

## Seasoned Equity Issuers' Prospectus Filings: How Informative Are the Tones?

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### Abstract

Seasoned equity issuers file Forms S and 424B with the Securities and Exchange Commission. We find that weak-modal tones of these filings are positively related to offer price discounts and negatively related to offer-day stock returns. Increases in cautionary tones from the initial S filing to the 424B filing are associated with lower abnormal stock returns after the offer date. However, we find no significant evidence that cautionary filing tones are related to underpricing. Overall, our findings suggest that cautionary tones of seasoned equity issuers' prospectus filings have significant negative information content, which is gradually incorporated into the stock prices.

**Key Words:** Textual Analysis, Filing Tone, Security Issuance, Equity Issuance, Seasoned Equity Offering, SEO, Offer Price Discount, Underpricing, Corporate Disclosure, Risk Disclosure

**JEL:** G14; G18; G24

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# Seasoned Equity Issuers' Prospectus Filings: How Informative Are the Tones?

## 1. Introduction

When firms conduct seasoned equity offerings (SEOs) in the U.S., they file Form S (preliminary prospectus) and Form 424B (final prospectus) with the Securities and Exchange Commission (SEC). In this paper, we use textual analysis to identify uncertainty words (e.g., *may*, *could*, and *approximately*), weak-modal words (a subset of the uncertainty words), and negative words (e.g., *loss* and *adversely*) in the prospectus filings for a sample of SEOs from 1998 to 2016.<sup>1</sup> Three tone measures are then defined as the proportions of the three types of words in each filing, respectively. We view a higher value of each measure as reflecting a more cautionary tone. We find that the uncertain and weak-modal tone measures and their changes during the registration period (i.e., from the initial S filing to the 424B filing) are positively related to the offer price discount. The weak-modal tone measure and its change during the registration period are negatively related to the issuer's stock return on the offer date. The changes in all of the three tone measures during the registration period are negatively related to the abnormal stock return during the several days after the SEO. However, neither the three tone measures nor their changes are significantly related to SEO underpricing. We also find that SEO filing tones have become more cautionary (i.e., more uncertain and negative) after the Sarbanes-Oxley Act of 2002, and that SEO firms in industries with higher litigation risk use more cautionary language.

In contrast to hard information such as the quantitative information in financial statements, filing tones can be viewed as a type of soft information. Several papers examine the tones of prospectus filings for initial public offerings (IPOs). Loughran and McDonald (2013) document

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<sup>1</sup> These word lists were created by Loughran and McDonald (2011) in a business context. The Loughran and McDonald word lists have become increasingly popular in recent studies (e.g., Huang, Teoh, and Zhang, 2014; Ertugrul et al, 2017).

that the proportions of uncertainty and negative words in S-1 filings are positively related to underpricing, absolute offer price revisions, and subsequent return volatility. Ferris, Hao, and Liao (2013) find that the proportion of negative words in IPO prospectuses is positively related to underpricing, with the relation being more pronounced for technology firms than for non-technology firms. However, to the best of our knowledge, there has been no published research on the tones of SEO prospectuses. While filings with the SEC (e.g., 10-Ks and 10-Qs) and analyst coverage are typically unavailable prior to IPO prospectus filings, they are often readily available prior to SEO prospectus filings. Furthermore, unlike IPO firms, SEO firms have stock prices prior to the offering that presumably already reflect any hard or soft information implied by the 10-K and 10-Q documents. Therefore, it is ex-ante unclear whether the tones of SEO prospectuses are informative to investors. Our paper fills in the gap by addressing this important empirical question.

While Loughran and McDonald (2013) and Ferris, Hao, and Liao (2013) suggest that cautionary tones help measure uncertainty and information production costs incurred by primary market investors in IPOs, it is also possible that cautionary tones proxy for negative information about future performance. To minimize potential regulatory scrutiny or investor lawsuits, managers have incentives to inform investors about negative future outcomes (Skinner, 1994, 1997; Field, Lowry, and Shu, 2005; Hanley and Hoberg, 2012). However, instead of discussing negative information in an absolute pessimistic tone, managers might choose to use cautionary words.

Several papers find that cautionary tones, or relatedly, corporate risk disclosures, have a negative information content.<sup>2</sup> For example, Li (2006) finds that the use of the two words “risk” and “uncertain” in 10-K filings predicts negative stock returns and earnings in the future, consistent with investors underreacting to the negative information content of these words. Tetlock, Saar-

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<sup>2</sup> Presumably, cautionary words are often needed in forward-looking statements or risk disclosures.

Tsechansky, and Macskassy (2008) show that the fraction of negative words such as “risk” and “uncertain” in firm-specific news stories is associated with lower earnings and stock returns in the future.<sup>3</sup> Campbell et al (2014) document a negative relation between the unexpected portion of disclosures in the “Risk Factors” section of 10-Ks and 3-day abnormal stock returns around the 10-Ks’ release dates. Cohen, Malloy, and Nguyen (2020) show that textual changes of financial reports, especially changes indicating negative sentiment and changes in the “Risk Factors” section, are negatively related to future stock returns, suggesting that investors are inattentive and only gradually uncover the information content of the textual changes. Consistent with the tenor of the findings in these papers, we find that more cautionary tones in SEO prospectus filings are associated with higher offer price discounts and more negative stock returns.

Our paper relates filing tones to underpricing, the offer price discount, and the offer-day return. Underpricing =  $(P_t - OP) \div OP$ , the offer price discount =  $(P_{t-1} - OP) \div P_{t-1}$ , and the offer-day return =  $(P_t - P_{t-1}) \div P_{t-1}$ , where OP is the offer price, and  $P_t$  and  $P_{t-1}$  are the stock prices at the market closes of the offer date and the day before the offer date, respectively. Research on IPOs can study underpricing but not the offer price discount or the offer-day return. In comparison, research on SEOs can examine all of the three variables, although the SEO literature focuses on the offer price discount instead of underpricing (e.g., Altinkilic and Hansen, 2003; Corwin, 2003; Mola and Loughran, 2004; Huang and Zhang, 2011).

Our empirical analysis starts with analyzing how the filing tone measures for our sample of SEOs and their changes from the initial S filing to the 424B filing are related to the offer price discount. Primary market investors and underwriters might be able to acquire information about

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<sup>3</sup> The two words “risk” and “uncertain” are classified in the negative word category in the word lists of Harvard General Inquirer and Henry (2008) and in the uncertainty word category in the word lists of Loughran and McDonald (2011).

the issuer through their conversations with the issuer's officers and directors during the due diligence process. It is possible that the newly acquired information is then incorporated into the offer price. It is also likely that secondary market investors did not pay timely attention to or failed to fully incorporate the information content of subtle filing tones into the stock price prior to the offer date, but primary market investors and underwriters are able to incorporate such information into the offer price. We find that the weak-modal and uncertain tone measures and their changes during the registration period are positively related to the offer price discount. The relations are economically significant. In one model specification, a one-standard-deviation increase in the weak-modal tone measure of 424B filings is associated with an increase of 0.50% (e.g., from 3.67%, the sample average, to 4.17%) in the offer price discount. These findings suggest that primary market investors and underwriters play an important role in incorporating the information content of filing tones into the offer price.

Furthermore, we find that the weak-modal tone measure and its change are negatively related to the return on the SEO firm's stock on the offer day. In one model specification, a one-standard-deviation increase in the weak-modal tone measure of initial S filings is associated with a decrease of 0.55% (e.g., from the mean of -0.56% to -1.11%) in the offer-day return, and a one-standard-deviation increase in the change in the weak-modal tone measure is associated with a decrease of 0.26% (e.g., from -0.56% to -0.82%) in the offer-day return. Therefore, secondary market investors seem to agree with primary market investors' interpretation of weak-modal tones.

When including both the tone measures of the initial S filing and the changes during the registration period as independent variables, we find that the changes are statistically significant in explaining the issuer's abnormal stock return during the window of three, five, or ten trading days after the SEO. In one model specification, a one-standard-deviation increase in the change in

the weak-modal tone measure is associated with a decrease of 0.43% (e.g., from the mean of 0.84% to 0.41%) in the abnormal stock return during the three days after the SEO. The result suggests that the negative information contained in the cautionary tones of SEO filings is slowly incorporated into the stock price, consistent with the findings of Li (2006), Tetlock, Saar-Tsechansky, and Macskassy (2008), and Cohen, Malloy, and Nguyen (2020).

Although cautionary filing tones are positively related to the offer price discount, it does not mean that they are also positively related to underpricing for our sample of SEOs. Underpricing can be viewed as the initial return to primary market investors who receive allocations. The model of Beveniste and Spindt (1989) suggests that new shares should be underpriced to compensate investors for the costs of information production. We find that, for our sample of SEOs, underpricing is insignificantly related to the filing tone measures or their changes during the registration period, suggesting that either information production costs are not important for SEOs or the tone measures are unrelated to such costs.

One could argue that the offer price discount and the tones of final prospectus (i.e., Form 424B) filings are simultaneously observed. Thus, we also examine whether the tones of initial S filings help explain the offer price discount. The offer date is at least 24 days after the initial file date for 75% of our sample SEOs. We find that the tones of initial S filings help explain the offer price discount, even after requiring the initial file date to be at least five days earlier than the offer date, although they are less significant than the tones of final prospectus filings. The findings suggest that secondary market investors slowly respond to the information content of initial filing tones. They do not appear to have incorporated all of the information contained in the tones of initial filings by the market close of the day before the offer.

Our finding that the tones of 424B filings are informative can be partially attributed to the increased popularity of accelerated SEOs, including block trades and accelerated bookbuilt deals, relative to fully marketed (i.e., traditional bookbuilt) SEOs during our sample period of 1998-2016 (see Bortolotti, Megginson, and Smart, 2008; Gao and Ritter, 2010; Huang and Zhang, 2011; Gustafson, 2018). When selling shares to the general public, firms with an approved or automatic shelf registration can choose between accelerated and fully marketed processes, while other firms have to wait for the SEC's approval of their registrations and usually go through a full marketing process while waiting. In the original filing of a shelf registration, firms do not provide many details (e.g., the offer price and number of shares to be sold), which will be released later in their 424B filings. The rise of accelerated deals suggests that much information is increasingly released around the offer date.

In this paper, we do not focus on information releases around the initial S filing date for several reasons. First, original shelf or non-shelf registration statements often do not finalize on many details about planned offerings. Instead, these details will be released in 424B filings and sometimes also in amended S filings. Second, original shelf filings are often used for multiple offerings of common stock and other types of securities in the subsequent years (see Autore, Kumar, and Shome, 2008). Third, a negative announcement effect can cause a firm to withdraw its initial S filing or postpone the intended SEO. A study of announcement returns using completed SEOs only may suffer from a truncation problem. It is almost impossible to obtain a comprehensive list of withdrawn and postponed SEOs, because firms that have filed registrations might just let the registrations expire without formally withdrawing them.

After showing that the tones of SEO filings are informative to investors, we examine the determination of the tones. When deciding on the tones of their filings, firms presumably consider

regulatory rules and litigation risk. If a firm's filing is overly optimistic or omits bad news, its executives can be liable if the future operating performance turns out to be below expectations. We expect firms that face higher litigation risk to use more cautionary (i.e., more uncertain and negative) language in their filings. Furthermore, as the Sarbanes-Oxley Act (SOX) increased the cost of inaccurate disclosure to corporate executives, post-SOX filings for SEOs are expected to use more cautionary tones than pre-SOX filings. Our findings are consistent with these conjectures.

Our paper makes four important contributions to the literature. First, we contribute to a growing body of research that uses textual analysis to analyze the informativeness of corporate disclosure (e.g., Hanley and Hoberg, 2010, 2012; Loughran and McDonald, 2011; Jegadeesh and Wu, 2013; Huang, Teoh, and Zhang, 2014). Specifically, while several papers focus on the tones of IPO prospectuses (e.g., Ferris, Hao, and Liao, 2013; Loughran and McDonald, 2013), we examine the tones of SEO prospectuses. Our findings indicate that cautionary tones of SEO filings are informative to the market. However, the full impact on stock returns is delayed as investors respond gradually to the negative information content of cautionary tones. These findings are in line with the findings in non-SEO settings by Tetlock, Saar-Tsechansky, and Macskassy (2008), Li (2006, 2010), and Cohen, Malloy, and Nguyen (2020).

Second, we add to the SEO literature by highlighting the difference between the offer price discount and underpricing. In particular, we find that the tones of prospectus filings are strongly related to the offer price discount, but are unrelated to underpricing.

Third, our findings help understand the difference between IPO underpricing and SEO underpricing. While Ferris, Hao, and Liao (2013) and Loughran and McDonald (2013) find that IPO underpricing is related to filing tones, we find that SEO underpricing is not, suggesting that

information production by primary market investors is less important for SEOs than it is for IPOs or that issuer-underwriter agency problems are less severe for SEOs.

Finally, our paper sheds some preliminary evidence on the determinants of cautionary tones in SEO filings. Our findings that SEO firms use more cautionary tones in higher litigation risk industries and after the Sarbanes-Oxley Act of 2002 suggest that corporate managers use more cautionary tone when faced with more regulatory scrutiny or higher risk of investor lawsuits.

## **2. Sample selection and variable definitions**

### *2.1. SEO sample selection*

Our sample is obtained from Refinitiv's SDC Platinum new issues database. We start with 9,075 SEOs between 1998 and 2016 from issuers that can be linked to CRSP and were primarily listed on NYSE, Amex, or Nasdaq. Following the literature, we exclude American depositary receipts (ADRs), rights offerings, unit offerings, closed-end funds, SEOs with the offer price being below \$5, and SEOs of utility firms (SIC codes 4900-4949) and financial firms (SIC codes 6000-6999). We further exclude pure secondary offerings, in which firms do not raise capital. Finally, we require that Form S filings and the corresponding Form 424B filings (or in a few cases, amendments of Form S filings) are available at the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system. Our final sample contains 2,809 SEOs. The detailed sample selection procedure is presented in Appendix A.

We follow prior studies such as Corwin (2003) and Huang and Zhang (2011) to correct offer dates. Specifically, if the trading volume of an SEO firm's stock on the day following the offer date as in the SDC database is more than twice its trading volume on the SDC offer date or its average trading volume over the previous 250 trading days, then the day following the SDC

offer date is designated as the offer date. This method results in a change of the offer date for 1,713 SEOs, or 61.0% of the sample.<sup>4</sup>

## *2.2. Definitions of filing tone measures and other variables*

In this section, we provide details on the construction of filing tone measures, including the selection of various forms of prospectus filings and the document parsing methodology. Appendix B provides the detailed definitions of other variables. Except for the dummy variables, we winsorize the variables at the 0.5 percentile and 99.5 percentile of their distributions to minimize the influences of outliers.

When companies register new shares with the SEC, they are typically required to file Form S-1 to provide information on the planned use of proceeds and detail business activities and risks. SEO issuers can also file Form S-2 or S-3, if they meet certain regulatory standards. Form S-2 is a simplified registration form used by companies that have been reporting to the SEC under the Securities Act of 1934 for at least three years without interruption. Form S-3 is also a simplified registration form used by companies that have already met other reporting requirements. Since 2005, Form S-3ASR has been used for an automatic shelf registration by well-known seasoned issuers (WKSIs), in which case the registration becomes effective automatically without the scrutiny of the SEC. If there are significant changes, issuers will follow up with additional amendments (i.e., S-#/A filings). Around the offer date, usually within days, companies file Form 424B, which contains the most up-to-date information.

We obtain both Form S and Form 424B filings (if not available, last amendments of S filings) from the SEC's EDGAR system. The file dates from the SDC database are employed to

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<sup>4</sup> Gao and Ritter (2010) use SEO data during 1996-2007 from Deologic rather than SDC. To evaluate the validity of our method, we compare our corrected offer dates for the SEOs during 1998-2007 with the first-trade dates kindly provided by Professor Jay Ritter for their sample. We find that over 90% of the time, our corrected offer dates are the same as the first-trade dates.

identify the S filings, and the offer dates from the SDC database are employed to identify the 424B filings or closest amendments of S filings (i.e., S-#/A filings). We require that the S-filing date is within five days around the file date, and the 424B-filing date (or the S-#/A-filing date if the 424B filing is not available) is within five days around the offer date.<sup>5</sup> Out of the 2,809 SEOs in our sample, we obtain 539 (19.2%) Form S-1, 43 (1.5%) Form S-2, 1,736 (61.8%) Form S-3, and 491 (17.5%) Form S-3ASR filings around the initial file date. We also obtain 2,784 (99.1%) Form 424B filings and 25 (0.9%) amendments of S filings around the offer date. Hereafter, we name S-1, S-2, S-3, or S-3ASR filings as S filings, and Form 424B filings or S-#/A filings as 424B filings.

We follow Loughran and McDonald (2011, 2013) to construct three measures of filing tones. We first remove all ASCII-encoded segments, HTML, and XBRL. The remaining text is then parsed into words to be used to construct filing tone measures.<sup>6</sup> We use the uncertainty word list that consists of 297 words (e.g., *approximately*, *believe*, *risk*, and *uncertain*), the weak-modal word list that consists of 27 words (e.g., *may*, *could*, *might*, and *depend*), and the negative word list that consists of 2,355 words (e.g., *loss*, *adversely*, *default*, and *against*). The weak-modal word list is a subset of the uncertainty word list. For each filing, we define *Uncertainty\_424B*, *Weak-Modal\_424B*, and *Negative\_424B* as the proportions of uncertainty, weak-modal, and negative words in the 424B filings, and *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S* as the proportions of uncertainty, weak-modal, and negative words in the initial S filings, respectively.

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<sup>5</sup> If there are multiple filings within the 11-day window, we select the filing that is the closest in time to the center of the window. The initial S filing date from EDGAR is the same as the file date from the SDC database for 2,723 SEOs (97% of the sample). The 424B filing date from EDGAR is within one day of the corrected offer date for 2,478 SEOs (88% of the sample). For example, for one of its SEOs, Tesla Motors Inc. filed Form S-1 on May 25, 2011 and Form 424B4 on June 3, 2011, and the two dates from EDGAR are exactly the same as the file date and the offer date in SDC, respectively. Anthera Pharmaceuticals Inc also filed Form 424B5 on its offer date of June 3, 2011 in SDC, and filed the initial prospectus, Form S-3, on March 7, 2011, which is also the file date in SDC.

<sup>6</sup> We thank Professor Bill McDonald for providing the python codes to parse the documents.

### 3. Descriptive statistics

#### 3.1. Descriptive statistics of issue and firm characteristics

Table 1 reports the descriptive statistics of issue and firm characteristics. Panel A reports the sample distribution by year, type of shares, and selling mechanism. During 1998-2016, there are 1,997 pure primary offerings and 812 combined (primary and secondary) offerings. The sample includes 1,179 fully marketed offerings that are not preceded by a shelf registration, 1,122 fully marketed offerings that follow a shelf registration, and 508 accelerated offerings (block trades and accelerated bookbuilt deals).<sup>7</sup> Block trades (also often called bought deals) and accelerated bookbuilt deals are preceded by approved shelf registrations, or automatic shelf registrations if the issuers are WKSIs. The qualifications for a shelf registration have changed over time. In 2008, the SEC started to allow a firm with a public float of less than \$75 million to file a shelf registration (see Gustafson and Iliev, 2017). The number of SEOs fluctuates over time, peaking in 2000 with 245 SEOs and bottoming in 2008 with 74 SEOs. The dry-up of non-financial companies' SEOs in 2008 is likely due to the Global Financial Crisis. The sample period witnesses decreasing popularity of traditional bookbuilt (i.e., fully marked) SEOs relative to accelerated deals.

Panel B shows the sample distribution by the top-ten industries (using Fama-French's 49 industry classification) with the most SEOs in our full sample.<sup>8</sup> There are 2,071 SEOs (73.7% of the sample) in the top-ten industries, with a large concentration in the industries of drugs, oil, software, and chips. We also tabulate the number of SEOs in each of the top-ten industries in the subsamples based on type of shares and selling mechanism, respectively.

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<sup>7</sup> The SDC database fails to accurately record the existence of shelf registrations for the SEOs in 2016. We manually check the prospectus filings of these SEOs to correct all misclassifications.

<sup>8</sup> We thank Professor Kenneth French for providing the industry classification on his website.

In Panel C, we report the summary statistics of the issue and firm characteristics to be used in subsequent analyses. The sample mean of the offer price discount is 3.67%.<sup>9</sup> Underpricing has a lower average of 3.34% and a much larger standard deviation than those of the offer price discount. The mean offer-day return is -0.56%. However, there are substantial variations in the offer-day return, as reflected by the large standard deviation of 6.78%. The 3-day post-offer abnormal return averages 0.84% and has a large standard deviation as well.

*Relative Offer Size*, measured as the number of shares offered as a percentage of the total number of shares outstanding, has a mean of 17.0% and a standard deviation of 11.0%. Pure primary offerings account for 71.1% of our sample. Accelerated offerings, fully marketed shelf offerings, and fully marketed non-shelf offerings account for 18.1%, 39.9%, and 42.0% of our sample, respectively. For 67.2% of the SEOs, the average book-runner is a top-tier bank (i.e., the Carter-Manaster (1990) rank of the SEO's book-runner or the average rank of the book-runners is at or above 8 in Professor Jay Ritter's database). A large proportion of SEOs (39.7%) have an integer offer price. The mean (median) registration period between the file date and the offer date lasts 183 (51) days.

In our sample, 16.7% of the SEOs belong to firms that went public within one year prior to the SEO, and 70.8% of the SEOs belong to issuers listed on Nasdaq. The mean (median) market capitalization is \$1,856 million (\$664 million) measured in terms of 2016 purchasing power. The stock price averages \$29.15 on the day before the SEO. *Liquidity*, defined as the stock's average daily trading volume between 11 and 250 trading days prior to the SEO as a fraction of the total

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<sup>9</sup> Corwin (2003) documents an average discount of 1.2% in the 1980s and 2.9% in the 1990s. Intintoli and Kahle (2010) report that discount averages 1.4% in the 1980s, 2.6% in the 1990s, and 3.3% in the 2000s (up to year 2004). Huang and Zhang (2011) report average discounts of 3.2%, 2.4%, and 4.6%, respectively, for non-shelf bookbuilt SEOs, shelf bookbuilt SEOs, and block trades from 1995-2004. Chan and Chan (2014) record SEO discount averaged around 3% between 1995 and 2007. Mola and Loughran (2004) attribute the increase in SEO discount to the increased uncertainty in the market, as well as increased power of investment banks.

number of shares outstanding, has a mean (median) of 0.99% (0.65%). On average, 6.85 analysts cover the issuer's stock before the SEO. The standard deviation of daily returns prior to the SEO, *Pre-SEO Retvol*, averages 4.32%. Over 40% of SEO firms are not profitable. *Tobin's Q* has a mean of 3.60 and a standard deviation of 4.19. The mean (median) of *Leverage* is 24.8% (19.4%). Overall, these descriptive statistics indicate that many SEO firms are small, unprofitable, and growth firms, consistent with the literature (e.g., Huang and Ritter, 2020a, 2020b).

### *3.2. Descriptive statistics of the filing tone measures*

Panel A of Table 2 reports the descriptive statistics of the filing tone measures for the sample of 2,809 SEOs. The mean proportions of uncertainty and weak-modal words in the SEO 424B filings (1.64% and 0.97%) are higher than those in the IPO 424B filings (1.28% and 0.62%, in Table 1 of Loughran and McDonald (2013)), although our sample period differs from theirs. The mean proportions of negative words are similar for the SEO and IPO 424B filings (1.43% versus 1.41% in Table 1 of Loughran and McDonald (2013)). The mean proportions of uncertainty and weak-modal words in the SEO S filings (1.57% and 0.99%) are also higher than those in the IPO S filings (1.31% and 0.64%, in Table 1 of Loughran and McDonald (2013)). However, the mean proportion of negative words in the SEO S filings is lower than that in the IPO S filings (1.30% versus 1.41% in Table 1 of Loughran and McDonald (2013)). For our SEO sample, the standard deviations of the tone changes from the initial S filing to the final 424B filing are larger than the absolute values of the corresponding means and medians.

Panel B of Table 2 reports the top-ten uncertainty, weak-modal, and negative words in the 424B filings of our SEO sample. The uncertain tone measure depends highly on the top-ten uncertainty words, which account for 76.2% of all of the 297 uncertainty words appearing in the filings. The weak-modal tone measure depends almost completely on the top-ten weak-modal

words, which account for 99.0% of all of the 27 weak-modal words. In particular, “*may*” and “*could*” account for 52.0% of all of the uncertainty words, and 89.7% of all of the weak-modal words. By contrast, the top-ten negative words account for only 25.4% of all of the negative words. The two most frequent negative words are “*loss*” and “*adversely*.” The numbers are in line with those of the IPO prospectuses documented by Loughran and McDonald (2013).

To investigate the time-series patterns of the tones of SEO filings, we plot the mean values of the three filing tone measures on an annual basis from 1998 to 2016 in Figure 1. Panel A presents the time-series variations in the tones of 424B filings. The use of uncertain and weak-modal words increased over time until 2008 and stayed around a high level afterwards. The use of negative words increased until 2003 and became largely flat afterwards. Panel B displays the time-series variations in S-filing tones. The time-series variations in the uncertain and weak-modal tones of S filings generally resemble those of 424B filings. However, there is no definitive trend in the negative tone of S filings.

Litigation risk could affect the definitiveness and positiveness of filing tones. Panel A of Table 3 compares the differences in the tone measures between low-litigation-risk and high-litigation-risk subsamples. Following Frankel, Johnson, and Nelson (2002) and Lim and Tan (2008), we use four-digit SIC codes to classify litigation risk. The high-litigation-risk subsample consists of 1,338 SEOs of firms in the industries with SIC codes 2833–2836, 3570–3577, 3600–3674, 5200–5961, and 7370–7374. These firms operate in the industries of biotechnology, computer hardware, electronics, retailing, and software. The other 1,471 SEOs form the low-litigation-risk subsample. The mean proportion of uncertainty words is 1.71% for the filings of high-litigation-risk SEOs, significantly higher than the mean of 1.58% for the filings of low-litigation-risk SEOs. The difference in the proportion of weak-modal words between the two

subsamples is also significant. High-litigation-risk issuers use a significantly higher proportion of negative words than their low litigation-risk counterparts (1.52% versus 1.35%). Overall, the  $t$  test results show that issuers with high litigation risk use more cautionary language in their filings than those with low litigation risk.

