costs, managers of SEO firms appear to consider their ability to manage subsequent reported earnings when making their forecast issuance decisions.

[6] Das et al. (2011) show that firms with less accounting flexibility tend to use (downward) expectations management as a way of meeting and beating analysts' earnings expectations. While their finding implies a negative relation between accounting flexibility and the issuance of management forecasts, these authors do not explicitly examine management forecasts and how they are affected by accounting flexibility.

[7] Consistent with my expectation, Kasznik (1999) suggests that in general, managers of firms with greater accounting flexibility may not need to release earnings forecasts, since they can still achieve their earnings targets by using their accounting flexibility and at the same time avoid legal costs associated with forecast errors.

Second, I provide evidence that managers with higher accounting flexibility issue forecasts that convey more positive news relative to the analyst consensus prior to the SEO. Thus, while Frankel et al. (1995) find no optimism in management forecasts for their overall sample of public offerings, I find that managers of SEO firms do release optimistic information in their forecasts when they have the ability to manage subsequent earnings should they fall short of their forecasts. By contrast, I find no significant effect of accounting flexibility on the news content of management forecasts for non-SEO firms, which is consistent with weaker incentives relative to SEO firms.[8]

Third, I show that accounting flexibility is positively related to the specificity of management forecasts. Given the findings of Baginski et al. (1993) and Baginski et al. (2007) that more specific management forecasts are associated with greater price reaction and analyst forecast revisions, this result suggests that managers with higher accounting flexibility choose more specific forecasts to obtain a favorable market valuation prior to an SEO.[9]

In an additional analysis, I examine the cross-sectional variation in the observed effects by conditioning on litigation risk. I find that accounting flexibility has a stronger impact on managers' forecasting behavior for SEO firms with high litigation risk, but this stronger effect is not observed for non-SEO firms. From this result, it appears that the forecast behavior of non-SEO firms with high litigation risk is unaffected by accounting flexibility, possibly because these firms, unlike the SEO firms, lack strong incentives to boost prices. This further highlights the unique tension between the incentive for voluntary disclosure and the litigation threat

[8] The inference is similar when (a) bundled forecasts are adjusted following the procedure specified by Rogers and Van Buskirk (2013), (b) the upper bound (instead of the midpoint) of a range forecast is used as the proxy for managers' true expectations, following Ciconte et al. (2014), and (c) forecast news is measured as an indicator variable capturing good news versus bad news management forecasts relative to the analyst consensus.

[9] All of the above results are robust to (a) using a rank variable of accounting flexibility, (b) examining the current and non-current components of accounting flexibility separately, and (c) using the negative of industry-adjusted cumulative non-operating accruals as an alternative measure of accounting flexibility.

experienced by SEO firms that makes the accounting flexibility for managing reported earnings an important determinant of managers' forecasting behavior. Furthermore, I conduct an ex post validation analysis to examine whether SEO firms do in fact use their accounting flexibility to achieve their forecasts. I find evidence suggesting that accounting flexibility helps managers of SEO firms lower the likelihood of missing their own forecasts, particularly when their forecasts convey optimistic information relative to the preceding analyst consensus.

To mitigate the concern that the main results may be influenced by the potential endogeneity of SEO issuance, I conduct two robustness tests. First, given the previous evidence suggesting that firms tend to time their SEOs during the period when their stocks are overvalued (e.g., Loughran and Ritter 1995, 1997; Baker and Wurgler 2002), I attempt to control for the potential self-selection of SEO firms by using a propensity-score matched control sample. The control for self-selection of the SEO event is particularly important because it might be argued that both SEOs and management forecasts—particularly good news forecasts—could reflect managers' expectations of good performance, which might be associated with the proxy for a high level of accounting flexibility used in this study. The propensity-score matched control sample analysis confirms the robustness of the main findings after I control for the self-selection of SEO firms. Second, to better control for differential incentives to boost stock prices between SEO and non-SEO periods, I use the SEO firm as its own control. I compare SEO firms' management forecasts issued during the nine-month period preceding the SEO announcement with forecasts issued during the corresponding nine-month period in the year prior to the SEO year. Consistent with my results using the matched control-firm approach, I observe that the effect of accounting flexibility on the issuance, news content, and specificity of management forecasts is significantly more pronounced just prior to the SEO than in the pre-SEO year.

This study contributes to the accounting literature in several ways. First, it provides evidence that accounting flexibility, by facilitating earnings management, serves as an important determinant of managers' forecasting behavior. My findings complement the results of Kasznik (1999), which suggest that once managers issue optimistic forecasts, they manage reported earnings toward their forecasts to lower forecast errors. My results suggest that managers issue more positive news forecasts when they have a strong incentive to do so and when they have the ability to manage reported earnings to avoid costly litigation. Second, this study adds to the literature on voluntary disclosures around SEOs. While Frankel et al. (1995) find that, on average, managers do not convey optimistic information in their forecasts prior to external financing events (possibly because of greater legal liability), my work provides new evidence that managers of SEO firms do release optimistic information in their forecasts (in excess of analysts' expectations) when they have the accounting flexibility to manage earnings. Third, this study provides evidence on the role of accounting flexibility as a determinant of the specificity of management forecasts. While previous studies on management forecasts have focused on the issuance decision, my study responds to the call for a better understanding of the determinants of forecast characteristics, one of which is the specificity of forecasts (Baginski et al. 2004; Hirst et al. 2008).

The organization of the study is as follows. Section 2 reviews relevant previous research and develops the hypotheses. Section 3 provides details of the research design. Section 4 discusses the results of empirical tests. Section 5 concludes by summarizing the study's findings, discussing its limitations, and considering its implications for future research.

2. Literature review and hypothesis development

2.1 Accounting flexibility and issuance of management forecasts prior to SEOs

This study is related to studies of voluntary disclosure and earnings management in the SEO setting. Previous studies document that SEO firms tend to provide more voluntary disclosures in general in order to achieve a lower cost of capital. Frankel et al. (1995) show that, relative to firms with no external financing, firms that raise external capital from the debt and equity markets provide management forecasts more frequently to reduce information asymmetry and lower their cost of capital. However, these authors do not find any evidence of an *increase* in the frequency of management forecasts prior to the offering, particularly over the nine-month pre-offering period, most likely due to increased legal liability exposure.[10] Therefore, while these firms generally issue management forecasts more frequently, the enhanced threat of litigation due to securities laws related to public offerings seems to dampen their incentive to temporarily increase voluntary disclosures just before the offering.

While Frankel et al. (1995) examine frequent issuers of debt and equity, subsequent studies focus only on seasoned equity offerings. Marquardt and Wiedman (1998) find that when managers sell their own stock in a secondary offering, they are more likely to issue forecasts prior to the offering announcement with a view to maximizing the proceeds from the sale of their shares. In addition, using a broader measure of voluntary disclosure based on details of press releases, Lang and Lundholm (2000) and Jo and Kim (2007) show that firms do increase their voluntary disclosures in general (i.e., all disclosures except for management forecasts) prior to an SEO to obtain favorable valuations from investors. Moreover, Lang and Lundholm (2000) suggest that the disclosure activity may have been used to "hype" the stock, since SEO firms that issue a greater number of management forecasts earn higher pre-announcement returns but

[10] Frankel et al. (1995) choose the nine-month pre-offering period as the event window, since it is sufficiently close to the offering that management forecasts issued in the window can affect investors' information available at the offering date but not so close as to overlap with the "quiet period" when disclosure activity is not allowed. As Frankel et al. (1995) explain, the "quiet period" is considered to roughly start at the first meeting between the issuing firm and underwriters and to continue for up to 45 days after the equity offering.

experience larger price declines at the announcement of the SEO.

Collectively, prior studies suggest that SEO firms have a strong incentive to provide voluntary disclosures to obtain higher stock valuations prior to SEOs. [11] While some SEO firms temporarily increase their overall voluntary disclosure activity in an attempt to "hype" the stock, there is no evidence that SEO firms, on average, increase the frequency of management forecasts, since they are subject to a higher level of litigation risk associated with equity offerings. However, these studies do not take into account reporting flexibility that might play a role in managers' forecasting decisions. Even when faced with the threat of litigation, managers of SEO firms would be likely to issue forecasts if they believed they could deliver subsequent earnings that would meet or exceed their forecasts. In turn, managers' ability to meet or beat their forecasts can be enhanced if they have more accounting flexibility to manage reported earnings toward their forecasts. [12] Therefore, I argue that, given the tension between the incentive for voluntary disclosure to obtain favorable stock valuation and the high level of SEO-related litigation risk, accounting flexibility can influence managers' forecast behavior by facilitating future earnings management. While previous results suggest that, on average, the incentive to disclose additional information before equity offerings is overshadowed by the threat of litigation, I predict that managers of firms with greater accounting flexibility will be more likely to issue forecasts prior to an SEO. Thus, my first hypothesis is stated in alternative form as follows.

H1: *Controlling for other factors, managers with greater accounting flexibility are more likely to issue earnings forecasts prior to an SEO announcement.*

It should be noted that the effect of accounting flexibility on the forecast issuance

[11] Empirical evidence suggests that firms also engage in earnings management around SEOs (Teoh et al. 1998; Rangan 1998; Shivakumar 2000; Chen et al. 2009).

[12] Kasznik (1999) provides evidence on the relationship between voluntary disclosure and earnings management in the general cross-section of firms. He finds that once managers issue optimistic forecasts, they manage reported earnings toward their forecasts as a way of reducing litigation costs associated with ex post inaccurate forecasts.

decision is not necessarily limited to the period just prior to an SEO announcement. It is also conceivable that managers would consider the accounting flexibility available for earnings management for their forecast decisions even under general circumstances. On the one hand, even in the absence of an imminent equity offering, managers can benefit from a boost in stock price by issuing an earnings forecast and later reporting earnings that meet or beat the forecast when they have greater accounting flexibility. Furthermore, previous studies suggest that other incentives, such as equity incentives (Nagar et al. 2003) or insider trading incentives (Noe 1999; Cheng and Lo 2006), affect management forecasts. While these studies do not consider accounting flexibility in examining the effect of these incentives on management forecasts, such incentives might lead to a higher likelihood of forecast issuance even in non-SEO periods when managers have greater accounting flexibility.

On the other hand, as Das et al. (2011) show, firms with less accounting flexibility are more likely to rely on downward expectations management rather than upward earnings management in attempting to meet or beat analysts' expectations. However, the authors do not explicitly examine managers' forecasts and how they are affected by accounting flexibility.

Given the possibilities above, I examine whether accounting flexibility has a stronger effect on managers' forecasting behavior prior to an SEO announcement *relative to* its effect under non-SEO circumstances by using non-SEO firms as a control group. I also conduct a cross-sectional analysis based on litigation risk to examine whether accounting flexibility has a stronger effect on management forecasts for firms with high litigation risk than for other firms.

