

## Foreshadowing as Impression Management: Illuminating the Path for Security Analysts

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**Research summary:** Managers can disclose information to security analysts as a form of impression management, but doing so is problematic because competitors can use that same information at the expense of the firm. We identify an impression management technique we call foreshadowing, which refers to hinting about future potential strategic activity. Foreshadowing provides information of value to analysts that can influence their evaluations of a firm, but not so much information as to put the firm at a competitive disadvantage. We hypothesize and find that managers who foreshadow acquisition announcements receive fewer analyst downgrades following the announcements, especially when there is more analyst uncertainty about the firm. We also hypothesize and find that analysts' responses to foreshadowing positively influence the likelihood that managers eventually acquire other firms.

**Managerial summary:** Security analysts are often suspicious when firms announce acquisitions as those announcements are cumbersome to analyze on short notice and raise questions about managerial motivations that might not represent the best interests of the firm. We find that managers can improve analyst reactions to acquisition announcements by disclosing some information of value to analysts—specifically by hinting that an acquisition could occur in the future. We refer to such hints as foreshadowing. Foreshadowing entails giving analysts information to reduce their suspicions and facilitate their analyses, but not so much information as to degrade the firm's competitive information advantage over other firms. Foreshadowing also allows managers the option to reconsider actually executing the acquisition if analysts respond negatively to its possibility. Copyright © 2017 John Wiley & Sons, Ltd.

Managers are understandably concerned about how external stakeholders perceive the firm and react to its actions (Elsbach, 2014; Westphal & Graebner, 2010). Accordingly, they may engage in any number of impression management techniques to influence observers' perceptions of the firm. Such techniques may decrease negative reactions to potentially unfavorable information or otherwise place the firm and its actions in a positive light (Elsbach,

2014; Elsbach & Sutton, 1992). Strategy scholars have explored impression management techniques such as providing offsetting positive information around a negative event (e.g., Graffin, Halebian, & Kiley, 2016), issuing unrelated information to obfuscate a negative event (e.g., Graffin, Carpenter, & Boivie, 2011), and providing a large amount of information about an event to decrease speculation about managers' intentions (e.g., Washburn & Bromiley, 2014). Managers may also attempt to influence stakeholders' impressions by maintaining ongoing positive relationships with them to buffer future potential negative perceptions (e.g., Westphal & Clement, 2008) or by working to induce positive

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emotions about the firm despite the occurrence of a negative event (e.g., Elsbach, Sutton, & Principe, 1998).

Security analysts are critical stakeholders for the firm, and managers will likely desire to influence their impressions about the firm and its activities (Pfarrer, Pollock, & Rindova, 2010; Washburn & Bromiley, 2014). Security analysts serve as important information intermediaries between a firm and the broader market (Benner & Ranganathan, 2012; Westphal & Clement, 2008). Because the firm's insiders know much more than outsiders about the firm's plans, progress, successes, and stumbles, there is considerable information asymmetry between the insiders and the firm's investors (B. D. Cohen & Dean, 2005; Healy & Palepu, 2001). By studying firms in depth, security analysts work to reduce that information asymmetry for the investors who are their clients (Feldman, Gilson, & Villalonga, 2013). Investors tend to have less expertise than analysts on a firm's strategies, and therefore, may rely on analyst assessments of a firm's strategic direction for guidance on their investment decisions (Barber et al., 2001; Feldman et al., 2013). Consequently, the opinions of a few security analysts covering a firm can influence the investment decisions of their clients, and in turn, the reactions of the firm's other investors and stakeholders (Benner & Ranganathan, 2012; Westphal & Clement, 2008).

A key way that managers attempt to favorably influence analysts' assessments of the firm is by providing them with information (Jensen, 2006; Washburn & Bromiley, 2014). Information from inside the firm is important to analysts because they can never be entirely certain as to why managers select specific activities, whether managers are acting opportunistically, or exactly how strategic initiatives will affect firm performance (Botosan & Stanford, 2005). Managers can use information disclosures to provide rationales, decrease suspicions, or simply make the firm appear more favorable to analysts (Skinner, 1994; Washburn & Bromiley, 2014; Westphal & Clement, 2008; Whittington, Yakis-Douglas, & Ahn, 2016). Analysts are apt to be eager consumers of information from inside the firm because they can use it to increase their credibility with their clients, and perhaps, gain insights about the firm that competing analysts have not realized (Brown et al., 2015, 2016).

The downside for managers using information to attempt to influence analyst reactions is that they

risk giving away too much information. Managers must walk a tightrope between giving analysts sufficient information to reduce their suspicions and facilitate their analyses, but not so much information as to degrade the firm's competitive information advantage over other firms (Lewis, Walls, & Dowell, 2014). The same information that proves valuable to analysts is also valuable to competitors (M. Lang & Sul, 2014; Verrecchia, 1990). Managers must communicate important information to security analysts while remaining wary of disclosing so much information that competitors can use it against their firm (Healy & Palepu, 2001).

The primary objective of this article is to investigate how managers might negotiate that balancing act, meaning how they might disclose information to influence analyst assessments without sharing too much information. We identify a technique that some firms use to allow security analysts to peer behind the information veil, if only briefly, to get a sense of potential future strategic activity. We label that technique *foreshadowing*, meaning that the firm issues intentionally vague information about the possibility of future involvement in an activity or event that potentially is controversial. Effective foreshadowing is ambiguous enough not to receive a strong negative reaction, but is suggestive enough to lay a perceptual groundwork for the firm's potential future activity. Further, foreshadowing can suggest the possibility of future strategic activity without disclosing specific information that would provide an advantage to competitors.

We posit that foreshadowing the potential for a controversial strategic action, such as an acquisition, reduces the negativity of analyst reactions to the eventual announcement. Analysts tend to dislike activities that arise abruptly or require extensive analysis very quickly (Barron, Byard, & Yu, 2008; Pfarrer et al., 2010), and they are apt to react pessimistically when firms announce potentially controversial strategies (Brown et al., 2015). Therefore, analysts often respond negatively to events like acquisition announcements (Houston, James, & Ryngaert, 2001). We argue that foreshadowing improves analyst reactions because it decreases the abrupt nature of an acquisition announcement and allows analysts to consider the possibility of the future activity (e.g., acquisition) without creating the need to fully analyze it at the instance of foreshadowing. Foreshadowing provides analysts with valuable information that can help them reduce the time required to evaluate

the firm and provide important insight to their clients. Thus, we argue foreshadowing represents an impression management technique that managers can use to influence analyst reactions without revealing too much information.

In addition, we argue that foreshadowing provides managers the ability to gauge analysts' reactions to the potential of a future acquisition announcement. Most of the impression management literature focuses on tactics that managers may use to influence analyst reactions. Comparatively, less research focuses on the opposite: how analyst preferences may influence how managers shape firm strategies, an idea referred to as mutual influence (Washburn & Bromiley, 2014). If analysts appear to strongly dislike a foreshadowed idea, managers can reconsider the course of action without having fully committed to a given strategy. Therefore, we contend that foreshadowing affords mutual influence by decreasing information asymmetry in ways that are beneficial for both analysts and managers.

To test our ideas about foreshadowing, we study firms that issued seasoned equity offerings and then subsequently announced an acquisition. Research indicates that capital market participants—namely, security analysts—generally respond negatively to acquisition announcements (Haleblian et al., 2009; King et al., 2004; Tortoriello et al., 2016). We contend that firms may use the seasoned equity offering prospectus as a means of foreshadowing potential acquisition activity. We suggest that foreshadowing firms benefit from more favorable analyst reactions to acquisition announcements, an effect that is strengthened when uncertainty about the firm is higher. We also argue that foreshadowing allows managers to gauge security analyst reactions to the possibility of an acquisition and that managers will tend to reconsider their course of action when confronted with negative responses.

### **Impression Management from the Executive Suite**

Impression management research encompasses a broad set of techniques that managers can use to influence outsiders' perceptions of the organization, especially as those perceptions relate to a particularly negatively received event (Elsbach, 2014; Graffin et al., 2016, 2011; Whittington et al., 2016). Research on impression management

describes techniques that reflect either reactive or anticipatory impression management. Reactive impression management tactics such as scapegoating, denials, excuses, justifications, and apologies occur after the event (e.g., Arndt & Bigelow, 2000; Benoit, 1995; McDonnell & King, 2013). Anticipatory impression management involves tactics that occur before or concurrent with a potentially negatively received event (e.g., Graffin et al., 2016, 2011).