Next, we conduct two-sided  $t$  tests to see whether the filing tones significantly changed after the Sarbanes-Oxley Act became effective.<sup>10</sup> Panel B of Table 3 presents the test results. The pre-SOX subsample contains 921 SEOs conducted until August 2002 and the post-SOX subsample contains 1,888 SEOs conducted after August 2002. The mean proportion of uncertainty words is 1.42% in the pre-SOX period, as compared to 1.75% in the post-SOX period. The mean proportion of weak-modal words is 0.71% in the pre-SOX period, as compared to 1.09% in the post-SOX period. The mean proportions of negative words are 1.28% and 1.50% in the pre- and post-SOX periods, respectively. The  $t$  tests show that the differences in all three filing tone measures are statistically significant. Taken together, the univariate results suggest that the tones of SEO filings turned more cautionary post-SOX.

### 3.3. Correlations between filing tones and key SEO characteristics

Before conducting regression analyses, we report the correlations between some key variables in Table 4. The tones of 424B filings are strongly correlated with the tones of initial S filings. The correlations are 0.704 between *Uncertainty\_424B* and *Uncertainty\_S*, 0.773 between *Weak-Modal\_424B* and *Weak-Modal\_S*, and 0.579 between *Negative\_424B* and *Negative\_S*, respectively, and all  $P$ -values are less than 0.001. Because all of the weak-modal words are also defined as uncertainty words, as in Loughran and McDonald (2013), there is a high correlation

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<sup>10</sup> SOX Section 302 holds a firm's CEO and CFO legally responsible for the accuracy and completeness of the firm's financial reports. SOX was enacted on July 30, 2002, while its Section 302 became effective on August 29, 2002.

between the proportion of uncertainty words and the proportion of weak-modal words used in both 424B (correlation of 0.903) and S filings (correlation of 0.827).

The offer price discount is strongly and positively related to uncertain and weak-modal tones in both 424B (correlations of 0.152 and 0.175, respectively) and S filings (correlations of 0.114 and 0.154, respectively). Uncertain and weak-modal tones of both 424B filings and S filings have strong and negative relations with the offer-day return. The negative tone measure for 424B filings is positively related to the offer price discount, but is weakly related to the offer-day return. The negative S filing tone measure has a weak relation with the offer price discount or the offer-day return. All three tone measures of 424B filings are negatively related to the abnormal return during the three trading days after the offer date. Furthermore, the relations between underpricing and filing tone measures are weak, except for the relation between underpricing and the negative tone of 424B filings. Finally, the offer price discount and underpricing are not very highly correlated (correlation of 0.218), suggesting that even though there is some overlap between the two variables, they have very different determinants.

#### **4. Regression results**

##### *4.1. Filing tones and offer price discounts*

In this section, we estimate regressions to examine the relations between the filing tone measures and offer price discounts. The dependent variable is *Discount*, calculated as  $100 \times (\text{the closing price one day before the SEO} - \text{the offer price}) \div \text{the closing price one day before the SEO}$ .

The regressions control for the following issue characteristics based on prior research. *Relative Offer Size* captures the price pressure exerted by newly offered shares (Corwin, 2003). The indicator variable *Primary Dummy* identifies the differences between primary and secondary offerings. We also include a dummy variable for accelerated deals (*Accelerated Dummy*) and a

dummy variable for fully marketed shelf offerings (*FM Shelf Dummy*) to capture potential variations in offer price discounts among fully marketed offerings that follow a shelf registration, fully marketed offerings that are not preceded by a shelf registration, and accelerated offerings. The indicator variable *Top-tier Dummy* measures underwriter reputation and *Integer Dummy* measures a pricing convention (Mola and Loughran, 2004).  $\ln(1 + \text{Reg. Period})$  is the natural logarithm of one plus the number of days in the registration period. Because a long registration period could suggest weak demand, we expect  $\ln(1 + \text{Reg. Period})$  to be positively related to the offer price discount.

The regressions also control for the following firm characteristics. *Recent IPO Dummy* and *Nasdaq Dummy* capture the effects of secondary market trading history and trading differentials (Loderer, Sheehan, and Kadlec, 1991; Intintoli and Kahle, 2010). Furthermore, we employ several proxies of information asymmetry and uncertainty:  $\ln(\text{Market Cap})$ ,  $\ln(\text{Price})$ , *Liquidity*,  $\ln(1 + \text{Analysts})$ , and *Pre-SEO Retvol*. Prior research on SEOs finds that uncertainty and information asymmetry are important in explaining the offer price discount (e.g., Altinkilic and Hansen, 2003; Corwin, 2003). Additionally, we control for three firm fundamental characteristics: *Profitability*, *Tobin's Q*, and *Leverage*. We also control for industry and year fixed effects.<sup>11</sup> Because some firms conducted multiple SEOs in our sample, White's heteroscedasticity-consistent standard errors with adjustment for issuer clustering are employed to test the significance of the coefficients in all regressions in this paper.

We conduct three sets of regressions and report the results in Table 5. In the first set of regressions, Models (1)–(3), the main independent variables are tone measures from 424B filings:

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<sup>11</sup> We adopt Fama and French's 49-industry classification and make one modification. If an industry group contains 10 SEO firms or less in the sample, we classify it as "other". This modification leaves us 30 industry groups, each of which has more than 10 SEO firms in the sample. We also run robustness checks with the original 49-industry classification and the results remain largely the same.

*Uncertainty\_424B*, *Weak-Modal\_424B*, and *Negative\_424B*, respectively. In our second set of regressions, Models (4)–(6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In the third set of regressions, Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures.

In Models (1) and (2), the coefficients on *Uncertainty\_424B* and *Weak-Modal\_424B* are positive and statistically significant at the 1% level (*t*-statistics are 3.12 and 3.36, respectively), suggesting that the offer price discount is higher when more uncertain language is used in the final prospectus. Economically, a one-standard-deviation increase in *Uncertainty\_424B* is related to a 0.40% increase in *Discount*, while a one-standard-deviation increase in *Weak-Modal\_424B* is related to a 0.50% increase in *Discount*. By contrast, there is no significant relation between the negative tone measure and the offer price discount after controlling for other factors.

The results for the S filing tone measures in Models (4)–(6) of Table 5 are similar to those for the 424B filing tone measures. In the Internet Appendix, Models (4)–(6) of Table IA-5 also report similar results for the subsample of SEOs for which the initial file date is at least five days earlier than the offer date. Because the initial S filings for fully marketed SEOs were usually submitted weeks or even months before the offer date, the findings indicate that secondary market investors were inattentive and had not incorporated all of the information contained in the initial filings into the stock prices prior to the offer. However, primary investors and underwriters incorporate much of the information into the offer price.

In Models (7) and (8), we find that the coefficients on the changes in uncertain and weak-modal tone measures, *Uncertainty\_Chg* and *Weak-Modal\_Chg*, are also significantly positive (*t*-

statistics are 2.40 and 2.57, respectively), suggesting that these tone changes reveal additional information to primary market investors, who incorporate such information into their demand for shares and thus into the offer price decision. However, the result in Model (9) shows that the change in the negative tone is not related to the offer price discount.

Among the control variables, *Relative Offer Size*, *Accelerated Dummy*, *Integer Dummy*, and  $\ln(1 + \text{Reg. Period})$  have significantly positive relations with the offer price discount. The finding of a positive relation between *Relative Offer Size* and the offer price discount is consistent with an explanation based on price pressure (e.g., Corwin, 2003). The positive coefficient on *Accelerated Dummy* suggests that accelerated deals are associated with a larger offer price discount than fully marketed non-shelf registered SEOs, consistent with the finding of Gao and Ritter (2010). They suggest that the discount for block trades partially reflects the announcement effect. *Top-tier Dummy*,  $\ln(\text{Price})$  and  $\ln(1 + \text{Analysts})$  have significantly negative relations with the offer price discount. There is also some weak evidence that pure primary offerings and issuers with a larger market capitalization tend to have larger discounts. The offer price discount is smaller for issuers that recently went public than for more seasoned issuers, and is larger if the pre-SEO stock return volatility is higher. The coefficients on *Profitability*, *Tobin's Q*, and *Sales Growth* are statistically insignificant, indicating that the offer price discount does not depend on these firm fundamentals after controlling for other factors. Overall, the results are generally consistent with those in the prior literature and suggest that uncertainty, information asymmetry, and underwriting practices are strongly related to offer price discounts.

#### 4.2. Filing tones and offer-day returns

On the offer day, secondary market investors observe the offer price, the number of shares offered, and the tone of the final prospectus, as well as other information in the prospectus. The

offer price and the number of shares offered help to reveal primary market investors' demand to secondary market investors. The tone of the final prospectus, possibly through its relation with the offer price discount, can be related to the stock return on the offer date. In this section, we examine the relations between filing tone measures and *Offer-Day Return*, calculated as  $100 \times (\text{the closing price on the offer date} - \text{the closing price one day before the SEO}) \div \text{the closing price one day before the SEO}$ . As in the previous section, we estimate three sets of regressions, in which the key independent variables are measures of 424B-filing tones, measures of S-filing tones, and measures of tone changes, respectively. The control variables are the same as those for the regressions of offer price discounts. Table 6 reports the offer-day return regression results.

We find that the weak-modal tone has a negative relation with the offer-day return. The coefficient on *Weak-Modal\_424B* in Model (2) is  $-1.318$  ( $t$ -statistic =  $-2.61$ ), and the coefficient on *Weak-Modal\_S* in Model (5) is  $-1.061$  ( $t$ -statistic =  $-2.24$ ). Economically, one-standard-deviation increases in *Weak-Modal\_424B* and *Weak-Modal\_S* are associated with decreases of 0.49% and 0.38% in the offer-day return in these two models, respectively. In Model (8), the coefficients on *Weak-Modal\_S* and *Weak-Modal\_Chg* are  $-1.519$  ( $t$ -statistic =  $2.72$ ) and  $-1.035$  ( $t$ -statistic =  $-1.73$ ), respectively, so one-standard-deviation increases in the two variables are related to decreases of 0.55% and 0.26% in the offer-day return, respectively. Thus, after observing the offer price, secondary market investors seem to learn from and agree with primary market investors on the information content of the weak-modal tone.<sup>12</sup> The relations between the proportion of the broad list of uncertainty words and the offer-day return, however, are much

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<sup>12</sup> It is possible that secondary market investors are only reacting to the offer price discount rather than the change in the weak-modal tone. It is less costly to find out the offer price discount than subtle but important information such as the tones of prospectus filings. In untabulated regression analysis of the offer-day return, the coefficient on the change in the weak-modal tone becomes statistically insignificant after the offer price discount is added as an explanatory variable.

weaker. Taken together, the results suggest that secondary market investors tend to focus their attention on a few uncertainty words that are defined as weak-modal by Loughran and McDonald (2011, 2013), instead of all uncertainty words. Finally, none of the coefficients on the negative tone measure are statistically significant.

The coefficient on *Accelerated Dummy* is negative and statistically significant in all regressions. Thus, accelerated deals experience lower returns than fully marketed SEOs around the offer date, partly because the offer-day return of accelerated deals picks up the announcement effect (Gao and Ritter, 2010). The coefficient on *Integer Dummy* is negative and statistically significant, suggesting that secondary market investors react more negatively to deals with integer offer prices. The coefficients on *Nasdaq Dummy*,  $\ln(1 + \text{Analysts})$ , *Profitability Dummy*, and *Tobin's Q* are positive and statistically significant, whereas the coefficient on *Pre-SEO Retvol* is negative and statistically significant. Other control variables do not exhibit statistically significant relations with offer-day returns.

#### 4.3. Filing tones and post-offer abnormal returns

If the information content of tone measures is not fully incorporated into the stock price at the market close on the offer date, we expect that these measures will continue to be related to the issuer's stock return after the offering. In this section, we run regressions to examine the relation between filing tones and post-offer abnormal returns. The dependent variable is the issuer's abnormal stock return (the issuer's buy-and-hold return minus the CRSP value-weighted return) over the three, five, or ten trading-day window after the offer date.

The main independent variables are three S filing tone measures and the corresponding changes in the tone measures from initial S filings to 424B filings. As shown in Table 7, the coefficients on the tone-change measures are all negative and statistically significant, whereas

none of the coefficients on the S filing tone measures are statistically significant. For example, in the regressions of *3-Day Post-Offer Abnormal Return*, the coefficients are  $-1.015$  ( $t$ -statistic of  $-2.32$ ) on *Uncertainty\_Chg*,  $-1.761$  ( $t$ -statistic of  $-3.44$ ) on *Weak-Modal\_Chg*, and  $-1.017$  ( $t$ -statistic of  $-3.03$ ) on *Negative\_Chg*, respectively. The economic significance is also large. For example, a one-standard-deviation increase in *Weak-Modal\_Chg* is associated with a decrease of 0.43% in *3-Day Post-Offer Abnormal Return*. The regressions of *5-Day Post-Offer Abnormal Return* and *10-Day Post-Offer Abnormal Return* produce qualitatively similar results. Furthermore, the absolute values of the coefficients on the tone-change measures are larger in Models (7)–(9) than those on the corresponding measures in Models (4)–(6), suggesting that it takes more than five days for investors to fully incorporate the negative information content of cautionary tones.

Overall, the results indicate that the information contained in the uncertain and negative filing tones is not fully incorporated into the stock price at the market close on the offer date, and continues to be negatively related to the issuer's stock return after the offering. Therefore, investors respond slowly to the information content of cautionary filing tones.

#### *4.4. Filing tones and SEO underpricing*

SEO underpricing is measured as  $100 \times (\text{the closing price on the offer date} - \text{the offer price}) \div \text{the offer price}$ . Underpricing is the initial return to primary market investors. It is different from the offer price discount. As shown in Table 4, the correlation between underpricing and the offer price discount is only 0.218 for our sample of SEOs. In this section, we investigate the relation between filing tones and SEO underpricing. Table 8 shows that none of the coefficients on the filing tone measures are statistically significant. Insignificant associations between the filing tone measures and underpricing suggest that either information production costs are not important for SEOs or filing tones are unrelated to such costs. Unlike IPO firms, SEO firms have been public

for at least a while. It is not clear whether primary market investors in SEOs still need to incur substantial information production costs.

Underpricing is positively related to *Relative Offer Size*, *Nasdaq Dummy*, and *Tobin's Q*, and negatively related to *Top-tier Dummy*, *Ln(Price)*, and *Liquidity*. A comparison between the results in Table 8 and Table 5 demonstrates that SEO underpricing and the offer price discount are decided very differently.

#### 4.5. The determination of filing tones

Because filing tones are associated with the offer price discount, the offer-day stock return, and post-offer abnormal stock returns, it is worthwhile investigating how issuers decide on the use of language in their filings with the SEC, especially in the final prospectuses. Table 9 reports the regression results on the determinants of the tones of the final prospectuses. The dependent variables are the three 424B filing tone measures, *Uncertainty\_424B*, *Weak-Modal\_424B*, and *Negative\_424B*, respectively.

In Models (1)–(3), we first examine how issue and firm characteristics are related to filing tones. We find that *Relative Offer Size* is negatively related to all three tone measures, indicating that smaller offerings are associated with more cautionary filing tones. It is possible that filings of smaller offerings have fewer words, and thus the proportions of cautionary words appear to be higher. The loadings on *Primary Dummy* are positive and statistically significant in all three regressions, suggesting that filings for pure primary offerings contain more cautionary tones. Results also show that the offering mechanism matters. Fully marketed shelf offerings and accelerated offerings use more uncertain and weak-modal tones in the 424B filings, but not a more negative tone, than fully marketed non-shelf SEOs.

Recent-IPO issuers use less weak-modal but more negative language. Nasdaq-listed issuers use more cautionary tones in their filings than other issuers. Market capitalization and financial leverage are negatively associated with the uncertain and weak-modal tone measures. Filings by issuers with more liquid stocks exhibit more cautionary tones. Issuers followed by a larger number of analysts tend to use more uncertainty and weak-modal words. Pre-SEO stock return volatility is positively associated with weak-modal and negative tones. Profitable firms use fewer weak-modal words in their prospectuses than non-profitable firms.

When setting the tones of their filings, issuers presumably consider litigation risk and regulatory rules. In Models (4)–(6), we add an indicator variable, *Litigation Risk*, which is set to 1 if the issuer operates in a high-litigation-risk industry and 0 otherwise. As mentioned in Section 3.2, we use SIC codes to classify high-litigation-risk industries. Therefore, we drop *Industry Dummies* from the regressions. We find a significantly positive coefficient on *Litigation Risk* in all three regressions, confirming our univariate result that issuers in high-litigation-risk industries use more cautionary language.

In Models (7)–(9), we add another indicator variable, *SOX Dummy*, as an independent variable to examine whether filing tones change after SOX Section 302 became effective. *Trend* is used to control for the time trend. Because *SOX Dummy* and *Trend* are included as independent variables, we drop *Year Dummies* from the regressions. The loadings on *SOX Dummy* are consistently and significantly positive in all three regressions, providing some evidence that firms use more cautionary tones in their prospectus filings after SOX. However, our evidence should not be interpreted as SOX causing the increases in cautionary tones. Although we control for a time trend, it is still possible that technological advancements, time-varying investor and regulatory scrutiny, and other structural changes are responsible for the increases in cautionary tones.

#### *4.6. Robustness checks*

We conduct the following robustness checks and report the results in the Internet Appendix. First, in Tables IA-1 through IA-4, we include the natural logarithm of the total number of words in each filing as an additional control variable in the regressions. We find that this variable is negatively related to the offer price discount, positively related to the offer-day stock return, and unrelated to the post-offer abnormal stock return and underpricing. Other results in Tables IA-1 to IA-4 are similar to those in Tables 5–8. Therefore, our findings in Tables 5–8 are not driven by the correlations between the tone measures and the length of each filing.

Second, for some SEOs, the initial Form S filing date and the offer date can be very close. When the two dates are very close, the offer price discount and the offer-day return partly reflect the announcement effect. The regressions in Tables IA-5 to IA-8 are estimated for the subsample of SEOs for which the gap between the offer date and the initial file date is at least five days. Our major results in Tables IA-5 to IA-8 are qualitatively similar to those in Tables 5–8.

Third, the regressions in Tables IA-9 to IA-12 are estimated for the post-SOX subsample. The post-SOX results resemble those for the full sample. Thus, while SEO firms increase the use of cautionary words in their prospectuses to comply with the regulatory requirements imposed by SOX, the use of cautionary tones post-SOX is still informative to investors.

Fourth, complementing Table 7, Table IA-13 reports the regressions results relating post-offer abnormal returns to 424B filing tone measures and Table IA-14 reports the results relating post-offer abnormal returns to initial S filing tone measures. The relations are not statistically significant, with a few exceptions. The weak-modal tone measure for the 424B filing is negatively related to the 3-day post-offer abnormal stock return. The negative tone measure for the initial S filing is positively related to the 3-, 5-, and 10-day post-offer abnormal returns. Taken together,

the results in Table 7 and Tables IA-13 and 14 suggest that the tone changes, which capture the arrival of new information, are more important than the tone levels in explaining post-offer abnormal returns.

Fifth, the significant relations between post-offer abnormal returns and tone changes in Table 7 can arise because secondary market investors slowly react to tone changes or because they slowly gain access to 424B filings. To help distinguish between these alternative explanations, Table IA-15 reports the results relating our tone measures to the abnormal returns in the windows of three, five, and ten trading days starting from the second trading day after the 424B filing is posted on EDGAR. An increase in the weak-modal tone is associated with lower abnormal returns in all three windows. An uncertain-tone increase is associated with lower abnormal returns in the 5-day and 10-day windows. A negative-tone increase is associated with lower abnormal returns in the 10-day window. These results provide support for the explanation that secondary market investors slowly react to the information content of tone changes.

Finally, we examine the relationships between tone measures and post-offer stock return volatility, which is measured as the market model root-mean square error for each SEO over day 5 to day 65 after the offer date. Table IA-16 shows that none of the coefficients on our tone measures are statistically significant. The finding of insignificant associations between filing tones and post-offer return volatility after controlling for other issue and firm characteristics indicates that cautionary tones in SEO filings do not have additional explanatory power for post-offer return volatility, in contrast to the finding of Loughran and McDonald (2013) for IPO filings.

## **5. Conclusions**

Using a sample of seasoned equity offerings (SEOs) from 1998-2016, we relate the tones of prospectus filings to the offer price discount, the offer-day stock return, post-offer abnormal

stock returns, and underpricing. We also explore the determinants of SEO filing tones. Our findings make substantial contributions to the literature on securities issuance and disclosure tone. Our findings also have important policy implications for the SEC's corporate disclosure policies, especially the SEC's 2005 requirement of having a "Risk Factors" section in 10-K and 10-Q filings.

We find that our uncertain and weak-modal tone measures based on 424B filings are positively associated with the offer price discount. In one model specification, a one-standard-deviation increase in the weak-modal tone measure is associated with an increase of 0.50% (e.g., from the sample average of 3.67% to 4.17%) in the offer price discount. These findings suggest that primary market investors and underwriters help incorporate the information content of filing tones into the offer price. That is, issuers with a higher proportion of uncertain words see a bigger offer price discount (a lower offer price). Even the uncertain and weak tone measures based on the initial S filings have positive and statistically significant relations with the offer price discount, suggesting that secondary market investors are inattentive and have not incorporated the information content of the initial S filing tones into the stock price prior to the offer. We also find the changes in the uncertain and weak-modal tones from the initial S filing to the 424B filing are positively related to the offer price discount, indicating that the 424B filing contains additional information.

The weak-modal tone measure and its change are negatively associated with the stock return on the offer date. In one model specification, a one-standard-deviation increase in the weak-modal tone measure of initial S filings is associated with a decrease of 0.55% (e.g., from the mean of -0.56% to -1.11%) in the offer-day return, and a one-standard-deviation increase in the change in the weak-modal tone measure is associated with a decrease of 0.26% (e.g., from -0.56% to -0.82%) in the offer-day return. These findings further suggest that the issuer's stock price at the

market close prior to the offer does not reflect all of the information contained in the tones of the initial S filing or the tone changes from the initial filing to the 424B filing.

Furthermore, the changes in the uncertain and weak-modal tone measures from the initial filing to the final filing are negatively related to the abnormal stock return during the window of three, five, or ten trading days after the offer date. In one model specification, a one-standard-deviation increase in the change in the weak-modal tone measure is associated with a decrease of 0.43% (e.g., from the mean of 0.84% to 0.41%) in the abnormal stock return during the three days after the SEO. Although the negative tone measure is unrelated to the offer price discount or the offer-day return, the change in this tone from the initial filing to the final filing is associated with lower post-offer abnormal returns. These findings suggest that the information content of filing tone changes is gradually incorporated into the stock price.

We also find that neither the three tone measures nor their changes during the registration period are related to underpricing, suggesting that either information production costs are unrelated to SEO underpricing or these measures do not help capture information production costs. Although the literature documents that information production costs are important in explaining IPO underpricing, it is likely that information production costs are not important in explaining SEO underpricing because information is more readily available prior to SEOs than prior to IPOs,

Finally, we provide some preliminary evidence that firms in industries with high litigation risk use more cautionary tones than those in industries with low litigation risk, and firms use more cautionary tones in their SEO prospectus filings after the Sarbanes-Oxley Act.

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## Appendix A. SEO sample selection

Appendix A provides a detailed SEO sample selection procedure. The sample is obtained from Refinitiv's SDC Platinum new issues database.

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Number of SEOs from issuers that can be linked to CRSP and were primarily listed on NYSE, Amex, or Nasdaq, 1998-2016	9,075
Less:	
ADRs, rights offerings, unit offerings, or closed-end funds	(2,372)
SEOs with the offer price less than \$5 per share	(1,003)
SEOs by financials (SIC codes 6000-6999) and utilities (SIC codes 4910-4949)	(1,220)
Pure secondary offerings	(1,238)
Filings not available on EDGAR	(433)
Final sample	2,809

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## Appendix B. Variable definitions

Appendix B provides the definitions of filing tone measures using textual analysis and SEO issue and firm characteristic variables used in this study. Filing tone measures are constructed via textual analysis of prospectus filings with the SEC. We collect issue characteristics from Refinitiv's SDC Platinum new issues database and firm characteristics from CRSP and Compustat.

<i>Variable</i>	<i>Definition</i>
<u>Filing Tone Measures</u>	
<i>Uncertainty_424B</i>	Percentage of uncertainty words ( $100 \times \text{number of uncertainty words} \div \text{number of words}$ ) in the final SEO filing.
<i>Weak-Modal_424B</i>	Percentage of weak-modal words ( $100 \times \text{number of weak-modal words} \div \text{number of words}$ ) in the final SEO filing.
<i>Negative_424B</i>	Percentage of negative words ( $100 \times \text{number of negative words} \div \text{number of words}$ ) in the final SEO filing.
<i>Uncertainty_S</i>	Percentage of uncertainty words ( $100 \times \text{number of uncertainty words} \div \text{number of words}$ ) in the first SEO filing.
<i>Weak-Modal_S</i>	Percentage of weak-modal words ( $100 \times \text{number of weak-modal words} \div \text{number of words}$ ) in the first SEO filing.
<i>Negative_S</i>	Percentage of negative words ( $100 \times \text{number of negative words} \div \text{number of words}$ ) in the first SEO filing.
<i>Uncertainty_Chg</i>	$Uncertainty_{424B} - Uncertainty_S$
<i>Weak-Modal_Chg</i>	$Weak-Modal_{424B} - Weak-Modal_S$
<i>Negative_Chg</i>	$Negative_{424B} - Negative_S$
<u>Issue Characteristics</u>	
<i>Discount</i>	$100 \times (\text{the closing price one day before the SEO} - \text{the offer price}) \div \text{the closing price one day before the SEO}$ .
<i>Underpricing</i>	$100 \times (\text{the closing price on the offer date} - \text{the offer price}) \div \text{the offer price}$ .
<i>Offer-Day Return</i>	$100 \times (\text{the closing price on the offer date} - \text{the closing price one day before the SEO}) \div \text{the closing price one day before the SEO}$ .
<i>3-Day Post-Offer Abnormal Return</i>	The issuer's 3-day market-adjusted stock return, measured as the issuer's buy-and-hold return minus the CRSP value-weighted return over the 3-trading-day window after the offer date.
<i>5-Day Post-Offer Abnormal Return</i>	The issuer's 5-day market-adjusted stock return, measured as the issuer's buy-and-hold return minus the CRSP value-weighted return over the 5-trading-day window after the offer date.
<i>10-Day Post-Offer Abnormal Return</i>	The issuer's 10-day market-adjusted stock return, measured as the issuer's buy-and-hold return minus the CRSP value-weighted return over the 10-trading-day window after the offer date.
<i>Integer Dummy</i>	Indicator variable equal to 1 if the offer price is an integer, and 0 otherwise.
<i>Relative Offer Size</i>	The total number of shares offered in the SEO (without including overallotment shares) $\div$ the total number of shares outstanding one day before the SEO.