2.2 Accounting flexibility and news content of management forecasts

Previous studies on management forecasts demonstrate that the market responds to the news conveyed by management forecasts. Good (bad) news forecasts are found to be associated

with positive (negative) price reaction, where forecast news is defined relative to the prevailing market expectations of future earnings (Patell 1976; Penman 1980). In addition, analysts are found to revise their forecasts consistent with the direction of the news conveyed by management forecasts (Ajinkya and Gift 1984; Williams 1996; Cotter et al. 2006). Linking these findings to equity offerings, one would expect managers to be more likely to provide good news forecasts (i.e., in excess of the prevailing analyst consensus) to increase stock prices prior to SEO announcements. However, prior research does not find such optimism in management forecasts. Frankel et al. (1995) show that management forecasts issued prior to public offerings are not systematically higher than the prevailing analyst expectations. Similarly, Lang and Lundholm (2000) find that while SEO firms release optimistic information in other disclosures, they do not provide more optimistic forecasts. Thus, these studies suggest that the higher level of litigation risk may effectively dampen firms' incentives to provide optimistic information in management forecasts prior to SEOs, thus leading to no optimism on average.

I argue that all SEO firms may not be equally restrained by the legal liability constraint. Managers of SEO firms can mitigate their litigation concerns through the use of accounting flexibility by making their forecasts more accurate ex post via earnings management. Thus, similar to the forecast issuance decision, I expect that managers will be likely to issue more positive news forecasts even in the face of litigation risk if they can meet or beat their forecasts by managing earnings. Thus,

H2: *Controlling for other factors, managers with greater accounting flexibility are likely to issue more positive news forecasts relative to the analyst consensus prior to an SEO announcement.*

Given the possibility that accounting flexibility could affect managers' forecasting behavior for non-SEO firms as well as for SEO firms, as explained in the previous section in

relation to H1, I study both SEO and non-SEO firms in examining news content. Although I expect a positive effect of accounting flexibility on the news content of management forecasts for both groups, I predict that the effect will be stronger for SEO firms than for non-SEO firms.

2.3 Accounting flexibility and specificity of management forecasts

In practice, managers issue earnings forecasts with various levels of specificity. Based on King et al. (1990), the specificity of forecasts is calibrated as follows: a point forecast (e.g., "earnings per share of $1.00") is the most specific, and a forecast with a narrower range is more specific than one with a wider range. For example, a forecast of "earnings per share between $0.90 and $1.10" is considered more specific than a forecast of "earnings per share between $0.50 and $1.50," even though the two forecasts have the same midpoint of "earnings per share of $1.00." Open-ended forecasts, such as a minimum forecast (e.g., "earnings per share of at least $1.00") or a maximum forecast (e.g., "earnings per share of at most $1.00"), are considered less specific than point or range forecasts. Qualitative statements such as "earnings may not meet expectations" are considered the least specific forecasts.

Previous studies on management forecasts show that a more specific forecast can trigger greater stock price reaction and analyst forecast revision for a given level of news conveyed by the forecast (Baginski et al. 1993; Baginski et al. 2007). These findings are consistent with the theoretical prediction that the price informativeness of the unexpected portion of a disclosure increases with the degree of disclosure precision (Kim and Verrecchia 1991) and with the Bayesian adjustment model's prediction that the magnitude of belief revision becomes smaller for more uncertain disclosures (Hirst et al. 1999). These studies suggest that the specificity of management forecasts affects the reactions of investors and analysts to the news contained in the forecasts, and that managers will therefore strategically choose the level of specificity.

Thus, I can expect that managers of SEO firms issue more specific forecasts to obtain more favorable stock price reactions to their forecasts. However, a competing factor is the higher level of litigation risk associated with more specific forecasts. This is because the likelihood that a more specific forecast will be construed as overly optimistic or inaccurate is higher, leading investors to sue managers for misleading information.[13] Given such a trade-off in the issuance of more specific forecasts, I argue that accounting flexibility will affect the manager's choice of forecast specificity by mitigating the litigation threat related to more specific forecasts. Thus,

H3: *Controlling for other factors, managers with greater accounting flexibility are likely to issue more specific earnings forecasts prior to an SEO announcement.*

In testing H3, I examine both SEO and non-SEO firms. Although I expect managers of non-SEO firms with greater accounting flexibility to issue more specific forecasts, I predict that the effect will be stronger for SEO firms than for non-SEO firms.

3. Research design

3.1 Data and sample selection

I obtain my sample of SEO firms from the Security Data Corporation's (SDC) Global New Issues database over the period 1997–2005. The sample period starts in 1997 to ensure that the coverage of management forecast data from the First Call database is relatively comprehensive, following prior studies of management forecasts (e.g., Anilowski et al. 2007). The sample period ends in 2005 to obtain a group of SEOs from the same regulatory regime prior to the enactment of the SEC's Securities Offering Reform in December 2005.[14] Although

[13] Consistent with this concern, previous studies suggest that managers issue less specific forecasts when they expect the forecast accuracy to be lower (King et al. 1990; Choi et al. 2010).

[14] The reform makes several changes to the information environment for SEOs: for example, (i) the relaxation of Section 5(c), the so-called "gun-jumping" restriction, (ii) the introduction of a new disclosure venue, Free Writing Prospectus, and (iii) the adoption of a new class of issuers, Well-Known Seasoned Issuers. For more details about

SEO firms after 2005 continue to have litigation concerns associated with voluntary disclosures due to other regulations (such as Section 11 of the 1933 Act and Section 10b-5 of the 1934 Act), the Securities Offering Reform is likely to diffuse the tension between the managers' incentive for voluntary disclosure and the litigation risk faced by SEO firms, thus reducing the power of the test. Since such a tension is crucial in order for accounting flexibility to have an impact on managers' forecasting behavior before an equity offering, the main sample is limited to SEOs prior to the reform. While the sample period restriction is imposed to increase the power of the test, this should not diminish the contribution of the current study, as managers are likely to take accounting flexibility into consideration when making forecast decisions in other periods as well. Nonetheless, in untabulated robustness analyses, I use an extended sample of SEOs up to 2011 (after which management forecast data are unavailable in the First Call database) and obtain qualitatively similar (although weaker) results.

Following prior studies on SEOs, I include primary and secondary common stock offerings and exclude units and warrant offerings. The sample is limited to U.S. firms listed on NYSE, AMEX, and NASDAQ. To be included in the sample, an SEO must satisfy the following conditions: 1) the equity offering is made at least two years after the initial public offering to avoid the confounding effect of IPO performance; 2) only the first offering is included when a firm has multiple offerings over the sample period; 3) offerings made by companies in the utilities industry (SIC 4900 – 4999) and financial industry (SIC 6000 – 6999) are excluded due to differences in the regulatory environment and accounting methods; 4) the issuing firm has the required financial statement data on Compustat and stock price/return data on CRSP; and 5) the issuing firm has a matched non-SEO firm of similar size in the same industry (as explained in detail later). I obtain management forecast data from the First Call database, analyst coverage

the new reform, see Shroff et al. (2013) and Clinton et al. (2014).

data from *I/B/E/S*, and securities class action lawsuit filings for measuring the probability of litigation from Stanford Law School's Securities Class Action Clearinghouse.

After applying these criteria, I obtain a final sample of 480 SEOs. Table 1 reports a summary of sample characteristics of SEO firms. Panel A of Table 1 shows that equity offerings are not clustered in any year(s) of the sample period. Panel B of Table 1 reveals that the sample of equity offerings is obtained from various industries. Chemicals and pharmaceuticals (14%) and electronics (14%) account for a larger portion of the issues relative to other industries. Panel C of Table 1 displays the size (measured at the beginning of the offering announcement quarter) and offering characteristics of the SEO. The mean and median total assets equal $631 million and $191 million, respectively. The mean and median market capitalization equal $1,070 million and $345 million, respectively. The mean and median offer amounts are $130 million and $73 million, corresponding to 26% and 21% of the market value, respectively. The mean and median increase in the number of shares outstanding due to equity issues are 21% and 18%, respectively. These descriptive statistics are similar to those of previous SEO studies (e.g., Jo and Kim 2007).

3.2 Measurement of variables

The main variable of interest in this study is accounting flexibility. By "accounting flexibility," I mean the extent to which managers can manage reported earnings toward certain benchmarks (e.g., analyst consensus forecast and managers' own earnings forecast). Thus, when managers have the ability to report earnings that meet or beat their earnings forecasts by inflating accruals, I assume that managers have more accounting flexibility. Consistent with this view, Barton and Simko (2002) suggest a method of measuring accounting flexibility. They argue that due to the articulation between the income statement and the balance sheet, upward earnings management in the past would be partly reflected in a high level of net operating assets on the

balance sheet. In turn, the level of net operating assets will constrain the manager's ability to optimistically bias the current period's earnings. They show that the likelihood of meeting or beating analyst forecasts is negatively related to the beginning balance of net operating assets scaled by sales (NOA).[15]

Following Barton and Simko (2002), I measure accounting flexibility by the negative of NOA. That is, I measure the size of net operating assets by normalizing them with respect to sales, which is the inverse of the net operating assets turnover ratio, to reflect higher or lower accumulation of net operating assets relative to the normal level required to achieve reported sales. In addition, I adjust NOA by subtracting the industry median to focus on firm-specific accounting choice, as recommended by DeFond (2002). Since this study examines management forecasts issued before SEOs, I use quarterly data to measure accounting flexibility (Flexibility) at the beginning of the nine-month period prior to an SEO announcement.[16] Variable measurements are explained in more detail in Appendix A.

I obtain management forecasts from the First Call database. I focus on forecasts issued over the nine-month period prior to the announcement of an SEO, following Frankel et al. (1995), as explained earlier. I only include forecasts relating to reporting periods after the SEO announcement, since these are the forecasts that can influence investors' expectations of future earnings and, thus, the stock valuation prior to the offering. Using these forecasts, I measure three attributes of management forecasts: issuance, news content, and specificity.

MF is an indicator variable that takes a value of one if the SEO firm issues an earnings forecast during the event window and zero otherwise. To construct variables reflecting news

[15] Several other studies also use NOA as a proxy for the accounting constraint on upward earnings management (e.g., Baber et al. 2011; Das et al. 2011).

[16] As an alternative measure, I also use the average NOA for the quarter that begins in the nine-month period prior to the SEO; the results are substantially similar.

content and specificity of management forecasts, I use only point and range forecasts.[17] In cases of multiple forecasts issued by a firm in the event window, only the last forecast issued before the SEO announcement is included, because that is the most recent information available to investors. News_MF is a proxy for news conveyed in a management forecast, measured as the management forecast less the prevailing median analyst consensus, scaled by stock price.[18] Higher News_MF values imply that a management forecast conveys more optimistic information relative to the analyst consensus. Specificity_MF, a proxy for the specificity of a forecast, is set to zero for a point forecast and, for a range forecast, is calculated as the negative of the difference between the upper and lower limits of the forecast range, divided by stock price. Accordingly, a greater value of Specificity_MF corresponds to a more specific forecast.