Our current study is in line with the recent emphasis in the strategy literature on anticipatory impression management. Strategy scholars have described at least three different streams of thought about how firms attempt anticipatory impression management. First, firms can project images that induce positive emotions or favorable cognitions among the intended audiences (Elsbach et al., 1998; Ingram, Yue, & Rao, 2010; Tyler et al., 2012). Positive emotions or favorable cognitions lead audiences to downplay the potential harm associated with new information and give the firm the benefit of the doubt when controversy erupts. Second, through distraction or information overload, firms can diminish the audience's attention to new controversial information and prevent them from thinking too much about it (Elsbach, 2006; Graffin et al., 2016, 2011). Third, firms can use framing techniques to set the stage so that audience members interpret new information more favorably (Arndt & Bigelow, 2000; Elsbach et al., 1998).

Complementing this research in management, scholars in the accounting and public relations literatures have described a type of anticipatory impression management whereby firms provide negative information to outsiders that was previously private. This approach to anticipatory impression management is called "voluntary disclosure" (Healy & Palepu, 2001), or "stealing thunder," which occurs when an organization "breaks the news about its own crisis before the crisis is discovered by the media or other interested parties" (Arpan & Roskos-Ewoldsen, 2005, p. 425). Theory and empirical evidence suggest that organizations that break their own bad news benefit from enhanced organizational credibility and somewhat less negative stakeholder reactions (Arpan & Pompper, 2003; Claeys & Cauberghe, 2012; Healy & Palepu, 2001). In the accounting literature, security analysts often represent the target of voluntary disclosure (Healy & Palepu, 2001; Skinner, 1994).

### Impression Management Directed at Security Analysts

Scholars have studied a variety of ways that managers attempt to influence the impressions of analysts. For the most part, these are anticipatory management techniques, some of which involve revealing very little information about the firm and others of which involve revealing a great deal of specific information. Demonstrating a technique involving almost no information disclosure, Westphal and Clement (2008) described how managers may render favors for security analysts. In doing so, managers attempt to build up social cachet in advance of announcements that may elicit negative responses, such as missed earnings or acquisition announcements. Analysts may then feel the need to reciprocate by responding more favorably (or less negatively) to such events. Maintaining a strong reputation (e.g., Pfarrer et al., 2010), possessing strong governance (e.g., Westphal & Graebner, 2010), or associating with credible third parties (e.g., Jensen, 2006) may also help firms improve analyst perceptions. G. V. Krishnan et al. (2011) predicted and found that top executives may select directors more socially connected to security analysts to help avoid negative reactions to missing earnings forecasts.

In contrast to techniques whereby managers attempt to manage analyst impressions while disclosing little or no new information to them, our interest in this study is on impression management through information disclosure. Washburn and Bromiley (2014) suggested that, depending on the situation, managers may influence analysts by providing useful information (e.g., Whittington et al., 2016), distracting information (e.g., Graffin et al., 2011), or some combination of the two. As an example that pertains to providing useful information, managers may give earnings guidance to analysts when analyst projections deviate from what managers expect (Washburn & Bromiley, 2014). Analysts tend to appreciate it when managers provide rationales for activities or decisions and when managers make information easily accessible for them (e.g., Libby & Tan, 1999; Washburn & Bromiley, 2014; Whittington et al., 2016). When analysts may perceive firm activity or decisions negatively, managers are apt to issue more press releases, hold more presentations, and conduct more conference calls with them (Whittington et al., 2016). The goal is to “influence analysts [by] using future

information as leverage” (Washburn & Bromiley, 2014, p. 855).

### Foreshadowing Firm Activity to Influence Analysts

Our contribution is to identify foreshadowing as an important, alternative way that managers may influence analyst impressions. Foreshadowing entails releasing vague information about *potential* future strategic activity in advance of a detailed announcement of a strategic move. In the finance literature, the term *foreshadowing* has been applied to how financial markets see given actions or outcomes of the firm as presaging other outcomes. For example, Otchere (2009, p. 2377) noted that “... investors view privatization announcements as foreshadowing bad news for rival banks.” Rather than that view of foreshadowing as interpretation, here we describe foreshadowing as a deliberate managerial impression management technique. We are interested in how purposefully releasing information that foreshadows an event likely to receive negative audience reactions might help mollify those reactions and might help managers reshape that course of action. Foreshadowing allows managers to provide analysts with valuable information, while not disclosing specific information that competitors could easily use against the firm.

### The Benefits of Foreshadowing

Although foreshadowing is intentionally vague, we suggest this technique improves analyst reactions to eventual announcements of firm activity. Demand for security analysts is based almost exclusively on their ability to synthesize information and provide insight into the firm that investors could not garner themselves (Barber et al., 2001; Barron et al., 2008; Jegadeesh & Kim, 2009). The primary job of an analyst is to discover information about the firm and to determine what that information implies about future firm performance (Francis & Soffer, 1997). Analysts are especially valued and rewarded for making expert and novel evaluations of the firm based on the information available to them (Brown et al., 2015). Foreshadowing facilitates the job of an analyst by increasing the predictability and interpretability of the firm's actions.

In terms of predictability, analysts tend to respond more favorably if the firm can avoid



surprising them (Barron et al., 2008; Pfarrer et al., 2010; Skinner & Sloan, 2002). When analysts are surprised, they are hampered in their ability to provide advance notice of firm activities to investors. Surprising information can thereby hurt analyst reputations and jeopardize their careers (Barron et al., 2008; Jensen, 2006; Libby & Tan, 1999). Larger surprises tend to elicit more negative reactions from analysts, so managers strive to communicate with analysts to avoid or minimize surprises (Libby & Tan, 1999; Pfarrer et al., 2010; Skinner & Sloan, 2002). Since foreshadowing provides analysts with information in advance of a strategic activity, it helps analysts predict future endeavors better and decreases the degree to which analysts are surprised.

Analysts also tend to respond more favorably when information is easier for them to gather (e.g., Jensen, 2006; Washburn & Bromiley, 2014), evaluate (e.g., Plumlee, 2003), and process (e.g., Benner & Zenger, 2016; Hirshleifer & Teoh, 2003). Moreover, analysts value their time highly and consider it an opportunity cost when a particular firm or firm activity demands additional time and attention (Hirshleifer & Teoh, 2003; Litov, Moreton, & Zenger, 2012; Lou, 2014). Analysts have limited time they can spend evaluating any specific activity before they need to move on to other tasks (Hirshleifer & Teoh, 2003), so they tend to respond negatively when a specific activity is unique, complex, or requires more time than normal to fully understand (Benner & Zenger, 2016; Litov et al., 2012). Scholars have even suggested this deters managers from pursuing strategies that may be difficult for analysts to process (Benner & Zenger, 2016; Litov et al., 2012). By foreshadowing, managers provide information to security analysts that can help decrease the amount of time analysts have to spend trying to gather data to predict and evaluate the firm's strategies. Foreshadowing allows analysts to consider a potential strategy before it ever occurs, thus affording them much more time to gather information relevant to that activity.

### **Proprietary Information: A Benefit of Foreshadowing that is also a Potential Cost**

The literature on impression management of security analysts demonstrates managers realize that analysts benefit from, and react favorably to, information disclosures from the firm. However, research also suggests that managers understand

the value of that same information to their competitors (Ellis, Fee, & Thomas, 2012; Lewis et al., 2014). If managers disclose too much information, they incur proprietary costs, meaning that the firm suffers performance losses because competitors have access to proprietary information (Ali, Klasa, & Yeung, 2014; M. Lang & Sul, 2014). Given the trade-offs entailed with information disclosure, managers try to provide inside information only when they think the benefits will outweigh the costs (Guidry & Patten, 2012; Lewis et al., 2014). The impression management technique managers choose to employ is likely a function of how much revealing information the technique involves and whether providing proprietary information will actually benefit the firm more than it will cost the firm. A benefit of the technique of foreshadowing is that it allows managers to reveal information to analysts while limiting the proprietary costs that come from revealing detailed and specific proprietary information.

This is not to suggest that foreshadowing is an entirely costless impression management technique. Relative to the alternative of disclosing specific proprietary information about the firm, foreshadowing minimizes proprietary costs while still providing information of value to analysts. However, relative to remaining silent or engaging in other tactics like obfuscation, foreshadowing has the potential of resulting in more proprietary costs. For instance, a firm that foreshadows a strategic move may prompt unwanted countermeasures by competitors. Even based on a firm's vague foreshadowing of future acquisitions, competitors may accurately predict the firm's acquisition targets. Competitors may then themselves show the kind of interest in acquiring those targets that would raise the eventual acquisition premium the foreshadowing firm must pay for its targets (Carow, Heron, & Saxton, 2004; McNamara, Halebian, & Dykes, 2008). Still, our assumption here is that enough managers will believe that the benefits of foreshadowing acquisitions outweigh the costs, such that we will be able to observe foreshadowing and its effects in an empirical study. Following that assumption, we next develop research hypotheses.