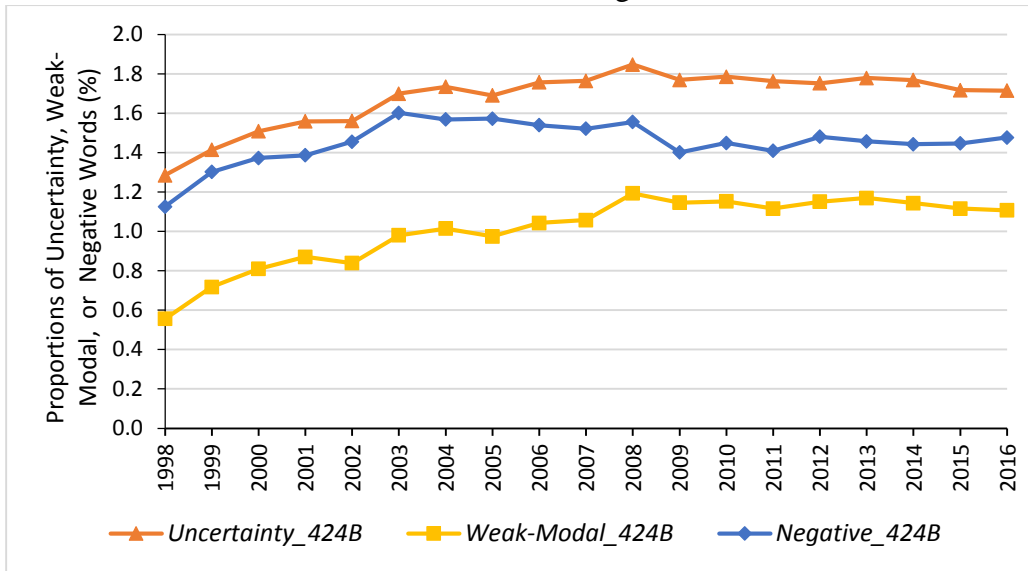
<i>Primary Dummy</i>	Indicator variable equal to 1 if the SEO is a pure primary offering, and 0 otherwise.
<i>Accelerated Dummy</i>	Indicator variable equal to 1 if the SEO is a block trade or an accelerated bookbuilt deal, and equal to 0 otherwise.
<i>Shelf Dummy</i>	Indicator variable equal to 1 if the SEO is preceded by either a shelf registration or a Form S-3ASR registration, and equal to 0 otherwise.
<i>FM Shelf Dummy</i>	Indicator variable equal to 1 if the SEO is fully marketed (i.e., <i>Accelerated Dummy</i> = 0) and <i>Shelf Dummy</i> = 1, and equal to 0 otherwise.
<i>Top-tier Dummy</i>	Indicator variable equal to 1 if the SEO for which the book-runners have an average ranking score of 8 or above, and 0 otherwise.
<i>Registration Period</i>	The number of days between the file date and the offer date, as in the SDC database.
<i>Ln(1 + Reg. Period)</i>	The natural logarithm of (1 + <i>Registration Period</i> ).
<u>Firm Characteristics</u>	
<i>Nasdaq Dummy</i>	Indicator variable equal to 1 if the issuer's stock is listed on Nasdaq, 0 otherwise.
<i>Recent IPO Dummy</i>	Indicator variable equal to one if the SEO is conducted within one year after the IPO. We use the IPO date from SDC whenever available, and the first CRSP listing date otherwise to determine the IPO date.
<i>Market Cap</i> (\$Millions)	The issuers' stock price times total number of shares outstanding one day before the SEO, in million dollars of 2016 purchasing power.
<i>Ln(Market Cap)</i>	The natural logarithm of <i>Market Cap</i> (\$Millions) before the SEO.
<i>Price</i> (\$)	The issuer's stock price (in dollars) one day before the SEO.
<i>Ln(Price)</i>	The natural logarithm of <i>Price</i> (\$).
<i>Liquidity</i>	The average trading volume of the issuer's stock between 11 trading days and 250 trading days prior to the SEO over the total shares outstanding one day prior to the SEO. Following Gao and Ritter (2010), we divide Nasdaq trading volume by 2.0 prior to February 2001, by 1.8 between February 2001 and December 2001, and by 1.6 in 2002 and 2003.
<i>Number of Analysts</i>	The number of analysts with an earnings forecast for the stock (I/B/E/S item NUMEST) on the most recent I/B/E/S statistical period date before the SEO.
<i>Ln(1 + Analysts)</i>	The natural logarithm of (1 + <i>Number of Analysts</i> ).
<i>Pre-SEO Retvol</i>	The standard deviation of the issuer's daily stock returns between 11 trading days and 250 trading days prior to the SEO.
<i>Profitability Dummy</i>	Indicator variable equal to 1 if operating income before depreciation (Compustat item <i>OIBDP</i> ) in the last fiscal year before the SEO is positive, 0 otherwise.
<i>Tobin's Q</i>	The sum of the market value of equity and the book value of debt (items <i>AT</i> – <i>CEQ</i> + <i>CSHO</i> × <i>PRCC_F</i> ) divided by the book value of assets (item <i>AT</i> ) at the end of the last fiscal year before the SEO.
<i>Leverage</i>	The book value of debt (items <i>DLTT</i> + <i>DLC</i> ) over the book value of total assets (item <i>AT</i> ) at the end of the last fiscal year before the SEO. If <i>DLC</i> is missing, it is set to zero.

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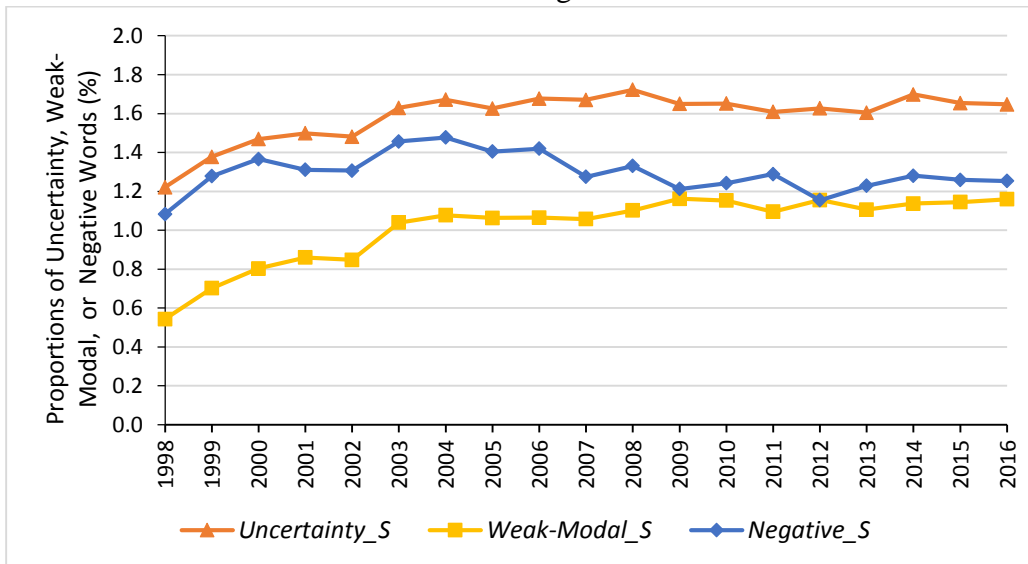
**Figure 1 Filing tone measures by year**

Panel A presents the time variations in the tones of 424B filings around offer dates. The cross-sectional means of the filing tone measures for all SEOs conducted each year are plotted. Panel B presents the time variations in the tones of S filings. The cross-sectional means of the filing tone measures for all SEOs filed each year are plotted. The filing tone measures *Uncertain\_424B*, *Weak-modal\_424B*, and *Negative\_424B* are the percentages of uncertainty, weak-modal, and negative words in the 424B filing, respectively. *Uncertain\_S*, *Weak-Modal\_S*, and *Negative\_S* are the percentages of uncertainty, weak-modal, and negative words in the S filing, respectively.

**Panel A. Tone Measures for 424B Filings around the Offer Date**



**Panel B. Tone Measures for S Filings around the Initial File Date**



**Table 1 Descriptive statistics of issue and firm characteristics**

This table reports the descriptive statistics of issue and firm characteristics for the sample of 2,809 SEOs from 1998 to 2016. Panel A presents the distribution of the SEO sample by year, type of shares, and selling mechanism. Panel B presents the distribution by the top-ten industries with the most SEOs in our sample, type of shares, and selling mechanism. The industry groups are based on Fama-French's 49 industry classification. Panel C presents the summary statistics of the issue and firm characteristics. Appendix B provides detailed variable definitions.

Panel A: Sample distribution by year, type of shares, and selling mechanism

Year	Type of Shares			Selling Mechanism		
	All	<i>Pure Primary</i>	<i>Combined</i>	<i>Accelerated</i>	<i>Fully Marketed Shelf</i>	<i>Fully Marketed Non-Shelf</i>
1998	179	89	90	2	24	153
1999	239	131	108	5	35	199
2000	245	139	106	11	30	204
2001	150	84	66	20	35	95
2002	127	87	40	24	30	73
2003	137	97	40	42	35	60
2004	179	118	61	66	44	69
2005	145	100	45	67	34	44
2006	138	93	45	37	53	48
2007	136	99	37	22	75	39
2008	74	62	12	18	46	10
2009	161	149	12	4	146	11
2010	119	104	15	7	97	15
2011	92	64	28	11	60	21
2012	104	85	19	39	55	10
2013	137	113	24	24	87	26
2014	156	127	29	22	88	46
2015	197	172	25	46	110	41
2016	94	84	10	41	38	15
Total	2,809	1,997	812	508	1,122	1,179

Panel B: Sample distribution by top-ten industries, type of shares, and selling mechanism

Industry	Type of Shares			Selling Mechanism		
	All	Pure Primary	Combined	Accelerated	Fully Marketed Shelf	Fully Marketed Non-Shelf
Drugs	674	619	55	155	342	177
Oil	290	266	24	121	141	28
Software	289	108	181	18	61	210
Chips	208	115	93	16	56	136
Business Service	160	87	73	20	52	88
Telecom	104	71	33	22	38	44
Med. Equipment	101	69	32	13	46	42
Retail	93	43	50	6	20	67
Transport	77	52	25	18	30	29
Machinery	75	44	31	9	32	34
Total	2,071	1,474	597	398	818	855

Panel C: Summary statistics of issue and firm characteristics

	N	Mean	StdDev	Q1	Median	Q3
<u>Issue Characteristics</u>						
<i>Discount (%)</i>	2,796	3.671	4.669	0.929	2.718	5.214
<i>Underpricing (%)</i>	2,809	3.339	6.132	0.000	1.797	6.250
<i>Offer-Day Return (%)</i>	2,796	-0.562	6.779	-4.449	-1.010	3.177
<i>3-Day Post-Offer Abnormal Return (%)</i>	2,809	0.838	5.849	-2.137	0.413	3.509
<i>Relative Offer Size</i>	2,809	0.170	0.110	0.097	0.147	0.211
<i>Primary Dummy</i>	2,809	0.711	0.453	0.000	1.000	1.000
<i>Accelerated Dummy</i>	2,809	0.181	0.385	0.000	0.000	0.000
<i>FM Shelf Dummy</i>	2,809	0.399	0.490	0.000	0.000	1.000
<i>Top-tier Dummy</i>	2,809	0.672	0.470	0.000	1.000	1.000
<i>Integer Dummy</i>	2,809	0.397	0.489	0.000	0.000	1.000
<i>Registration Period (Days)</i>	2,809	183	286	24	51	209
<u>Firm Characteristics</u>						
<i>Recent IPO Dummy</i>	2,809	0.167	0.373	0.000	0.000	0.000
<i>Nasdaq Dummy</i>	2,809	0.708	0.455	0.000	1.000	1.000
<i>Market Cap (\$Millions)</i>	2,796	1,856	3,934	328	664	1,539
<i>Price (\$)</i>	2,796	29.148	25.787	12.550	21.755	36.000
<i>Liquidity (%)</i>	2,792	0.988	1.105	0.369	0.648	1.148
<i>Number of Analysts</i>	2,809	6.849	5.917	3.000	5.000	9.000
<i>Pre-SEO Retvol (%)</i>	2,791	4.323	2.166	2.864	3.789	5.163
<i>Profitability Dummy</i>	2,809	0.593	0.491	0.000	1.000	1.000
<i>Tobin's Q</i>	2,807	3.597	4.190	1.393	2.181	4.085
<i>Leverage</i>	2,799	0.248	0.260	0.011	0.194	0.397

**Table 2 Descriptive statistics of the filing tone measures**

This table reports the descriptive statistics of the filing tone measures for the sample of 2,809 SEOs from 1998 to 2016. The detailed definitions of the filing tone measures are given in Appendix B. Panel A reports the summary statistics of the filing tone measures for Form 424B filings around offer dates, Form S filings around initial file dates, and the changes in filing tone measures from S filings to 424B filings. Panel B presents the distribution of the top-ten most frequently used uncertain, weak-modal, and negative words and their percentages of total word counts in all 424B filings.

Panel A: Summary statistics of the filing tone measures

	N	Mean	StdDev	Q1	Median	Q3
<u>Filing Tones of 424B Filings around Offer Dates</u>						
<i>Uncertainty_424B</i>	2,809	1.642	0.382	1.374	1.580	1.873
<i>Weak-Modal_424B</i>	2,809	0.967	0.369	0.671	0.934	1.201
<i>Negative_424B</i>	2,809	1.429	0.455	1.093	1.377	1.715
<u>Filing Tones of S Filings around Initial File Dates</u>						
<i>Uncertainty_S</i>	2,809	1.570	0.395	1.320	1.499	1.747
<i>Weak-Modal_S</i>	2,809	0.986	0.362	0.705	0.985	1.194
<i>Negative_S</i>	2,809	1.298	0.465	0.983	1.214	1.538
<u>Changes in the Tones from the Initial Filing to the Final Filing</u>						
<i>Uncertainty_Chg</i>	2,809	0.072	0.299	-0.027	0.011	0.169
<i>Weak-Modal_Chg</i>	2,809	-0.019	0.247	-0.090	-0.001	0.034
<i>Negative_Chg</i>	2,809	0.131	0.422	-0.037	0.017	0.178

Panel B: Distribution of the top-ten uncertainty, weak-modal, and negative words in 424B filings

Uncertainty Words		Weak-Modal Words		Negative Words	
Words	% of Total Count	Words	% of Total Count	Words	% of Total Count
MAY	39.57%	MAY	68.24%	LOSS	3.69%
COULD	12.44%	COULD	21.45%	ADVERSELY	3.55%
APPROXIMATELY	7.68%	MIGHT	2.19%	DEFAULT	2.84%
BELIEVE	4.59%	DEPEND	1.91%	AGAINST	2.84%
RISK	4.01%	POSSIBLE	1.79%	ADVERSE	2.74%
RISKS	3.32%	DEPENDS	1.06%	CLAIMS	2.40%
MIGHT	1.27%	DEPENDING	0.82%	LOSSES	1.99%
ASSUMPTIONS	1.15%	UNCERTAIN	0.69%	FAILURE	1.96%
DEPEND	1.11%	APPEARING	0.62%	UNABLE	1.83%
ANTICIPATE	1.07%	POSSIBLY	0.23%	RESTATED	1.53%
Cumulative Count	76.18%		98.99%		25.37%

**Table 3 Univariate tests of the filing tone measures**

This table reports the univariate test results on the filing tone measures in 424B filings around SEO offer dates. *Uncertainty\_424B*, *Weak-Modal\_424B*, and *Negative\_424B* are the percentages of uncertainty, weak-modal, and negative words in each 424B filing. Panel A compares the differences in these measures between low-litigation-risk and high-litigation-risk subsamples. The high-litigation-risk subsample consists of SEOs by firms that operate in industries with SIC codes 2833–2836, 3570–3577, 3600–3674, 5200–5961, and 7370–7374. Other SEOs are grouped into the low-litigation-risk subsample. Panel B compares the differences in these measures between pre-SOX and post-SOX subsamples. The pre-SOX subsample contains 921 SEOs conducted before and in August 2002 and the post-SOX subsample contains 1,888 SEOs conducted after August 2002. We conduct two-sided *t* tests to test the differences. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Low-litigation risk vs. high-litigation risk

	Low-Litigation Risk (N=1,471)		High-Litigation Risk (N=1,338)		<i>t</i> -stat	
	Mean	StdDev	Mean	StdDev		
<i>Uncertainty_424B</i>	1.578	0.367	1.712	0.387	9.37	***
<i>Weak-Modal_424B</i>	0.895	0.341	1.045	0.382	10.92	***
<i>Negative_424B</i>	1.352	0.410	1.515	0.486	9.57	***

Panel B: Pre-SOX vs. post-SOX

	Pre-SOX (N=921)		Post-SOX (N=1,888)		<i>t</i> -stat	
	Mean	StdDev	Mean	StdDev		
<i>Uncertainty_424B</i>	1.422	0.307	1.749	0.370	24.77	***
<i>Weak-Modal_424B</i>	0.712	0.268	1.090	0.347	31.79	***
<i>Negative_424B</i>	1.284	0.347	1.500	0.484	13.53	***

**Table 4 Pearson correlation coefficients between filing tone measures and key issue characteristics**

The sample includes 2,809 SEOs conducted between 1998 and 2016. *Uncertainty\_424B*, *Weak-Modal\_424B*, and *Negative\_424B* are the percentages of uncertainty, weak-modal, and negative words used in final 424B filings. *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S* are percentages of uncertainty, weak-modal, and negative words used in initial S filings. The key issue characteristics in this table include *Discount*, *Underpricing*, *Offer-Day Return*, and *3-Day Post-Offer Abnormal Return*. Appendix B provides detailed variable definitions. This table presents the Pearson correlation coefficients between these variables. *P*-values are presented in brackets below the coefficients.

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. <i>Uncertainty_424B</i>	1									
2. <i>Weak-Modal_424B</i>	0.903 [<0.001]	1								
3. <i>Negative_424B</i>	0.631 [<0.001]	0.599 [<0.001]	1							
4. <i>Uncertainty_S</i>	0.704 [<0.001]	0.589 [<0.001]	0.402 [<0.001]	1						
5. <i>Weak-Modal_S</i>	0.706 [<0.001]	0.773 [<0.001]	0.385 [<0.001]	0.827 [<0.001]	1					
6. <i>Negative_S</i>	0.265 [<0.001]	0.217 [<0.001]	0.579 [<0.001]	0.506 [<0.001]	0.400 [<0.001]	1				
7. <i>Discount</i>	0.152 [<0.001]	0.175 [<0.001]	0.046 [0.015]	0.114 [<0.001]	0.154 [<0.001]	-0.002 [0.916]	1			
8. <i>Underpricing</i>	0.025 [0.192]	0.000 [0.996]	0.040 [0.033]	0.017 [0.375]	-0.005 [0.784]	0.019 [0.316]	0.218 [<0.001]	1		
9. <i>Offer-Day Return</i>	-0.083 [<0.001]	-0.123 [<0.001]	0.008 [0.673]	-0.062 [0.001]	-0.112 [<0.001]	0.024 [0.196]	-0.491 [<0.001]	0.722 [<0.001]	1	
10. <i>3-Day Post-Offer Abnormal Return</i>	-0.061 [0.001]	-0.080 [<0.001]	-0.059 [0.002]	-0.013 [0.480]	-0.039 [0.037]	0.024 [0.199]	-0.031 [0.102]	0.051 [0.007]	0.076 [<0.001]	1

### Table 5 Filing tones and offer price discounts

This table examines the relations between issuers' SEC filing tones and SEO offer price discounts. In all regression models, the dependent variable is *Discount*, measured as  $100 \times (\text{the closing price one day before the SEO} - \text{the offer price}) \div \text{the closing price one day before the SEO}$ . In Models (1)-(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4)-(6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)-(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include key issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	1.054*** (3.12)								
<i>Weak-Modal_424B</i>		1.344*** (3.36)							
<i>Negative_424B</i>			0.178 (0.78)						
<i>Uncertainty_S</i>				0.614** (2.22)			1.074*** (3.07)		
<i>Weak-Modal_S</i>					0.889** (2.41)			1.429*** (3.28)	
<i>Negative_S</i>						0.125 (0.61)			0.195 (0.80)
<i>Uncertainty_Chg</i>							1.007** (2.40)		
<i>Weak-Modal_Chg</i>								1.222** (2.57)	
<i>Negative_Chg</i>									0.152 (0.55)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	5.037*** (3.17)	5.132*** (3.22)	4.755*** (3.01)	4.912*** (3.09)	4.946*** (3.12)	4.755*** (3.02)	5.044*** (3.17)	5.147*** (3.22)	4.762*** (3.02)
<i>Primary Dummy</i>	0.333* (1.65)	0.313 (1.55)	0.355* (1.75)	0.361* (1.80)	0.342* (1.70)	0.363* (1.80)	0.334* (1.65)	0.311 (1.54)	0.355* (1.75)
<i>FM Shelf Dummy</i>	0.518 (1.60)	0.362 (1.12)	0.728** (2.14)	0.644* (1.94)	0.402 (1.18)	0.745** (2.17)	0.519 (1.61)	0.319 (0.95)	0.735** (2.15)
<i>Accelerated Dummy</i>	1.722*** (4.78)	1.518*** (4.18)	1.996*** (5.29)	1.871*** (5.06)	1.637*** (4.28)	2.008*** (5.29)	1.721*** (4.78)	1.477*** (3.96)	2.000*** (5.29)
<i>Top-tier Dummy</i>	-0.585*** (-2.89)	-0.591*** (-2.92)	-0.618*** (-3.07)	-0.605*** (-3.00)	-0.604*** (-3.00)	-0.616*** (-3.07)	-0.585*** (-2.89)	-0.591*** (-2.92)	-0.619*** (-3.08)
<i>Integer Dummy</i>	1.651*** (9.30)	1.644*** (9.27)	1.631*** (9.22)	1.648*** (9.30)	1.648*** (9.29)	1.633*** (9.23)	1.652*** (9.30)	1.647*** (9.27)	1.631*** (9.22)

<i>Ln(1 + Reg. Period)</i>	0.141** (2.29)	0.133** (2.14)	0.127** (2.03)	0.139** (2.24)	0.129** (2.07)	0.126** (2.03)	0.142** (2.30)	0.133** (2.15)	0.127** (2.04)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.368 (-1.23)	-0.422 (-1.43)	-0.462 (-1.58)	-0.408 (-1.37)	-0.444 (-1.51)	-0.462 (-1.58)	-0.367 (-1.22)	-0.423 (-1.44)	-0.465 (-1.59)
<i>Nasdaq Dummy</i>	0.480* (1.79)	0.489* (1.82)	0.594** (2.17)	0.539** (2.00)	0.545** (2.03)	0.603** (2.20)	0.478* (1.79)	0.486* (1.82)	0.594** (2.17)
<i>Ln(Market Cap)</i>	0.372* (1.92)	0.355* (1.86)	0.322* (1.70)	0.365* (1.87)	0.366* (1.89)	0.325* (1.70)	0.374* (1.93)	0.363* (1.88)	0.324* (1.70)
<i>Ln(Price)</i>	-0.962*** (-4.96)	-0.940*** (-4.83)	-0.941*** (-4.83)	-0.973*** (-4.98)	-0.972*** (-4.96)	-0.951*** (-4.85)	-0.965*** (-4.96)	-0.947*** (-4.84)	-0.944*** (-4.81)
<i>Liquidity</i>	-0.178 (-0.86)	-0.181 (-0.87)	-0.166 (-0.79)	-0.164 (-0.79)	-0.162 (-0.78)	-0.162 (-0.77)	-0.178 (-0.85)	-0.179 (-0.86)	-0.165 (-0.79)
<i>Ln(1 + Analysts)</i>	-0.706*** (-3.44)	-0.725*** (-3.54)	-0.682*** (-3.30)	-0.674*** (-3.26)	-0.690*** (-3.35)	-0.676*** (-3.27)	-0.704*** (-3.41)	-0.723*** (-3.53)	-0.681*** (-3.30)
<i>Pre-SEO Retvol</i>	0.174* (1.90)	0.169* (1.84)	0.175* (1.91)	0.171* (1.86)	0.166* (1.80)	0.175* (1.89)	0.173* (1.89)	0.167* (1.82)	0.175* (1.89)
<i>Profitability Dummy</i>	-0.358 (-1.34)	-0.323 (-1.20)	-0.377 (-1.41)	-0.396 (-1.49)	-0.385 (-1.44)	-0.382 (-1.43)	-0.361 (-1.35)	-0.329 (-1.23)	-0.378 (-1.42)
<i>Tobin's Q</i>	-0.023 (-0.59)	-0.024 (-0.62)	-0.023 (-0.58)	-0.025 (-0.64)	-0.027 (-0.67)	-0.023 (-0.58)	-0.024 (-0.60)	-0.025 (-0.63)	-0.023 (-0.58)
<i>Leverage</i>	-0.475 (-0.95)	-0.462 (-0.93)	-0.560 (-1.13)	-0.504 (-1.02)	-0.510 (-1.03)	-0.562 (-1.14)	-0.472 (-0.95)	-0.459 (-0.92)	-0.559 (-1.13)
<i>Intercept</i>	0.995 (0.56)	1.733 (1.07)	2.414 (1.51)	1.637 (0.96)	2.047 (1.27)	2.464 (1.56)	0.962 (0.54)	1.684 (1.03)	2.396 (1.50)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.167	0.167	0.162	0.164	0.165	0.162	0.167	0.167	0.162