3.2.1 Control variables

In the empirical tests, I include as control variables other factors that prior studies have found to be related to management forecasts. Previous research documents several firm characteristics as determinants of the issuance of management forecasts. For example, firm size is positively related to the issuance of management forecasts (Lang and Lundholm 1993; Bamber and Cheon 1998). Log_MVE is measured as the natural logarithm of market capitalization at the beginning of the SEO announcement quarter. Following Bamber and Cheon (1998), who show that proprietary cost is negatively related to a firm's voluntary disclosure decision, I calculate the industry sales concentration ratio, Ind_Con, as the sales of the top five firms in the firm's industry divided by total industry sales during the quarter preceding the SEO announcement. Based on the previous findings on the effect of litigation risk on management forecasts (Francis

[17] As shown by previous studies on management forecasts, the other two types of forecasts (open-ended forecasts and qualitative statements) account for only approximately 10% of management forecasts; moreover, it is difficult to measure the news content of these types of forecasts (see Choi et al. 2010).

[18] The inference remains unchanged when management forecast news is measured with an adjustment for bundled forecasts, adopting Rogers and Van Buskirk's (2013) procedure (untabulated).

et al. 1994; Skinner 1994, 1997; Field et al. 2005), I include an ex ante probability of litigation as a proxy for litigation risk, Lit_Prob, based on the model used by Rogers and Stocken (2005).[19]

Waymire (1985) and Lang and Lundholm (1993) examine the relation between voluntary disclosure and the level and variability of firm performance. Although these studies provide mixed evidence, I include Sales_Growth and Cum_Ret as measures of firm performance and Std_Ret and Vol_Earn as measures of uncertainty.[20] Sales_Growth is calculated as sales of quarter t divided by sales of quarter t-4 (minus one), where quarter t is the quarter preceding the SEO announcement. Cum_Ret equals cumulative returns, and Std_Ret is the standard deviation of daily returns over a period of 252 days ending one day before the SEO announcement. Vol_Earn, earnings volatility, is measured as the absolute value of seasonally differenced EPS scaled by the beginning-of-quarter stock price for the quarter preceding the SEO announcement.

In addition, I include the market-to-book ratio, MB, measured at the beginning of the SEO announcement quarter as a proxy for growth opportunities and information asymmetry. Consistent with Verrecchia (1990), I expect that firms with higher MB are more likely to issue a management forecast. Based on Lang and Lundholm (1993), I include Following, defined as the natural logarithm of one plus the number of *I/B/E/S* analysts following a firm during the quarter preceding the SEO announcement, as a proxy for investors' demand for information about a firm's prospects. I also include a dummy variable, Lag_MF, to control for firm-specific factors that may be omitted in the model and the stickiness of forecast behavior (Brown et al. 2005). Based on the findings of Bailey et al. (2003) and Heflin et al. (2003) that the frequency of management forecasts increases after the passage of Regulation Fair Disclosure, I include an

[19] Table A1 in the appendix presents the results of the litigation probability model based on Rogers and Stocken (2005). The results are similar to those in Rogers and Stocken (2005).

[20] It is particularly important to control for firm performance in the tests to show that the effects of accounting flexibility on management forecasts are not due to firm performance.

indicator variable, Post_FD, that equals one if the calendar quarter in which accounting flexibility is measured is the fourth quarter of 2000 or later, and zero otherwise.

I also include governance-related variables based on the previous finding that management forecasts are associated with the strength of corporate governance, proxied by institutional ownership and audit quality (McConomy 1998; Clarkson 2000; Ajinkya et al. 2005; Karamanou et al. 2005). Inst_Own is measured as the fraction of common shares held by institutional investors at the beginning of the announcement quarter, and Big_N equals one if the firm's auditor is one of the Big-N auditors and zero otherwise.

In testing H2 and H3, I include additional control variables. Following Brown et al. (2005), I include the inverse Mills ratio, Mills, to control for potential self-selection bias, since news content and specificity can be measured only for firms issuing management forecasts.[21] This variable is calculated from the probit regression estimating the likelihood of issuing a management forecast in the test of H1. In addition, I include the forecast horizon, Horizon, defined as the difference in days between the management forecast date and the end of the fiscal period for which the forecast is issued, since the news content and specificity of management forecasts could be related to the timing of the forecasts (e.g., walk-down of market earnings expectations in Matsumoto 2002). Based on the prior finding that managers provide less specific bad news forecasts to dampen the adverse market reaction to upcoming bad news (Hughes and Pae 2004; Choi et al. 2010), I include an indicator variable, G_News_MF, that equals one for a good news forecast, and zero otherwise. Following Anilowski et al. (2007), I classify a

[21] Note that the exclusion restriction when using the inverse Mills ratio is satisfied, as the lagged forecast indicator variable (Lag_MF) from the first-stage regression is excluded in the second-stage regressions of forecast news (H2) and specificity (H3). There is no compelling reason to expect that the forecast issuance decision in the previous period (Lag_MF) *itself* directly affects the news and specificity of the current period's management forecast, because these are largely determined by time-specific factors pertaining to the current period. In addition, following the recommendation in Lennox et al. (2012), I check and find that multicollinearity is quite low given that the highest VIF score is 2.9 (for Mills), which is lower than the recommended cutoff of 10. Moreover, the results of H2 and H3 are robust to excluding the inverse Mills ratio in the second-stage regressions (untabulated).

management forecast as good news or bad news relative to the prevailing analyst consensus.

3.3 Research design

I employ a matched-control sample approach to test (i) whether the hypothesized effect of accounting flexibility on management forecasts is observed for both SEO and non-SEO firms, and (ii) whether the effect is stronger for SEO firms. To collect a sample of control firms, I identify a non-SEO firm for each SEO firm based on the following criteria: the matched firm (i) has no equity offerings over a three-year period around the SEO announcement, (ii) belongs to the same industry as the SEO firm based on the two-digit SIC code, and (iii) is the closest to the SEO firm in market value of equity at the beginning of the SEO announcement quarter. After applying these criteria, I obtain a sample consisting of 480 SEO and 480 non-SEO firms from 1997 to 2005. To distinguish between the two samples, I use an indicator variable, SEO, that takes a value of one for SEO firms, and zero otherwise.

To test H1, I estimate a probit regression model estimating the probability of issuing a management forecast using accounting flexibility and other control variables as explanatory variables. The dependent variable MF identifies a firm with a management forecast over the nine-month period prior to the SEO announcement. To examine the relative effect of accounting flexibility on the forecast issuance decision of SEO versus non-SEO firms, I include the variable Flexibility and an interaction variable, SEO×Flexibility. All continuous variables are winsorized at the upper and lower one percentile to mitigate the effect of outliers. The probit model is specified as follows (for brevity, I omit the firm subscript).

$$\Pr(MF=1) = G\,(\alpha_0 + \alpha_1\,SEO + \alpha_2\,Flexibility + \alpha_3\,SEO\times Flexibility + control\ variables + \varepsilon) \quad (1)$$

where G(.) is the cumulative density function of a normal distribution and the control variables are those explained in Section 3.2.1.

I expect α_2 to be positive if the managers of non-SEO firms with greater accounting flexibility are more likely to issue an earnings forecast. Furthermore, if the effect of accounting flexibility on forecast issuance is greater prior to the SEO, I expect α_3 to be positive. However, as stated in H1, if the hypothesized effect of accounting flexibility is observed for SEO firms but not for non-SEO firms, I expect $(\alpha_2 + \alpha_3)$ to be positive and significant but α_2 to be insignificant. Regarding the control variables, I predict a positive coefficient on Log_MVE, MB, Following, Lag_MF, Post_FD, Big_N, and Inst_Own and a negative coefficient on Ind_Con. I do not have a directional prediction for Lit_Prob, Vol_Earn, Sales_Growth, Cum_Ret, and Std_Ret, given the mixed prior findings regarding these variables.

To test H2, I estimate an OLS regression of the news content in management forecasts (News_MF) on Flexibility and control variables. As in the test of H1, in addition to Flexibility, the interaction variable SEO×Flexibility is included in the model. I include two additional variables to control for the timing of forecasts (Horizon) and self-selection bias (Mills), since I analyze only firms that choose to issue a management forecast. The OLS regression model is specified as follows.

$$\text{News\_MF} = \beta_0 + \beta_1 \text{SEO} + \beta_2 \text{Flexibility} + \beta_3 \text{SEO}\times\text{Flexibility} + \text{control variables} + \mu \quad (2)$$

where μ is the error term and the control variables are those explained in Section 3.2.1.

If managers, even in the absence of an equity offering, are likely to issue forecasts that convey more optimistic information relative to the outstanding analyst consensus when their accounting flexibility is high, I expect β_2 to be significantly positive. In addition, if the positive effect of accounting flexibility on the news content of management forecasts is stronger for SEO

firms, then β_3 is expected to positive. However, if managers utilize accounting flexibility significantly only prior to SEOs when they have a stronger incentive to boost stock prices, I expect ($\beta_2 + \beta_3$) to be positive and significant but β_2 to be insignificant. I expect a positive coefficient on Horizon and a negative coefficient on Log_MVE, Ind_Con, Lit_Prob, Vol_Earn, Following, Post_FD, Big_N, and Inst_Own.

To test H3, I estimate a regression model of the determinants of management forecast specificity. The dependent variable, Specificity_MF, captures the extent to which a management forecast is specific. In addition to the control variables that are used in the test of H2, I include an additional variable, G_News_MF. The OLS regression model is specified as follows.

$$\text{Specificity\_MF} = \gamma_0 + \gamma_1 \text{ SEO} + \gamma_2 \text{ Flexibility} + \gamma_3 \text{ SEO}\times\text{Flexibility} + \text{control variables} + \nu \quad (3)$$

where ν is the error term and the control variables are those explained in Section 3.2.1.

As in H1 and H2, γ_2 and γ_3 are predicted to be positive if a non-SEO manager issues a more specific forecast with greater accounting flexibility to trigger a greater market reaction to their earnings forecast, and if this positive effect of accounting flexibility is more prevalent for SEO firms. If the positive effect of accounting flexibility on the specificity of the management forecast is significant only prior to the SEO announcement, I expect ($\gamma_2 + \gamma_3$) to be positive and significant but γ_2 to be insignificant. In the case of control variables, I expect a positive coefficient on G_News_MF, MB, Following, Big_N, and Inst_Own and a negative coefficient on Horizon, Ind_Con, Lit_Prob, and Vol_Earn.

4. Empirical results

4.1 Descriptive statistics

Panel A of Table 2 displays descriptive statistics of variables for 480 SEO firms and 480 matched non-SEO firms. Several observations are worth noting. First, SEO and non-SEO firms

are similar in terms of accounting flexibility; the mean and median Flexibility are −1.09 and 0.01, respectively, for SEO firms, and –1.37 and –0.06, respectively, for non-SEO firms. Second, by construction, the two groups are similar in size; the mean and median MVE of SEO firms are $1,070 million and $345 million, respectively, compared with $969 million and $324 million, respectively, for non-SEO firms. Third, consistent with previous findings that SEOs are undertaken by high growth firms and that stock prices run up before the equity offerings (Loughran and Ritter 1997), the mean and median MB and Cum_Ret are higher for SEO firms relative to non-SEO firms. Fourth, compared to non-SEO firms, SEO firms have higher sales growth (Sales_Growth) and higher stock return volatility (Std_Ret) and are more likely to be audited by the Big-N auditors (Big_N), but have lower institutional-holdings (Inst_Own). Lastly, the two groups are similar in terms of Lit_Prob, Vol_Earn, and Num_Analysts. Thus, SEO and non-SEO firms are similar in terms of characteristics such as accounting flexibility and size, but different in terms of growth and stock return performance. Panel B of Table 2 presents the Spearman correlations between accounting flexibility and other firm characteristics. While accounting flexibility (Flexibility) is significantly positively correlated with market-to-book ratio (MB), stock returns (Cum_Ret), and return volatility (Std_Ret), it is uncorrelated with other variables, including firm size (Log_MVE).