### **Foreshadowing Acquisitions**

Scholars in multiple disciplines have examined the complexities surrounding both the determinants and

financial implications of acquisitions (e.g., Carow et al., 2004; Haleblan et al., 2009; L. H. Lang, Stulz, & Walkling, 1991). This research includes a considerable amount of empirical evidence revealing that investors tend to respond negatively to acquisition announcements (Haleblan et al., 2009; King et al., 2004; Netter, Stegemoller, & Wintoki, 2011). Negative reactions are often driven by experience as acquisitions are not reliably successful strategic endeavors and they often destroy firm value for the acquiring firm (Kaplan & Weisbach, 1992; King et al., 2004; Tortoriello et al., 2016). Negative reactions are also driven by suspicions that executives are engaging in acquisition activity to pursue their own interests at the expense of shareholders (e.g., Chatterjee & Hambrick, 2007; Hayward & Hambrick, 1997; Kumar, Dixit, & Francis, 2015). Westphal and Clement (2008, p. 876) wrote that announcing an acquisition will “tend to make security analysts more pessimistic about the performance prospects of an acquiring firm, triggering them to consider a change in their recommendation concerning the firm’s stock.”

Analysts may not only greet an acquisition announcement with pessimism, they may also find it an unpleasant surprise and a burden to analyze rapidly. Acquisitions are often shrouded in secrecy until the formal announcement (Vaara & Monin, 2010). Acquisition announcements can therefore surprise analysts, violating their expectations about the firm (Graffin et al., 2016). Acquisition announcements may hurt analyst reputations with investors who would have preferred advanced warning of such a material activity and who are otherwise wary when analysts respond optimistically to generally negative events (Brown et al., 2015; Jensen, 2006). Moreover, acquisitions are complex activities with many moving parts required to justify their success (Haleblan et al., 2009; King et al., 2004). Therefore, analysts must gather a great deal of information very quickly at the time of announcement in order to adjust their recommendations of the firm (Houston et al., 2001; Tortoriello et al., 2016).

These characteristics of acquisitions are reflected in analysts’ general distaste for acquisition announcements. For example, in the S&P Global Intelligence Analyst report on acquisitions, the authors made statements such as, “Acquirers lag industry peers on a variety of fundamental metrics for an extended period following an acquisition. Profit margins, earnings growth, and return on

capital all decline relative to peers, while interest expense rises, as debt soars, and other ‘special charges’ increase” (Tortoriello et al., 2016, p. 1). The authors also identified dozens of value destroying, and a few value increasing, characteristics of acquisitions.

The value of foreshadowing an acquisition, then, is that it reduces surprise for analysts and gives them more time to consider the performance implications of the strategic move. Foreshadowing the general possibility of an acquisition makes it more predictable for analysts when the firm actually engages in a specific acquisition. Additionally, foreshadowing gives analysts more time to consider and integrate the idea of an acquisition, and thereby, reduces the cognitive burden and perceived opportunity cost associated with investigating the merits of the acquisition. Consequently, analysts are also less likely to fall back on the general dislike for acquisitions and the generalization that acquisitions often destroy value (Haushalter & Lowry, 2011), which analysts do when faced with surprising information that requires quick processing (Hirshleifer & Teoh, 2003; Litov et al., 2012). Therefore, we expect that analysts will react less negatively to foreshadowed than to non-foreshadowed acquisition announcements, irrespective of the acquisition’s merits.

*Hypothesis 1 (H1): There is a negative relationship between foreshadowing an acquisition and security analyst downgrades following the acquisition announcement.*

### **Foreshadowing Acquisitions when Analyst Uncertainty about the Firm Is Higher**

Above, we argued that foreshadowing, because it makes firm behavior more predictable for analysts and gives them a better opportunity to consider and integrate the idea of an acquisition, can make analysts more amenable to an acquisition announcement when it comes. That beneficial effect of foreshadowing should be even greater if analysts harbor a great deal of uncertainty about the firm in general. The idea here is that, with some firms relative to others, analysts will believe they have more and better information about the factors associated with future firm performance (Jiang, Lee, & Zhang, 2005; Zhang, 2006). When analysts are more certain about their predictions about future firm performance, foreshadowing should play less of a role in influencing analyst impressions. In contrast, when

analysts are more uncertain about the inner workings of the firm, they should find the insight that foreshadowing provides into the thinking and planning of managers especially valuable.

We therefore expect that the effects of foreshadowing are more pronounced when analyst uncertainty about the firm is higher. The dispersion in analysts' stock recommendations for a firm represents a common operationalization of analyst uncertainty about a firm (Hong, Kubik, & Solomon, 2000). Low levels of recommendation dispersion indicate that analysts are more certain about the firm's future performance, whereas high levels of dispersion suggest that analysts have less consensus about the prospects of a firm and are less certain as to how the strategic activities of a firm may materialize in free cash flow (Baginski, Conrad, & Hassell, 1993; Barron & Stuerke, 1998). As such, high dispersion places higher information processing demands on analysts. Thus, we expect foreshadowing is especially helpful when recommendation dispersion is high.

*Hypothesis 2 (H2): Analyst recommendation dispersion moderates the relationship between foreshadowing and security analyst downgrades; the negative relationship between foreshadowing and analyst downgrades is stronger (more negative) when analyst recommendation dispersion is higher.*

### Foreshadowing to Gather Feedback

In addition to providing analysts valuable information about the potential for future firm strategic activity, foreshadowing also allows managers to gauge analyst reactions to that potential activity. In this way, foreshadowing represents an avenue for two-way communication between managers and analysts. Washburn and Bromiley (2014) referred to this as mutual influence, and they argued that interactions between managers and analysts are most effective when communication goes in both directions. Since foreshadowing does not require managers to formally commit to a future action, this technique allows managers to calibrate their actions using analyst reactions.

Having advance information about how analysts might respond to future strategic activity is a valuable tool for managers. Indeed, research indicates that managers will float trial balloons in anticipation

of a controversial move. For example, Ingram et al. (2010) described how Walmart executives probe geographic markets by hinting about the establishment of new retail outlets and then adjust course depending on how observers respond. Kumar et al. (2015) observed a similar effect with stock market reactions to acquisitions. They suggested past market reactions to a firm's acquisitions tend to shape managers' future acquisition activity.

Extending this trial balloon effect to security analysts, Benner and Ranganathan (2012) suggested analyst reactions shape firms' future strategic activity. They posited and found that when analysts respond particularly negatively to an announcement of a strategic activity (e.g., technological changes), managers tend to pursue more positive reactions via share repurchases. This suggests that managers are conscious of analyst responses to announcements and may use those responses to inform their firms' future actions. We argue that foreshadowing gives managers an early opportunity to receive and respond to feedback without actually announcing an acquisition. If managers are able to foreshadow such acquisitions before they are formally announced, managers can gauge how analysts might respond without risking a negative reaction that may accompany a formal announcement.

*Hypothesis 3 (H3): Analyst reactions to a foreshadowed acquisition moderate the relationship between the foreshadowing and the likelihood of a subsequent acquisition; managers are less likely to announce an acquisition when analysts react negatively to foreshadowing.*

## Methodology

### Sample

For managers to foreshadow, they need a platform to communicate with analysts. We study seasoned equity offerings (SEOs) as such a platform. Seasoned equity offerings are the equivalent of an initial public offering (IPO) for firms that are already public and looking to raise more capital by issuing equity. As with IPOs, the Securities and Exchange Commission (SEC) requires firms undertaking SEOs to file a prospectus outlining the details of the offering (Masulis & Korwar, 1986; Teoh, Welch, & Wong, 1998). SEO prospectuses are highly scrutinized and salient to market participants, in

large part because they are heavily regulated by the SEC (Autore, Bray, & Peterson, 2009). Managers have reason to use the SEO prospectus judiciously as SEOs are generally negatively received by stock market participants because they are often associated with managers attempting to capitalize on overvaluation (Baker & Wurgler, 2002; Loughran & Ritter, 1995). SEOs are more closely monitored and viewed than press releases, conference calls, or other types of announcements, plus some analysts prefer information that comes from scrutinized financial documents (Brown et al., 2016). When firms issue SEOs, they have captive audiences of individuals who pay attention to the prospectus (for further information on SEOs, see Masulis & Korwar, 1986; Teoh et al., 1998). SEO prospectuses therefore represent a prime opportunity for managers to foreshadow acquisition activity.

The SEO prospectus must contain a "Use of Funds" section that documents the intended use for the capital raised in the SEO (Autore et al., 2009; Walker & Yost, 2008). Firms use this section to describe intended uses for the funds that range from specific (e.g., debt repayment, acquisitions) to opaque (e.g., general corporate purposes). The following examples show how managers can foreshadow potential future acquisition activity in the prospectus.