### Table 6 Filing tones and SEO offer-day returns

This table examines the relations between issuers' SEC filing tones and SEO offer-day returns. In all regression models, the dependent variable is *Offer-Day Return*, measured as  $100 \times (\text{the closing price on the offer date} - \text{the closing price one day before the SEO}) \div \text{the closing price one day before the SEO}$ . In Models (1)-(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4)-(6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)-(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include key issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tone</u>									
<i>Uncertainty_424B</i>	-0.612 (-1.48)								
<i>Weak-Modal_424B</i>		-1.318*** (-2.61)							
<i>Negative_424B</i>			0.223 (0.71)						
<i>Uncertainty_S</i>				-0.660* (-1.87)			-0.770* (-1.78)		
<i>Weak-Modal_S</i>					-1.061** (-2.24)			-1.519*** (-2.72)	
<i>Negative_S</i>						0.061 (0.20)			0.187 (0.53)
<i>Uncertainty_Chg</i>							-0.241 (-0.47)		
<i>Weak-Modal_Chg</i>								-1.035* (-1.73)	
<i>Negative_Chg</i>									0.274 (0.74)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	0.452 (0.28)	0.233 (0.15)	0.675 (0.42)	0.431 (0.27)	0.368 (0.23)	0.650 (0.41)	0.399 (0.25)	0.198 (0.12)	0.662 (0.42)
<i>Primary Dummy</i>	-0.617* (-1.77)	-0.582* (-1.67)	-0.659* (-1.88)	-0.628* (-1.80)	-0.605* (-1.73)	-0.643* (-1.84)	-0.622* (-1.78)	-0.578* (-1.66)	-0.658* (-1.87)
<i>FM Shelf Dummy</i>	-0.260 (-0.63)	-0.024 (-0.06)	-0.377 (-0.91)	-0.293 (-0.71)	0.005 (0.01)	-0.371 (-0.90)	-0.263 (-0.64)	0.075 (0.17)	-0.390 (-0.95)
<i>Accelerated Dummy</i>	-1.779*** (-3.69)	-1.469*** (-2.96)	-1.937*** (-4.06)	-1.805*** (-3.74)	-1.511*** (-2.93)	-1.932*** (-4.05)	-1.769*** (-3.66)	-1.375*** (-2.67)	-1.946*** (-4.07)
<i>Top-tier Dummy</i>	-0.234 (-0.74)	-0.239 (-0.76)	-0.223 (-0.71)	-0.227 (-0.72)	-0.228 (-0.73)	-0.218 (-0.69)	-0.232 (-0.74)	-0.240 (-0.76)	-0.222 (-0.71)
<i>Integer Dummy</i>	-1.429*** (-5.36)	-1.430*** (-5.36)	-1.420*** (-5.34)	-1.435*** (-5.37)	-1.437*** (-5.38)	-1.418*** (-5.32)	-1.436*** (-5.37)	-1.436*** (-5.37)	-1.421*** (-5.33)

<i>Ln(1 + Reg. Period)</i>	-0.086 (-1.01)	-0.084 (-0.99)	-0.076 (-0.89)	-0.091 (-1.08)	-0.081 (-0.96)	-0.077 (-0.91)	-0.092 (-1.08)	-0.084 (-1.00)	-0.076 (-0.90)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	0.408 (0.85)	0.429 (0.89)	0.438 (0.91)	0.411 (0.85)	0.450 (0.94)	0.448 (0.93)	0.402 (0.83)	0.432 (0.90)	0.443 (0.92)
<i>Nasdaq Dummy</i>	0.698** (2.04)	0.740** (2.18)	0.611* (1.79)	0.697** (2.05)	0.697** (2.05)	0.624* (1.84)	0.712** (2.08)	0.748** (2.20)	0.610* (1.79)
<i>Ln(Market Cap)</i>	-0.149 (-0.71)	-0.154 (-0.74)	-0.115 (-0.55)	-0.167 (-0.80)	-0.174 (-0.83)	-0.116 (-0.56)	-0.170 (-0.81)	-0.171 (-0.82)	-0.118 (-0.57)
<i>Ln(Price)</i>	0.161 (0.61)	0.146 (0.55)	0.157 (0.59)	0.181 (0.69)	0.183 (0.69)	0.149 (0.56)	0.179 (0.68)	0.161 (0.61)	0.162 (0.61)
<i>Liquidity</i>	-0.098 (-0.54)	-0.089 (-0.49)	-0.115 (-0.63)	-0.105 (-0.57)	-0.107 (-0.59)	-0.109 (-0.60)	-0.101 (-0.56)	-0.092 (-0.51)	-0.115 (-0.63)
<i>Ln(1 + Analysts)</i>	1.038*** (3.56)	1.067*** (3.66)	1.015*** (3.49)	1.017*** (3.50)	1.036*** (3.56)	1.022*** (3.52)	1.025*** (3.50)	1.064*** (3.64)	1.013*** (3.49)
<i>Pre-SEO Retvol</i>	-0.262*** (-2.62)	-0.256** (-2.56)	-0.267*** (-2.66)	-0.257** (-2.56)	-0.251** (-2.50)	-0.265*** (-2.65)	-0.258** (-2.57)	-0.252** (-2.51)	-0.266*** (-2.65)
<i>Profitability Dummy</i>	0.718* (1.78)	0.675* (1.67)	0.736* (1.82)	0.748* (1.85)	0.736* (1.82)	0.731* (1.81)	0.739* (1.83)	0.689* (1.70)	0.738* (1.83)
<i>Tobin's Q</i>	0.146*** (2.99)	0.147*** (3.01)	0.146*** (2.99)	0.148*** (3.04)	0.150*** (3.07)	0.146*** (2.99)	0.148*** (3.02)	0.149*** (3.04)	0.146*** (2.99)
<i>Leverage</i>	0.002 (0.00)	-0.047 (-0.08)	0.061 (0.10)	-0.012 (-0.02)	-0.012 (-0.02)	0.055 (0.09)	-0.020 (-0.03)	-0.055 (-0.09)	0.060 (0.10)
<i>Intercept</i>	-1.410 (-0.73)	-1.496 (-0.80)	-2.553 (-1.38)	-1.312 (-0.70)	-1.689 (-0.92)	-2.396 (-1.31)	-1.151 (-0.60)	-1.382 (-0.74)	-2.517 (-1.36)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.086	0.088	0.085	0.086	0.087	0.085	0.086	0.088	0.085

**Table 7 Filing tones and SEO post-offer abnormal returns**

This table examines the relations between issuers' SEC filing tones and abnormal stock returns during the several trading days after the SEO. The dependent variable is *3-Day Post-Offer Abnormal Return* in Models (1)-(3), *5-Day Post-Offer Abnormal Return* in Models (4)-(6), and *10-Day Post-Offer Abnormal Return* in Models (7)-(9). The post-offer abnormal returns are the buy-and-hold returns on the issuer's stock minus the CRSP value-weighted returns in the windows of three, five, and ten trading days, respectively, after the offer date. The main independent variables are S filing tone measures *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include key issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	<i>3-Day Post-Offer Abnormal Return</i>			<i>5-Day Post-Offer Abnormal Return</i>			<i>10-Day Post-Offer Abnormal Return</i>		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tone</u>									
<i>Uncertainty_S</i>	-0.202 (-0.55)			-0.131 (-0.27)			-0.055 (-0.08)		
<i>Weak-Modal_S</i>		-0.506 (-1.08)			-0.164 (-0.26)			0.007 (0.01)	
<i>Negative_S</i>			0.001 (0.00)			0.180 (0.44)			-0.050 (-0.09)
<i>Uncertainty_Chg</i>	-1.105** (-2.32)			-1.174** (-2.02)			-1.926** (-2.56)		
<i>Weak-Modal_Chg</i>		-1.761*** (-3.44)			-1.669** (-2.53)			-2.172** (-2.49)	
<i>Negative_Chg</i>			-1.017*** (-3.03)			-0.997** (-2.31)			-1.843*** (-3.33)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	3.816*** (2.63)	3.646** (2.51)	3.943*** (2.73)	4.217** (2.28)	4.115** (2.22)	4.366** (2.37)	5.803** (2.19)	5.686** (2.14)	5.924** (2.23)
<i>Primary Dummy</i>	-0.024 (-0.08)	-0.013 (-0.04)	-0.023 (-0.07)	0.634* (1.65)	0.633 (1.65)	0.624 (1.61)	-0.010 (-0.02)	-0.025 (-0.04)	0.003 (0.00)
<i>FM Shelf Dummy</i>	0.009 (0.03)	-0.067 (-0.17)	0.056 (0.15)	-0.234 (-0.51)	-0.422 (-0.86)	-0.157 (-0.35)	-0.669 (-1.06)	-1.004 (-1.48)	-0.546 (-0.86)

<i>Accelerated Dummy</i>	-0.518 (-1.26)	-0.501 (-1.14)	-0.518 (-1.28)	-1.109** (-2.01)	-1.217** (-2.06)	-1.082** (-2.02)	-1.720** (-2.32)	-1.948** (-2.44)	-1.659** (-2.28)
<i>Top-tier Dummy</i>	-0.182 (-0.65)	-0.181 (-0.65)	-0.160 (-0.58)	0.110 (0.32)	0.114 (0.33)	0.128 (0.37)	0.128 (0.26)	0.139 (0.29)	0.163 (0.34)
<i>Integer Dummy</i>	0.309 (1.32)	0.311 (1.33)	0.320 (1.38)	0.176 (0.58)	0.181 (0.60)	0.186 (0.62)	0.113 (0.27)	0.118 (0.28)	0.127 (0.30)
<i>Ln(1 + Reg. Period)</i>	0.006 (0.09)	-0.001 (-0.01)	0.004 (0.05)	0.003 (0.03)	-0.005 (-0.05)	0.000 (-0.01)	0.015 (0.12)	0.000 (0.00)	0.003 (0.03)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.181 (-0.43)	-0.185 (-0.44)	-0.191 (-0.45)	-0.253 (-0.48)	-0.258 (-0.49)	-0.286 (-0.54)	-0.847 (-1.09)	-0.857 (-1.11)	-0.882 (-1.13)
<i>Nasdaq Dummy</i>	0.005 (0.02)	0.039 (0.15)	0.015 (0.06)	0.018 (0.06)	0.035 (0.11)	0.030 (0.09)	0.424 (0.87)	0.439 (0.90)	0.478 (0.99)
<i>Ln(Market Cap)</i>	0.041 (0.19)	0.047 (0.22)	0.056 (0.27)	0.054 (0.21)	0.069 (0.27)	0.069 (0.28)	0.064 (0.17)	0.076 (0.21)	0.068 (0.18)
<i>Ln(Price)</i>	-0.177 (-0.68)	-0.198 (-0.77)	-0.219 (-0.85)	-0.362 (-1.11)	-0.385 (-1.18)	-0.404 (-1.25)	-0.932** (-2.04)	-0.951** (-2.08)	-0.994** (-2.19)
<i>Liquidity</i>	-0.459*** (-2.87)	-0.448*** (-2.80)	-0.454*** (-2.86)	-0.724*** (-3.32)	-0.715*** (-3.28)	-0.722*** (-3.32)	-0.762*** (-2.59)	-0.755** (-2.55)	-0.751** (-2.55)
<i>Ln(1 + Analysts)</i>	0.509* (1.91)	0.519* (1.95)	0.512* (1.93)	0.707** (2.04)	0.707** (2.04)	0.709** (2.06)	1.237*** (2.59)	1.222** (2.55)	1.244*** (2.62)
<i>Pre-SEO Retvol</i>	-0.031 (-0.34)	-0.030 (-0.33)	-0.033 (-0.36)	-0.009 (-0.08)	-0.010 (-0.09)	-0.012 (-0.12)	-0.155 (-1.04)	-0.155 (-1.05)	-0.154 (-1.04)
<i>Profitability Dummy</i>	-0.190 (-0.57)	-0.225 (-0.67)	-0.177 (-0.53)	0.058 (0.14)	0.030 (0.07)	0.074 (0.18)	0.510 (0.79)	0.495 (0.76)	0.539 (0.84)
<i>Tobin's Q</i>	-0.022 (-0.42)	-0.022 (-0.43)	-0.019 (-0.38)	-0.053 (-0.88)	-0.054 (-0.89)	-0.050 (-0.83)	-0.127 (-1.33)	-0.128 (-1.34)	-0.122 (-1.29)
<i>Leverage</i>	-0.404 (-0.79)	-0.457 (-0.90)	-0.405 (-0.80)	-0.514 (-0.80)	-0.553 (-0.87)	-0.519 (-0.81)	1.044 (1.14)	0.990 (1.08)	1.010 (1.10)
<i>Intercept</i>	-0.465 (-0.27)	-0.379 (-0.23)	-0.756 (-0.46)	-1.812 (-0.75)	-1.825 (-0.78)	-2.168 (-0.94)	1.587 (0.46)	1.630 (0.49)	1.591 (0.49)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.044	0.046	0.047	0.041	0.042	0.043	0.045	0.044	0.047

### Table 8 Filing tones and SEO underpricing

This table examines the relations between issuers' SEC filing tones and SEO underpricing. In all regression models, the dependent variable is *Underpricing*, measured as  $100 \times (\text{the closing price on the offer date} - \text{the offer price}) \div \text{the offer price}$ . In Models (1)-(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4)-(6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)-(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include key issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tone</u>									
<i>Uncertainty_424B</i>	0.233 (0.61)								
<i>Weak-Modal_424B</i>		-0.222 (-0.48)							
<i>Negative_424B</i>			0.260 (0.95)						
<i>Uncertainty_S</i>				-0.282 (-0.92)			0.036 (0.09)		
<i>Weak-Modal_S</i>					-0.458 (-1.12)			-0.427 (-0.84)	
<i>Negative_S</i>						0.034 (0.14)			0.197 (0.66)
<i>Uncertainty_Chg</i>							0.696 (1.55)		
<i>Weak-Modal_Chg</i>								0.069 (0.13)	
<i>Negative_Chg</i>									0.352 (1.06)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	4.645*** (3.07)	4.508*** (2.97)	4.623*** (3.09)	4.489*** (2.97)	4.460*** (2.95)	4.584*** (3.06)	4.579*** (3.02)	4.472*** (2.94)	4.600*** (3.07)
<i>Primary Dummy</i>	-0.171 (-0.51)	-0.153 (-0.46)	-0.186 (-0.55)	-0.158 (-0.48)	-0.148 (-0.44)	-0.165 (-0.49)	-0.177 (-0.53)	-0.150 (-0.45)	-0.184 (-0.55)
<i>FM Shelf Dummy</i>	0.029 (0.08)	0.135 (0.35)	0.079 (0.21)	0.112 (0.30)	0.241 (0.61)	0.080 (0.21)	0.026 (0.07)	0.237 (0.60)	0.056 (0.15)
<i>Accelerated Dummy</i>	-0.307 (-0.69)	-0.168 (-0.37)	-0.246 (-0.55)	-0.190 (-0.43)	-0.062 (-0.13)	-0.243 (-0.55)	-0.294 (-0.66)	-0.071 (-0.15)	-0.262 (-0.59)
<i>Top-tier Dummy</i>	-0.988*** (-3.44)	-0.998*** (-3.48)	-1.001*** (-3.51)	-0.999*** (-3.49)	-1.000*** (-3.49)	-0.995*** (-3.48)	-0.986*** (-3.44)	-0.999*** (-3.48)	-1.000*** (-3.50)
<i>Integer Dummy</i>	0.297 (1.19)	0.291 (1.17)	0.290 (1.17)	0.285 (1.15)	0.285 (1.15)	0.293 (1.18)	0.288 (1.16)	0.285 (1.15)	0.288 (1.16)

<i>Ln(1 + Reg. Period)</i>	0.083 (1.11)	0.079 (1.05)	0.081 (1.08)	0.074 (0.98)	0.078 (1.04)	0.080 (1.06)	0.076 (1.01)	0.078 (1.04)	0.081 (1.07)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.237 (-0.54)	-0.259 (-0.59)	-0.274 (-0.62)	-0.273 (-0.62)	-0.256 (-0.58)	-0.258 (-0.58)	-0.245 (-0.55)	-0.255 (-0.58)	-0.264 (-0.60)
<i>Nasdaq Dummy</i>	1.027*** (3.20)	1.074*** (3.35)	1.038*** (3.23)	1.085*** (3.39)	1.086*** (3.40)	1.054*** (3.29)	1.043*** (3.25)	1.082*** (3.38)	1.035*** (3.22)
<i>Ln(Market Cap)</i>	0.085 (0.39)	0.067 (0.31)	0.077 (0.36)	0.052 (0.24)	0.049 (0.23)	0.075 (0.34)	0.059 (0.27)	0.049 (0.22)	0.072 (0.33)
<i>Ln(Price)</i>	-0.857*** (-3.30)	-0.854*** (-3.30)	-0.847*** (-3.27)	-0.841*** (-3.25)	-0.840*** (-3.25)	-0.855*** (-3.30)	-0.835*** (-3.23)	-0.838*** (-3.24)	-0.839*** (-3.24)
<i>Liquidity</i>	-0.264* (-1.69)	-0.256 (-1.63)	-0.267* (-1.71)	-0.258* (-1.65)	-0.259* (-1.65)	-0.260* (-1.67)	-0.268* (-1.71)	-0.260* (-1.66)	-0.268* (-1.72)
<i>Ln(1 + Analysts)</i>	0.268 (1.01)	0.282 (1.07)	0.267 (1.01)	0.272 (1.03)	0.280 (1.06)	0.274 (1.04)	0.252 (0.95)	0.278 (1.05)	0.263 (1.00)
<i>Pre-SEO Retvol</i>	-0.021 (-0.22)	-0.019 (-0.20)	-0.023 (-0.25)	-0.017 (-0.18)	-0.015 (-0.15)	-0.021 (-0.22)	-0.016 (-0.17)	-0.015 (-0.15)	-0.021 (-0.23)
<i>Profitability Dummy</i>	0.336 (0.94)	0.322 (0.90)	0.336 (0.94)	0.338 (0.95)	0.333 (0.93)	0.331 (0.93)	0.362 (1.01)	0.336 (0.94)	0.340 (0.95)
<i>Tobin's Q</i>	0.145*** (2.80)	0.146*** (2.81)	0.146*** (2.80)	0.147*** (2.82)	0.147*** (2.83)	0.146*** (2.80)	0.148*** (2.84)	0.147*** (2.83)	0.146*** (2.80)
<i>Leverage</i>	-0.386 (-0.68)	-0.423 (-0.74)	-0.399 (-0.71)	-0.435 (-0.76)	-0.435 (-0.76)	-0.406 (-0.72)	-0.413 (-0.72)	-0.432 (-0.76)	-0.400 (-0.71)
<i>Intercept</i>	0.911 (0.39)	1.405 (0.63)	1.009 (0.46)	1.700 (0.75)	1.542 (0.69)	1.229 (0.56)	1.234 (0.53)	1.522 (0.68)	1.073 (0.49)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.070	0.070	0.070	0.070	0.070	0.070	0.071	0.070	0.070

**Table 9 The determination of filing tones**

This table investigates the determination of filing tones. The dependent variables are the percentages of uncertainty, weak-modal, and negative words, respectively, in the 424B filing: *Uncertainty\_424B*, *Weak-Modal\_424B*, and *Negative\_424B*. In Models (1)–(3), the independent variables include key issue and firm characteristics (see Appendix B for the definitions). In Models (4)–(6), *Litigation Risk* is an indicator variable equal to 1 if the issuer operates in a high-litigation-risk industry, and 0 otherwise. High-litigation-risk industries are those with SIC codes 2833–2836, 3570–3577, 3600–3674, 5200–5961, and 7370–7374. In Models (7)–(9), *SOX Dummy* is an indicator variable equal to 1 if the offer date is after August 2002 and 0 otherwise, and *Trend* is equal to the year of the offering minus 1997. The independent variables of some regressions include the calendar year dummy variables and/or the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French’s 49-industry classification. *t*-statistics with White’s heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
	<i>Uncertainty</i>	<i>Weak-Modal</i>	<i>Negative</i>	<i>Uncertainty</i>	<i>Weak-Modal</i>	<i>Negative</i>	<i>Uncertainty</i>	<i>Weak-Modal</i>	<i>Negative</i>
	<i>_424B</i>	<i>_424B</i>	<i>_424B</i>	<i>_424B</i>	<i>_424B</i>	<i>_424B</i>	<i>_424B</i>	<i>_424B</i>	<i>_424B</i>
<i>Litigation Risk</i>				0.072*** (4.18)	0.082*** (5.93)	0.087*** (3.62)	0.068*** (3.94)	0.077*** (5.58)	0.092*** (3.81)
<i>SOX Dummy</i>							0.199*** (7.86)	0.138*** (6.71)	0.345*** (11.05)
<i>Trend</i>							-0.001 (-0.47)	0.006*** (3.05)	-0.016*** (-5.16)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	-0.296*** (-4.46)	-0.304*** (-5.54)	-0.180** (-2.16)	-0.317*** (-4.61)	-0.329*** (-5.79)	-0.213** (-2.46)	-0.324*** (-4.68)	-0.337*** (-5.79)	-0.202** (-2.27)
<i>Primary Dummy</i>	0.034** (2.23)	0.043*** (3.40)	0.087*** (4.34)	0.041*** (2.88)	0.048*** (3.93)	0.077*** (3.93)	0.042*** (2.90)	0.050*** (4.04)	0.069*** (3.51)
<i>FM Shelf Dummy</i>	0.183*** (8.40)	0.266*** (14.68)	-0.020 (-0.74)	0.183*** (8.15)	0.270*** (14.55)	-0.020 (-0.72)	0.193*** (8.74)	0.278*** (15.24)	-0.024 (-0.90)
<i>Accelerated Dummy</i>	0.243*** (8.98)	0.350*** (15.87)	-0.011 (-0.33)	0.247*** (8.85)	0.357*** (15.96)	-0.020 (-0.59)	0.250*** (9.18)	0.355*** (16.33)	0.003 (0.10)
<i>Top-tier Dummy</i>	-0.024 (-1.48)	-0.016 (-1.19)	0.027 (1.22)	-0.027 (-1.60)	-0.015 (-1.10)	0.027 (1.20)	-0.031* (-1.85)	-0.019 (-1.36)	0.025 (1.10)

Firm Characteristics

<i>Rec. IPO Dummy</i>	-0.072*** (-3.68)	-0.018 (-1.16)	0.078*** (3.02)	-0.068*** (-3.49)	-0.016 (-1.03)	0.082*** (3.17)	-0.072*** (-3.79)	-0.023 (-1.47)	0.067*** (2.72)
<i>Nasdaq Dummy</i>	0.119*** (6.20)	0.087*** (5.67)	0.065*** (2.66)	0.116*** (6.33)	0.094*** (6.38)	0.092*** (3.67)	0.119*** (6.51)	0.095*** (6.47)	0.100*** (4.02)
<i>Ln(Market Cap)</i>	-0.049*** (-4.07)	-0.026*** (-2.91)	-0.016 (-1.08)	-0.056*** (-4.74)	-0.034*** (-3.83)	-0.021 (-1.39)	-0.048*** (-4.13)	-0.029*** (-3.20)	-0.009 (-0.59)
<i>Ln(Price)</i>	0.016 (1.09)	-0.004 (-0.35)	-0.023 (-1.09)	0.018 (1.19)	-0.001 (-0.07)	-0.021 (-0.99)	0.014 (0.91)	-0.004 (-0.35)	-0.028 (-1.40)
<i>Liquidity</i>	0.016** (2.10)	0.015** (2.37)	0.028*** (2.76)	0.012 (1.48)	0.009 (1.48)	0.026** (2.54)	0.012 (1.48)	0.007 (1.13)	0.026** (2.51)
<i>Ln(1 + Analysts)</i>	0.029** (2.24)	0.036*** (3.39)	0.026 (1.48)	0.046*** (3.83)	0.045*** (4.46)	0.024 (1.44)	0.040*** (3.39)	0.043*** (4.32)	0.007 (0.42)
<i>Pre-SEO Retvol</i>	0.004 (0.83)	0.006* (1.75)	0.011* (1.81)	0.005 (1.23)	0.006* (1.79)	0.011* (1.80)	0.009** (2.35)	0.012*** (3.81)	0.008 (1.47)
<i>Profitability Dummy</i>	-0.021 (-1.12)	-0.043*** (-2.85)	-0.020 (-0.76)	-0.032* (-1.75)	-0.068*** (-4.57)	-0.034 (-1.39)	-0.024 (-1.35)	-0.061*** (-4.12)	-0.030 (-1.19)
<i>Tobin's Q</i>	0.000 (0.28)	0.001 (0.73)	-0.001 (-0.29)	0.002 (1.24)	0.003* (1.89)	0.001 (0.58)	0.003 (1.61)	0.003** (2.12)	0.002 (0.97)
<i>Leverage</i>	-0.086*** (-2.73)	-0.077*** (-3.03)	-0.031 (-0.71)	-0.117*** (-3.80)	-0.094*** (-3.82)	-0.060 (-1.42)	-0.117*** (-3.76)	-0.094*** (-3.82)	-0.062 (-1.44)
<i>Intercept</i>	1.432*** (15.91)	0.609*** (8.83)	0.950*** (7.72)	1.434*** (19.52)	0.642*** (11.25)	1.102*** (11.48)	1.528*** (20.84)	0.699*** (12.02)	1.295*** (13.56)
<i>Industry Dummies</i>	Yes	Yes	Yes	No	No	No	No	No	No
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.378	0.541	0.186	0.356	0.523	0.151	0.336	0.511	0.124