Table 3 presents descriptive statistics of the management forecast attributes of SEO and non-SEO firms. Panel A shows the percentage of firms with a management forecast over the two nine-month periods, (−18, −10) and (−9, −1), where month 0 is the SEO announcement month.[22] I find that the two groups have a similar tendency to issue forecasts over the two nine-month periods. As suggested by Frankel et al. (1995), the litigation threat around equity offerings seems

[22] Note that I consider only those forecasts by SEO and non-SEO firms for the reporting period ending after SEO announcements for the period, (-9, -1), while I include all of the forecasts issued for the period (-18, -10).

to dampen firms' incentives to disclose voluntarily just prior to SEOs. Note, however, that the focus of this paper is on the variation within the SEO sample; i.e., I predict that the degree of accounting flexibility can influence managers' forecast behavior prior to SEOs.

Panel B shows two characteristics of management forecasts: news content and specificity. The table indicates that the median News_MF is greater for SEO firms than for non-SEO firms, and the difference is marginally significant (p-value = 0.094), while the means of this variable for the two groups are similar. Panel B also shows that the mean (median) Specificity_MF is similar for the two groups: −0.0028 (−0.0015) for SEO firms and −0.0028 (−0.0013) for non-SEO firms. Thus, it appears that, in general, SEO firms and non-SEO firms do not differ much in the news content and specificity of their management forecasts. However, due to the unique tension faced by SEO firms, accounting flexibility may affect the manager's choice in determining these two forecast attributes more strongly in SEO firms than in non-SEO firms.

Panel C reports the frequency of the form of management forecasts over the sample period. It appears that the majority of forecasts take the form of range estimates in the sample (63.7%) and that there is a shift in the frequency of the form of forecasts around the passage of Regulation Fair Disclosure (FD).[23] As similarly reported by previous studies (Choi et al. 2010; Ciconte et al. 2014), point forecasts are issued less frequently while range forecasts become more prevalent in the post-FD period. For the pre-FD period of 1997–2000, range (point) estimates account for 23.4% (42.6%) of the management forecasts in my sample. By contrast, in the post-FD period (2001-2005), range estimates become the majority of forecasts (74.4%), while point estimates are only 18.8% of forecasts. Please note that all of the empirical tests include a control

[23] In unreported analysis of the year-by-year forecast frequency, I observe that point forecasts steadily decrease, while range forecasts become more prevalent over time, such that range forecasts are the major form of forecast in recent years; the pattern is similar when SEO and non-SEO firms are separately considered. I also find that managers provide less specific forecasts in recent years (post-FD period) than in earlier years (pre-FD period), while there is no particular temporal pattern for forecast news content (untabulated).

variable for the post-FD period, given this observation and the previous evidence that managers issue more forecasts in the post-FD period (Bailey et al. 2003; Heflin et al. 2003), as explained in Section 3.3.

4.2 Results of hypotheses tests

The results of testing H1, H2, and H3 are presented in Tables 4, 5 and 6, where the t-statistics are corrected for clustering of standard errors by year (Petersen 2009). Table 4 presents the results for H1. In column (1), while the estimated coefficient on Flexibility is not different from zero, the F-test shows that the coefficient on (Flexibility + SEO×Flexibility) is significantly positive at the 1% level (one-sided p-value=0.007). In addition, the incremental effect of accounting flexibility on SEO firms (i.e., SEO×Flexibility) is significantly positive at the 1% level. These results are consistently obtained even after I control for other variables that influence the forecast issuance decision in column (2). In terms of economic significance, the marginal effect of accounting flexibility on the probability of issuing a management forecast is 5.30% for SEO firms and 0.74% for non-SEO firms when accounting flexibility increases by one standard-deviation around the sample mean while other control variables are held at their respective means. While this effect for SEO firms is smaller than the 7.04% increase for a one-standard-deviation increase in Log_MVE, it is much larger than the effect for other continuous variables.

The results support H1 that managers of SEO firms with greater accounting flexibility have a higher tendency to issue management forecasts prior to the SEO announcement. Given the strong incentive to provide voluntary disclosure to boost the offering proceeds, accounting flexibility seems to mitigate legal concerns associated with the disclosure and to lead managers to issue more forecasts. However, accounting flexibility appears to have no impact for non-SEO

firms, possibly due to weaker incentives to boost stock price relative to SEO firms.

In column (2), the coefficient estimates on Log_MVE, Lag_MF, and Post_FD are positive and significant, consistent with previous evidence that managers are more likely to issue an earnings forecast when their firm size is large, if they have issued a forecast in the prior nine-month period, and in the post-FD period. In addition, the negative and significant coefficient on Vol_Earn indicates that managers are less likely to issue a forecast as the volatility of earnings becomes larger. I find insignificant coefficient estimates on the rest of the control variables.[24]

Table 5 presents results consistent with H2. Across the two model specifications, the coefficient estimates on SEO×Flexibility and (Flexibility + SEO×Flexibility) are significantly positive at the 5% significance level. These results are consistent with H2 that managers of SEO firms with greater accounting flexibility provide the market with more optimistic news about future earnings relative to the prevailing analyst consensus. Again, the insignificant coefficient estimate on Flexibility in column (2) implies that accounting flexibility does not affect the forecast news content for non-SEO firms.

In column (2), the coefficient estimate on Horizon_MF is significantly positive, while the one on Lit_Prob is significantly negative. These results are consistent with previous findings that forecast news is positively related to the timing of the forecast and negatively related to litigation risk. Furthermore, I find that managers of firms with more growth opportunities and/or information asymmetry (MB) issue less positive news forecasts, while those with higher proprietary cost (Ind_Con) issue more positive news forecasts. I find insignificant coefficient estimates on the rest of the control variables.

The results of testing H3 are presented in Table 6. Consistent with H3, the coefficient

[24] I also obtain substantially similar results when I measure the variable, MF, by considering a six-month period (instead of a nine-month period) prior to the announcement of an SEO.

estimates on SEO×Flexibility and (Flexibility + SEO×Flexibility) are significantly positive at the 5% significance level with or without the inclusion of other control variables in columns (1) and (2). The results suggest that, to trigger greater market reaction to their forecasts before equity offerings, managers choose more specific forecasts when they have greater accounting flexibility. I also find that the coefficient estimate on Flexibility is positive and significant at the 5% significance level. Thus, accounting flexibility has a positive effect on forecast specificity for non-SEO firms as well, although the effect is weaker than for SEO firms. In column (2), I find that the coefficient estimates on most of the control variables have the expected sign, while only Horizon and Post_FD have significant coefficient estimates.[25]

In sum, the empirical results are consistent with all three hypotheses. By mitigating the litigation risk related to disclosures around SEOs, accounting flexibility seems to help managers (i) issue earnings forecasts, (ii) release more optimistic information in their forecasts (relative to the prevailing analyst consensus), and (iii) choose more specific forecasts. Furthermore, the positive effect of accounting flexibility is not observed for the control sample of non-SEO firms that have weaker incentives for voluntary disclosures to boost stock prices relative to SEO firms.

4.3 Cross-sectional analysis based on litigation risk

Given that the key motivation of this study is to uncover the potential role of accounting flexibility in mitigating litigation concerns associated with management forecasts, it is interesting to examine whether accounting flexibility in general (i.e., for both SEO and non-SEO firms) has a stronger effect on managers' forecasting behavior for firms with high litigation risk. In this

[25] Please note that the regression model (3) already includes an indicator variable for the post-FD period to control for the change in the trend of form and specificity of management forecasts around the passage of FD. I further check the results for H3 (i) by estimating the regression separately for the pre-FD and post-FD periods, and (ii) by including year fixed effects in the regression. In untabulated analyses, I find that the positive effect of accounting flexibility on forecast specificity, particularly for SEO firms, is mainly observed for the post-FD period and not for the pre-FD period, and that the inferences in relation to forecast specificity remain the same after year fixed effects are included in the regression.

section, I examine the cross-sectional variation in managers' forecasting behavior conditioned on litigation risk. For this purpose, I include a variable reflecting high litigation risk, High_Lit, and its interaction with accounting flexibility in the tests for the three hypotheses. High_Lit is set to one for firms that belong to the top quartile of litigation risk, and zero otherwise. If accounting flexibility influences managers' forecasts, particularly in the presence of high litigation risk, the coefficient on the interaction term (i.e., High_Lit×Flexibility) is expected to be positive.

It is important to note, however, that another key aspect of this setting is that SEO firms have a stronger incentive to obtain higher valuation via positive news forecasts than do non-SEO firms. That is, the tension between the incentive to convey optimistic information and high litigation risk is stronger for SEO firms. Thus, it is likely that accounting flexibility may have a greater influence on managers' forecasting behavior for SEO firms. Furthermore, lacking strong incentives to boost prices, managers of non-SEO firms with greater accounting flexibility may not have a compelling need to issue forecasts—they can still meet or beat market expectations by using their accounting flexibility and at the same time avoid legal costs associated with forecast errors (Kasznik 1999). Similarly, due to their flexibility to manage reported earnings upward, these firms will rely less on downward expectations management, as implied by the findings of Das et al. (2011). Thus, while the coefficient on the interaction between high litigation risk and accounting flexibility is expected to be positive for SEO firms, the prediction for non-SEO firms is not obvious. Hence, I estimate the regressions separately for SEO firms and non-SEO firms and conduct tests for the difference in the coefficients of interest between the two groups.

Table 7 shows the results of cross-sectional tests on litigation risk: forecast issuance in columns (1-1) and (1-2), news content in columns (2-1) and (2-2), and specificity in columns (3-1) and (3-2). Although other control variables are included in the empirical specifications, I

report only the coefficient and significance level for the main variables of interest for the sake of brevity. First, the results show that for the group of SEO firms, the estimated coefficient on the interaction term (High_Lit×Flexibility) is positive for all three dimensions of forecasts and significant for news content in column (2-1) and specificity in column (3-1). Consistent with my prediction, these results indicate that accounting flexibility has a more pronounced effect on managers' forecasting behavior in the presence of high litigation risk, especially for news content and specificity of forecasts. In addition, the results show that the positive incremental effect of accounting flexibility for high litigation firms is significantly greater in the group of SEO firms than in the group of non-SEO firms in the tests of all three forecast dimensions. Second, I find that the total effect of accounting flexibility on management forecasts for SEO firms with high litigation risk (i.e., as captured by the sum of the coefficients on Flexibility and High_Lit×Flexibility) is significantly positive for all three dimensions of forecasts, and that the positive effect is significantly greater for SEO firms than for non-SEO firms.