The January 2004 SEO prospectus of Monster World Wide (MWW) states:

[We are] currently discussing potential acquisitions with third parties. Consequently, we may utilize a portion of our net proceeds from this offering in conjunction with one or more acquisitions . . . . Our ongoing strategies to strengthen our position include . . . growing organically and through select, complementary acquisitions.

The December 2010 SEO prospectus of RealPage Inc. (RP) states:

We expect to continue making acquisitions. The success of our future acquisitions will depend on our ability to identify, negotiate, complete, and integrate acquisitions.

These examples, and many others like them in our sample, highlight how managers may use the "Use of Funds" section in the SEO prospectus to

foreshadow future acquisition activity. However, executives do so in a nonspecific way such that the SEO prospectus in and of itself does not function as an acquisition announcement.

#### **Acquisition response sample (H1 and H2).**

To test Hypotheses 1 and 2, our sample includes firms that announced an acquisition and also issued an SEO in the prior year. We used the Thomson-Reuters SDC Platinum Mergers, Acquisitions, and Alliances database to identify U.S. publicly traded firms that made an acquisition in the years 2000–2012. We used the Thomson-Reuters SDC Platinum New Issues database to identify firms that issued SEOs. Although we are interested in acquisition announcements, we included only those corresponding completed acquisitions whereby the acquirer assumed 100% of the target's equity to ensure our sample reflects acquisitions instead of alliances or mergers. We excluded observations of firms primarily in the commodities or the financial sectors as these are highly regulated, and therefore, are not likely to compete in the conventional sense (Carow et al., 2004; Misangyi et al., 2006). We then tracked each firm to identify whether it acquired another firm.

To test Hypotheses 1 and 2, our sample included firms that announced an acquisition and also issued an SEO in the prior year. We used propensity scores to create a matched sample of firms that announced an acquisition but did not issue an SEO in the prior year and firms that both issued an SEO and announced an acquisition. This allowed us to compare three different groups of acquiring firms: (a) those that foreshadowed by using an SEO, (b) those that issued an SEO but did not foreshadow, and (c) those that did not issue an SEO. To employ propensity score matching, we took a sample of 4,848 acquisition announcements and matched on several characteristics predicting whether or not a firm issued an SEO within a year prior. We used nearest neighbor propensity score matching, wherein each observation is matched with the observation closest to it (Li, 2013). In instances where two observations shared the same match, one observation shifted to the next highest match. Our propensity score matching procedure resulted in very strong matches, high levels of balance, and reasonable degree of bias reduction. These statistics, as well as the parameter estimates associated with the propensity score matching technique, are displayed in Appendix S1. Our final sample includes 490 observations across 332 firms (about 1.5 acquisitions per firm). Of these



490 observations, 245 issued an SEO and 245 did not, and 104 of the SEO-issuing firms foreshadowed an acquisition.

**Likelihood of acquisition sample (H3).** We used the same data drawn from SDC Platinum to test Hypothesis 3 as we did to test the first two hypotheses. The primary difference with this sample is that we are concerned with all of the firms that issued an SEO, not only those that issued an SEO and an acquisition. After identifying all SEO-issuing firms, we measured whether they announced an acquisition (1 for Yes, and 0 for No) in the 12 months following the SEO. Using observations with complete data, our final sample included 2,336 SEOs. This differs from the propensity score matched sample in which all firms made an acquisition.

### Dependent Variables

**Analysts downgrades after acquisition announcements (H1 and H2).** To test Hypotheses 1 and 2, we used the Institutional Brokers' Estimate System (I/B/E/S) Detail database to count the number of analysts downgrading their recommendation of the firm within the 1-month period following an acquisition announcement. Analyst downgrades are important as they are often associated with decreased market valuations, less access to capital markets, and a greater effect on trading than upgrades (Frankel, Kothari, & Weber, 2006; Westphal & Clement, 2008). The measure reflected in our results includes any degree of a downgraded recommendation (e.g., strong buy to buy) as we believe this is the most informative. As an alternative measure we looked only at downgrades of at least a full level (i.e., buy to hold/sell or hold to sell). The results for the alternative measure are not substantively different from those we report below.

**Acquisition announcement following an SEO (H3).** The dependent variable for Hypothesis 3 is dichotomous, indicating whether a firm issuing an SEO subsequently announced an acquisition within the following year. We assigned a value of 1 to firms that undertook an acquisition, and 0 to firms that did not.

### Independent Variables

**Acquisition foreshadowing.** In the SEO prospectus, the "Use of Funds" section lists how firms intend to use the capital from the SEO. If the

"Use of Funds" section indicates "acquisitions," this variable takes the value of 1, and 0 otherwise. The "Use of Funds" section of the SEO prospectus is not binding (Autore et al., 2009), so investors and competitors can interpret the contents of this section in many ways.

### Moderators

**Analyst recommendation dispersion (H2).** The dispersion of security analyst buy-sell recommendations for a firm is calculated as the standard deviation of the recommendations. Since recommendations take a value from 1 (strong buy) to 5 (strong sell), a numerical dispersion can be calculated and is provided by I/B/E/S. This standard deviation measure is often used by scholars studying variance in analyst recommendations (Jegadeesh & Kim, 2009).

**Analyst downgrades after the SEO (H3).** Analyst downgrades as described above appears as a dependent variable for other hypotheses, but in Hypothesis 3, we use it as an independent variable to gauge the reaction of analysts to foreshadowing.

### Control Variables

Since this study examines firms that announce either an SEO or an acquisition, our control variables pertain to both of these events (as well as to the firms themselves). Unless otherwise stated, each control variable is lagged one fiscal year prior to the relevant event.

**Acquisition controls.** *Relatedness* refers to the similarity of the acquiring and target firm industries, and takes the value of 1 when the two-digit SIC codes of the acquirer and the target match, and 0 otherwise (Hitt et al., 1998; King et al., 2004). We multiplied this variable by the size of the target relative to the size of the acquirer, so relatively larger unrelated acquisitions take higher values. *Cash-financed* takes the value of 1 if the acquisition was financed with cash (which includes debt), and 0 if financed with equity. Previous research suggests the financial method of payment for the acquisition will impact market perceptions (Hayward, 2002; Hayward & Hambrick, 1997). *M&A experience* is a count of the number of acquisitions the acquiring firm completed in the three years before the focal acquisition announcement, standardized by industry and year and weighted by the size of the acquisition. *Public target* takes the value

of 1 if the target firm is publicly traded, and 0 if not (Fuller, Netter, & Stegemoller, 2002). *Subsidiary* takes the value of 1 if the target firm is a subsidiary of a larger firm, and 0 if not. *Value of the transaction* reflects the purchase price of the target. *Run-up returns* represents the cumulative abnormal stock returns (CAR) of the acquiring firm in the period 30 days prior to 5 days prior to the acquisition announcement (e.g., C. N. V. Krishnan et al., 2010). We also include the shorter-term CAR for the window  $[-1,+1]$  around the acquisition announcement (McWilliams & Siegel, 1997). None of the acquisition-specific controls are lagged because each is relevant to a specific acquisition and may not exist in the year before the event.

**SEO controls.** *Shelf offering* takes the value of 1 if the SEO issue was a shelf offering, and 0 if it was not. Shelf offering refers to SEC Rule 415, and occurs when an SEO is placed on a proverbial “shelf,” whereby investors can contribute capital at multiple occasions over the life of the issuance (Henry & Koski, 2010). *SEO but no foreshadow* is relevant for the tests corresponding with Hypotheses 1 and 2. This takes the value of 1 if the acquiring firm conducted an SEO within the year prior and did not foreshadow in the SEO, and 0 otherwise. This allows to us control for the potential that simply issuing an SEO, irrespective of the mention of acquisitions, may effectively foreshadow future activities like acquisitions. *Analysts downgrading after the SEO* represents the number of downgrades following the seasoned equity offering. For firms in the matched sample that did not issue an SEO, we use the number of analysts downgrading in the same period as their matched firm’s SEO issuance.

**Firm-related controls.** We gathered the firm financial data from COMPUSTAT, the stock return data from CRSP, and the firm-level analyst data from I/B/E/S. We control for *Return on assets (ROA)*, standardized by industry-year. *Debt-to-equity* is standardized by industry-year and represents the financial slack of the acquiring firm (e.g., Hayward & Hambrick, 1997). *Market-to-book* represents the industry-year standardized market value of a firm’s equity divided by the book value of the equity (Loughran & Ritter, 1995). *Mean bid-ask spread* represents the difference between the asking price for a firm’s shares and the bidding price from market makers, adjusted by stock price (Corwin, 2003). *CEO tenure* is the number of years the CEO had served in the position at the time of the acquisition announcement, which is meant

to reflect CEO entrenchment (Busenbark et al., 2016). Similarly, we control for *CEO contingent pay* for those CEOs who are highly incentivized by contingent pay and may be more apt to pursue riskier acquisitions (Gamache et al., 2015).