## **Internet Appendix for**

### **“Seasoned Equity Issuers’ Prospectus Filings: How Informative Are the Tones?”**

#### **List of Internet Appendix Tables**

- IA-1: Filing Tones and Offer Price Discounts, Controlling for the Total Number of Words in Each 424B Filing
- IA-2: Filing Tones and SEO Offer-Day Returns, Controlling for the Total Number of Words in Each 424B Filing
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### Table IA-1 Filing Tones and Offer Price Discounts, Controlling for the Total Number of Words in Each 424B Filing

This table examines the relation between issuers' SEC filing tones and SEO offer price discounts. In all regression models, the dependent variable is *Discount*, measured as  $100 \times (\text{the closing price one day before the SEO} - \text{the offer price}) \div \text{the closing price one day before the SEO}$ .  $\ln(\text{Num. of Words})$  is the natural logarithm of the total number of words in each 424B filing. In Models (1)–(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4–6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	0.948*** (2.73)								
<i>Weak-Modal_424B</i>		1.213*** (2.95)							
<i>Negative_424B</i>			0.397* (1.70)						
<i>Uncertainty_S</i>				0.482* (1.71)			0.933*** (2.59)		
<i>Weak-Modal_S</i>					0.761** (2.04)			1.271*** (2.83)	
<i>Negative_S</i>						0.193 (0.95)			0.390 (1.57)
<i>Uncertainty_Chg</i>							0.981** (2.33)		
<i>Weak-Modal_Chg</i>								1.133** (2.35)	
<i>Negative_Chg</i>									0.407 (1.44)
<i>Ln(Num. of Words)</i>	-0.511** (-2.57)	-0.502** (-2.53)	-0.681*** (-3.41)	-0.526*** (-2.65)	-0.536*** (-2.73)	-0.605*** (-3.09)	-0.514*** (-2.60)	-0.499** (-2.52)	-0.682*** (-3.42)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	5.441*** (3.42)	5.521*** (3.45)	5.377*** (3.36)	5.321*** (3.34)	5.372*** (3.37)	5.290*** (3.33)	5.439*** (3.41)	5.528*** (3.46)	5.376*** (3.36)
<i>Primary Dummy</i>	0.319 (1.58)	0.301 (1.49)	0.312 (1.53)	0.345* (1.72)	0.328 (1.63)	0.338* (1.67)	0.319 (1.58)	0.300 (1.48)	0.312 (1.53)
<i>FM Shelf Dummy</i>	0.437 (1.38)	0.296 (0.94)	0.595* (1.80)	0.556* (1.70)	0.341 (1.01)	0.634* (1.89)	0.436 (1.37)	0.268 (0.81)	0.592* (1.79)
<i>Accelerated Dummy</i>	1.544*** (4.36)	1.362*** (3.84)	1.723*** (4.71)	1.686*** (4.62)	1.473*** (3.93)	1.772*** (4.77)	1.544*** (4.36)	1.336*** (3.65)	1.721*** (4.70)
<i>Top-tier Dummy</i>	-0.532*** (-2.63)	-0.539*** (-2.66)	-0.550*** (-2.72)	-0.549*** (-2.73)	-0.547*** (-2.71)	-0.552*** (-2.74)	-0.532*** (-2.63)	-0.539*** (-2.66)	-0.550*** (-2.72)
<i>Integer Dummy</i>	1.679*** (9.49)	1.673*** (9.46)	1.669*** (9.45)	1.675*** (9.48)	1.677*** (9.48)	1.669*** (9.46)	1.679*** (9.48)	1.674*** (9.45)	1.668*** (9.44)

<i>Ln(1 + Reg. Period)</i>	0.149** (2.40)	0.140** (2.27)	0.139** (2.24)	0.145** (2.33)	0.138** (2.21)	0.137** (2.20)	0.148** (2.39)	0.141** (2.27)	0.139** (2.24)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.150 (-0.47)	-0.202 (-0.64)	-0.177 (-0.56)	-0.183 (-0.58)	-0.207 (-0.66)	-0.202 (-0.64)	-0.149 (-0.47)	-0.204 (-0.65)	-0.176 (-0.56)
<i>Nasdaq Dummy</i>	0.455* (1.71)	0.463* (1.74)	0.529** (1.96)	0.514* (1.92)	0.514* (1.93)	0.556** (2.05)	0.456* (1.72)	0.461* (1.74)	0.528* (1.96)
<i>Ln(Market Cap)</i>	0.380** (1.97)	0.365* (1.92)	0.344* (1.82)	0.369* (1.90)	0.373* (1.94)	0.344* (1.81)	0.378* (1.96)	0.370* (1.93)	0.344* (1.81)
<i>Ln(Price)</i>	-0.951*** (-4.91)	-0.931*** (-4.79)	-0.923*** (-4.76)	-0.957*** (-4.91)	-0.958*** (-4.91)	-0.942*** (-4.83)	-0.949*** (-4.89)	-0.935*** (-4.80)	-0.922*** (-4.72)
<i>Liquidity</i>	-0.180 (-0.87)	-0.182 (-0.88)	-0.177 (-0.84)	-0.167 (-0.80)	-0.165 (-0.80)	-0.167 (-0.80)	-0.180 (-0.87)	-0.181 (-0.87)	-0.177 (-0.84)
<i>Ln(1 + Analysts)</i>	-0.713*** (-3.48)	-0.730*** (-3.58)	-0.702*** (-3.41)	-0.685*** (-3.32)	-0.699*** (-3.40)	-0.687*** (-3.33)	-0.714*** (-3.47)	-0.729*** (-3.56)	-0.702*** (-3.42)
<i>Pre-SEO Retvol</i>	0.181** (1.99)	0.177* (1.93)	0.183** (1.99)	0.180* (1.96)	0.176* (1.91)	0.183** (1.98)	0.182** (1.99)	0.176* (1.92)	0.183** (1.99)
<i>Profitability Dummy</i>	-0.378 (-1.42)	-0.346 (-1.29)	-0.396 (-1.49)	-0.411 (-1.55)	-0.402 (-1.51)	-0.404 (-1.52)	-0.376 (-1.41)	-0.350 (-1.31)	-0.396 (-1.49)
<i>Tobin's Q</i>	-0.026 (-0.66)	-0.027 (-0.68)	-0.026 (-0.66)	-0.028 (-0.69)	-0.029 (-0.73)	-0.026 (-0.66)	-0.026 (-0.65)	-0.027 (-0.69)	-0.026 (-0.66)
<i>Leverage</i>	-0.422 (-0.85)	-0.411 (-0.83)	-0.470 (-0.96)	-0.453 (-0.92)	-0.453 (-0.92)	-0.487 (-0.99)	-0.423 (-0.86)	-0.409 (-0.82)	-0.470 (-0.96)
<i>Intercept</i>	6.024** (2.21)	6.606** (2.57)	8.693*** (3.63)	6.860*** (2.59)	7.237*** (2.88)	8.165*** (3.39)	6.080** (2.22)	6.537** (2.53)	8.708*** (3.66)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.169	0.170	0.167	0.167	0.167	0.166	0.169	0.170	0.167

### Table IA-2 Filing Tones and SEO Offer-Day Returns, Controlling for the Total Number of Words in Each 424B Filing

This table examines the relation between issuers' SEC filing tones and SEO offer-day returns. In all regression models, the dependent variable is *Offer-Day Return*, measured as  $100 \times (\text{the closing price on the offer date} - \text{the closing price one day before the SEO}) \div \text{the closing price one day before the SEO}$ .  $\ln(\text{Num. of Words})$  is the natural logarithm of the total number of words in each 424B filing. In Models (1)–(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4–6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	-0.467 (-1.12)								
<i>Weak-Modal_424B</i>		-1.148** (-2.23)							
<i>Negative_424B</i>			-0.015 (-0.05)						
<i>Uncertainty_S</i>				-0.491 (-1.39)			-0.586 (-1.34)		
<i>Weak-Modal_S</i>					-0.900* (-1.90)			-1.314** (-2.32)	
<i>Negative_S</i>						-0.023 (-0.07)			-0.024 (-0.07)
<i>Uncertainty_Chg</i>							-0.207 (-0.40)		
<i>Weak-Modal_Chg</i>								-0.919 (-1.52)	
<i>Negative_Chg</i>									-0.002 (0.01)
<i>Ln(Num. of Words)</i>	0.699*** (2.76)	0.656*** (2.59)	0.740*** (2.91)	0.674*** (2.68)	0.676*** (2.69)	0.738*** (2.94)	0.672*** (2.66)	0.645** (2.56)	0.739*** (2.90)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	-0.102 (-0.06)	-0.275 (-0.17)	-0.001 (0.00)	-0.093 (-0.06)	-0.169 (-0.10)	-0.002 (0.00)	-0.118 (-0.07)	-0.296 (-0.18)	-0.003 (0.00)
<i>Primary Dummy</i>	-0.598* (-1.71)	-0.567 (-1.62)	-0.612* (-1.75)	-0.608* (-1.74)	-0.586* (-1.68)	-0.612* (-1.75)	-0.602* (-1.73)	-0.564 (-1.62)	-0.612* (-1.74)
<i>FM Shelf Dummy</i>	-0.149 (-0.36)	0.062 (0.15)	-0.232 (-0.57)	-0.180 (-0.44)	0.083 (0.19)	-0.236 (-0.57)	-0.155 (-0.38)	0.142 (0.33)	-0.236 (-0.58)
<i>Accelerated Dummy</i>	-1.536*** (-3.20)	-1.266** (-2.58)	-1.640*** (-3.45)	-1.568*** (-3.26)	-1.303** (-2.54)	-1.643*** (-3.45)	-1.538*** (-3.20)	-1.193** (-2.33)	-1.643*** (-3.45)
<i>Top-tier Dummy</i>	-0.306 (-0.97)	-0.307 (-0.98)	-0.297 (-0.94)	-0.298 (-0.95)	-0.300 (-0.96)	-0.297 (-0.94)	-0.301 (-0.96)	-0.307 (-0.98)	-0.297 (-0.94)
<i>Integer Dummy</i>	-1.467*** (-5.47)	-1.467*** (-5.46)	-1.461*** (-5.45)	-1.470*** (-5.48)	-1.473*** (-5.49)	-1.462*** (-5.45)	-1.471*** (-5.48)	-1.471*** (-5.47)	-1.462*** (-5.45)

<i>Ln(1+ Reg. Period)</i>	-0.096 (-1.13)	-0.094 (-1.12)	-0.090 (-1.06)	-0.099 (-1.17)	-0.092 (-1.09)	-0.090 (-1.06)	-0.100 (-1.18)	-0.094 (-1.12)	-0.090 (-1.06)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	0.110 (0.22)	0.142 (0.29)	0.128 (0.26)	0.124 (0.25)	0.152 (0.31)	0.130 (0.26)	0.117 (0.23)	0.149 (0.30)	0.130 (0.26)
<i>Nasdaq Dummy</i>	0.733** (2.16)	0.774** (2.30)	0.681** (2.02)	0.729** (2.16)	0.736** (2.18)	0.681** (2.02)	0.741** (2.18)	0.780** (2.31)	0.681** (2.02)
<i>Ln(Market Cap)</i>	-0.161 (-0.77)	-0.167 (-0.80)	-0.139 (-0.67)	-0.173 (-0.82)	-0.184 (-0.88)	-0.140 (-0.67)	-0.175 (-0.83)	-0.181 (-0.87)	-0.140 (-0.67)
<i>Ln(Price)</i>	0.146 (0.55)	0.134 (0.51)	0.137 (0.52)	0.161 (0.61)	0.165 (0.62)	0.138 (0.52)	0.159 (0.60)	0.147 (0.56)	0.138 (0.52)
<i>Liquidity</i>	-0.096 (-0.53)	-0.087 (-0.48)	-0.103 (-0.56)	-0.101 (-0.55)	-0.102 (-0.56)	-0.103 (-0.57)	-0.098 (-0.54)	-0.090 (-0.49)	-0.103 (-0.56)
<i>Ln(1 + Analysts)</i>	1.047*** (3.59)	1.074*** (3.68)	1.036*** (3.56)	1.032*** (3.55)	1.047*** (3.60)	1.035*** (3.56)	1.038*** (3.55)	1.072*** (3.67)	1.035*** (3.56)
<i>Pre-SEO Retvol</i>	-0.273*** (-2.72)	-0.267*** (-2.66)	-0.275*** (-2.74)	-0.269*** (-2.68)	-0.263*** (-2.62)	-0.275*** (-2.74)	-0.269*** (-2.69)	-0.263*** (-2.62)	-0.275*** (-2.74)
<i>Profitability Dummy</i>	0.745* (1.85)	0.704* (1.74)	0.756* (1.87)	0.766* (1.90)	0.758* (1.88)	0.757* (1.87)	0.759* (1.88)	0.715* (1.77)	0.757* (1.87)
<i>Tobin's Q</i>	0.149*** (3.06)	0.150*** (3.07)	0.149*** (3.06)	0.151*** (3.09)	0.153*** (3.12)	0.149*** (3.06)	0.151*** (3.08)	0.152*** (3.09)	0.149*** (3.06)
<i>Leverage</i>	-0.071 (-0.12)	-0.114 (-0.19)	-0.036 (-0.06)	-0.077 (-0.13)	-0.084 (-0.14)	-0.036 (-0.06)	-0.083 (-0.14)	-0.119 (-0.19)	-0.036 (-0.06)
<i>Intercept</i>	-8.289*** (-2.60)	-7.858** (-2.50)	-9.377*** (-3.08)	-8.003** (-2.56)	-8.230*** (-2.68)	-9.354*** (-3.08)	-7.839** (-2.46)	-7.662** (-2.45)	-9.357*** (-3.08)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.088	0.090	0.088	0.089	0.089	0.088	0.089	0.090	0.088

**Table IA-3 Filing Tones and SEO Post-Offer Abnormal Returns, Controlling for the Total Number of Words in Each 424B Filing**

This table examines the relation between issuers' SEC filing tones and abnormal stock returns during several days after the SEO. The dependent variable is *3-Day Post-Offer Abnormal Return* in Models (1)–(3), *5-Day Post-Offer Abnormal Return* in Models (4)–(6), and *10-Day Post-Offer Abnormal Return* in Models (7)–(9). The post-offer abnormal returns are the buy-and-hold returns on the issuer's stock minus the CRSP value-weighted returns in the windows of three, five, and ten trading days, respectively, after the offer date.  $\ln(\text{Num. of Words})$  is the natural logarithm of the total number of words in each 424B filing. The main independent variables are S filing tone measures *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification in each regression. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	3-Day Post-Offer Return			5-Day Post-Offer Return			10-Day Post-Offer Return		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_S</i>	-0.189 (-0.50)			-0.133 (-0.26)			-0.095 (-0.13)		
<i>Weak-Modal_S</i>		-0.513 (-1.06)			-0.183 (-0.28)			-0.067 (-0.07)	
<i>Negative_S</i>			-0.050 (-0.16)			0.154 (0.37)			-0.065 (-0.11)
<i>Uncertainty_Chg</i>	-1.102** (-2.31)			-1.174** (-2.01)			-1.934** (-2.57)		
<i>Weak-Modal_Chg</i>		-1.765*** (-3.40)			-1.680** (-2.51)			-2.214** (-2.51)	
<i>Negative_Chg</i>			-1.085*** (-3.15)			-1.032** (-2.35)			-1.863*** (-3.30)
$\ln(\text{Num. of Words})$	0.044 (0.18)	-0.022 (-0.09)	0.179 (0.73)	-0.006 (-0.02)	-0.060 (-0.20)	0.092 (0.32)	-0.146 (-0.36)	-0.233 (-0.57)	0.053 (0.13)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	3.782** (2.56)	3.662** (2.48)	3.782** (2.55)	4.221** (2.25)	4.161** (2.22)	4.283** (2.28)	5.915** (2.22)	5.864** (2.19)	5.877** (2.18)
<i>Primary Dummy</i>	-0.023 (-0.08)	-0.014 (-0.05)	-0.011 (-0.04)	0.634* (1.65)	0.632 (1.64)	0.630 (1.62)	-0.014 (-0.03)	-0.030 (-0.05)	0.006 (0.01)
<i>FM Shelf Dummy</i>	0.017 (0.05)	-0.070 (-0.18)	0.094 (0.26)	-0.235 (-0.52)	-0.428 (-0.89)	-0.137 (-0.31)	-0.692 (-1.11)	-1.027 (-1.53)	-0.535 (-0.85)

<i>Accelerated Dummy</i>	-0.502 (-1.22)	-0.507 (-1.16)	-0.444 (-1.09)	-1.112** (-2.04)	-1.234** (-2.11)	-1.045* (-1.95)	-1.770** (-2.39)	-2.014** (-2.53)	-1.637** (-2.24)
<i>Top-tier Dummy</i>	-0.187 (-0.66)	-0.179 (-0.64)	-0.178 (-0.64)	0.110 (0.32)	0.121 (0.35)	0.118 (0.34)	0.143 (0.29)	0.163 (0.33)	0.157 (0.32)
<i>Integer Dummy</i>	0.306 (1.32)	0.312 (1.34)	0.311 (1.34)	0.176 (0.59)	0.184 (0.61)	0.181 (0.60)	0.121 (0.28)	0.130 (0.30)	0.124 (0.29)
<i>Ln(1+ Reg. Period)</i>	0.006 (0.08)	0.000 (-0.01)	0.001 (0.01)	0.003 (0.04)	-0.004 (-0.04)	-0.002 (-0.02)	0.016 (0.13)	0.004 (0.03)	0.002 (0.02)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.200 (-0.45)	-0.175 (-0.40)	-0.267 (-0.60)	-0.250 (-0.45)	-0.232 (-0.41)	-0.326 (-0.58)	-0.786 (-0.97)	-0.754 (-0.93)	-0.904 (-1.11)
<i>Nasdaq Dummy</i>	0.007 (0.03)	0.038 (0.14)	0.032 (0.12)	0.018 (0.05)	0.032 (0.10)	0.039 (0.12)	0.418 (0.86)	0.428 (0.88)	0.483 (1.00)
<i>Ln(Market Cap)</i>	0.040 (0.19)	0.047 (0.23)	0.050 (0.24)	0.054 (0.21)	0.070 (0.28)	0.067 (0.27)	0.065 (0.18)	0.080 (0.22)	0.066 (0.18)
<i>Ln(Price)</i>	-0.178 (-0.69)	-0.197 (-0.76)	-0.224 (-0.87)	-0.362 (-1.11)	-0.383 (-1.17)	-0.407 (-1.25)	-0.928** (-2.03)	-0.946** (-2.07)	-0.996** (-2.19)
<i>Liquidity</i>	-0.459*** (-2.87)	-0.448*** (-2.80)	-0.451*** (-2.84)	-0.724*** (-3.32)	-0.716*** (-3.28)	-0.721*** (-3.31)	-0.763*** (-2.59)	-0.756** (-2.56)	-0.750** (-2.54)
<i>Ln(1 + Analysts)</i>	0.510* (1.92)	0.519* (1.95)	0.518* (1.96)	0.707** (2.04)	0.707** (2.04)	0.711** (2.07)	1.235*** (2.59)	1.219** (2.54)	1.245*** (2.62)
<i>Pre-SEO Retvol</i>	-0.032 (-0.35)	-0.029 (-0.33)	-0.035 (-0.39)	-0.009 (-0.08)	-0.009 (-0.08)	-0.013 (-0.13)	-0.152 (-1.03)	-0.151 (-1.02)	-0.155 (-1.04)
<i>Profitability Dummy</i>	-0.189 (-0.56)	-0.226 (-0.67)	-0.172 (-0.52)	0.057 (0.14)	0.028 (0.07)	0.076 (0.18)	0.506 (0.78)	0.486 (0.75)	0.540 (0.84)
<i>Tobin's Q</i>	-0.022 (-0.42)	-0.022 (-0.43)	-0.018 (-0.36)	-0.053 (-0.88)	-0.054 (-0.90)	-0.049 (-0.83)	-0.128 (-1.34)	-0.129 (-1.35)	-0.122 (-1.28)
<i>Leverage</i>	-0.408 (-0.80)	-0.455 (-0.90)	-0.429 (-0.85)	-0.514 (-0.80)	-0.547 (-0.86)	-0.531 (-0.83)	1.057 (1.15)	1.013 (1.11)	1.003 (1.09)
<i>Intercept</i>	-0.907 (-0.31)	-0.169 (-0.06)	-2.416 (-0.87)	-1.751 (-0.46)	-1.241 (-0.34)	-3.021 (-0.87)	3.039 (0.56)	3.897 (0.75)	1.100 (0.22)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.044	0.046	0.047	0.041	0.042	0.043	0.045	0.045	0.047

#### **Table IA-4 Filing Tones and SEO Underpricing, Controlling for the Total Number of Words in Each 424B Filing**

This table examines the relation between issuers' SEC filing tones and SEO underpricing. In all regression models, the dependent variable is *Underpricing*, measured as  $100 \times (\text{the closing price on the offer date} - \text{the offer price}) \div \text{the offer price}$ .  $\ln(\text{Num. of Words})$  is the natural logarithm of the total number of words in each 424B filing. In Models (1)–(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4–6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	0.260 (0.66)								
<i>Weak-Modal_424B</i>		-0.197 (-0.41)							
<i>Negative_424B</i>			0.243 (0.87)						
<i>Uncertainty_S</i>				-0.262 (-0.84)			0.060 (0.14)		
<i>Weak-Modal_S</i>					-0.439 (-1.07)			-0.401 (-0.77)	
<i>Negative_S</i>						0.022 (0.09)			0.184 (0.61)
<i>Uncertainty_Chg</i>							0.700 (1.55)		
<i>Weak-Modal_Chg</i>								0.084 (0.16)	
<i>Negative_Chg</i>									0.335 (0.99)
<i>Ln(Num. of Words)</i>	0.131 (0.51)	0.096 (0.37)	0.053 (0.21)	0.077 (0.30)	0.080 (0.32)	0.108 (0.43)	0.086 (0.33)	0.083 (0.32)	0.045 (0.18)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	4.541*** (2.98)	4.434*** (2.90)	4.575*** (3.00)	4.429*** (2.91)	4.397*** (2.88)	4.489*** (2.95)	4.514*** (2.96)	4.408*** (2.88)	4.560*** (2.99)
<i>Primary Dummy</i>	-0.167 (-0.50)	-0.151 (-0.45)	-0.182 (-0.54)	-0.156 (-0.47)	-0.146 (-0.44)	-0.160 (-0.48)	-0.174 (-0.52)	-0.148 (-0.44)	-0.181 (-0.54)
<i>FM Shelf Dummy</i>	0.050 (0.13)	0.147 (0.38)	0.089 (0.23)	0.125 (0.33)	0.251 (0.63)	0.100 (0.26)	0.039 (0.10)	0.245 (0.62)	0.065 (0.17)
<i>Accelerated Dummy</i>	-0.261 (-0.59)	-0.138 (-0.30)	-0.225 (-0.50)	-0.163 (-0.37)	-0.037 (-0.08)	-0.201 (-0.45)	-0.265 (-0.59)	-0.048 (-0.10)	-0.243 (-0.54)
<i>Top-tier Dummy</i>	-1.002*** (-3.50)	-1.008*** (-3.53)	-1.007*** (-3.53)	-1.007*** (-3.53)	-1.008*** (-3.53)	-1.007*** (-3.53)	-0.994*** (-3.48)	-1.008*** (-3.53)	-1.005*** (-3.52)
<i>Integer Dummy</i>	0.290 (1.16)	0.285 (1.15)	0.287 (1.16)	0.281 (1.13)	0.280 (1.13)	0.286 (1.15)	0.284 (1.14)	0.280 (1.13)	0.286 (1.15)

<i>Ln(1 + Reg. Period)</i>	0.081 (1.07)	0.077 (1.02)	0.080 (1.05)	0.073 (0.96)	0.077 (1.01)	0.078 (1.03)	0.075 (0.98)	0.077 (1.01)	0.080 (1.05)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.292 (-0.64)	-0.301 (-0.65)	-0.296 (-0.65)	-0.306 (-0.67)	-0.292 (-0.64)	-0.305 (-0.66)	-0.281 (-0.61)	-0.292 (-0.64)	-0.283 (-0.62)
<i>Nasdaq Dummy</i>	1.033*** (3.23)	1.079*** (3.37)	1.043*** (3.26)	1.089*** (3.41)	1.090*** (3.42)	1.062*** (3.33)	1.047*** (3.27)	1.086*** (3.40)	1.039*** (3.24)
<i>Ln(Market Cap)</i>	0.083 (0.38)	0.065 (0.30)	0.076 (0.35)	0.052 (0.24)	0.048 (0.22)	0.071 (0.33)	0.058 (0.26)	0.048 (0.22)	0.071 (0.33)
<i>Ln(Price)</i>	-0.860*** (-3.30)	-0.856*** (-3.30)	-0.848*** (-3.27)	-0.843*** (-3.25)	-0.842*** (-3.25)	-0.856*** (-3.30)	-0.837*** (-3.23)	-0.840*** (-3.25)	-0.840*** (-3.24)
<i>Liquidity</i>	-0.263* (-1.68)	-0.256 (-1.63)	-0.266* (-1.70)	-0.258 (-1.64)	-0.259* (-1.65)	-0.259* (-1.66)	-0.267* (-1.71)	-0.260* (-1.65)	-0.267* (-1.71)
<i>Ln(1 + Analysts)</i>	0.270 (1.02)	0.283 (1.07)	0.269 (1.02)	0.274 (1.04)	0.282 (1.07)	0.276 (1.05)	0.253 (0.96)	0.279 (1.06)	0.264 (1.00)
<i>Pre-SEO Retvol</i>	-0.023 (-0.25)	-0.021 (-0.22)	-0.024 (-0.25)	-0.019 (-0.20)	-0.016 (-0.17)	-0.022 (-0.24)	-0.017 (-0.18)	-0.016 (-0.17)	-0.022 (-0.23)
<i>Profitability Dummy</i>	0.341 (0.95)	0.326 (0.90)	0.338 (0.94)	0.340 (0.95)	0.336 (0.94)	0.334 (0.93)	0.365 (1.02)	0.340 (0.94)	0.341 (0.95)
<i>Tobin's Q</i>	0.146*** (2.81)	0.146*** (2.81)	0.146*** (2.80)	0.147*** (2.82)	0.148*** (2.83)	0.146*** (2.80)	0.148*** (2.84)	0.148*** (2.83)	0.146*** (2.80)
<i>Leverage</i>	-0.400 (-0.71)	-0.433 (-0.76)	-0.406 (-0.72)	-0.442 (-0.78)	-0.443 (-0.78)	-0.419 (-0.74)	-0.421 (-0.74)	-0.440 (-0.77)	-0.405 (-0.72)
<i>Intercept</i>	-0.378 (-0.11)	0.472 (0.14)	0.523 (0.16)	0.939 (0.28)	0.765 (0.23)	0.212 (0.07)	0.382 (0.11)	0.713 (0.21)	0.659 (0.20)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.070	0.070	0.070	0.070	0.071	0.070	0.071	0.071	0.071