Third, in the case of non-SEO firms, the estimated coefficient on the interaction term is significantly negative in columns (1-2) and (2-2) and insignificant in (3-2), indicating that accounting flexibility has a weaker (or no differential) effect on management forecasts for non-SEO firms with high litigation risk. Thus, consistent with the argument made earlier, it appears that non-SEO firms with high accounting flexibility may not need to provide management forecasts in the presence of high litigation risk (and a lack of strong incentives to boost prices) because they can still meet or beat market expectations by using their flexibility to manage reported earnings and at the same time avoid the legal costs associated with forecast errors (Kasznik 1999). These results highlight the unique tension between the incentive for voluntary disclosure and the litigation threat experienced by SEO firms that makes the flexibility to

manage reported earnings an important determinant of managers' forecasting behavior. [26]

4.4 Ex post validation

Given the main results on the impact of accounting flexibility on managers' forecasts for SEO firms, I next examine whether managers' forecasting decisions lead to the expected future outcomes based on the level of accounting flexibility. Despite the implicit assumption that managers of SEO firms can mitigate litigation risk associated with their own forecasts by using accounting flexibility, whether accounting flexibility does in fact lead to a lower likelihood of missing a management forecast is an empirical question. When managers have high accounting flexibility, they could first issue forecasts that convey more optimistic information relative to the prevailing analyst consensus and then manage reported earnings to meet or beat their forecasts. On the other hand, when managers have lower accounting flexibility, they could first issue less positive news forecasts and then report earnings that are close to the forecasts. Thus, it is possible that the level of accounting flexibility may not be able to differentiate the likelihood of missing a management forecast.

I estimate a probit model of the likelihood of missing a forecast by creating an indicator variable, Miss_MF, which is set to one if the actual reported earnings is below the management forecast, and zero otherwise. Given the tension between the incentive to boost the pre-SEO stock price and higher litigation risk, the effect of accounting flexibility on the likelihood of missing a forecast would be stronger for forecasts that convey optimistic information relative to the analyst consensus. Therefore, I also add a term that captures the interaction between Flexibility and G_News_MF.

[26] I also examine whether accounting flexibility has any differential effect on management forecasts for firms with a high market-to-book ratio (MB), particularly for SEO firms. Untabulated results show that while accounting flexibility continues to have a positive impact on management forecasts for SEO firms, the impact is not more pronounced for firms with high MB in either the SEO or non-SEO groups.

Table 8 presents the results. The negative coefficient estimate on SEO suggests that managers of SEO firms are less likely to miss their own forecasts, most likely due to the enhanced litigation risk for voluntary disclosures prior to an SEO. More importantly, I find some evidence suggesting that accounting flexibility actually helps managers of SEO firms avoid missing their earnings forecasts that convey positive news: the coefficient estimate on SEO×G_News_MF×Flexibility is negative and significant at the 5% level. In addition, the F-test shows that the sum of the coefficient estimates on (G_News_MF×Flexibility) and (SEO×G_News_MF×Flexibility) is negative and marginally significant. For the non-SEO firms, accounting flexibility seems to have no significant effect on the likelihood of managers missing their forecasts. In sum, my evidence suggests that accounting flexibility helps managers lower the likelihood of missing their positive news forecasts.

Note that while one could conduct an additional validation test to examine whether managers of SEO firms with high accounting flexibility do indeed engage in upward earnings management to achieve their forecasts, this study does not pursue such an analysis. It is extremely challenging to establish an association between accounting flexibility and earnings management in the current setting of SEOs. Such an analysis requires knowledge of the level of pre-managed earnings and the corresponding necessary amount of accounting discretion that must be used to deliver reported earnings that meet the manager's forecast; these two variables are unobservable to researchers. Moreover, although some proxies for earnings management, such as discretionary accruals estimated from the modified-Jones model (Dechow et al. 1995) or performance-matched discretionary accruals (Kothari et al. 2005), have been employed in previous studies (e.g., Teoh et al. 1998; Jo and Kim 2007), the models underlying the estimation of abnormal accruals are still subject to debate, due to the low power of the test to detect

earnings management and the substantial amount of noise in the estimated accruals for the general population of firms. These concerns are likely to be more serious in the setting of SEOs.

4.5 Robustness tests to control for potential self-selection of SEO firms

Since an equity offering is a firm's decision and not an exogenous event, one may be concerned that the positive effect of accounting flexibility on management forecasts of SEO firms could be driven by the potential endogeneity of SEOs. In fact, prior studies suggest that SEO firms are different from other firms in that firms tend to time new equity offerings when their stocks are overvalued (e.g., Loughran and Ritter 1995, 1997; Baker and Wurgler 2002). Thus, an alternative explanation for the main findings would be that both SEOs and management forecasts, particularly positive news forecasts, could reflect managers' expectations of good performance, which might be associated with the proxy for a high level of accounting flexibility used in this study. To mitigate this concern, I conduct additional tests using two different controls: (i) a propensity-score matched sample of non-SEO firms, and (ii) the SEO firms' own data from the year prior to the SEO year (i.e., pre-SEO period).

To control for the potential differences between SEO firms and the general population of firms, I re-estimate the three regression models based on a control sample of propensity-score matched non-SEO firms. Using the data over the sample period from 1997 to 2005, I estimate a probit model for the likelihood of an SEO. Following previous studies on SEOs (e.g., Khan et al. 2012), I consider various firm characteristics, including performance, leverage, growth, dividend yield, and volatility, as the determinants of an SEO. Based on the propensity score calculated from the probit estimation, I identify non-SEO firms with a similar probability of having an equity offering (thus incorporating the combined effect of the predictive variables) as the SEO

firms within the same industry-quarter group.[27] Panel A of Table 9 presents the results using 442 propensity-score matched pairs of SEO and non-SEO firms.[28] The coefficient estimates on SEO×Flexibility and (Flexibility + SEO×Flexibility) are significantly positive in relation to the issuance, news content, and specificity of management forecasts in columns (1) through (3), while the coefficient estimates on Flexibility are insignificant. These results are consistent with those shown in Section 4.2 that accounting flexibility has a significant impact on management forecasts for SEO firms but not for non-SEO firms.

In addition to the propensity-score matched control sample analysis, I employ an alternative research design that uses SEO firms' own observations from different time periods as another control group. If SEO firms experience the unique tension between the incentive for voluntary disclosure and increased litigation threat only before equity offerings, the hypothesized effect of accounting flexibility should be observed in that time period alone, not in other periods. To test this conjecture, I collect data on management forecasts and independent variables for the nine-month period in the previous year corresponding to the nine-month period just prior to the SEO announcement.[29] Thus, by comparing the SEO year with the prior year, I use a firm as its own control. In this analysis, the dummy variable, SEO, takes a value of zero for all observations from the year prior to the SEO announcement year. Panel B of Table 9 shows the results based on 411 SEO firms with available data in both time periods. As shown in the table, the coefficient estimates on SEO×Flexibility and (Flexibility + SEO×Flexibility) are significantly positive in

[27] Table A2 of the appendix shows the probit estimation results, which are largely consistent with those reported by previous studies. For example, the likelihood of an SEO in a quarter is found to be positively related with size, stock returns, growth, and leverage but negatively related with return on assets, dividend yield, and volatility. Untabulated results show that the mean and median propensity scores for an SEO are not significantly different between the SEO and non-SEO groups.

[28] Although other control variables are included in the empirical specification, I only report the coefficient estimate and significance level for the main variables of interest for brevity.

[29] All of the variables in the previous year, including management forecasts and accounting flexibility, are measured either over the period of time or at the point in time corresponding to the SEO announcement date.

relation to the issuance, news content, and specificity of management forecasts, while those on Flexibility are insignificant, suggesting a significant effect of accounting flexibility on managers' forecasting behavior only for the SEO year. In sum, the main results are robust to controlling for the self-selection of the SEO event.

4.6 Additional robustness checks

I conduct a series of additional analyses to test the robustness of the main findings. In this section, I provide a brief summary of the results from untabulated tests, as they are consistent with those from the main analysis. First, to mitigate the effect of extreme observations for accounting flexibility, I re-estimate the three regression models using a decile rank variable instead of a continuous variable. The inferences remain the same when the rank variable is used.

Second, I check the sensitivity of the results for H2 using two additional tests. In the first test, I employ an alternative measure of management forecast news for range forecasts. In the main test of H2, I use the midpoint of the upper and lower bounds of a forecast range as a proxy for managers' true forecasts, as in prior studies (e.g., Anilowski et al. 2007; Cheng et al. 2013). In a recent study, however, Ciconte et al. (2014) suggest that due to managers' asymmetric loss functions regarding earnings surprises, managers are more likely to place their true earnings expectations at the upper bound (rather than the midpoint) of range forecasts. Following their suggestion, I re-estimate regression model (2) by measuring forecast news based on the upper bound of range forecasts, and obtain the same inferences. In the second test, I examine the effect of accounting flexibility on the issuance of good news versus bad news forecasts instead of the continuous variable (News_MF). Untabulated results suggest that the greater the accounting flexibility, the higher the likelihood of issuing a good news forecast prior to SEOs, but such an effect is not observed for non-SEO firms. Thus, the results of H2 are unaffected by the

measurement of management forecast news.

Third, I decompose accounting flexibility into current and non-current components to examine whether these two components have differential impacts on management forecasts. This test is based on Barton and Simko (2002), who show that the current portion of net operating assets has a stronger effect on the firm's ability to manage earnings than the non-current portion. Untabulated results show that both accounting flexibility components have a positive effect on management forecasts for SEO firms; for non-SEO firms, they have either a negative or an insignificant effect. Similar to Barton and Simko (2002), I also find that the current component has a stronger effect on management forecasts of SEO firms than the non-current component.

Fourth, I test the three hypotheses by employing an alternative measure of accounting flexibility. As discussed in footnote 4, accounting flexibility can be interpreted as the extent to which net assets on the balance sheet are conservatively stated. Based on Givoly and Hayn (2000), I use the negative of industry-adjusted cumulative non-operating accruals to measure the degree of understatement in net asset values due to conservative accounting. To the extent that the understatement of net assets provides managers with greater opportunity to manage earnings, it can serve as an alternative measure of accounting flexibility. Untabulated results from the test using this alternative measure are substantially similar to those from the main analysis.

5. Conclusion

This paper investigates the effect of accounting flexibility on managers' forecasting behavior prior to SEOs. I hypothesize that accounting flexibility facilitates management forecasts by mitigating the tension between the incentive to make voluntary disclosures to obtain higher stock valuations and an increased level of litigation risk due to the regulations associated with public offerings. The rationale behind this hypothesis is that managers with accounting flexibility

can manage subsequent reported earnings to meet their own forecasts and to avoid costly litigation associated with inaccurate forecasts.

The empirical results show that before equity offerings, managers with higher accounting flexibility are more likely to (i) issue forecasts, (ii) issue forecasts that convey more positive news relative to the prevailing analyst consensus, and (iii) issue more specific forecasts. Thus, while previous studies suggest that the legal liability exposure around equity offerings effectively deters SEO firms' disclosure of additional information prior to an SEO, I provide new evidence suggesting that managers can mitigate the threat of litigation if they have sufficient ability to manage reported earnings. Furthermore, this effect of accounting flexibility is not observed for firms that are not undertaking an SEO, even though managers in general could have reasons other than equity offerings to exploit their accounting flexibility when issuing management forecasts, such as stock price-based incentives and insider trading incentives. In addition, I find that the impact of accounting flexibility on management forecasts is more pronounced for firms with high litigation risk, particularly for SEO firms, given that managers of these firms have stronger incentives for high stock valuation. An ex post analysis provides evidence validating that accounting flexibility does help managers of SEO firms successfully reduce the likelihood of missing their own forecasts.