*Analysts following* is the total number of analysts making stock recommendations for the firm in the period following the acquisition announcement. In our empirical tests related to Hypotheses 1 and 2, we include this variable instead of total assets. The two variables are highly correlated, but the *Analysts following* variable is conceptually more relevant to the number of analysts downgrading. *Buy percentage* is a lagged variable reflecting the portion of a firm’s analysts issuing “buy” recommendations. It is possible that firms with higher values here are more apt to suffer downgrades because analysts had higher expectations and because there is less range restriction. *Buy increase* is the change in analysts making “buy” recommendations in the period following the acquisition announcement. Because of the demand-driven nature of security analysis, analysts have an incentive to act in their own interest (Frankel et al., 2006), so they might issue downgrades simply because other analysts are issuing upgrades in order to differentiate their analyses. *Analyst reputation* measures the number of analysts who were named as “All Star” analysts in *Institutional Investor* magazine’s annual award. Scholars have suggested that higher reputation analysts may react differently to firm events and may motivate herding from lower reputation analysts (Boivie, Graffin, & Gentry, 2016; Stickel, 1992).

*Press releases (-1,+1)* represents the number of press releases about the firm in the three days surrounding the acquisition announcement. We collected this from Lexis Nexis using releases from PR Newswire and Business Wire. Graffin et al. (2011) suggested firms can engage in obfuscation—issuing many press releases—around a negatively received event to distract capital market attention. We also control for the number of *Total articles* appearing in the press in the fiscal year preceding the acquisition announcement. *PR (press release) foreshadowing* is measured using content analysis of the press releases to control for the possibility that managers are engaging in foreshadowing in their press releases instead of, or in addition to, the SEO prospectus. We used DICTION to compute the insistence score of acquisitions for each observation’s set of press releases. This score is higher

when firms talk more about acquisitions, and thus, show a preference to discuss acquisitions relative to other activities. The dictionary for this included present and future tense terms for acquisition (e.g., acquisition, acquiring, acquire). We then multiplied this by a “future orientation” score, which captures how forward-looking the statements in the press releases are (Nadkarni & Chen, 2014). It stands to reason that if firms are frequently talking about acquisitions and the future in the press, analysts may be inclined to connect the dots and will be less surprised by an acquisition announcement.

### Analytical Models

#### Zero-inflated negative binomial (H1 and H2).

To test Hypotheses 1 and 2, we require a model that accounts for the dependent variable (number of analysts downgrading) that is both a count and features a large number of zeroes (instances where no analysts downgraded the firm). Accordingly, we employed zero-inflated negative binomial regression (Greene, 2011; Long, 1997). We selected a negative binomial model instead of a Poisson because the data are overdispersed (Greene, 2011; Kennedy, 2006). A zero-inflated negative binomial model is similar to a conventional negative binomial model, but allows for a specification helping to predict instances of zero (Greene, 2011; Vuong, 1989). Firms with more analysts and more press coverage are more likely to have analysts changing their recommendations. The zero-inflated model allows us to compare estimation with a traditional negative binomial model. This is referred to as the Vuong test (from Vuong, 1989). Our results are nearly identical in both models. To account for repeat appearances by firms in the sample, we clustered standard errors by firm. As a robustness check, we ran a generalized estimating equations (GEE) model (e.g., Ballinger, 2004), specifying random effects on the firm and found results similar to those we report in the article. As the panel data are highly unbalanced, we use the GEE only as a robustness check.

Consistent with our arguments in Hypothesis 3, we expect potential sample-induced endogeneity because foreshadowing may influence whether a firm appears in this sample. It is also possible that traditional endogeneity is present because there may be some omitted variable that influences whether a firm foreshadows and the number of analysts downgrading. To further rule out the effect of omitted variable bias, we computed the

impact threshold for a confounding variable (ITCV) (Frank, 2000). Here, the ITCV indicates that, for omitted variable bias to be a problem for interpretation of our findings, an omitted variable would need to overturn the relationship between foreshadowing and analyst downgrades in 49 of the currently significant cases. This seems unlikely and is perhaps due to the use of propensity scores to compare firms, leading to matched firms with similar measured and unmeasured characteristics.

**Two-stage treatment effects probit model (H3).** To test Hypothesis 3, we need a model that accounts for our binary dependent variable. At the same time, we recognize that foreshadowing (our primary independent variable in these models) might be endogenous. More specifically, we are concerned about the potential for omitted factors to influence both our independent variable of foreshadowing an acquisition and the dependent variable of later announcing an acquisition. In such cases, a standard estimator will produce biased results (Kennedy, 2006; Semadeni, Withers, & Certo, 2014).

To account for this bias, we employ a two-stage treatment effects model (Shaver, 1998). The two-stage treatment effects model features two dependent stages. The first stage is a probit model that estimates a binary independent variable appearing in the second stage (i.e., acquisition foreshadowing) as the dependent variable. The second stage estimates the hypothesized dependent variable (i.e., acquisition announcement) with an adjustment factor ( $\lambda$ ) from the first stage.  $\lambda$  is a hazard that models the correlation in error terms between the first two stages as well as the standard deviation of the error from the second stage (Baum, 2006). We used a probit model to estimate the second stage instead of a logit model because the errors in both stages are assumed to be normally distributed in a treatment effects model, which is consistent with a probit approach (Larcker & Rusticus, 2010). Standard errors in the second stage are robust and clustered by firm.

The two-stage treatment effects model features instruments, which are variables correlated with the dependent variable in the first stage, and which are included only in the first stage (technically referred to as “exclusion restrictions”) (Hamilton & Nickerson, 2003; Semadeni et al., 2014). Although there are no clear rules regarding the exclusion restrictions, scholars have suggested that using more than one is ideal and that they should be as strongly

related to the first stage dependent variable as possible (Certo et al., 2016; Larcker & Rusticus, 2010; Sartori, 2003). We include two exclusion restrictions in our model. The first, *Character length*, is the total number of characters of text in the “Use of Funds” section in the prospectus. As the number of characters in the “Use of Funds” section increases, so too does the probability of acquisitions being one of the uses. This would be considered a “natural” exclusion restriction (Kennedy, 2006). The second exclusion restriction, *Industry acquisitions/year*, represents the total number of acquisitions that occur in the firm’s primary industry in the 3 years prior to the acquisition announcement. This would be considered a “theoretical” exclusion restriction (Kennedy, 2006) as we expect firms in highly acquisitive industries will be apt to include acquisition as a reason for the SEO. Although an imprecise measure for variance explained (e.g., Long & Freese, 2006), the incremental Pseudo R-squared from the inclusion of our exclusion restrictions is approximately 0.39, whereas all of the remaining variables feature a Pseudo R-squared of approximately 0.03. According to the values in Certo et al. (2016), these exclusion restrictions appear to be strong.

## Results

Table 1 (matched acquisitions sample) and Table 2 (SEO sample) display descriptive statistics and correlations for the primary variables in this study. The correlations suggest that multicollinearity is not of high concern for interpreting the parameter estimates in our models. Although our zero-inflated negative binomial and two-stage treatment effects models do not permit Variance Inflation Factors (VIF) to be computed, we ran a supplementary OLS regression to verify the VIF values. All values in the VIF were below 10 (all were below 5, with the average around 1.5), and thus, not a prime concern in our analyses (J. Cohen et al., 2003).

Table 3 contains estimates relating to Hypotheses 1 and 2. In Hypothesis 1, we predicted a negative relationship between foreshadowing and analyst downgrades following the acquisition announcement. The estimate for *foreshadowing* in column “Hypothesis 1” suggests that there is likely a negative relationship between foreshadowing and analyst downgrades ( $\beta = -0.703$ ;  $p = .021$ ). These results support the notion that fewer analysts

downgrade their recommendation of firms following an acquisition announcement when the firms foreshadowed the announcement earlier in an SEO prospectus. In our sample, approximately half as many analysts downgrade their recommendation of the firm following an acquisition announcement when a firm foreshadows compared to when a firm does not.

In Hypotheses 2, we predicted moderating effects of uncertainty about the firm on the relationship between foreshadowing and the number of analysts downgrading the firm. In short, we expect the effect of foreshadowing to be stronger (weaker) when uncertainty is higher (lower). Specifically, we predicted that when analyst recommendation dispersion is higher the effect of foreshadowing on analysts downgrading would be even stronger than when dispersion is lower. The interaction estimate in column “Hypothesis 2” suggests there is likely a negative moderation, consistent with our hypothesis ( $\beta = -4.150$ ;  $p = .001$ ). In other words, even fewer analysts downgrade following foreshadowing when dispersion is higher than lower. This effect is graphed in Figure 1, which displays a steep negative slope for the relationship of foreshadowing on analyst downgrades when analyst recommendation dispersion is high.