### Table IA-5 Filing Tones and Offer Price Discounts, Requiring >5 Days between the Offer Date and the Initial File Date

This table examines the relation between issuers' SEC filing tones and SEO offer price discounts. In all regression models, the dependent variable is *Discount*, measured as  $100 \times (\text{the closing price one day before the SEO} - \text{the offer price}) \div \text{the closing price one day before the SEO}$ . In Models (1)–(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4–6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	1.006*** (2.77)								
<i>Weak-Modal_424B</i>		1.345*** (3.12)							
<i>Negative_424B</i>			0.245 (0.98)						
<i>Uncertainty_S</i>				0.515* (1.74)			0.985*** (2.63)		
<i>Weak-Modal_S</i>					0.834** (2.08)			1.391*** (2.96)	
<i>Negative_S</i>						0.114 (0.52)			0.235 (0.88)
<i>Uncertainty_Chg</i>							1.056** (2.31)		
<i>Weak-Modal_Chg</i>								1.278** (2.46)	
<i>Negative_Chg</i>									0.260 (0.84)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	5.285*** (3.26)	5.380*** (3.31)	5.040*** (3.13)	5.146*** (3.18)	5.203*** (3.21)	5.023*** (3.13)	5.278*** (3.25)	5.389*** (3.31)	5.036*** (3.13)
<i>Primary Dummy</i>	0.268 (1.27)	0.241 (1.14)	0.278 (1.32)	0.292 (1.40)	0.270 (1.29)	0.293 (1.39)	0.267 (1.27)	0.240 (1.14)	0.278 (1.32)
<i>FM Shelf Dummy</i>	0.546 (1.63)	0.383 (1.14)	0.745** (2.13)	0.670* (1.95)	0.431 (1.20)	0.759** (2.14)	0.546 (1.63)	0.358 (1.02)	0.742** (2.10)
<i>Accelerated Dummy</i>	1.730*** (4.54)	1.518*** (3.96)	1.977*** (4.97)	1.873*** (4.81)	1.638*** (4.06)	1.985*** (4.96)	1.732*** (4.55)	1.495*** (3.79)	1.975*** (4.95)
<i>Top-tier Dummy</i>	-0.543*** (-2.61)	-0.546*** (-2.62)	-0.575*** (-2.78)	-0.564*** (-2.72)	-0.562*** (-2.71)	-0.574*** (-2.78)	-0.543*** (-2.61)	-0.546*** (-2.62)	-0.575*** (-2.78)
<i>Integer Dummy</i>	1.679*** (9.12)	1.677*** (9.10)	1.660*** (9.02)	1.673*** (9.10)	1.676*** (9.10)	1.661*** (9.03)	1.679*** (9.11)	1.678*** (9.10)	1.660*** (9.03)
<i>Ln(1+ Reg. Period)</i>	0.194** (2.15)	0.184** (2.04)	0.186** (2.06)	0.197** (2.17)	0.193** (2.12)	0.186** (2.06)	0.193** (2.13)	0.186** (2.05)	0.186** (2.06)

<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.362 (-1.19)	-0.417 (-1.40)	-0.453 (-1.52)	-0.398 (-1.32)	-0.428 (-1.43)	-0.445 (-1.50)	-0.363 (-1.20)	-0.417 (-1.40)	-0.451 (-1.52)
<i>Nasdaq Dummy</i>	0.506* (1.73)	0.511* (1.74)	0.616** (2.07)	0.567* (1.93)	0.566* (1.93)	0.628** (2.10)	0.509* (1.74)	0.508* (1.74)	0.617** (2.07)
<i>Ln(Market Cap)</i>	0.365* (1.83)	0.351* (1.77)	0.319 (1.63)	0.352* (1.76)	0.357* (1.79)	0.320 (1.63)	0.363* (1.81)	0.354* (1.78)	0.318 (1.62)
<i>Ln(Price)</i>	-0.882*** (-4.24)	-0.862*** (-4.13)	-0.855*** (-4.10)	-0.885*** (-4.22)	-0.886*** (-4.22)	-0.864*** (-4.12)	-0.879*** (-4.22)	-0.866*** (-4.13)	-0.854*** (-4.06)
<i>Liquidity</i>	-0.269 (-1.18)	-0.272 (-1.19)	-0.260 (-1.13)	-0.255 (-1.11)	-0.255 (-1.11)	-0.254 (-1.11)	-0.270 (-1.18)	-0.271 (-1.19)	-0.260 (-1.13)
<i>Ln(1 + Analysts)</i>	-0.708*** (-3.34)	-0.729*** (-3.45)	-0.688*** (-3.23)	-0.679*** (-3.18)	-0.694*** (-3.27)	-0.680*** (-3.19)	-0.709*** (-3.32)	-0.728*** (-3.43)	-0.689*** (-3.24)
<i>Pre-SEO Retvol</i>	0.187* (1.87)	0.181* (1.80)	0.189* (1.88)	0.186* (1.85)	0.181* (1.79)	0.190* (1.88)	0.188* (1.88)	0.180* (1.79)	0.189* (1.87)
<i>Profitability Dummy</i>	-0.375 (-1.35)	-0.342 (-1.23)	-0.390 (-1.41)	-0.406 (-1.47)	-0.396 (-1.43)	-0.393 (-1.42)	-0.373 (-1.35)	-0.345 (-1.24)	-0.389 (-1.40)
<i>Tobin's Q</i>	-0.019 (-0.46)	-0.020 (-0.49)	-0.019 (-0.46)	-0.021 (-0.51)	-0.023 (-0.55)	-0.019 (-0.47)	-0.019 (-0.46)	-0.021 (-0.50)	-0.019 (-0.46)
<i>Leverage</i>	-0.504 (-0.97)	-0.477 (-0.91)	-0.584 (-1.12)	-0.545 (-1.05)	-0.541 (-1.04)	-0.591 (-1.14)	-0.506 (-0.97)	-0.476 (-0.91)	-0.584 (-1.12)
<i>Intercept</i>	0.604 (0.33)	1.296 (0.77)	1.847 (1.11)	1.293 (0.73)	1.573 (0.94)	1.964 (1.21)	0.640 (0.35)	1.267 (0.75)	1.858 (1.12)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,593	2,593	2,593	2,593	2,593	2,593	2,593	2,593	2,593
Adj. R <sup>2</sup>	0.169	0.170	0.165	0.166	0.167	0.165	0.169	0.170	0.165

### Table IA-6 Filing Tones and SEO Offer-Day Returns, Requiring >5 Days between the Offer Date and the Initial File Date

This table examines the relation between issuers' SEC filing tones and SEO offer-day returns. In all regression models, the dependent variable is *Offer-Day Return*, measured as  $100 \times (\text{the closing price on the offer date} - \text{the closing price one day before the SEO}) \div \text{the closing price one day before the SEO}$ . In Models (1)–(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4–6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	-0.436 (-0.98)								
<i>Weak-Modal_424B</i>		-1.207** (-2.22)							
<i>Negative_424B</i>			0.255 (0.73)						
<i>Uncertainty_S</i>				-0.469 (-1.23)			-0.547 (-1.17)		
<i>Weak-Modal_S</i>					-0.938* (-1.83)			-1.365** (-2.28)	
<i>Negative_S</i>						0.089 (0.27)			0.227 (0.58)
<i>Uncertainty_Chg</i>							-0.176 (-0.32)		
<i>Weak-Modal_Chg</i>								-0.979 (-1.51)	
<i>Negative_Chg</i>									0.296 (0.72)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	0.389 (0.24)	0.168 (0.10)	0.563 (0.35)	0.376 (0.23)	0.279 (0.17)	0.538 (0.33)	0.354 (0.22)	0.137 (0.08)	0.553 (0.34)
<i>Primary Dummy</i>	-0.556 (-1.54)	-0.517 (-1.43)	-0.593 (-1.63)	-0.563 (-1.56)	-0.536 (-1.48)	-0.576 (-1.59)	-0.559 (-1.55)	-0.513 (-1.42)	-0.592 (-1.63)
<i>FM Shelf Dummy</i>	-0.225 (-0.53)	0.014 (0.03)	-0.310 (-0.73)	-0.243 (-0.57)	0.042 (0.09)	-0.299 (-0.70)	-0.223 (-0.53)	0.098 (0.22)	-0.319 (-0.75)
<i>Accelerated Dummy</i>	-1.501*** (-2.95)	-1.196** (-2.30)	-1.605*** (-3.17)	-1.514*** (-2.96)	-1.228** (-2.25)	-1.599*** (-3.15)	-1.491*** (-2.92)	-1.118** (-2.06)	-1.610*** (-3.17)
<i>Top-tier Dummy</i>	-0.258 (-0.78)	-0.268 (-0.81)	-0.251 (-0.76)	-0.253 (-0.77)	-0.256 (-0.78)	-0.249 (-0.75)	-0.256 (-0.78)	-0.268 (-0.81)	-0.250 (-0.76)
<i>Integer Dummy</i>	-1.512*** (-5.42)	-1.519*** (-5.44)	-1.503*** (-5.40)	-1.515*** (-5.42)	-1.522*** (-5.45)	-1.502*** (-5.39)	-1.516*** (-5.43)	-1.523*** (-5.45)	-1.504*** (-5.39)
<i>Ln(1+ Reg. Period)</i>	-0.262** (-2.07)	-0.258** (-2.04)	-0.254** (-2.00)	-0.270** (-2.12)	-0.268** (-2.11)	-0.254** (-2.02)	-0.269** (-2.12)	-0.262** (-2.07)	-0.255** (-2.02)

<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	0.289 (0.58)	0.305 (0.62)	0.300 (0.61)	0.288 (0.58)	0.314 (0.64)	0.311 (0.63)	0.282 (0.57)	0.305 (0.62)	0.304 (0.61)
<i>Nasdaq Dummy</i>	0.742** (2.01)	0.796** (2.18)	0.670* (1.82)	0.747** (2.02)	0.762** (2.07)	0.683* (1.86)	0.757** (2.05)	0.806** (2.20)	0.670* (1.82)
<i>Ln(Market Cap)</i>	-0.067 (-0.30)	-0.076 (-0.35)	-0.043 (-0.19)	-0.078 (-0.36)	-0.092 (-0.42)	-0.042 (-0.19)	-0.080 (-0.36)	-0.089 (-0.41)	-0.044 (-0.20)
<i>Ln(Price)</i>	0.012 (0.04)	0.005 (0.02)	0.008 (0.03)	0.025 (0.09)	0.032 (0.11)	-0.001 (0.00)	0.024 (0.08)	0.016 (0.06)	0.011 (0.04)
<i>Liquidity</i>	-0.013 (-0.07)	-0.004 (-0.02)	-0.028 (-0.14)	-0.018 (-0.09)	-0.018 (-0.09)	-0.022 (-0.11)	-0.016 (-0.08)	-0.006 (-0.03)	-0.029 (-0.14)
<i>Ln(1 + Analysts)</i>	1.037*** (3.42)	1.067*** (3.51)	1.020*** (3.38)	1.023*** (3.38)	1.038*** (3.43)	1.027*** (3.40)	1.028*** (3.38)	1.065*** (3.50)	1.017*** (3.36)
<i>Pre-SEO Retvol</i>	-0.263** (-2.44)	-0.255** (-2.37)	-0.269** (-2.49)	-0.260** (-2.41)	-0.253** (-2.33)	-0.267** (-2.48)	-0.260** (-2.41)	-0.252** (-2.33)	-0.269** (-2.48)
<i>Profitability Dummy</i>	0.784* (1.84)	0.747* (1.75)	0.793* (1.86)	0.805* (1.89)	0.797* (1.87)	0.790* (1.86)	0.799* (1.88)	0.758* (1.78)	0.794* (1.87)
<i>Tobin's Q</i>	0.146*** (2.84)	0.147*** (2.85)	0.146*** (2.85)	0.148*** (2.87)	0.150*** (2.90)	0.146*** (2.84)	0.147*** (2.86)	0.148*** (2.87)	0.146*** (2.85)
<i>Leverage</i>	-0.265 (-0.42)	-0.330 (-0.52)	-0.218 (-0.35)	-0.270 (-0.42)	-0.284 (-0.45)	-0.226 (-0.36)	-0.276 (-0.43)	-0.334 (-0.52)	-0.217 (-0.35)
<i>Intercept</i>	-0.849 (-0.43)	-0.784 (-0.41)	-1.731 (-0.91)	-0.770 (-0.39)	-0.917 (-0.48)	-1.579 (-0.84)	-0.661 (-0.33)	-0.682 (-0.36)	-1.700 (-0.89)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,593	2,593	2,593	2,593	2,593	2,593	2,593	2,593	2,593
Adj. R <sup>2</sup>	0.088	0.089	0.088	0.088	0.089	0.087	0.088	0.089	0.088

**Table IA-7 Filing Tones and SEO Post-Offer Abnormal Returns, Requiring >5 Days between the Offer Date and the Initial File Date**

This table examines the relation between issuers' SEC filing tones and abnormal stock returns during several days after the SEO. The dependent variable is *3-Day Post-Offer Abnormal Return* in Models (1)–(3), *5-Day Post-Offer Abnormal Return* in Models (4)–(6), and *10-Day Post-Offer Abnormal Return* in Models (7)–(9). The post-offer abnormal returns are the buy-and-hold returns on the issuer's stock minus the CRSP value-weighted returns in the windows of three, five, and ten trading days, respectively, after the offer date. The main independent variables are S filing tone measures *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	3-Day Post-Offer Return			5-Day Post-Offer Return			10-Day Post-Offer Return		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_S</i>	-0.257 (-0.66)			-0.142 (-0.27)			-0.064 (-0.08)		
<i>Weak-Modal_S</i>		-0.565 (-1.14)			-0.213 (-0.32)			0.027 (0.03)	
<i>Negative_S</i>			0.084 (0.26)			0.375 (0.85)			0.253 (0.41)
<i>Uncertainty_Chg</i>	-1.192** (-2.31)			-1.315** (-2.11)			-1.999** (-2.52)		
<i>Weak-Modal_Chg</i>		-1.824*** (-3.30)			-1.792** (-2.54)			-2.254** (-2.46)	
<i>Negative_Chg</i>			-0.898** (-2.39)			-0.842* (-1.75)			-1.631*** (-2.73)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	3.885*** (2.60)	3.745** (2.51)	4.038*** (2.72)	4.365** (2.29)	4.281** (2.25)	4.555** (2.41)	6.319** (2.34)	6.250** (2.31)	6.505** (2.41)
<i>Primary Dummy</i>	-0.109 (-0.35)	-0.098 (-0.31)	-0.116 (-0.37)	0.491 (1.23)	0.488 (1.22)	0.463 (1.15)	-0.152 (-0.26)	-0.170 (-0.29)	-0.162 (-0.28)
<i>FM Shelf Dummy</i>	-0.095 (-0.26)	-0.178 (-0.45)	-0.071 (-0.19)	-0.408 (-0.90)	-0.610 (-1.26)	-0.343 (-0.76)	-0.825 (-1.30)	-1.191* (-1.74)	-0.701 (-1.09)

<i>Accelerated Dummy</i>	-0.677 (-1.58)	-0.671 (-1.48)	-0.706* (-1.67)	-1.320** (-2.31)	-1.437** (-2.36)	-1.311** (-2.34)	-1.922** (-2.45)	-2.181*** (-2.59)	-1.878** (-2.43)
<i>Top-tier Dummy</i>	-0.081 (-0.28)	-0.082 (-0.29)	-0.072 (-0.25)	0.196 (0.54)	0.198 (0.55)	0.198 (0.55)	0.384 (0.76)	0.392 (0.78)	0.389 (0.77)
<i>Integer Dummy</i>	0.309 (1.26)	0.311 (1.27)	0.319 (1.30)	0.292 (0.93)	0.296 (0.94)	0.300 (0.96)	0.190 (0.43)	0.197 (0.44)	0.199 (0.45)
<i>Ln(1+ Reg. Period)</i>	0.086 (0.80)	0.086 (0.81)	0.089 (0.84)	0.150 (1.08)	0.149 (1.09)	0.155 (1.13)	0.157 (0.80)	0.150 (0.77)	0.156 (0.80)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.214 (-0.50)	-0.207 (-0.49)	-0.222 (-0.52)	-0.242 (-0.46)	-0.240 (-0.46)	-0.285 (-0.54)	-0.867 (-1.09)	-0.870 (-1.10)	-0.920 (-1.16)
<i>Nasdaq Dummy</i>	0.194 (0.70)	0.229 (0.83)	0.181 (0.66)	0.132 (0.38)	0.153 (0.44)	0.120 (0.35)	0.709 (1.37)	0.728 (1.40)	0.733 (1.43)
<i>Ln(Market Cap)</i>	0.063 (0.29)	0.071 (0.33)	0.078 (0.36)	0.038 (0.15)	0.053 (0.20)	0.052 (0.20)	0.077 (0.20)	0.095 (0.25)	0.084 (0.22)
<i>Ln(Price)</i>	-0.248 (-0.91)	-0.265 (-0.97)	-0.283 (-1.04)	-0.411 (-1.18)	-0.431 (-1.24)	-0.446 (-1.29)	-0.996** (-2.08)	-1.014** (-2.12)	-1.049** (-2.20)
<i>Liquidity</i>	-0.437*** (-2.61)	-0.429** (-2.57)	-0.439*** (-2.64)	-0.682*** (-2.91)	-0.677*** (-2.89)	-0.690*** (-2.95)	-0.809*** (-2.60)	-0.806*** (-2.59)	-0.810*** (-2.60)
<i>Ln(1 + Analysts)</i>	0.514* (1.87)	0.525* (1.91)	0.518* (1.88)	0.808** (2.25)	0.809** (2.25)	0.810** (2.27)	1.315*** (2.66)	1.300*** (2.62)	1.326*** (2.69)
<i>Pre-SEO Retvol</i>	-0.072 (-0.78)	-0.068 (-0.74)	-0.072 (-0.78)	-0.037 (-0.33)	-0.036 (-0.32)	-0.040 (-0.36)	-0.170 (-1.11)	-0.169 (-1.11)	-0.169 (-1.10)
<i>Profitability Dummy</i>	-0.349 (-0.99)	-0.378 (-1.07)	-0.324 (-0.92)	0.009 (0.02)	-0.011 (-0.03)	0.040 (0.09)	0.468 (0.69)	0.459 (0.67)	0.517 (0.76)
<i>Tobin's Q</i>	-0.043 (-0.82)	-0.043 (-0.82)	-0.040 (-0.77)	-0.071 (-1.15)	-0.071 (-1.17)	-0.067 (-1.09)	-0.144 (-1.46)	-0.144 (-1.46)	-0.138 (-1.40)
<i>Leverage</i>	-0.534 (-1.00)	-0.594 (-1.12)	-0.534 (-1.00)	-0.692 (-1.04)	-0.741 (-1.12)	-0.698 (-1.05)	1.036 (1.08)	0.981 (1.03)	1.001 (1.04)
<i>Intercept</i>	-0.384 (-0.22)	-0.405 (-0.24)	-0.849 (-0.50)	-2.072 (-0.83)	-2.123 (-0.88)	-2.646 (-1.12)	0.951 (0.27)	0.906 (0.27)	0.611 (0.18)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,593	2,593	2,593	2,593	2,593	2,593	2,593	2,593	2,593
Adj. R <sup>2</sup>	0.046	0.048	0.047	0.041	0.042	0.043	0.047	0.047	0.049

### Table IA-8 Filing Tones and SEO Underpricing, Requiring >5 Days between the Offer Date and the Initial File Date

This table examines the relation between issuers' SEC filing tones and SEO underpricing. In all regression models, the dependent variable is *Underpricing*, measured as  $100 \times (\text{the closing price on the offer date} - \text{the offer price}) \div \text{the offer price}$ . In Models (1)–(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4–6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	0.338 (0.82)								
<i>Weak-Modal_424B</i>		-0.139 (-0.28)							
<i>Negative_424B</i>			0.333 (1.09)						
<i>Uncertainty_S</i>				-0.204 (-0.61)			0.146 (0.34)		
<i>Weak-Modal_S</i>					-0.410 (-0.93)			-0.343 (-0.62)	
<i>Negative_S</i>						0.043 (0.15)			0.254 (0.76)
<i>Uncertainty_Chg</i>							0.785 (1.63)		
<i>Weak-Modal_Chg</i>								0.154 (0.27)	
<i>Negative_Chg</i>									0.453 (1.24)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	4.792*** (3.10)	4.655*** (3.00)	4.757*** (3.11)	4.634*** (3.00)	4.592*** (2.97)	4.706*** (3.07)	4.733*** (3.06)	4.614*** (2.96)	4.728*** (3.08)
<i>Primary Dummy</i>	-0.173 (-0.50)	-0.156 (-0.45)	-0.192 (-0.56)	-0.159 (-0.46)	-0.147 (-0.43)	-0.165 (-0.48)	-0.177 (-0.52)	-0.151 (-0.44)	-0.190 (-0.55)
<i>FM Shelf Dummy</i>	0.083 (0.21)	0.187 (0.46)	0.150 (0.37)	0.179 (0.45)	0.304 (0.72)	0.155 (0.38)	0.087 (0.22)	0.295 (0.70)	0.125 (0.31)
<i>Accelerated Dummy</i>	-0.042 (-0.09)	0.088 (0.18)	0.044 (0.09)	0.081 (0.17)	0.207 (0.42)	0.044 (0.09)	-0.024 (-0.05)	0.189 (0.38)	0.028 (0.06)
<i>Top-tier Dummy</i>	-0.968*** (-3.24)	-0.980*** (-3.28)	-0.983*** (-3.31)	-0.980*** (-3.29)	-0.982*** (-3.29)	-0.979*** (-3.29)	-0.965*** (-3.23)	-0.980*** (-3.28)	-0.980*** (-3.30)
<i>Integer Dummy</i>	0.252 (0.96)	0.243 (0.93)	0.245 (0.93)	0.240 (0.91)	0.237 (0.90)	0.246 (0.94)	0.244 (0.93)	0.237 (0.90)	0.243 (0.93)
<i>Ln(1+ Reg. Period)</i>	-0.024 (-0.20)	-0.028 (-0.24)	-0.024 (-0.20)	-0.034 (-0.28)	-0.033 (-0.27)	-0.027 (-0.23)	-0.037 (-0.31)	-0.034 (-0.28)	-0.028 (-0.23)

<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.336 (-0.74)	-0.362 (-0.80)	-0.386 (-0.85)	-0.374 (-0.83)	-0.363 (-0.80)	-0.364 (-0.81)	-0.348 (-0.77)	-0.362 (-0.80)	-0.375 (-0.83)
<i>Nasdaq Dummy</i>	1.067*** (3.07)	1.122*** (3.23)	1.088*** (3.13)	1.136*** (3.28)	1.143*** (3.30)	1.108*** (3.19)	1.093*** (3.15)	1.136*** (3.28)	1.088*** (3.13)
<i>Ln(Market Cap)</i>	0.151 (0.66)	0.131 (0.58)	0.138 (0.61)	0.121 (0.52)	0.115 (0.50)	0.136 (0.60)	0.128 (0.56)	0.114 (0.50)	0.133 (0.59)
<i>Ln(Price)</i>	-0.931*** (-3.29)	-0.923*** (-3.28)	-0.917*** (-3.26)	-0.913*** (-3.24)	-0.910*** (-3.23)	-0.925*** (-3.28)	-0.910*** (-3.24)	-0.908*** (-3.23)	-0.907*** (-3.23)
<i>Liquidity</i>	-0.273 (-1.53)	-0.265 (-1.48)	-0.278 (-1.55)	-0.266 (-1.48)	-0.266 (-1.48)	-0.268 (-1.50)	-0.277 (-1.55)	-0.268 (-1.49)	-0.278 (-1.56)
<i>Ln(1 + Analysts)</i>	0.265 (0.96)	0.279 (1.00)	0.266 (0.96)	0.273 (0.98)	0.279 (1.01)	0.275 (0.99)	0.250 (0.90)	0.275 (0.99)	0.260 (0.94)
<i>Pre-SEO Retvol</i>	0.000 (0.00)	0.003 (0.03)	-0.003 (-0.03)	0.005 (0.05)	0.008 (0.08)	0.001 (0.01)	0.006 (0.06)	0.008 (0.07)	-0.001 (-0.01)
<i>Profitability Dummy</i>	0.398 (1.05)	0.388 (1.02)	0.395 (1.04)	0.399 (1.05)	0.396 (1.04)	0.392 (1.04)	0.424 (1.12)	0.402 (1.06)	0.399 (1.05)
<i>Tobin's Q</i>	0.150*** (2.76)	0.150*** (2.76)	0.151*** (2.77)	0.151*** (2.77)	0.152*** (2.79)	0.150*** (2.76)	0.153*** (2.80)	0.152*** (2.79)	0.151*** (2.77)
<i>Leverage</i>	-0.701 (-1.19)	-0.742 (-1.25)	-0.719 (-1.22)	-0.749 (-1.26)	-0.755 (-1.27)	-0.730 (-1.24)	-0.720 (-1.21)	-0.748 (-1.26)	-0.717 (-1.22)
<i>Intercept</i>	1.094 (0.47)	1.671 (0.74)	1.271 (0.57)	1.902 (0.83)	1.839 (0.82)	1.545 (0.69)	1.416 (0.60)	1.802 (0.80)	1.360 (0.61)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,593	2,593	2,593	2,593	2,593	2,593	2,593	2,593	2,593
Adj. R <sup>2</sup>	0.071	0.071	0.071	0.071	0.071	0.071	0.072	0.071	0.071