I acknowledge that this study has some limitations. First, NOA, the main measure of accounting flexibility that I use, may not perfectly capture the construct. Although using the negative of cumulative non-operating accruals as an alternative measure does not change the main results, future research could test the robustness of the results by employing other measures of accounting flexibility. Second, while management forecasts are widely used as a parsimonious proxy for voluntary disclosure, I acknowledge that they are only a part of the overall disclosure

activity. Thus, it is difficult to generalize this study's results to the overall disclosure behavior of managers. Third, this study does not explore the relationship between accounting flexibility and earnings management to meet earnings forecasts for SEO firms, due to the estimation issues related to the exact amount of accounting flexibility for managers to utilize in order to attain their forecasts.

Future research could revisit the SEO setting to examine the relationship between accounting flexibility and earnings management for SEO firms, perhaps with a more refined research methodology. As another extension of this study, one could investigate settings other than equity offerings where accounting flexibility can influence managers' forecast behavior. For example, Cheng and Lo (2006) find no significant association between good news forecasts and sale of shares by insiders, most likely because of the higher litigation risk faced by insiders. One could analyze this setting further by examining whether managers with greater accounting flexibility are more likely to issue good news forecasts when they plan to sell their personal shareholdings.

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Appendix A Variable descriptions

1. Management forecasts

Variable		Definition
MF	=	Indicator variable that equals one if the firm issues an earnings forecast for reporting periods after the SEO in the nine-month period prior to the announcement date of the SEO and zero otherwise.
Lag_MF	=	Lagged value of MF that equals one if the firm issues an earnings forecast in the nine-month period ending in the tenth month prior to the announcement date of the SEO and zero otherwise.
News_MF	=	News contained in management forecasts issued by the firm, measured as the management forecast minus the prevailing analyst consensus forecast obtained from the First Call database, divided by the stock price on the day before the issuance of the management forecast.
G_News_MF	=	Indicator variable that equals one if the news provided by the management forecast is good relative to the prevailing analyst consensus forecast, and zero otherwise. Details of the classification can be observed in Anilowski et al. (2007).
Specificity_MF	=	A continuous variable for the specificity of management forecasts. This variable is set to zero for point forecasts and is measured as the negative of the absolute difference between the upper and lower limits of a range forecast, divided by the stock price on the day before the issuance of the management forecast.
Horizon_MF	=	Forecast horizon, measured as the difference in days between the management forecast date and the end of the fiscal year (quarter) for which the management forecast is issued.

2. Financial statement data, stock returns, and analyst data

Variable		Definition
NOA	=	Net Operating Assets / Sales (#2), where Net Operating Assets equal Operating Assets less Operating Liabilities; Operating Assets = Total Assets (#44) − Cash and short-term investment (#36); Operating Liabilities = Total Assets (#44) − Debt included in current liabilities (#45) − Long-term debt (#51) − Minority interests (#53) − Preferred Stock (#55) − Common equity (#59).
Raw_Flexibility	=	The negative of NOA, measured at the beginning of the nine-month period prior to the announcement of the SEO by using quarterly financial statements.
Flexibility	=	Flexibility measured as the Raw_Flexibility minus the industry median of Raw_Flexibility, where industry is defined using the two-digit SIC code.
MVE	=	Market value of equity in millions of dollars, measured as the number of shares outstanding (#61) times the share price (#14) at the end of the quarter prior to the announcement of the SEO.
Log_MVE	=	Firm size measured as a natural logarithm of MVE at the end of the quarter prior to the announcement of the SEO.
Ind_Con	=	Industry sales concentration ratio, measured as the sum of the sales of the top five firms in the industry divided by the total industry sales during the quarter prior to the announcement of the SEO using the two-digit SIC code.
Lit_Prob	=	A measure of the ex ante probability of litigation, calculated as the average of the previous three quarters' probability that the firm will be subject to a class action securities lawsuit whose filing date ends during the following calendar quarter. The probability of litigation is estimated based on the Rogers and Stocken (2005) litigation risk model.

Appendix A Variable descriptions (continued)

Variable		Definition
Vol_Earn	=	Volatility of earnings, measured as the absolute value of the seasonally differenced EPS (#19) of the quarter prior to the SEO announcement deflated by the beginning stock price.
MB	=	Market to book ratio, measured as the market value of equity (#61 × #14) divided by the book value of equity (#59) at the end of the quarter prior to the announcement of the SEO.
Sales_Growth	=	Growth in sales, measured as the sales for quarter t divided by the sales for quarter t-4 (minus one). The variable is measured at the end of the quarter prior to the SEO announcement.
Cum_Ret	=	The cumulative returns over a 252-day period ending one day before the announcement of the SEO.
Std_Ret	=	The standard deviation of the daily stock return of the firm over a 252-day period ending one day before the announcement of the SEO.
Following	=	Analyst following, measured as a natural logarithm of the number of *I/B/E/S* analysts following the firm during the quarter prior to the announcement of the SEO.
Post_FD	=	An indicator variable that equals one if the nine-month-period prior to the announcement of the SEO is after 2000 and zero otherwise.
Mills	=	The inverse Mills ratio based on the probit model of issuance of management forecasts reported in Table 4.
Big_N	=	An indicator variable that equals one if the firm's auditor is one of Big N audit firms and zero otherwise.
Inst_Own	=	The fraction of the firm's aggregated common stock held by institutional investors at the end of the quarter prior to the announcement of the SEO.

Table A1 Estimation of the probability of litigation

$$Prob\,(\,Lawsuit\,=1\,)\;=\;G\;(\delta_0\;+\;\delta_1\,Log\_MVE\;+\;\delta_2\,Turn\;+\;\delta_3\,Beta\;+\;\delta_4\,Returns\;+\;\delta_5\,Std\_Ret\;+\;\delta_6\,Skewness\;+\;\delta_7\,Min\_Ret\;+\;\Sigma\,LHigh\,Risk\,Industries\;+\;\tau\,)$$

Variable	Sign	Coefficient	p-value
Intercept		-4.4184	<0.001
Log_MVE	+	0.1069	<0.001
Turn	+	0.0036	<0.001
Beta	+	0.0220	<0.001
Returns	−	-0.1388	<0.001
STD_Ret	+	0.1602	0.712
Skewness	−	-0.0157	0.149
Min_Ret	−	-2.6012	<0.001
Bio_Tech	+	-0.0100	0.824
Computer Hardware	+	0.3022	<0.001
Electronics	+	0.1388	0.001
Retailing	+	0.0853	0.059
Computer Software	+	0.2826	<0.001
N		264,032	
N (Lawsuit = 1)		1,119	
Pseudo R^2		0.1073	

This table presents the results from a probit model of the probability of litigation based on Rogers and Stocken (2005). The sample period ranges from the first quarter of 1995 to the fourth quarter of 2005. Lawsuit is an indicator variable that equals one if a securities class action lawsuit was recorded by Stanford Law School's Securities Class Action Clearinghouse during a calendar quarter, and zero otherwise. The following explanatory variables are measured over the calendar quarter. Log_MVE is the natural logarithm of the average market value of equity. Turn is the average daily trading volume of shares divided by the average number of shares outstanding. Beta is the slope coefficient from the regression of daily returns on the CRSP equal-weighted index. Returns is the buy and hold returns over the calendar quarter. Std_Ret is the standard deviation of daily returns. Skewness is the skewness of daily returns. Min_Ret is the minimum daily return.

Table A2 Estimation of the probability of SEO issuance

$$Prob\,(\,SEO\,=1\,)\;=\;G\;(\lambda_0\;+\;\lambda_1\,ROA\;+\;\lambda_2\,Cash\;+\;\lambda_3\,1year\text{-}Returns\;+\;\lambda_4\,Log\_TA\;+\;\lambda_5\,MB\;+\;\lambda_6\,Leverage\;+\;\lambda_7\,Dividend\_Yield\;+\;\lambda_8\,Volatility\;+\;\lambda_9\,Chg\_Volatility\;+\;\lambda_{10}\,Growth\_TA\;+\;Year\;Fixed\;Effects\;+\;Quarter\;Fixed\;Effects\;+\;Industry\;Fixed\;Effects\;+\;\xi\,)$$

Variable	Sign	Coefficient	p-value
ROA	−	-0.6161	0.006
Cash	−	0.3392	0.000
1year-Returns	+	0.3556	0.000
Log_TA	+	0.0292	0.001
MB	+	0.0141	0.000
Leverage	+	0.2992	0.000
Dividend_Yield	−	-14.1741	0.000
Volatility	+ / −	-8.2598	0.000
Chg_Volatility	−	-4.8619	0.000
Growth_TA	+	0.3603	0.000
Time Fixed Effects		Yes	
Industry Fixed Effects		Yes	
N		129,637	
N (SEO = 1)		1,038	
Pseudo R^2		0.1237	

This table presents the results from a probit model of the probability of SEO issuance. The sample period ranges from the first quarter of 1997 to the fourth quarter of 2005. SEO is an indicator variable that equals one if the firm has an SEO issuance in quarter t, and zero otherwise. The following explanatory variables are measured at the fourth quarter prior to the current quarter t (i.e., quarter t-4). ROA is the return on assets, measured as operating income before extraordinary items divided by the lagged total assets. Cash is cash and short-term investments over total assets. Log_TA is the natural logarithm of total assets. MB is market value of equity over book value of shareholders' equity. Leverage is long-term debt plus long-term debt in current liabilities, divided by total assets. Dividend_Yield is dividend per share divided by the stock price at the end of the quarter. Volatility is the standard deviation of daily stock returns over the quarter. Growth_TA is the change in the natural logarithm of total assets from the same quarter in the prior year. 1year-Returns is the buy and hold returns over the prior year.

Table 1 Sample characteristics of SEOs

Panel A: Yearly frequency

Year	SEO frequency	% of total
1997	76	15.83 %
1998	39	8.13 %
1999	68	14.17 %
2000	65	13.54 %
2001	39	8.13 %
2002	46	9.58 %
2003	59	12.29 %
2004	54	11.25 %
2005	34	7.08 %
Total	480	100.00 %

Panel B: Industry distribution

Industry description	SIC codes	SEO frequency	% of total
Agriculture, mining & construction	7, 13, 15, 16, 17	27	5.63 %
Food, paper & finished goods	20, 22, 23, 25, 27	18	3.75 %
Chemicals & pharmaceuticals	28, 29	68	14.17 %
Rubber, leather and metal-works	30, 31, 32, 33, 34	19	3.96 %
Machinery	35	38	7.92 %
Electronics	36	68	14.17 %
Other equipment & machinery	37, 38, 39	56	11.67 %
Transportation	40, 42, 44, 47	20	4.17 %
Communications	48	9	1.88 %
Wholesales	50, 51	22	4.58 %
Retailers	53, 55, 56, 57, 58, 59	33	6.88 %
Entertainment services	70, 78, 79	13	2.71 %
Business services	73	54	11.25 %
Engineering & accounting & management services	87	14	2.92 %
All others		21	4.38 %
Total		480	100.00 %

Panel C. Size characteristics

	Total assets ($ millions)	Market value ($ millions)	Offer amount ($ millions)	Proceeds size (%)	Offer size (%)
Mean	631.21	1069.95	129.82	26.27	21.06
Median	190.59	344.96	73.20	21.01	17.86
Std Dev	1304.51	2573.12	180.13	21.07	12.86

This table displays the summary characteristics of 480 SEOs over the period from 1997 to 2005. Total assets and market value of equity are measured at the end of the quarter prior to the announcement of the offering. Proceeds size is calculated as the ratio of the offer amount to the total market capitalization. Offer size is measured as the number of shares offered divided by the number of shares outstanding prior to the SEO.