Table 4 displays the results corresponding to Hypothesis 3. The treatment effects probit model we used required two stages. Given that the first stage is a probit model predicting the probability of foreshadowing, the coefficients for the first stage are invariant between each subsequent second stage model. Consequently, we list the first stage in the column titled “First Stage.” Of interest in that column are the values for our two exclusion restrictions. Here, we can see that each exclusion restriction is a strong significant predictor of the probability of foreshadowing an acquisition in the SEO prospectus ( $\beta = 0.037$ ;  $p = .000$  &  $\beta = 0.003$ ;  $p = .045$  for *Character length* and *Industry-year acquisitions*, respectively). The hazard lambda predicted by the first stage, and inserted in the corresponding second stages, is significant in the models estimating our hypotheses. In conjunction with the large sample size and strength of the exclusion restrictions, the significance of the hazard lambda in our hypothesized model suggests we have controlled for endogeneity (Certo et al., 2016).

Hypothesis 3 predicted that the number of analysts downgrading in response to the SEO would downwardly moderate the relationship between



Table 1  
Means, Standard Deviations, and Correlations of Variables in the Acquisition Announcement Sample<sup>a</sup>

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13
1 # of analysts downgrading	0.28	0.67													
2 Foreshadowing	0.21	0.41	-0.07												
3 Analyst dispersion	0.24	0.23	0.00	0.07											
4 Stock return volatility	0.60	0.45	-0.03	-0.06	0.20										
5 Run-up CAR	-0.02	0.20	-0.05	0.02	0.00	-0.15									
6 CAR [-1,+1]	0.00	0.09	-0.10	-0.08	-0.04	-0.05	-0.02								
7 ROA	0.28	0.53	0.04	0.00	-0.04	-0.26	0.15	0.03							
8 Debt-to-equity	0.05	0.66	0.08	-0.09	0.00	-0.12	0.07	-0.03	0.01						
9 Market-to-book	0.26	0.75	0.03	-0.02	0.15	0.12	-0.08	-0.01	-0.02	0.20					
10 Mean bid-ask spread	0.01	0.01	0.01	0.02	0.21	0.23	-0.08	0.11	-0.06	-0.01	0.05				
11 Total # of analysts	11.55	8.11	0.12	0.08	-0.10	-0.19	0.07	-0.05	0.21	-0.05	0.10	-0.28			
12 Increase in "buy" percentage	-0.23	7.29	-0.14	-0.04	0.03	0.01	0.01	0.06	-0.13	0.02	0.03	-0.07	-0.03		
13 Analyst "buy" percentage	72.95	25.65	0.09	0.08	0.36	0.29	-0.12	-0.04	0.05	-0.02	0.14	0.19	-0.05	-0.05	
14 Analyst reputation	1.86	2.01	0.13	-0.04	-0.01	-0.26	0.07	0.00	0.17	0.12	0.15	-0.11	0.62	-0.05	-0.07
15 Target is a subsidiary	0.31	0.46	0.02	0.06	-0.07	-0.12	0.07	0.07	0.01	0.00	-0.01	0.04	-0.06	-0.04	-0.09
16 Target is public	0.35	0.48	0.05	-0.06	-0.03	-0.07	0.07	-0.03	0.11	0.04	0.03	0.04	0.07	-0.02	0.01
17 Cash financed	0.38	0.49	0.01	0.01	-0.10	-0.24	0.09	0.02	0.08	0.05	-0.14	-0.07	-0.08	-0.10	-0.10
18 Related acquisition (size weighted)	0.12	0.28	-0.05	0.07	0.13	0.16	-0.07	0.03	-0.08	-0.05	0.08	0.03	-0.12	0.05	0.10
19 Value of transaction	504.95	3388.94	0.00	-0.03	0.00	-0.06	0.01	-0.07	0.02	0.00	-0.02	-0.06	0.13	0.11	-0.07
20 M.A. experience (size weighted)	0.67	3.28	0.09	-0.04	-0.02	-0.08	-0.02	0.00	0.05	0.01	-0.01	-0.08	0.21	0.00	-0.01
21 CEO tenure	7.47	5.38	-0.03	0.15	-0.01	-0.02	0.00	-0.07	0.04	-0.09	-0.11	-0.02	0.04	-0.04	-0.04
22 CEO contingent pay	0.76	0.19	0.03	0.05	-0.04	-0.05	0.06	0.11	0.06	0.01	0.08	-0.01	0.24	-0.02	0.06
23 SEO but no foreshadow	0.29	0.46	0.02	-0.34	0.13	0.23	-0.09	0.02	-0.10	0.07	0.07	0.17	-0.18	-0.06	0.14
24 Analysts downgrading after the SEO	0.04	0.21	0.07	-0.01	-0.02	0.02	0.04	0.00	-0.02	0.00	-0.01	-0.02	0.06	-0.01	0.00
25 PR foreshadowing	-0.02	1.03	0.02	0.12	-0.01	0.09	-0.05	-0.12	0.00	-0.08	0.02	0.10	-0.03	-0.10	0.05
26 Total articles	195.47	284.86	0.00	0.08	-0.07	-0.23	0.05	-0.01	0.16	-0.02	0.11	-0.27	0.71	0.03	-0.06
27 Press releases (-1, +1)	2.79	3.66	-0.01	0.09	0.01	-0.11	0.01	-0.01	0.16	-0.04	0.15	-0.18	0.63	-0.01	0.05

Table 1  
Continued

Variable	14	15	16	17	18	19	20	21	22	23	24	25	26
1 # of analysts downgrading													
2 Foreshadowing													
3 Analyst dispersion													
4 Stock return volatility													
5 Run-up CAR													
6 CAR [-1,+1]													
7 ROA													
8 Debt-to-equity													
9 Market-to-book													
10 Mean bid-ask spread													
11 Total # of analysts													
12 Increase in "buy" percentage													
13 Analyst "buy" percentage													
14 Analyst reputation													
15 Target is a subsidiary	0.06												
16 Target is public	0.18	0.39											
17 Cash financed	-0.07		0.00										
18 Related acquisition (size weighted)	-0.15	-0.06	0.13	-0.18									
19 Value of transaction	0.23	-0.03	0.15	-0.09	0.07								
20 M.A. experience (size weighted)	0.15	-0.04	-0.03	0.07	-0.06	0.04							
21 CEO tenure	-0.05	-0.02	-0.01	0.05	-0.01	-0.01	0.02						
22 CEO contingent pay	0.22	0.02	0.07	-0.02	-0.12	0.06	-0.01	-0.17					
23 SEO but no foreshadow	-0.02	-0.01	0.00	0.02	0.01	-0.03	-0.06	0.00	-0.05				
24 Analysts downgrading after the SEO	0.05	-0.03	0.01	0.00	0.02	0.04	-0.03	0.08	-0.03	0.10			
25 PR foreshadowing	-0.07	0.01	0.04	0.02	0.00	0.02	0.00	0.04	-0.03	0.02	-0.02		
26 Total articles	0.54	-0.07	0.15	-0.11	-0.13	0.22	0.22	-0.04	0.23	-0.24	0.01	-0.02	
27 Press releases (-1, +1)	0.48	-0.05	0.19	-0.16	-0.07	0.24	0.15	-0.03	0.21	-0.18	-0.04	0.00	0.84

n = 490. Where  $|r| > .09$ ,  $p > .05$ .