### Table IA-9 Filing Tones and Offer Price Discounts, Post-SOX Subsample

This table examines the relation between issuers' SEC filing tones and SEO offer price discounts. In all regression models, the dependent variable is *Discount*, measured as  $100 \times (\text{the closing price one day before the SEO} - \text{the offer price}) \div \text{the closing price one day before the SEO}$ . In Models (1)–(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4–6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	1.427*** (3.44)								
<i>Weak-Modal_424B</i>		1.716*** (3.58)							
<i>Negative_424B</i>			0.292 (1.11)						
<i>Uncertainty_S</i>				1.002*** (2.95)			1.573*** (3.62)		
<i>Weak-Modal_S</i>					1.324*** (2.94)			1.989*** (3.70)	
<i>Negative_S</i>						0.300 (1.22)			0.390 (1.31)
<i>Uncertainty_Chg</i>							1.142** (2.35)		
<i>Weak-Modal_Chg</i>								1.402*** (2.59)	
<i>Negative_Chg</i>									0.183 (0.62)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	7.904*** (3.48)	8.026*** (3.52)	7.479*** (3.31)	7.797*** (3.43)	7.796*** (3.43)	7.536*** (3.33)	7.961*** (3.50)	8.072*** (3.54)	7.525*** (3.33)
<i>Primary Dummy</i>	0.241 (0.81)	0.222 (0.74)	0.264 (0.88)	0.293 (0.99)	0.269 (0.90)	0.280 (0.94)	0.250 (0.84)	0.223 (0.75)	0.264 (0.88)
<i>FM Shelf Dummy</i>	0.638 (1.27)	0.478 (0.96)	0.966* (1.81)	0.792 (1.53)	0.474 (0.93)	1.023* (1.89)	0.630 (1.25)	0.350 (0.70)	1.006* (1.87)
<i>Accelerated Dummy</i>	1.567*** (3.11)	1.346*** (2.70)	1.961*** (3.65)	1.709*** (3.29)	1.389*** (2.66)	1.997*** (3.69)	1.537*** (3.06)	1.204** (2.38)	1.985*** (3.69)
<i>Top-tier Dummy</i>	-0.655*** (-2.74)	-0.683*** (-2.85)	-0.700*** (-2.94)	-0.690*** (-2.91)	-0.707*** (-2.98)	-0.701*** (-2.95)	-0.662*** (-2.78)	-0.692*** (-2.90)	-0.703*** (-2.96)
<i>Integer Dummy</i>	1.469*** (6.13)	1.456*** (6.10)	1.427*** (6.00)	1.462*** (6.14)	1.457*** (6.12)	1.430*** (6.01)	1.476*** (6.17)	1.465*** (6.13)	1.429*** (6.01)
<i>Ln(1+ Reg. Period)</i>	0.151** (2.22)	0.137** (2.01)	0.132* (1.91)	0.149** (2.17)	0.131* (1.90)	0.131* (1.89)	0.155** (2.28)	0.137** (1.99)	0.132* (1.91)

<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.111 (-0.22)	-0.167 (-0.33)	-0.233 (-0.46)	-0.167 (-0.33)	-0.220 (-0.44)	-0.253 (-0.50)	-0.118 (-0.23)	-0.185 (-0.37)	-0.261 (-0.52)
<i>Nasdaq Dummy</i>	0.653* (1.77)	0.665* (1.81)	0.801** (2.12)	0.716* (1.94)	0.732** (1.98)	0.817** (2.16)	0.641* (1.75)	0.654* (1.78)	0.805** (2.13)
<i>Ln(Market Cap)</i>	0.627** (2.41)	0.613** (2.37)	0.560** (2.19)	0.644** (2.43)	0.653** (2.47)	0.572** (2.22)	0.650** (2.48)	0.645** (2.47)	0.570** (2.22)
<i>Ln(Price)</i>	-1.036*** (-4.13)	-1.016*** (-4.04)	-1.021*** (-4.06)	-1.068*** (-4.22)	-1.072*** (-4.23)	-1.040*** (-4.11)	-1.052*** (-4.19)	-1.038*** (-4.11)	-1.032*** (-4.09)
<i>Liquidity</i>	-0.192 (-0.80)	-0.195 (-0.81)	-0.177 (-0.73)	-0.174 (-0.72)	-0.171 (-0.71)	-0.172 (-0.71)	-0.190 (-0.79)	-0.192 (-0.80)	-0.177 (-0.73)
<i>Ln(1 + Analysts)</i>	-0.813*** (-2.79)	-0.846*** (-2.91)	-0.782*** (-2.66)	-0.762*** (-2.58)	-0.796*** (-2.72)	-0.768*** (-2.60)	-0.799*** (-2.71)	-0.841*** (-2.88)	-0.773*** (-2.62)
<i>Pre-SEO Retvol</i>	0.095 (0.75)	0.089 (0.70)	0.093 (0.73)	0.086 (0.67)	0.082 (0.64)	0.090 (0.70)	0.091 (0.72)	0.084 (0.66)	0.090 (0.70)
<i>Profitability Dummy</i>	-0.539 (-1.52)	-0.491 (-1.37)	-0.549 (-1.54)	-0.619* (-1.74)	-0.607* (-1.71)	-0.560 (-1.57)	-0.571 (-1.60)	-0.527 (-1.47)	-0.557 (-1.56)
<i>Tobin's Q</i>	-0.080 (-0.98)	-0.081 (-0.99)	-0.075 (-0.92)	-0.085 (-1.03)	-0.087 (-1.05)	-0.076 (-0.93)	-0.083 (-1.01)	-0.085 (-1.03)	-0.076 (-0.93)
<i>Leverage</i>	-0.927 (-1.51)	-0.947 (-1.54)	-1.041* (-1.70)	-0.920 (-1.50)	-0.959 (-1.56)	-1.036* (-1.71)	-0.897 (-1.46)	-0.927 (-1.50)	-1.037* (-1.70)
<i>Intercept</i>	-0.092 (-0.04)	0.862 (0.36)	2.004 (0.85)	-1.053 (-0.45)	-0.410 (-0.18)	0.307 (0.14)	-1.999 (-0.82)	-0.897 (-0.40)	0.213 (0.10)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868
Adj. R <sup>2</sup>	0.166	0.166	0.158	0.163	0.163	0.158	0.166	0.167	0.158

### Table IA-10 Filing Tones and SEO Offer-Day Returns, Post-SOX Subsample

This table examines the relation between issuers' SEC filing tones and SEO offer-day returns. In all regression models, the dependent variable is *Offer-Day Return*, measured as  $100 \times (\text{the closing price on the offer date} - \text{the closing price one day before the SEO}) \div \text{the closing price one day before the SEO}$ . In Models (1)–(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4–6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	-1.031** (-2.19)								
<i>Weak-Modal_424B</i>		-1.768*** (-3.16)							
<i>Negative_424B</i>			0.010 (0.03)						
<i>Uncertainty_S</i>				-1.032*** (-2.60)			-1.292*** (-2.63)		
<i>Weak-Modal_S</i>					-1.599*** (-3.04)			-2.201*** (-3.56)	
<i>Negative_S</i>						-0.170 (-0.49)			-0.103 (-0.25)
<i>Uncertainty_Chg</i>							-0.518 (-0.90)		
<i>Weak-Modal_Chg</i>								-1.268* (-1.93)	
<i>Negative_Chg</i>									0.137 (0.35)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	-0.765 (-0.37)	-1.028 (-0.49)	-0.442 (-0.21)	-0.793 (-0.38)	-0.853 (-0.41)	-0.487 (-0.23)	-0.867 (-0.41)	-1.102 (-0.53)	-0.495 (-0.24)
<i>Primary Dummy</i>	-0.152 (-0.33)	-0.115 (-0.25)	-0.194 (-0.42)	-0.188 (-0.41)	-0.158 (-0.35)	-0.183 (-0.40)	-0.168 (-0.37)	-0.116 (-0.26)	-0.194 (-0.42)
<i>FM Shelf Dummy</i>	0.581 (1.04)	0.846 (1.51)	0.347 (0.61)	0.523 (0.92)	0.937 (1.61)	0.313 (0.55)	0.596 (1.06)	1.049* (1.82)	0.300 (0.53)
<i>Accelerated Dummy</i>	-0.913 (-1.49)	-0.564 (-0.91)	-1.200* (-1.96)	-0.938 (-1.51)	-0.505 (-0.78)	-1.219** (-1.99)	-0.860 (-1.39)	-0.339 (-0.53)	-1.228** (-2.00)
<i>Top-tier Dummy</i>	-0.334 (-0.94)	-0.316 (-0.89)	-0.308 (-0.87)	-0.309 (-0.87)	-0.289 (-0.82)	-0.302 (-0.85)	-0.322 (-0.91)	-0.302 (-0.85)	-0.304 (-0.86)
<i>Integer Dummy</i>	-1.299*** (-4.00)	-1.300*** (-4.00)	-1.269*** (-3.92)	-1.306*** (-4.01)	-1.306*** (-4.03)	-1.271*** (-3.92)	-1.312*** (-4.03)	-1.313*** (-4.04)	-1.272*** (-3.92)
<i>Ln(1+ Reg. Period)</i>	-0.079 (-0.85)	-0.071 (-0.78)	-0.063 (-0.69)	-0.083 (-0.90)	-0.065 (-0.70)	-0.064 (-0.70)	-0.086 (-0.93)	-0.070 (-0.76)	-0.063 (-0.69)

<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	1.269*	1.303**	1.323**	1.303**	1.363**	1.361**	1.280**	1.331**	1.355**
	(1.95)	(2.02)	(2.03)	(2.01)	(2.11)	(2.07)	(1.97)	(2.06)	(2.06)
<i>Nasdaq Dummy</i>	0.471	0.510	0.347	0.459	0.458	0.352	0.492	0.529	0.343
	(1.14)	(1.24)	(0.84)	(1.11)	(1.11)	(0.85)	(1.19)	(1.28)	(0.83)
<i>Ln(Market Cap)</i>	-0.327	-0.335	-0.275	-0.366	-0.393	-0.285	-0.370	-0.386	-0.287
	(-1.29)	(-1.32)	(-1.09)	(-1.44)	(-1.54)	(-1.14)	(-1.45)	(-1.52)	(-1.14)
<i>Ln(Price)</i>	0.317	0.299	0.310	0.353	0.365	0.317	0.345	0.334	0.323
	(1.07)	(1.01)	(1.05)	(1.20)	(1.24)	(1.07)	(1.17)	(1.13)	(1.10)
<i>Liquidity</i>	-0.130	-0.119	-0.149	-0.141	-0.143	-0.145	-0.134	-0.124	-0.149
	(-0.63)	(-0.57)	(-0.71)	(-0.68)	(-0.69)	(-0.70)	(-0.64)	(-0.60)	(-0.71)
<i>Ln(1 + Analysts)</i>	1.338***	1.382***	1.312***	1.295***	1.334***	1.306***	1.312***	1.375***	1.302***
	(3.62)	(3.73)	(3.56)	(3.51)	(3.60)	(3.54)	(3.53)	(3.70)	(3.53)
<i>Pre-SEO Retvol</i>	-0.200	-0.194	-0.201	-0.191	-0.184	-0.198	-0.193	-0.186	-0.198
	(-1.57)	(-1.52)	(-1.56)	(-1.48)	(-1.43)	(-1.54)	(-1.51)	(-1.45)	(-1.54)
<i>Profitability Dummy</i>	0.580	0.527	0.587	0.658	0.657	0.593	0.637	0.584	0.596
	(1.15)	(1.05)	(1.16)	(1.31)	(1.30)	(1.17)	(1.27)	(1.16)	(1.18)
<i>Tobin's Q</i>	0.084	0.086	0.080	0.090	0.094*	0.081	0.090	0.093	0.081
	(1.50)	(1.54)	(1.43)	(1.61)	(1.68)	(1.44)	(1.60)	(1.64)	(1.44)
<i>Leverage</i>	0.224	0.209	0.308	0.181	0.205	0.304	0.170	0.177	0.303
	(0.33)	(0.30)	(0.46)	(0.26)	(0.30)	(0.45)	(0.25)	(0.26)	(0.45)
<i>Intercept</i>	-3.475	-3.832	-5.258**	-3.410	-3.870	-5.006*	-2.980	-3.430	-5.077*
	(-1.26)	(-1.44)	(-1.98)	(-1.26)	(-1.46)	(-1.89)	(-1.08)	(-1.29)	(-1.90)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868
Adj. R <sup>2</sup>	0.089	0.092	0.086	0.090	0.091	0.086	0.090	0.093	0.087

**Table IA-11 Filing Tones and SEO Post-Offer Abnormal Returns, Post-SOX Subsample**

This table examines the relation between issuers' SEC filing tones and abnormal stock returns during several days after the SEO. The dependent variable is *3-Day Post-Offer Abnormal Return* in Models (1)–(3), *5-Day Post-Offer Abnormal Return* in Models (4)–(6), and *10-Day Post-Offer Abnormal Return* in Models (7)–(9). The post-offer abnormal returns are the buy-and-hold returns on the issuer's stock minus the CRSP value-weighted returns in the windows of three, five, and ten trading days, respectively, after the offer date. The main independent variables are S filing tone measures *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	3-Day Post-Offer Return			5-Day Post-Offer Return			10-Day Post-Offer Return		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_S</i>	-0.508 (-1.33)			-0.454 (-0.85)			-0.638 (-0.82)		
<i>Weak-Modal_S</i>		-0.809 (-1.63)			-0.478 (-0.69)			-0.180 (-0.18)	
<i>Negative_S</i>			-0.183 (-0.58)			-0.044 (-0.10)			-0.205 (-0.34)
<i>Uncertainty_Chg</i>	-1.270*** (-2.73)			-1.351** (-2.23)			-2.221*** (-2.79)		
<i>Weak-Modal_Chg</i>		-1.706*** (-3.23)			-1.712** (-2.44)			-2.142** (-2.32)	
<i>Negative_Chg</i>			-1.163*** (-3.43)			-1.229*** (-2.79)			-2.098*** (-3.68)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	2.978* (1.92)	2.782* (1.79)	3.287** (2.13)	3.259 (1.58)	3.127 (1.51)	3.597* (1.76)	3.832 (1.25)	3.783 (1.23)	4.330 (1.42)
<i>Primary Dummy</i>	0.283 (0.87)	0.291 (0.90)	0.310 (0.96)	0.920** (2.25)	0.918** (2.25)	0.940** (2.30)	0.699 (1.15)	0.669 (1.10)	0.745 (1.22)
<i>FM Shelf Dummy</i>	0.120 (0.27)	0.111 (0.23)	0.142 (0.33)	-0.260 (-0.44)	-0.387 (-0.61)	-0.193 (-0.33)	-0.759 (-0.96)	-1.114 (-1.34)	-0.642 (-0.82)

<i>Accelerated Dummy</i>	-0.155 (-0.31)	-0.090 (-0.17)	-0.192 (-0.40)	-0.816 (-1.18)	-0.883 (-1.17)	-0.818 (-1.23)	-1.636* (-1.85)	-1.932** (-2.05)	-1.617* (-1.89)
<i>Top-tier Dummy</i>	0.100 (0.34)	0.113 (0.38)	0.133 (0.45)	0.266 (0.73)	0.277 (0.76)	0.296 (0.82)	0.171 (0.33)	0.193 (0.37)	0.225 (0.44)
<i>Integer Dummy</i>	0.010 (0.04)	0.012 (0.05)	0.031 (0.12)	-0.216 (-0.65)	-0.210 (-0.63)	-0.196 (-0.59)	-0.038 (-0.08)	-0.021 (-0.05)	-0.009 (-0.02)
<i>Ln(1+ Reg. Period)</i>	-0.047 (-0.64)	-0.050 (-0.67)	-0.046 (-0.63)	-0.054 (-0.58)	-0.058 (-0.63)	-0.054 (-0.59)	-0.031 (-0.25)	-0.036 (-0.29)	-0.033 (-0.27)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	0.159 (0.33)	0.169 (0.35)	0.178 (0.37)	-0.076 (-0.11)	-0.073 (-0.11)	-0.090 (-0.13)	-0.956 (-1.09)	-0.942 (-1.07)	-0.956 (-1.08)
<i>Nasdaq Dummy</i>	0.023 (0.08)	0.048 (0.17)	0.020 (0.07)	0.193 (0.54)	0.201 (0.57)	0.196 (0.55)	0.362 (0.69)	0.329 (0.63)	0.386 (0.74)
<i>Ln(Market Cap)</i>	-0.182 (-0.85)	-0.177 (-0.82)	-0.150 (-0.70)	0.115 (0.43)	0.137 (0.51)	0.150 (0.57)	0.357 (0.89)	0.401 (1.00)	0.400 (1.01)
<i>Ln(Price)</i>	-0.303 (-1.07)	-0.322 (-1.14)	-0.348 (-1.24)	-0.715** (-2.03)	-0.740** (-2.10)	-0.765** (-2.19)	-1.805*** (-3.58)	-1.836*** (-3.64)	-1.881*** (-3.77)
<i>Liquidity</i>	-0.582*** (-3.35)	-0.574*** (-3.30)	-0.577*** (-3.34)	-0.858*** (-3.62)	-0.851*** (-3.59)	-0.855*** (-3.62)	-0.838*** (-2.64)	-0.837*** (-2.63)	-0.828*** (-2.61)
<i>Ln(1 + Analysts)</i>	0.789*** (2.78)	0.801*** (2.83)	0.794*** (2.84)	0.635 (1.64)	0.638* (1.65)	0.644* (1.70)	0.686 (1.37)	0.663 (1.31)	0.697 (1.42)
<i>Pre-SEO Retvol</i>	0.001 (0.01)	0.005 (0.05)	0.001 (0.01)	0.009 (0.08)	0.011 (0.10)	0.007 (0.06)	-0.193 (-1.35)	-0.191 (-1.34)	-0.193 (-1.35)
<i>Profitability Dummy</i>	0.622* (1.75)	0.586 (1.65)	0.647* (1.83)	0.642 (1.46)	0.600 (1.36)	0.669 (1.53)	1.417** (2.19)	1.383** (2.13)	1.471** (2.29)
<i>Tobin's Q</i>	0.073 (1.25)	0.073 (1.27)	0.074 (1.31)	0.028 (0.37)	0.027 (0.35)	0.029 (0.40)	-0.086 (-1.00)	-0.089 (-1.04)	-0.083 (-0.99)
<i>Leverage</i>	0.032 (0.06)	0.003 (0.01)	0.055 (0.11)	-0.280 (-0.43)	-0.297 (-0.46)	-0.262 (-0.40)	0.269 (0.31)	0.261 (0.31)	0.283 (0.33)
<i>Intercept</i>	1.835 (0.93)	1.600 (0.84)	1.056 (0.55)	1.853 (0.68)	1.434 (0.55)	0.968 (0.37)	5.955 (1.51)	4.980 (1.35)	4.868 (1.32)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868
Adj. R <sup>2</sup>	0.066	0.068	0.071	0.057	0.058	0.061	0.061	0.060	0.066

### Table IA-12 Filing Tones and SEO Underpricing, Post-SOX Subsample

This table examines the relation between issuers' SEC filing tones and SEO underpricing. In all regression models, the dependent variable is *Underpricing*, measured as  $100 \times (\text{the closing price on the offer date} - \text{the offer price}) \div \text{the offer price}$ . In Models (1)–(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4–6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification in each regression. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	0.178 (0.40)								
<i>Weak-Modal_424B</i>		-0.332 (-0.65)							
<i>Negative_424B</i>			0.157 (0.52)						
<i>Uncertainty_S</i>				-0.301 (-0.87)			-0.019 (-0.04)		
<i>Weak-Modal_S</i>					-0.633 (-1.39)			-0.629 (-1.10)	
<i>Negative_S</i>						-0.054 (-0.20)			0.071 (0.21)
<i>Uncertainty_Chg</i>							0.564 (1.11)		
<i>Weak-Modal_Chg</i>								0.010 (0.02)	
<i>Negative_Chg</i>									0.253 (0.72)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	6.035*** (3.11)	5.869*** (3.01)	5.991*** (3.12)	5.877*** (3.03)	5.817*** (3.00)	5.965*** (3.10)	5.958*** (3.06)	5.819*** (2.97)	5.950*** (3.09)
<i>Primary Dummy</i>	0.232 (0.53)	0.254 (0.58)	0.221 (0.50)	0.240 (0.55)	0.253 (0.58)	0.242 (0.55)	0.219 (0.50)	0.253 (0.58)	0.221 (0.50)
<i>FM Shelf Dummy</i>	0.867* (1.76)	1.001** (2.01)	0.909* (1.81)	0.959* (1.93)	1.141** (2.25)	0.897* (1.77)	0.879* (1.79)	1.140** (2.25)	0.874* (1.73)
<i>Accelerated Dummy</i>	0.262 (0.49)	0.431 (0.78)	0.310 (0.57)	0.388 (0.72)	0.587 (1.06)	0.306 (0.56)	0.303 (0.56)	0.585 (1.05)	0.289 (0.53)
<i>Top-tier Dummy</i>	-1.163*** (-3.66)	-1.169*** (-3.69)	-1.172*** (-3.70)	-1.167*** (-3.68)	-1.160*** (-3.66)	-1.165*** (-3.68)	-1.154*** (-3.64)	-1.160*** (-3.66)	-1.169*** (-3.69)
<i>Integer Dummy</i>	0.223 (0.75)	0.212 (0.71)	0.218 (0.73)	0.207 (0.70)	0.203 (0.68)	0.217 (0.73)	0.213 (0.72)	0.203 (0.68)	0.216 (0.73)
<i>Ln(1+ Reg. Period)</i>	0.103 (1.30)	0.099 (1.25)	0.101 (1.28)	0.095 (1.19)	0.100 (1.26)	0.100 (1.26)	0.098 (1.23)	0.100 (1.26)	0.101 (1.27)

Firm Characteristics

<i>Rec. IPO Dummy</i>	0.755 (1.32)	0.741 (1.30)	0.721 (1.26)	0.739 (1.30)	0.760 (1.34)	0.757 (1.32)	0.764 (1.34)	0.761 (1.34)	0.746 (1.30)
<i>Nasdaq Dummy</i>	0.949** (2.46)	1.001*** (2.59)	0.959** (2.49)	1.003*** (2.62)	1.014*** (2.65)	0.972** (2.53)	0.966** (2.51)	1.013*** (2.63)	0.955** (2.48)
<i>Ln(Market Cap)</i>	0.119 (0.44)	0.099 (0.37)	0.113 (0.43)	0.084 (0.31)	0.064 (0.23)	0.107 (0.40)	0.087 (0.32)	0.063 (0.23)	0.104 (0.39)
<i>Ln(Price)</i>	-0.751** (-2.55)	-0.752** (-2.55)	-0.747** (-2.54)	-0.737** (-2.51)	-0.728** (-2.47)	-0.747** (-2.53)	-0.730** (-2.49)	-0.728** (-2.48)	-0.737** (-2.51)
<i>Liquidity</i>	-0.308* (-1.79)	-0.300* (-1.73)	-0.311* (-1.80)	-0.303* (-1.75)	-0.303* (-1.75)	-0.304* (-1.77)	-0.311* (-1.81)	-0.303* (-1.75)	-0.311* (-1.81)
<i>Ln(1 + Analysts)</i>	0.451 (1.35)	0.468 (1.40)	0.453 (1.36)	0.450 (1.35)	0.464 (1.39)	0.453 (1.36)	0.432 (1.28)	0.463 (1.38)	0.446 (1.33)
<i>Pre-SEO Retvol</i>	-0.013 (-0.12)	-0.012 (-0.10)	-0.015 (-0.13)	-0.010 (-0.09)	-0.007 (-0.06)	-0.012 (-0.11)	-0.008 (-0.07)	-0.007 (-0.06)	-0.012 (-0.11)
<i>Profitability Dummy</i>	-0.032 (-0.07)	-0.045 (-0.10)	-0.033 (-0.07)	-0.013 (-0.03)	-0.006 (-0.01)	-0.032 (-0.07)	0.011 (0.02)	-0.006 (-0.01)	-0.027 (-0.06)
<i>Tobin's Q</i>	0.036 (0.50)	0.038 (0.52)	0.037 (0.50)	0.040 (0.54)	0.043 (0.58)	0.037 (0.51)	0.041 (0.55)	0.043 (0.58)	0.037 (0.51)
<i>Leverage</i>	-0.577 (-0.92)	-0.610 (-0.97)	-0.590 (-0.94)	-0.628 (-0.99)	-0.632 (-1.00)	-0.592 (-0.94)	-0.617 (-0.97)	-0.631 (-1.00)	-0.593 (-0.94)
<i>Intercept</i>	-3.621 (-1.30)	-3.051 (-1.14)	-3.508 (-1.31)	-2.780 (-1.01)	-2.772 (-1.03)	-3.240 (-1.21)	-3.248 (-1.15)	-2.775 (-1.02)	-3.370 (-1.26)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868	1,868
Adj. R <sup>2</sup>	0.082	0.082	0.082	0.082	0.082	0.082	0.083	0.082	0.082