Table 2 Descriptive statistics of SEO and non-SEO Firms

Panel A: Flexibility and other control variables

	SEO firms (N=480)			Non-SEO firms (N=480)			p-value[a]	p-value[b]
Variables	**Mean**	**Median**	**STD**	**Mean**	**Median**	**STD**	**(t-test)**	**(Wilcoxon test)**
Flexibility	-1.090	0.014	5.361	-1.374	-0.058	5.656	0.423	0.362
Log_MVE	5.981	5.843	1.256	5.943	5.781	1.231	0.634	0.738
Ind_Con	0.448	0.407	0.145	0.448	0.407	0.145	-	-
Lit_Prob (%)	0.467	0.295	0.537	0.496	0.316	0.513	0.400	0.057
Vol_Earn	0.022	0.008	0.048	0.024	0.008	0.055	0.603	0.724
MB	5.289	3.634	5.470	3.786	2.273	4.566	<0.001	<0.001
Sales_Growth	0.485	0.238	1.079	0.263	0.082	0.991	0.001	<0.001
Cum_Ret	1.420	0.806	1.860	0.468	0.152	1.205	<0.001	<0.001
Std_Ret	0.041	0.039	0.017	0.038	0.035	0.018	<0.001	<0.001
Inst_Own	0.414	0.395	0.223	0.496	0.505	0.258	<0.001	<0.001
Big_N	0.931	1.000	0.253	0.890	1.000	0.314	0.024	-
Num_Analysts	4.738	3.000	4.687	4.952	3.000	4.910	0.489	0.795

Table 2 (Cont'd)

Panel B: Spearman correlations

		1	2	3	4	5	6	7	8	9	10	11
1	Flexibility											
2	Log_MVE	-0.006										
3	Ind_Con	-0.023	-0.038									
4	Lit_Prob	-0.004	**0.436**	**-0.197**								
5	Vol_Earn	-0.020	**-0.251**	-0.055	0.012							
6	MB	**0.239**	**0.236**	**-0.291**	**0.157**	**-0.127**						
7	Sales_Growth	0.017	0.042	-0.028	-0.016	**-0.116**	**0.284**					
8	Cum_Ret	**0.085**	-0.050	-0.026	**-0.088**	0.057	**0.360**	**0.281**				
9	STD_Ret	**0.107**	**-0.247**	**-0.311**	**0.298**	**0.259**	**0.315**	**0.093**	**0.257**			
10	Following	0.026	**0.598**	0.028	**0.426**	**-0.121**	0.048	0.036	**-0.200**	**-0.110**		
11	Big_N	0.028	**0.146**	0.018	**0.082**	0.018	-0.014	0.015	-0.005	-0.014	**0.172**	
12	Inst_Own	-0.017	**0.442**	0.062	**0.228**	**-0.140**	**-0.128**	**-0.078**	**-0.190**	**-0.315**	**0.387**	**0.113**

This table presents summary statistics of 480 SEO and 480 non-SEO firms over the period from 1997 to 2005. Panel A displays descriptive characteristics of accounting flexibility and other control variables used in this study, separately for SEO and non-SEO firms, and the results of testing the difference in variables between the two groups using a t-test and a Wilcoxon test. Panel B reports the pair-wise correlation coefficients for variables. Correlation coefficients significant at the 5% level are presented in boldface. Flexibility is measured as the negative of the industry-adjusted net operating assets divided by sales (NOA), measured at the beginning of the nine-month period prior to the announcement of the SEO. MVE is the market value of equity in millions of dollars at the end of the quarter prior to the SEO. Ind_Con is the industry sales concentration ratio, measured as the sum of the sales of the top five firms in the industry divided by the total industry sales during the quarter prior to the SEO. Lit_Prob is an ex ante probability of litigation, calculated as the average of the previous three quarters' probability that a firm will be subject to a class action securities lawsuit based on the litigation risk model in Rogers and Stocken (2005). Vol_Earn is the volatility of earnings, computed as the absolute value of seasonally differed EPS divided by the beginning-quarter stock price. MB is the ratio of market value to book value of equity at the end of the quarter prior to the SEO. Sales_Growth is measured as the sales of quarter t divided by the sales of quarter t-4 (minus one). Cum_Ret is cumulative returns over a 252-day period ending one day before the announcement of the SEO. Std_Ret is the standard deviation of daily returns over a 252-day period ending one day before the announcement of the SEO. Big_N is an indicator variable that equals one if the firm's auditor is one of the Big-N auditors, and zero otherwise. Inst_Own is the fraction of common shares held by institutional investors at the beginning of the announcement quarter. Num_Analysts is the number of *I/B/E/S* analysts covering the firm during the quarter prior to the announcement of the SEO. All continuous variables are winsorized at the 1% and 99% levels.

[a] Two-sided p-values of t-tests of difference in means of variables between SEO firms and non-SEO firms

[b] Two-sided p-values of non-parametric Wilcoxon tests of difference in distributions of variables between SEO firms and non-SEO firms

Table 3 Descriptive statistics of management forecasts of SEO and non-SEO firms

Panel A: Issuance of forecasts

Nine-month period	SEO firms (N=480)		Non-SEO firms (N=480)		p-value[a]
	# of firms	% of total	# of firms	% of total	
(- 9 , -1)	114	23.75	109	22.71	0.703
(- 18 , - 10)	163	33.96	167	34.79	0.786

Panel B: News content and specificity of forecasts

	SEO firms (N=480)			Non-SEO firms (N=480)			p-value[b]	
	# of forecasts	Mean	Median	# of forecasts	Mean	Median	Mean	Median
News_MF	99	0.0034	0.0008	96	0.0042	0.0003	0.785	0.094
Specificity_MF	99	-0.0028	-0.0015	96	-0.0028	-0.0013	0.948	0.339

Panel C: Time trend in the form of forecasts

Period	Qualitative forecasts (1)		Range forecasts (2)		Point forecasts (3)		Total
	#	(%)	#	(%)	#	(%)	#
Pre-FD (1997~2000)	16	(24.4)	11	(23.4)	20	(42.6)	47
Post-FD (2001~2005)	12	(6.8)	131	(74.4)	33	(18.8)	176
Total	28	(12.6)	142	(63.7)	53	(23.8)	223

This table displays descriptive characteristics of management forecasts issued by 480 SEO and 480 non-SEO firms over the period from 1997 to 2005. Panel A shows issuance of management forecasts in the two nine-month periods: (i) from the ninth month to one month prior to the SEO, (-9, -1), and (ii) from the 18th month to the 10th month prior to the SEO, (-18, -10). Panel B shows news content and specificity of management forecast using the last forecast issued during the nine-month period, (-9, -1), for reporting periods ending after the SEO announcement. News_MF is the news contained in a management forecast, measured as the management forecast minus the prevailing analyst consensus forecast, divided by the stock price on the day before the issuance of the management forecast. Specificity_MF is (i) set to zero for point forecasts, and (ii) for range forecasts, computed as the negative of the absolute difference between the upper and lower limits of the range, divided by the stock price on the day before the issuance of the forecast. Panel C presents the frequency of three forms of management forecasts over the sample period and two sub-periods: pre-FD period (years 1997–2000) and post-FD period (years 2001–2005). For the management forecasts issued during the nine-month period prior to the SEO, (-9, -1), I classify forecasts into qualitative forecasts (i.e., qualitative statements or open-ended forecasts), range forecasts, and point forecasts.

[a] Two-sided p-values of t-tests of difference in percentages between SEO firms and non-SEO firms

[b] Two-sided p-values of tests of differences in variables between SEO firms and non-SEO firms. The p-values in the mean column are of t-tests of differences in means between the two groups, and p-values in the median column are of non-parametric Wilcoxon tests of difference in distributions of variables between the two groups.

Table 4 Accounting flexibility and issuance of management forecasts

$$Prob\,(\,MF\,=1\,)\;=\;G\,(\,\alpha_0+\alpha_1\,SEO+\alpha_2\,Flexibility+\alpha_3\,SEO\times Flexibility+control\ variables+\varepsilon\,)\qquad(1)$$

Variable	Predicted sign	(1)		(2)	
		Coefficient	p-value[a]	Coefficient	p-value[a]
Intercept		-0.7485	<0.001	-2.9664	<0.001
SEO	+	0.0615	0.250	0.0715	0.334
Flexibility	?	0.0000	0.999	0.0053	0.409
SEO × Flexibility	+	0.0423	0.002	0.0497	0.023
Log_MVE	+			0.2251	0.001
Ind_Con	−			0.0987	0.360
Lit_Prob	+ / −			-0.0181	0.849
Vol_Earn	+ / −			-5.1617	<0.001
MB	+			-0.0058	0.314
Sales_Growth	+ / −			0.0551	0.248
Cum_Ret	+ / −			-0.0011	0.981
STD_Ret	+ / −			-0.9554	0.859
Following	+			0.0145	0.443
Lag_MF	+			1.0109	<0.001
Post_FD	+			0.8061	<0.001
Big_N	+			0.0201	0.456
Inst_Own	+			0.1339	0.297
F-test: Flexibility + SEO × Flexibility	+	0.0423	0.007	0.0550	0.007
N		960		960	
N (MF=1)		223		223	
Pseudo R^2		0.0064		0.2592	

This table presents the results of a probit model estimating the probability of issuing a management forecast during the nine-month period prior to the SEO using Flexibility and other control variables. SEO is a dummy variable that equals one for SEO firms, and zero otherwise. The dependent variable is MF, which equals one if a firm has issued at least one forecast for the reporting period after the announcement of the SEO during the nine-month period prior to the SEO, and zero otherwise. Other variables are defined in Appendix A.

[a] p-values are one-sided for variables where the sign of the coefficients is predicted, and two-sided otherwise. All p-values are computed using standard errors adjusted for clustering by year.