Table 2  
Means, Standard Deviations, and Correlations of Variables in the SEO Sample<sup>a</sup>

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Announced acquisition	0.06	0.24														
2 Acquisition foreshadow	0.32	0.47	0.06													
3 # Analysts downgrading	0.15	0.45	-0.05	-0.03												
4 Run-up CAR	0.06	0.20	-0.02	-0.02	0.01											
5 ROA	0.00	0.71	0.05	0.02	0.03	-0.02										
6 Debt-to-equity	0.11	1.18	0.00	-0.04	0.00	-0.01	-0.04									
7 Total assets	0.18	0.78	0.04	-0.10	0.15	-0.05	0.27	0.09								
8 Market-to-book	0.09	1.05	0.04	-0.01	-0.04	-0.02	0.05	0.55	-0.06							
9 Mean bid-ask spread	0.01	0.01	0.05	-0.02	-0.09	0.05	-0.09	0.02	-0.25	0.00						
10 Stock return volatility	0.57	0.43	0.05	0.02	-0.04	0.12	-0.20	-0.06	-0.22	0.02	0.25					
11 Mean analyst recommendation	2.07	0.57	-0.06	-0.04	0.04	-0.04	-0.09	0.03	0.10	-0.05	-0.11	-0.06				
12 Analyst dispersion	0.67	0.35	-0.05	0.01	0.09	0.01	0.03	0.00	0.28	-0.03	-0.30	-0.11	0.21			
13 Analyst "buy" percentage	65.13	30.28	0.06	0.06	-0.05	0.03	0.08	-0.03	-0.08	0.07	0.13	0.09	-0.91	-0.21		
14 Character length	52.99	33.73	-0.02	0.64	0.00	0.04	-0.08	-0.06	-0.26	-0.01	0.00	0.11	-0.05	-0.03	0.05	
15 Industry acquisitions/year	14.57	27.53	0.21	0.07	-0.07	0.01	0.04	-0.04	-0.02	0.03	0.05	0.18	-0.10	-0.08	0.14	0.02

<sup>a</sup>  $n = 2,336$ . Where  $|r| < .04$ ,  $p > .05$ .

foreshadowing and acquisition announcement. The results in Table 4 suggest this is likely the case. The marginal (at the mean value for each control variable) moderating effect of analysts downgrading is displayed in column "Hypothesis 3" ( $\beta = -6.107$ ;  $p = .019$ ). Interpreting these coefficients as marginal probabilities, we can suggest that managers in our sample are approximately 10 times less likely to proceed with an acquisition when analysts respond negatively (one standard deviation more than average) to foreshadowing.

### Supplementary Results

In the above analyses, we tested Hypotheses 1 and 2 by looking at the total number of analysts who downgraded their recommendation of the firm following an acquisition announcement. As a robustness check, we also tested these hypotheses by looking at each analyst individually. These data reflect every analyst covering every firm in our sample, and the dependent variable takes a value of 1 if the analyst downgraded in the period following the acquisition announcement, and 0 if not. This allowed us to take a more granular look at the analysts who downgraded. Particularly, it enabled us to control for whether that analyst downgraded following the SEO. In these supplementary analyses, we tested Hypotheses 1 and 2 using a multilevel probit because all of the analysts are nested within firms (Rabe-Hesketh & Skrondal, 2008; StataCorp, 2015). These models show similar results to those reported above, indicating our hypotheses are supported whether we aggregate analysts by firm or look at each analyst individually. The results are displayed in Appendix S2.

### Discussion

In our study, we set out to identify how managers balance the tensions surrounding the provision of proprietary information to analysts. An emerging literature on impression management of analysts suggests managers can reveal information about their firms or strategic activities to influence how analysts perceive the firm (e.g., Washburn & Bromiley, 2014; Whittington et al., 2016). At the same time, managers are wary of disclosing information because competitors can use it against them (M. Lang & Sul, 2014; Lewis et al., 2014). Since the impression management literature has

Table 3  
Zero-Inflated Negative Binomial Models<sup>a</sup>

Variables	Controls			Hypothesis 1			Hypothesis 2		
	Estimate	SE	P-value	Estimate	SE	P-value	Estimate	SE	P-value
Controls									
Constant	-9.664	[1.369]	[0.000]	-9.767	[0.685]	[0.000]	-10.078	[0.697]	[0.000]
Analyst dispersion	-0.378	[0.750]	[0.614]	-0.236	[0.486]	[0.627]	0.262	[0.459]	[0.568]
Stock return volatility	-0.130	[0.483]	[0.788]	-0.181	[0.313]	[0.563]	-0.190	[0.332]	[0.568]
Run-up CAR	-0.620	[0.647]	[0.338]	-0.467	[0.566]	[0.409]	-0.498	[0.554]	[0.369]
CAR [-1, +1]	-2.191	[2.125]	[0.302]	-2.359	[1.365]	[0.084]	-2.515	[1.383]	[0.069]
ROA	-0.010	[0.215]	[0.962]	-0.094	[0.221]	[0.671]	-0.032	[0.212]	[0.880]
Debt-to-equity	0.282	[0.227]	[0.213]	0.303	[0.151]	[0.045]	0.296	[0.154]	[0.054]
Market-to-book	0.027	[0.143]	[0.849]	0.009	[0.143]	[0.950]	0.018	[0.142]	[0.901]
Mean bid-ask spread	6.639	[14.852]	[0.655]	8.155	[15.922]	[0.609]	10.606	[15.833]	[0.503]
Total # of analysts	0.058	[0.041]	[0.156]	0.062	[0.024]	[0.010]	0.065	[0.022]	[0.003]
Increase in "buy" percentage	-0.032	[0.017]	[0.056]	-0.033	[0.016]	[0.036]	-0.032	[0.016]	[0.045]
Analyst "buy" percentage	0.012	[0.007]	[0.080]	0.014	[0.006]	[0.010]	0.015	[0.006]	[0.008]
Analyst reputation	0.072	[0.055]	[0.186]	0.078	[0.055]	[0.152]	0.078	[0.053]	[0.143]
Target is a subsidiary	0.016	[0.273]	[0.954]	0.076	[0.267]	[0.775]	0.080	[0.268]	[0.765]
Target is public	0.235	[0.278]	[0.399]	0.127	[0.256]	[0.619]	0.137	[0.266]	[0.606]
Cash financed	-0.076	[0.289]	[0.792]	-0.054	[0.208]	[0.794]	-0.027	[0.206]	[0.896]
Related acquisition (size weighted)	-0.422	[0.457]	[0.357]	-0.264	[0.378]	[0.485]	-0.244	[0.391]	[0.532]
Value of transaction	0.000	[0.000]	[0.643]	0.000	[0.000]	[0.745]	0.000	[0.000]	[0.771]
M.A. experience (size weighted)	0.019	[0.044]	[0.660]	0.013	[0.017]	[0.454]	0.010	[0.016]	[0.534]
CEO tenure	-0.009	[0.028]	[0.732]	0.000	[0.027]	[1.000]	0.005	[0.028]	[0.847]
CEO contingent pay	-0.157	[0.975]	[0.872]	-0.125	[0.571]	[0.827]	-0.134	[0.538]	[0.803]
SEO but no foreshadow	-0.155	[0.300]	[0.607]	-0.341	[0.234]	[0.144]	-0.372	[0.225]	[0.099]
Analysts downgrading after the SEO	0.533	[0.374]	[0.154]	0.679	[0.550]	[0.217]	0.521	[0.446]	[0.243]
PR foreshadowing	0.016	[0.084]	[0.846]	0.056	[0.077]	[0.465]	0.042	[0.075]	[0.574]
Total articles	0.000	[0.001]	[0.723]	0.000	[0.001]	[0.769]	0.000	[0.001]	[0.710]
Press releases (-1, +1)	-0.126	[0.178]	[0.480]	-0.133	[0.105]	[0.207]	-0.123	[0.090]	[0.174]
<b>Hypothesized variables</b>									
Conducted SEO w/ foreshadowing				-0.703	[0.304]	[0.021]	0.203	[0.037]	[0.583]
Foreshadowing × analyst dispersion							-4.150	[1.207]	[0.001]
<b>Model statistics</b>									
Year fixed effects	Yes			Yes			Yes		
Wald $\chi^2$	54.17			69.15			60.21		
n	490			490			490		

<sup>a</sup> All Wald tests  $p < .05$ .



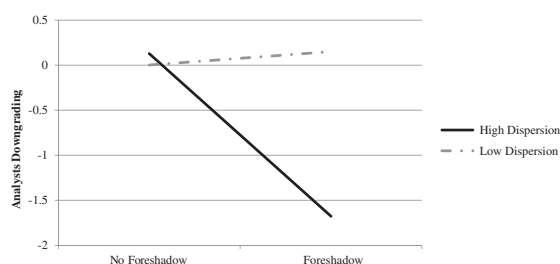


Figure 1. Moderating effect of analyst recommendation dispersion on relationship between foreshadowing and number of analysts downgrading after acquisition announcements<sup>a</sup>.

<sup>a</sup>High and low dispersion levels are set at one standard deviation above and below the mean dispersion level, respectively. The y-axis displays the marginal number of analysts downgrading with all other variables held constant. The values here represent the coefficients for a zero-inflated negative binomial model, so any point estimate should be exponentiated for a precise interpretation. This graph displays linear slopes and not precise point estimates.

yet to recognize this tension, we identified a tactic we call foreshadowing. We suggest managers may use foreshadowing to improve analyst reactions to events (e.g., acquisition announcements) without revealing valuable inside information to competitors. We also contend that foreshadowing allows managers the benefit of mutual influence with security analysts. Identifying and studying foreshadowing in this way has a variety of implications for the impression management literature as well as the literature on acquisitions.