**Table IA-13 Tones of 424B Filings and SEO Post-Offer Abnormal Returns**

This table examines the relation between issuers' 424B filing tones and abnormal stock returns during several days after the SEO. The dependent variable is *3-Day Post-Offer Abnormal Return* in Models (1)–(3), *5-Day Post-Offer Abnormal Return* in Models (4)–(6), and *10-Day Post-Offer Abnormal Return* in Models (7)–(9). The post-offer abnormal returns are the buy-and-hold returns on the issuer's stock minus the CRSP value-weighted returns in the windows of three, five, and ten trading days, respectively, after the offer date. The main independent variables are 424B filing tone measures *Uncertainty\_424B*, *Weak-Modal\_424B*, and *Negative\_424B*. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	3-Day Post-Offer Return			5-Day Post-Offer Return			10-Day Post-Offer Return		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<b><u>424B Filing Tones</u></b>									
<i>Uncertainty_424B</i>	-0.471 (-1.30)			-0.442 (-0.94)			-0.613 (-0.92)		
<i>Weak-Modal_424B</i>		-1.026** (-2.39)			-0.787 (-1.38)			-0.895 (-1.10)	
<i>Negative_424B</i>			-0.413 (-1.46)			-0.299 (-0.80)			-0.779 (-1.56)
<b><u>Issue Characteristics</u></b>									
<i>Relative Offer Size</i>	3.726** (2.57)	3.554** (2.44)	3.791*** (2.62)	4.113** (2.22)	4.005** (2.16)	4.190** (2.28)	5.617** (2.11)	5.527** (2.07)	5.657** (2.13)
<i>Primary Dummy</i>	-0.032 (-0.11)	-0.004 (-0.01)	-0.012 (-0.04)	0.625 (1.62)	0.644* (1.67)	0.636 (1.64)	-0.026 (-0.05)	-0.009 (-0.02)	0.021 (0.04)
<i>FM Shelf Dummy</i>	0.005 (0.01)	0.190 (0.51)	-0.094 (-0.26)	-0.239 (-0.53)	-0.113 (-0.24)	-0.330 (-0.73)	-0.678 (-1.07)	-0.556 (-0.86)	-0.811 (-1.28)
<i>Accelerated Dummy</i>	-0.500 (-1.22)	-0.257 (-0.60)	-0.624 (-1.55)	-1.089** (-1.97)	-0.924 (-1.61)	-1.205** (-2.24)	-1.683** (-2.26)	-1.524** (-1.98)	-1.845** (-2.52)
<i>Top-tier Dummy</i>	-0.178 (-0.64)	-0.183 (-0.66)	-0.155 (-0.56)	0.114 (0.33)	0.113 (0.33)	0.134 (0.39)	0.135 (0.28)	0.137 (0.28)	0.172 (0.36)

<i>Integer Dummy</i>	0.297 (1.27)	0.296 (1.27)	0.309 (1.33)	0.162 (0.54)	0.163 (0.54)	0.173 (0.58)	0.089 (0.21)	0.092 (0.22)	0.107 (0.25)
<i>Ln(1+ Reg. Period)</i>	-0.004 (-0.05)	-0.002 (-0.03)	0.001 (0.02)	-0.009 (-0.10)	-0.006 (-0.07)	-0.004 (-0.04)	-0.006 (-0.05)	-0.002 (-0.01)	-0.001 (-0.01)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.192 (-0.45)	-0.176 (-0.42)	-0.124 (-0.29)	-0.266 (-0.50)	-0.248 (-0.47)	-0.209 (-0.39)	-0.871 (-1.12)	-0.841 (-1.09)	-0.764 (-0.99)
<i>Nasdaq Dummy</i>	0.027 (0.10)	0.060 (0.23)	-0.002 (-0.01)	0.044 (0.14)	0.060 (0.18)	0.011 (0.03)	0.471 (0.97)	0.475 (0.98)	0.449 (0.93)
<i>Ln(Market Cap)</i>	0.005 (0.03)	0.001 (0.01)	0.022 (0.11)	0.013 (0.05)	0.014 (0.06)	0.030 (0.12)	-0.009 (-0.03)	-0.003 (-0.01)	0.008 (0.02)
<i>Ln(Price)</i>	-0.146 (-0.56)	-0.158 (-0.61)	-0.164 (-0.63)	-0.327 (-1.00)	-0.337 (-1.03)	-0.341 (-1.04)	-0.869* (-1.90)	-0.882* (-1.93)	-0.898* (-1.96)
<i>Liquidity</i>	-0.464*** (-2.89)	-0.457*** (-2.84)	-0.460*** (-2.85)	-0.731*** (-3.33)	-0.726*** (-3.31)	-0.730*** (-3.33)	-0.774*** (-2.61)	-0.771*** (-2.59)	-0.762*** (-2.56)
<i>Ln(1 + Analysts)</i>	0.487* (1.83)	0.510* (1.91)	0.485* (1.83)	0.681** (1.97)	0.697** (2.00)	0.677* (1.96)	1.192** (2.48)	1.207** (2.50)	1.196** (2.49)
<i>Pre-SEO Retvol</i>	-0.024 (-0.26)	-0.019 (-0.21)	-0.021 (-0.23)	0.000 (0.00)	0.003 (0.03)	0.002 (0.01)	-0.139 (-0.94)	-0.136 (-0.92)	-0.133 (-0.89)
<i>Profitability Dummy</i>	-0.154 (-0.46)	-0.188 (-0.56)	-0.152 (-0.45)	0.099 (0.24)	0.075 (0.18)	0.103 (0.25)	0.585 (0.90)	0.559 (0.86)	0.582 (0.90)
<i>Tobin's Q</i>	-0.019 (-0.36)	-0.018 (-0.34)	-0.019 (-0.37)	-0.049 (-0.82)	-0.048 (-0.81)	-0.049 (-0.83)	-0.121 (-1.27)	-0.120 (-1.26)	-0.121 (-1.28)
<i>Leverage</i>	-0.440 (-0.87)	-0.478 (-0.95)	-0.412 (-0.81)	-0.556 (-0.87)	-0.579 (-0.91)	-0.527 (-0.82)	0.969 (1.06)	0.953 (1.04)	0.998 (1.09)
<i>Intercept</i>	-0.024 (-0.01)	-0.083 (-0.05)	-0.331 (-0.20)	-1.302 (-0.54)	-1.469 (-0.63)	-1.677 (-0.73)	2.502 (0.73)	2.145 (0.65)	2.338 (0.71)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.043	0.044	0.043	0.040	0.040	0.040	0.042	0.043	0.043

**Table IA-14 Tones of S Filings and SEO Post-Offer Abnormal Returns**

This table examines the relation between issuers' S filing tones and abnormal stock returns during several days after the SEO. The dependent variable is *3-Day Post-Offer Abnormal Return* in Models (1)–(3), *5-Day Post-Offer Abnormal Return* in Models (4)–(6), and *10-Day Post-Offer Abnormal Return* in Models (7)–(9). The post-offer abnormal returns are the buy-and-hold returns on the issuer's stock minus the CRSP value-weighted returns in the windows of three, five, and ten trading days, respectively, after the offer date. The main independent variables are S filing tone measures *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	3-Day Post-Offer Return			5-Day Post-Offer Return			10-Day Post-Offer Return		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>S Filing Tones</u>									
<i>Uncertainty_S</i>	0.303 (1.04)			0.405 (1.04)			0.825 (1.46)		
<i>Weak-Modal_S</i>		0.273 (0.69)			0.575 (1.09)			0.968 (1.27)	
<i>Negative_S</i>			0.472* (1.88)			0.641* (1.93)			0.802* (1.74)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	3.960*** (2.73)	3.935*** (2.71)	3.988*** (2.76)	4.370** (2.37)	4.389** (2.38)	4.410** (2.40)	6.054** (2.29)	6.043** (2.29)	6.007** (2.27)
<i>Primary Dummy</i>	-0.054 (-0.18)	-0.058 (-0.19)	-0.078 (-0.26)	0.603 (1.57)	0.591 (1.54)	0.569 (1.48)	-0.062 (-0.11)	-0.080 (-0.14)	-0.098 (-0.18)
<i>FM Shelf Dummy</i>	-0.128 (-0.35)	-0.187 (-0.47)	-0.014 (-0.04)	-0.380 (-0.83)	-0.535 (-1.09)	-0.225 (-0.50)	-0.908 (-1.43)	-1.151* (-1.69)	-0.673 (-1.05)
<i>Accelerated Dummy</i>	-0.683* (-1.68)	-0.732* (-1.67)	-0.572 (-1.42)	-1.285** (-2.35)	-1.435** (-2.44)	-1.136** (-2.12)	-2.009*** (-2.72)	-2.232*** (-2.83)	-1.757** (-2.40)
<i>Top-tier Dummy</i>	-0.161 (-0.58)	-0.162 (-0.58)	-0.175 (-0.63)	0.132 (0.38)	0.132 (0.38)	0.113 (0.33)	0.165 (0.34)	0.163 (0.33)	0.136 (0.28)

<i>Integer Dummy</i>	0.313 (1.34)	0.310 (1.32)	0.308 (1.32)	0.180 (0.60)	0.180 (0.60)	0.174 (0.58)	0.121 (0.28)	0.116 (0.27)	0.104 (0.24)
<i>Ln(1+ Reg. Period)</i>	0.010 (0.14)	0.004 (0.06)	0.006 (0.09)	0.007 (0.08)	0.000 (0.00)	0.002 (0.02)	0.021 (0.17)	0.007 (0.05)	0.008 (0.06)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.136 (-0.32)	-0.155 (-0.37)	-0.209 (-0.49)	-0.205 (-0.39)	-0.229 (-0.43)	-0.304 (-0.57)	-0.769 (-1.00)	-0.819 (-1.06)	-0.913 (-1.18)
<i>Nasdaq Dummy</i>	-0.062 (-0.23)	-0.047 (-0.18)	-0.039 (-0.15)	-0.052 (-0.16)	-0.047 (-0.15)	-0.023 (-0.07)	0.308 (0.64)	0.333 (0.69)	0.380 (0.79)
<i>Ln(Market Cap)</i>	0.051 (0.25)	0.043 (0.21)	0.049 (0.24)	0.065 (0.26)	0.065 (0.26)	0.063 (0.25)	0.082 (0.22)	0.071 (0.19)	0.056 (0.15)
<i>Ln(Price)</i>	-0.167 (-0.65)	-0.162 (-0.62)	-0.172 (-0.67)	-0.352 (-1.08)	-0.351 (-1.07)	-0.359 (-1.10)	-0.916** (-2.01)	-0.907** (-1.99)	-0.910** (-2.00)
<i>Liquidity</i>	-0.474*** (-2.96)	-0.472*** (-2.95)	-0.477*** (-3.01)	-0.740*** (-3.39)	-0.739*** (-3.39)	-0.745*** (-3.43)	-0.789*** (-2.68)	-0.785*** (-2.67)	-0.793*** (-2.70)
<i>Ln(1 + Analysts)</i>	0.476* (1.79)	0.471* (1.77)	0.479* (1.80)	0.672* (1.95)	0.662* (1.92)	0.676** (1.97)	1.180** (2.47)	1.162** (2.43)	1.184** (2.49)
<i>Pre-SEO Retvol</i>	-0.029 (-0.32)	-0.029 (-0.32)	-0.034 (-0.38)	-0.006 (-0.06)	-0.009 (-0.08)	-0.014 (-0.13)	-0.150 (-1.01)	-0.154 (-1.04)	-0.156 (-1.05)
<i>Profitability Dummy</i>	-0.152 (-0.45)	-0.146 (-0.43)	-0.150 (-0.45)	0.098 (0.24)	0.106 (0.25)	0.100 (0.24)	0.577 (0.89)	0.593 (0.92)	0.588 (0.91)
<i>Tobin's Q</i>	-0.020 (-0.39)	-0.020 (-0.39)	-0.019 (-0.36)	-0.051 (-0.84)	-0.051 (-0.86)	-0.049 (-0.82)	-0.124 (-1.30)	-0.125 (-1.31)	-0.121 (-1.27)
<i>Leverage</i>	-0.369 (-0.72)	-0.383 (-0.75)	-0.388 (-0.76)	-0.478 (-0.74)	-0.483 (-0.75)	-0.503 (-0.78)	1.104 (1.20)	1.081 (1.18)	1.041 (1.13)
<i>Intercept</i>	-1.205 (-0.71)	-0.902 (-0.55)	-1.206 (-0.74)	-2.598 (-1.09)	-2.320 (-1.00)	-2.609 (-1.14)	0.296 (0.09)	0.986 (0.30)	0.775 (0.24)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.042	0.042	0.043	0.040	0.040	0.041	0.043	0.043	0.043

**Table IA-15 Filing Tones and Abnormal Returns after the 424B Filing Date**

This table examines the relation between issuers' SEC filing tones and abnormal stock returns during several trading days after the 424B filing is posted at EDGAR. The dependent variable is *3-Day Post-424B Abnormal Return* in Models (1)–(3), *5-Day Post-424B Abnormal Return* in Models (4)–(6), and *10-Day Post-424B Abnormal Return* in Models (7)–(9). The post-offer abnormal returns are the buy-and-hold returns on the issuer's stock minus the CRSP value-weighted returns in the windows of three, five, and ten trading days, respectively, after the offer date. The main independent variables are S filing tone measures *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	3-Day Post-Offer Return			5-Day Post-Offer Return			10-Day Post-Offer Return		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_S</i>	0.135 (0.35)			-0.174 (-0.36)			-0.263 (-0.39)		
<i>Weak-Modal_S</i>		0.301 (0.62)			-0.165 (-0.26)			-0.007 (-0.01)	
<i>Negative_S</i>			0.499 (1.58)			0.222 (0.56)			0.058 (0.11)
<i>Uncertainty_Chg</i>	-0.685 (-1.54)			-0.996* (-1.87)			-1.812*** (-2.59)		
<i>Weak-Modal_Chg</i>		-0.962* (-1.82)			-1.249** (-2.00)			-1.730** (-2.11)	
<i>Negative_Chg</i>			-0.191 (-0.57)			-0.345 (-0.91)			-1.469*** (-2.83)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	1.863 (1.19)	1.839 (1.17)	1.958 (1.26)	0.443 (0.26)	0.378 (0.22)	0.570 (0.33)	3.092 (1.19)	3.060 (1.17)	3.282 (1.26)
<i>Primary Dummy</i>	0.008 (0.03)	-0.003 (-0.01)	-0.030 (-0.10)	0.444 (1.21)	0.441 (1.20)	0.417 (1.13)	-0.277 (-0.51)	-0.297 (-0.54)	-0.282 (-0.51)
<i>FM Shelf Dummy</i>	0.405 (1.15)	0.180 (0.48)	0.484 (1.39)	0.223 (0.50)	0.081 (0.17)	0.220 (0.50)	0.345 (0.57)	0.036 (0.06)	0.411 (0.68)

<i>Accelerated Dummy</i>	0.005 (0.01)	-0.174 (-0.39)	0.065 (0.16)	-0.286 (-0.56)	-0.371 (-0.67)	-0.319 (-0.63)	-0.345 (-0.48)	-0.582 (-0.77)	-0.347 (-0.49)
<i>Top-tier Dummy</i>	0.093 (0.36)	0.097 (0.38)	0.090 (0.35)	0.290 (0.89)	0.296 (0.90)	0.303 (0.92)	0.605 (1.28)	0.621 (1.31)	0.638 (1.35)
<i>Integer Dummy</i>	-0.126 (-0.55)	-0.122 (-0.53)	-0.129 (-0.56)	-0.285 (-0.99)	-0.281 (-0.98)	-0.282 (-0.98)	0.170 (0.41)	0.176 (0.43)	0.184 (0.45)
<i>Ln(1+ Reg. Period)</i>	-0.091 (-1.30)	-0.098 (-1.43)	-0.095 (-1.38)	-0.081 (-0.89)	-0.086 (-0.96)	-0.082 (-0.92)	-0.042 (-0.36)	-0.051 (-0.44)	-0.048 (-0.42)
<u>Firm Characteristics</u>									
<i>Rec. IPO Dummy</i>	-0.053 (-0.13)	-0.068 (-0.16)	-0.117 (-0.28)	-0.131 (-0.27)	-0.128 (-0.26)	-0.145 (-0.29)	-0.549 (-0.75)	-0.538 (-0.74)	-0.569 (-0.78)
<i>Nasdaq Dummy</i>	0.095 (0.37)	0.100 (0.39)	0.099 (0.39)	0.242 (0.76)	0.248 (0.78)	0.223 (0.70)	0.866* (1.86)	0.852* (1.82)	0.880* (1.90)
<i>Ln(Market Cap)</i>	0.040 (0.22)	0.054 (0.29)	0.040 (0.22)	-0.110 (-0.47)	-0.098 (-0.42)	-0.102 (-0.44)	-0.123 (-0.35)	-0.104 (-0.29)	-0.106 (-0.30)
<i>Ln(Price)</i>	-0.093 (-0.40)	-0.108 (-0.47)	-0.099 (-0.43)	-0.170 (-0.56)	-0.186 (-0.61)	-0.179 (-0.59)	-0.694 (-1.60)	-0.711 (-1.64)	-0.748* (-1.73)
<i>Liquidity</i>	-0.312* (-1.89)	-0.307* (-1.86)	-0.321* (-1.94)	-0.490** (-2.30)	-0.485** (-2.28)	-0.498** (-2.35)	-0.593** (-2.20)	-0.591** (-2.19)	-0.589** (-2.19)
<i>Ln(1 + Analysts)</i>	0.184 (0.71)	0.178 (0.69)	0.174 (0.68)	0.361 (1.18)	0.359 (1.17)	0.345 (1.13)	0.720 (1.57)	0.700 (1.52)	0.719 (1.57)
<i>Pre-SEO Retvol</i>	0.022 (0.24)	0.019 (0.21)	0.018 (0.20)	0.071 (0.63)	0.071 (0.63)	0.069 (0.61)	-0.065 (-0.45)	-0.065 (-0.46)	-0.066 (-0.46)
<i>Profitability Dummy</i>	-0.121 (-0.36)	-0.132 (-0.39)	-0.098 (-0.29)	0.170 (0.41)	0.153 (0.37)	0.197 (0.48)	0.385 (0.60)	0.381 (0.59)	0.415 (0.65)
<i>Tobin's Q</i>	-0.064 (-1.34)	-0.066 (-1.37)	-0.062 (-1.29)	-0.143*** (-2.58)	-0.143*** (-2.59)	-0.140** (-2.55)	-0.163* (-1.83)	-0.163* (-1.83)	-0.159* (-1.79)
<i>Leverage</i>	-0.143 (-0.27)	-0.162 (-0.31)	-0.155 (-0.30)	-0.057 (-0.10)	-0.083 (-0.14)	-0.051 (-0.09)	1.331 (1.49)	1.305 (1.46)	1.324 (1.48)
<i>Intercept</i>	-0.695 (-0.39)	-0.617 (-0.37)	-0.962 (-0.58)	0.092 (0.04)	-0.005 (0.00)	-0.368 (-0.18)	3.243 (1.11)	2.956 (1.06)	2.816 (1.03)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781	2,781
Adj. R <sup>2</sup>	0.023	0.024	0.024	0.033	0.033	0.033	0.037	0.036	0.038

### Table IA-16 Filing Tones and Post-Offer Return Volatility

This table examines the relation between issuers' SEC filing tones and SEO post-offer return volatility. In all regression models, the dependent variable is *Post-Offer Return Volatility*, measured as the market model root-mean square error of the issuer's stock returns over day 5 to day 64 after the offer date. In Models (1)–(3), the main independent variables are tone measures from 424B filings: *Uncertainty\_424B* is the percentage of uncertainty words used in the prospectus, *Weak-Modal\_424B* is the percentage of weak-modal words used in the prospectus, and *Negative\_424B* is the percentage of negative words used in the prospectus. In Models (4–6), the main independent variables are tone measures from S filings: *Uncertainty\_S*, *Weak-Modal\_S*, and *Negative\_S*, respectively. In Models (7)–(9), the main independent variables are S filing tone measures and tone-change measures *Uncertainty\_Chg*, *Weak-Modal\_Chg*, and *Negative\_Chg*, which are calculated as the differences between 424B filing tone measures and the corresponding S filing tone measures. The control variables include SEO issue and firm characteristics, as defined in Appendix B, and the calendar year dummy variables and the dummy variables for the industries with more than ten SEOs in our sample, using Fama and French's 49-industry classification in each regression. *t*-statistics with White's heteroscedasticity-consistent standard errors adjusted by issuer clustering are provided in parentheses below coefficient estimates. \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively.

	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
<u>Filing Tones</u>									
<i>Uncertainty_424B</i>	-0.043 (-0.47)								
<i>Weak-Modal_424B</i>		-0.003 (-0.03)							
<i>Negative_424B</i>			0.009 (0.16)						
<i>Uncertainty_S</i>				-0.010 (-0.13)			-0.036 (-0.37)		
<i>Weak-Modal_S</i>					0.077 (0.82)			0.046 (0.40)	
<i>Negative_S</i>						0.062 (1.18)			0.043 (0.71)
<i>Uncertainty_Chg</i>							-0.058 (-0.55)		
<i>Weak-Modal_Chg</i>								-0.071 (-0.60)	
<i>Negative_Chg</i>									-0.040 (-0.57)
<u>Issue Characteristics</u>									
<i>Relative Offer Size</i>	-0.432 (-1.05)	-0.420 (-1.02)	-0.418 (-1.03)	-0.423 (-1.02)	-0.400 (-0.97)	-0.404 (-1.00)	-0.430 (-1.04)	-0.412 (-0.99)	-0.405 (-1.00)
<i>Primary Dummy</i>	-0.052 (-0.80)	-0.053 (-0.82)	-0.054 (-0.83)	-0.053 (-0.82)	-0.056 (-0.86)	-0.057 (-0.88)	-0.052 (-0.80)	-0.054 (-0.83)	-0.055 (-0.84)
<i>FM Shelf Dummy</i>	-0.271*** (-3.56)	-0.279*** (-3.57)	-0.280*** (-3.55)	-0.279*** (-3.62)	-0.308*** (-3.86)	-0.270*** (-3.42)	-0.271*** (-3.56)	-0.303*** (-3.80)	-0.267*** (-3.41)
<i>Accelerated Dummy</i>	-0.146 (-1.58)	-0.156 (-1.64)	-0.157 (-1.63)	-0.155* (-1.66)	-0.188* (-1.96)	-0.150 (-1.57)	-0.146 (-1.59)	-0.179* (-1.86)	-0.148 (-1.56)
<i>Top-tier Dummy</i>	-0.114* (-1.84)	-0.113* (-1.81)	-0.113* (-1.82)	-0.113* (-1.82)	-0.112* (-1.80)	-0.114* (-1.83)	-0.114* (-1.84)	-0.113* (-1.81)	-0.114* (-1.82)
<i>Integer Dummy</i>	0.141*** (2.82)	0.142*** (2.82)	0.142*** (2.82)	0.142*** (2.83)	0.143*** (2.85)	0.142*** (2.82)	0.141*** (2.83)	0.143*** (2.85)	0.143*** (2.83)
<i>Ln(1+ Reg. Period)</i>	-0.001 (-0.06)	0.000 (-0.02)	0.000 (-0.02)	-0.001 (-0.03)	0.000 (0.00)	0.000 (0.00)	-0.001 (-0.05)	0.000 (-0.02)	0.000 (0.00)

Firm Characteristics

<i>Rec. IPO Dummy</i>	0.326*** (3.76)	0.329*** (3.83)	0.329*** (3.83)	0.329*** (3.82)	0.330*** (3.85)	0.322*** (3.75)	0.326*** (3.77)	0.328*** (3.83)	0.323*** (3.76)
<i>Nasdaq Dummy</i>	0.376*** (6.27)	0.371*** (6.17)	0.370*** (6.14)	0.372*** (6.21)	0.365*** (6.09)	0.369*** (6.15)	0.375*** (6.27)	0.369*** (6.14)	0.371*** (6.18)
<i>Ln(Market Cap)</i>	0.028 (0.63)	0.030 (0.69)	0.030 (0.70)	0.029 (0.65)	0.034 (0.77)	0.032 (0.76)	0.029 (0.64)	0.034 (0.77)	0.033 (0.77)
<i>Ln(Price)</i>	-0.214*** (-4.32)	-0.215*** (-4.32)	-0.215*** (-4.30)	-0.214*** (-4.35)	-0.217*** (-4.39)	-0.217*** (-4.39)	-0.215*** (-4.35)	-0.219*** (-4.39)	-0.219*** (-4.38)
<i>Liquidity</i>	0.137*** (2.75)	0.136*** (2.74)	0.136*** (2.75)	0.136*** (2.76)	0.136*** (2.75)	0.136*** (2.76)	0.137*** (2.76)	0.137*** (2.76)	0.137*** (2.76)
<i>Ln(1 + Analysts)</i>	-0.098* (-1.82)	-0.099* (-1.84)	-0.100* (-1.83)	-0.100* (-1.82)	-0.101* (-1.86)	-0.099* (-1.82)	-0.098* (-1.79)	-0.099* (-1.82)	-0.098* (-1.79)
<i>Pre-SEO Retvol</i>	0.230*** (9.66)	0.230*** (9.66)	0.230*** (9.63)	0.230*** (9.69)	0.229*** (9.67)	0.229*** (9.58)	0.230*** (9.69)	0.229*** (9.66)	0.229*** (9.58)
<i>Profitability Dummy</i>	-0.396*** (-5.47)	-0.395*** (-5.44)	-0.395*** (-5.48)	-0.395*** (-5.48)	-0.395*** (-5.49)	-0.396*** (-5.48)	-0.397*** (-5.49)	-0.399*** (-5.50)	-0.397*** (-5.49)
<i>Tobin's Q</i>	0.025*** (2.96)	0.025*** (2.96)	0.025*** (2.96)	0.025*** (2.97)	0.024*** (2.93)	0.025*** (2.96)	0.025*** (2.96)	0.024*** (2.92)	0.025*** (2.96)
<i>Leverage</i>	-0.214* (-1.70)	-0.210* (-1.67)	-0.210* (-1.67)	-0.211* (-1.68)	-0.206 (-1.63)	-0.209* (-1.66)	-0.213* (-1.69)	-0.209* (-1.65)	-0.209* (-1.66)
<i>Intercept</i>	2.835*** (6.11)	2.772*** (6.47)	2.761*** (6.64)	2.786*** (6.06)	2.723*** (6.35)	2.708*** (6.60)	2.824*** (5.95)	2.744*** (6.32)	2.726*** (6.60)
<i>Industry Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	2,780	2,780	2,780	2,780	2,780	2,780	2,780	2,780	2,780
Adj. R <sup>2</sup>	0.555	0.554	0.554	0.554	0.555	0.555	0.555	0.555	0.555