Table 5 Accounting flexibility and news content of management forecasts

$$News\_MF = \beta_0 + \beta_1 SEO + \beta_2 Flexibility + \beta_3 SEO \times Flexibility + control\ variables + \mu \quad (2)$$

Variable	Predicted sign	(1)		(2)	
		Coefficient	p-value[a]	Coefficient	p-value[a]
Intercept		0.0047	0.024	0.0186	0.286
SEO	+	-0.0006	0.429	0.0009	0.405
Flexibility	?	0.0003	0.064	0.0002	0.224
SEO × Flexibility	+	0.0051	0.016	0.0046	0.007
Horizon_MF	+			0.0024	0.030
Mills	?			-0.0053	0.392
Log_MVE	−			-0.0005	0.406
Ind_Con	−			0.0181	0.027
Lit_Prob	−			-0.0040	0.019
Vol_Earn	−			-0.0204	0.444
MB	+ / −			-0.0014	0.007
Following	−			-0.0006	0.413
Post_FD	−			-0.0062	0.128
Big_N	−			-0.0049	0.224
Inst_Own	−			-0.0029	0.291
F-test: Flexibility + SEO × Flexibility	+	0.0055	0.014	0.0048	0.005
N		195		195	
Adj. R^2		0.0217		0.1721	

This table presents the results of the OLS regression of news content of management forecasts on Flexibility and other control variables. The regression model is estimated using the last forecast issued during the nine-month period prior to the SEO. The dependent variable is News_MF, which is measured as the management forecast minus the prevailing analyst consensus forecast, divided by the stock price on the day before the issuance of the forecast. Other variables are defined in Appendix A.

[a] p-values are one-sided for variables where the sign of the coefficients is predicted, and two-sided otherwise. All p-values are computed using standard errors adjusted for clustering by year.

Table 6 Accounting flexibility and specificity of management forecasts

$$Specificity\_MF = \gamma_0 + \gamma_1 SEO + \gamma_2 Flexibility + \gamma_3 SEO \times Flexibility + control\ variables + \nu \quad (3)$$

Variable	Predicted sign	(1)		(2)	
		Coefficient	p-value[a]	Coefficient	p-value[a]
Intercept		-0.0026	<0.001	0.0076	0.115
SEO	+	-0.0001	0.456	0.0009	0.121
Flexibility	?	0.0001	0.044	0.0001	0.040
SEO × Flexibility	+	0.0011	0.039	0.0008	0.049
G_News_MF	+			-0.0010	0.048
Horizon_MF	−			-0.0009	0.013
Mills	?			-0.0043	0.019
Log_MVE	+ / −			-0.0004	0.397
Ind_Con	−			0.0013	0.216
Lit_Prob	−			0.0001	0.431
Vol_Earn	−			-0.0596	0.108
MB	+			0.0000	0.268
Following	+			0.0003	0.304
Post_FD	−			-0.0041	<0.001
Big_N	+			0.0003	0.347
Inst_Own	+			0.0003	0.393
F-test: **Flexibility + SEO × Flexibility**	+	0.0013	0.023	0.0010	0.021
N		195		195	
Adj. R^2		0.0674		0.2706	

This table presents the results of the OLS regression of specificity of management forecasts on Flexibility and other control variables. The regression model is estimated using the last forecast issued during the nine-month period prior to the SEO. The dependent variable is Specificity_MF, which is (i) set to zero for point forecasts, and (ii) for range forecasts, computed as the negative of absolute difference between the upper and lower limits of the range, divided by the stock price on the day before the issuance of the forecast. Other variables are defined in Appendix A.

[a] p-values are one-sided for variables where the sign of the coefficients is predicted, and two-sided otherwise. All p-values are computed using standard errors adjusted for clustering by year.

Table 7 Cross-sectional analysis of the effect of accounting flexibility on management forecasts: litigation risk

Variable		Pred. Sign	Issuance (1)				News Content (2)				Specificity (3)			
			SEO firms (1-1)		Non-SEO firms (1-2)		SEO firms (2-1)		Non-SEO firms (2-2)		SEO firms (3-1)		Non-SEO firms (3-2)	
			Coef.	p-val.[a]	Coef.	p-val.[a]	Coef.	p-val.[a]	Coef.	p-val.[a]	Coef.	p-val.[a]	Coef.	p-val.[a]
Intercept			-1.7713	<0.001	-4.2163	<0.001	0.0453	0.058	-0.0194	0.345	0.0068	0.241	0.0052	0.348
High_Lit	**β1**	−	0.4118	0.007	-0.2245	0.232	-0.0006	0.460	-0.0095	0.023	0.0007	0.183	-0.0013	0.153
Flexibility	**β2**	+	0.0658	0.004	0.0348	<0.001	-0.0015	0.248	0.0021	0.001	0.0003	0.232	0.0003	0.212
High_Lit×Flexibility	**β3**	+	0.0031	0.464	-0.0563	<0.001	0.0113	0.004	-0.0024	0.001	0.0015	0.009	-0.0002	0.333
Control Variables			Included		Included		Included		Included		Included		Included	
F-test:														
$\beta_2 + \beta_3 = 0$		+	0.0689	0.033	-0.0215	0.036	0.0098	0.000	-0.0003	0.005	0.0018	0.011	0.0001	0.071
N			480		480		99		96		99		96	
Pseudo / Adjusted R^2			0.2553		0.3091		0.2906		0.2094		0.3096		0.2333	
Tests for the difference between SEO firms and non-SEO firms														
β_2			0.0310	0.099			-0.0036	0.095			0.0000	0.470		
β_3			0.0594	0.058			0.0137	0.002			0.0017	0.004		
$\beta_2 + \beta_3$			0.0904	0.016			0.0101	<0.001			0.0017	0.015		

This table presents the results of testing the cross-sectional variation in the effect of accounting flexibility on management forecasts with litigation risk, separately for SEO and non-SEO firms. Column (1) reports the results of the probit regression of the probability of issuing a management forecast during the nine-month period prior to the SEO. Columns (1-1) and (1-2) show the results for SEO and non-SEO firms, respectively. Column (2) reports the results of the OLS regression of the news content of management forecasts for SEO firms in column (2-1) and for non-SEO firms in (2-2). Column (3) reports the results of the OLS regression of the specificity of management forecasts for SEO firms in column (3-1) and for non-SEO firms in (3-2). High_Lit is an indicator variable for the high litigation risk group and is set to one for firms that belong to the top quartile of litigation risk, and zero otherwise. Other variables are defined in Appendix A.

[a] p-values are one-sided for variables where the sign of the coefficients is predicted, and two-sided otherwise. All p-values are computed using standard errors adjusted for clustering by year.

Table 8 Accounting flexibility and probability of missing management forecasts

$$Prob\ (\ MISS\_MF\ = 1\ )\ =\ G\ (\ \theta_0 + \theta_1\ SEO + \theta_2\ Flexibility\ + \theta_3\ SEO \times Flexibility + \ control\ variables + \zeta\ )$$

Variable	Predicted sign	Coefficient	p-value[a]
Intercept		1.4568	0.092
SEO	−	-0.4283	0.078
G_News_MF	+	0.5269	0.006
SEO × G_News_MF	−	-0.2916	0.134
Flexibility	?	0.0099	0.821
SEO × Flexibility	−	0.1829	0.116
G_News_MF × Flexibility	?	0.0999	0.139
SEO × G_News_MF × Flexibility	−	-0.3281	0.035
Horizon_MF	+	0.2515	0.000
Log_MVE	−	-0.0681	0.281
Ind_Con	+ / −	-0.2136	0.856
Lit_Prob	−	-0.3263	0.014
Vol_Earn	+	7.0473	0.131
MB	+ / −	-0.0038	0.913
Cum_Ret	−	-0.3019	0.000
STD_Ret	+	2.6161	0.408
Following	−	-0.0350	0.442
Big_N	−	-0.8280	0.018
Inst_Own	−	-0.5634	0.114
F-test:			
Flexibility + SEO × Flexibility	−	0.1928	0.077
G_News_MF × Flexibility + SEO × G_News_MF × Flexibility	−	-0.2282	0.102
N		195	
Pseudo R^2		0.1853	

This table presents the results of a probit model estimating the probability of missing a management forecast issued during the nine-month period prior to the SEO, using Flexibility and other control variables. The regression model is estimated using the last forecast issued during the nine-month period prior to the SEO. The dependent variable is Miss_MF, an indicator variable that equals one if the actual reported earnings is below a management forecast (i.e., negative earnings surprise relative to the management forecast), and zero otherwise. SEO is a dummy variable that equals one for SEO firms, and zero for non-SEO firms. Other variables are defined in Appendix A.

[a] p-values are one-sided for variables where the sign of the coefficients is predicted, and two-sided otherwise. All p-values are computed using standard errors adjusted for clustering by year.

Table 9 Robustness tests to control for potential self-selection of SEO firms

Panel A: Test using a propensity-score matched control sample

Variable	Predicted sign	Issuance (1)		News content (2)		Specificity (3)	
		Coefficient	p-value[a]	Coefficient	p-value[a]	Coefficient	p-value[a]
Intercept		-2.7989	<0.001	0.0424	0.144	0.0027	0.532
SEO	+	0.1624	0.059	0.0081	0.123	0.0020	0.062
Flexibility	?	0.0123	0.629	0.0002	0.921	0.0000	0.953
SEO × Flexibility	+	0.0466	0.036	0.0044	0.064	0.0009	0.018
Control Variables		Included		Included		Included	
F-test: **Flexibility + SEO × Flexibility**	+	0.0589	0.008	0.0046	0.024	0.0009	0.050
N		884		196		196	
N (MF=1)		216		–		–	
Pseudo (or Adjusted) R^2		0.2781		0.1991		0.3638	

Table 9 (Cont'd)

Panel B: Test comparing SEO period with pre-SEO period

Variable	Predicted sign	Issuance (1)		News content (2)		Specificity (3)	
		Coefficient	p-value[a]	Coefficient	p-value[a]	Coefficient	p-value[a]
Intercept		-2.0389	<0.001	0.0507	0.045	-0.0029	0.472
SEO	+	-0.0579	0.299	-0.0009	0.439	0.0014	0.013
Flexibility	?	0.0081	0.754	0.0004	0.533	0.0000	0.951
SEO × Flexibility	+	0.0506	0.069	0.0056	0.003	0.0007	0.058
Control Variables		Included		Included		Included	
F-test: **Flexibility + SEO × Flexibility**	+	0.0588	<0.001	0.0059	0.004	0.0007	0.027
N		822		159		159	
N (MF=1)		184		–		–	
Pseudo (or Adjusted) R^2		0.1939		0.2705		0.2155	

This table presents the results of robustness tests to control for the potential self-selection of SEO firms. Panel A reports the results of the test using a sample of SEO firms and a propensity-score matched control sample of non-SEO firms. Each SEO firm is matched with a non-SEO firm based on the propensity score, which is the predicted probability of issuing a SEO during a quarter t. The results of the probit model for the likelihood of having an SEO are provided in Table A2 in the appendix. Panel B reports the results of the test comparing the SEO period with the pre-SEO period. The SEO period covers the nine months prior to an SEO, while the pre-SEO period covers the corresponding nine months in the year prior to the SEO year. In panels A and B, column (1) shows the results of the probit regression of the probability of issuing a management forecast during the nine-month period prior to the SEO, while columns (2) and (3) show the results of the OLS regression of the news content and specificity of management forecasts, respectively. SEO is set to one for the group of SEO firms in panel A (and for observations from the nine-month period prior to the SEO announcement in panel B), and zero otherwise. Other variables are defined in Appendix A.

[a] p-values are one-sided for variables where the sign of the coefficients is predicted, and two-sided otherwise. All p-values are computed using standard errors adjusted for clustering by year.