Our introduction of foreshadowing provides three primary contributions to strategy research. First, to our knowledge, foreshadowing represents the first impression management technique that accounts for managers' concerns about proprietary costs. The impression management literature highlights the importance of security analysts as they are able to influence investor perceptions about the firm's performance prospects and the managers' abilities (Barber et al., 2001; Jensen, 2006; Westphal & Clement, 2008). Without acknowledging how managers navigate the benefits and costs of revealing information, however, the literature does not accurately capture the difficult calculus that managers encounter when determining how to influence analysts. Foreshadowing is significant because managers often face situations in which they may want to influence analysts by disclosing information, but they are concerned about how competitors may use that information. Acquisition

announcements may represent one such situation given the large capital outlay and performance implications associated with acquisitions (Carow et al., 2004; McNamara et al., 2008).

In this study, we were concerned primarily about the benefits of foreshadowing and not about the costs of revealing too much information. Accurately depicting proprietary costs is a difficult task (Ali et al., 2014; M. Lang & Sul, 2014). Future research can work toward measuring proprietary costs and determining how these costs influence the extent to which managers disclose information and the benefits associated with information disclosure. Both the literature on impression management and the broader literature on information disclosure could benefit from understanding when the costs of revealing information are higher and how this might inform managers' impression management techniques.

The second contribution of our study is that foreshadowing affords managers the ability to consider analyst preferences and temper their strategic actions accordingly. This is an effect not yet fully considered in the impression management literature. Although Washburn and Bromiley (2014) described many modes of communication managers may use to influence analysts, it is relatively unclear how managers may understand analyst preferences and react accordingly. We suggest foreshadowing represents one such opportunity. Managers can foreshadow and observe and respond to analyst reactions. This is one of the reasons we chose to use SEOs as an event to capture foreshadowing—SEO afford us a specific event around which we can examine analyst reactions. We suggest that when analysts react particularly negatively to SEOs that foreshadow acquisitions, managers can reconsider whether they want to proceed with future acquisition activity. As we note, we find managers in our sample are approximately 10 times less likely to proceed with an acquisition announcement when analysts respond negatively to an SEO that foreshadows the acquisition. This represents a potential detriment of foreshadowing, however, as doing so in the SEO and receiving positive analyst reactions may commit managers to a future acquisition even when they may eventually prefer to not do so. Because foreshadowing is necessarily vague, though, we expect this is not often the case.

Using SEO prospectuses to examine foreshadowing is not without limitations. Although we attempted to control for different types of

Table 4  
Two-Stage Treatment Effects Probit Models

Variables	First stage			Controls			Hypothesis 3		
	Estimate	SE	P-value	Estimate	SE	P-value	Estimate	SE	P-value
<i>Controls</i>									
Constant	−3.806	[0.487]	[0.000]	−1.491	[0.618]	[0.016]	−2.199	[0.611]	[0.000]
Run-up CAR (−30,−5)	−0.406	[0.172]	[0.018]	−0.168	[0.217]	[0.438]	−0.201	[0.234]	[0.390]
ROA	0.126	[0.055]	[0.020]	0.048	[0.068]	[0.477]	0.061	[0.068]	[0.369]
Debt-to-equity	0.008	[0.040]	[0.838]	−0.021	[0.041]	[0.600]	−0.02	[0.042]	[0.637]
Total assets	0.078	[0.055]	[0.155]	0.054	[0.063]	[0.396]	0.052	[0.064]	[0.413]
Market-to-book	−0.054	[0.046]	[0.236]	0.065	[0.045]	[0.145]	0.063	[0.046]	[0.170]
Mean bid-ask spread	−0.722	[4.282]	[0.866]	−6.054	[5.424]	[0.264]	−6.276	[5.884]	[0.286]
Stock return volatility	−0.159	[0.098]	[0.105]	0.104	[0.100]	[0.301]	0.096	[0.109]	[0.381]
Analyst mean recommendation	0.164	[0.144]	[0.254]	−0.117	[0.170]	[0.491]	−0.075	[0.172]	[0.662]
Analyst dispersion	0.119	[0.106]	[0.260]	−0.145	[0.132]	[0.273]	−0.132	[0.135]	[0.326]
Analyst “buy” percentage	0.006	[0.003]	[0.043]	−0.002	[0.003]	[0.479]	−0.002	[0.003]	[0.650]
Hazard Lambda				−0.068	[0.052]	[0.190]	0.141	[0.073]	[0.053]
<b>Instruments</b>									
Character length	0.037	[0.001]	[0.000]						
# of acquisitions in industry-year	0.003	[0.001]	[0.045]						
<b>Hypothesized variables</b>									
Foreshadowing							0.568	[0.133]	[0.000]
# of analysts downgrading							0.279	[1.074]	[0.795]
Foreshadowing × downgrades							−6.107	[2.612]	[0.019]
<b>Model statistics</b>									
Year fixed effects	YES			YES			YES		
Pseudo R2	0.42			0.12			0.14		
n	2365			2336			2336		

foreshadowing using press releases, we acknowledge managers could foreshadow in many other ways beyond the SEO prospectus. Scholars suggest managers can signal their intentions to outsiders in a variety of ways (Connelly et al., 2011). We believe this makes our analyses more conservative, and that SEOs represent a good opportunity to examine foreshadowing because of the how highly they are regulated (e.g., SEOs avoid problems associated with “cheap talk”). Future scholarship can examine other ways managers can foreshadow activities (Autore, 2011; Autore et al., 2009).

Our final contribution is to the already voluminous literature on acquisitions (e.g., Gamache et al., 2015; Halebian et al., 2009; King et al., 2004). There is a great deal of evidence to suggest that the market responds negatively to acquisition announcements, and as we develop in this study, this may reflect analysts’ distaste for acquisitions. Acquisition announcements are somewhat surprising to analysts and require extensive evaluation (Graffin et al., 2016; Houston

et al., 2001). We contend these features may result in analysts responding adversely to acquisition announcements, an idea echoed by a recent S&P analyst report (Tortoriello et al., 2016). Thus, foreshadowing is a valuable technique for managers who anticipate future acquisition announcements. Foreshadowing is especially valuable for those managers who believe an acquisition will enhance firm value, but are otherwise deterred from announcing an acquisition because of the adverse analyst and capital market reactions. We find foreshadowing not only improves reactions to the acquisition announcement, but also provides managers the option to abandon the idea if their suspicions of negative reactions are corroborated by the reactions to the foreshadowing.

Future research can examine the other types of activities managers could foreshadow beyond acquisition announcements. While we limit our study to acquisitions because of their proliferation in the management literature and in business practice, there are a variety of other controversial

activities managers could foreshadow such as increasing debt (e.g., Johnson, 2003), issuing seasoned equity (e.g., Henry & Koski, 2010), missing earnings targets (e.g., Pfarrer et al., 2010), increasing corporate social responsibility activities (e.g., Petrenko et al., 2015), or downsizing (e.g., Nixon et al., 2004). As we described above, we attempted to keep our study conservative by looking at SEO prospectuses as a means of foreshadowing. Unfortunately, our data suggest there are not many (if any) other types of controversial activities that managers actually foreshadow in the SEO prospectus. Our data also show that foreshadowing in SEOs is relatively rare, as approximately 20% of the firms in our sample that issue an SEO and announce an acquisition actually foreshadow. Many of the firms that foreshadow an acquisition decide not to proceed with an eventual announcement—which is what we predict in Hypothesis 3. Nevertheless, we expect the ways in which firms can foreshadow extend beyond SEOs, so we encourage future research to explore other types of mediums where managers can do so.

Foreshadowing may have broader implications for the impression management literature beyond the contexts of acquisitions and security analysts. Recent research has examined impression management of acquisitions in the context of investors instead of analysts (Graffin et al., 2016, 2011). Scholars suggest that managers can provide information unrelated to the acquisition in order to obfuscate it (i.e., strategic noise) or offset investors' negative perceptions of an acquisition announcement (i.e., impression offsetting). Whereas these tactics involve releasing more information about the firm but not the focal event, foreshadowing limits information disclosure but still addresses the focal event. Despite these differences, the mechanisms behind the techniques may not be all that different. Graffin et al. (2016) suggested that managers can release positive information unrelated to an acquisition announcement to offset the expectancy violation that the announcement represents. Foreshadowing may also decrease such an expectancy violation by altering the expectations of investors before the announcement is ever made. Nonetheless, future scholarship can examine other targets of foreshadowing beyond security analysts, such as investors (e.g., Graffin et al., 2016), consumers (e.g., Elsbach et al., 1998), or broader stakeholders in society (e.g., McDonnell & King, 2013).

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## Supporting Information

**Additional supporting information may be found in the online version of this article:**

**Appendix S1.** Propensity score matching statistics<sup>a</sup>.  
**Appendix S2.** Multilevel probit models<sup>a</sup>.