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Implicit Communication and Enforcement of Corporate Disclosure Regulation

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ABSTRACT

This study examines the challenge of implicit communication -- qualitative statements, tone, and non-verbal cues -- to the effectiveness of enforcing corporate disclosure regulation. We use a Regulation Fair Disclosure (Reg FD) setting, given that the SEC adopted the regulation recognizing that managers can convey non-public information privately not just through explicit quantitative disclosures but also through implicit communication. In a high-profile enforcement action, however, the court focused on a literal examination of the manager's language rather than his positive spin to conclude that the SEC had been "too demanding" in examining the manager's statements and that its enforcement policy was "overly aggressive." We provide empirical evidence suggesting that selective disclosure from managers to financial analysts increased significantly after the court's ruling. We also report survey responses from 60 securities lawyers with Reg FD expertise which support the proposition that this increase in disclosure is more likely due to an increase in implicit communication than in explicit communication or any other reason. Our results highlight the challenges associated with enforcing corporate disclosure regulation in the context of implicit communication.

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Implicit Communication and Enforcement of Corporate Disclosure Regulation

“The SEC has scrutinized at an extremely heightened level, every particular word used in the statement, including the tense of verbs and the general syntax of each sentence.... Such an approach places an unreasonable burden on a company's management and spokespersons to become linguistic experts, or otherwise live in fear of violating Regulation FD.” (U.S. District Court’s Ruling in *SEC v. Siebel Systems, Inc.*)

1. Introduction

Although disclosure regulation and enforcement focus primarily on explicit quantitative disclosures, corporations and corporate officials also make extensive use of implicit communication -- qualitative information, tone, and non-verbal cues. Several recent studies show that implicit communication can convey significant market-sensitive information (see, e.g., Feldman, Govindaraj, Livnat, and Segal 2010; Loughran and McDonald 2011; Mayew and Venkatachalam 2012a, 2012b; Blankespoor, Hendricks, and Miller 2017). These findings underscore the importance of examining issues associated with enforcing corporate disclosure regulations when information is communicated in an implicit manner.

Although these prior studies demonstrated that implicit communication is a component of corporate officials’ public statements and securities filings, implicit communication is potentially more significant in the context of private meetings in which there are only a select few market participants and non-scripted portions are more likely, providing private meeting attendees a better opportunity to observe not just what is said, but how it is said (Durney 2020; Solomon and Soltes 2015; Soltes 2014). The scope of potential liability exposure that corporate officials face for such private communication has a critical effect on the effectiveness of corporate disclosure regulations. Using a unique federal court case as our empirical setting, we examine this issue in the context of Regulation Fair Disclosure (Reg FD), which prohibits all publicly traded companies from disclosing material non-public information to a select few investors.

Reg FD provides an appropriate empirical setting for the purpose of our study since, at the time of the adoption of the regulation, the SEC was firmly of the view that managers could violate

Reg FD not just by what they say but also by how they say it (see, e.g., SEC 1999a, 2000; Fisch 2013). In fact, soon after the adoption of Reg FD in 2000, Richard Walker, Director of the SEC Division of Enforcement explained the SEC's position that implicit communication in private meetings can violate Reg FD, stating "selective disclosure of earnings information cannot come in the form of *indirect guidance, the meaning of which is apparent though implied.*" (Walker 2000, emphasize added). Subsequently the SEC brought two enforcement actions against firms that it believed selectively disclosed non-public information through implicit communication.¹ In 2002, the SEC penalized Siebel Systems, Inc. and its CEO for selectively disclosing material non-public information using positive statements.² Later in 2003, in an enforcement action against Schering-Plough, the SEC proceeded against the company and its officials for selectively disclosing material non-public information through "a combination of spoken language, tone, emphasis, and demeanor."³ Notably, these early actions were resolved through settlement, so they did not involve judicial evaluations of the conduct at issue.

The SEC's approach to addressing selective disclosure made through implicit communication was challenged, however, when in 2005 the U.S. Federal District Court for the Southern District of New York dismissed a civil lawsuit brought by the SEC in 2004 against Siebel Systems, Inc. for violation of Reg FD by its officials.⁴ The SEC alleged that the CFO Kenneth Goldman selectively disclosed material non-public information by using positive statements and tone in private investor meetings. The SEC noted that prior to the meetings, the company publicly provided a negative outlook about the company's business activity, whereas, at the meetings, Goldman provided an optimistic outlook, which materially contrasted with the negative tone of

¹ Consistent with the terminology used in the final release of Reg FD (SEC 2000), we use the term selective disclosure to refer to communication of non-public material information to a select few.

² Securities and Exchange Commission v. Siebel Systems, Inc., Litigation Release No. 17860 (Nov. 25, 2002).

³ Schering-Plough Corp., Exchange Act Release No. 48,461, Admin. Proceeding File No. 3-11,249 (Sept. 9, 2003).

⁴ SEC v. Siebel Sys., Inc., 384 F. Supp. 2d 694 (S.D.N.Y. 2005).

the company's public disclosures. The attendees promptly purchased the company's stock, its trading volume doubled the next day, and its price increased by 8%.⁵

However, on September 1, 2005, the court held that the SEC had been too demanding. The court focused on a close reading of the text of the official's statements rather than the official's tone to conclude that his private disclosures were "equivalent in substance to the information publicly disclosed [by the company]."⁶ Explaining that "The regulation does not prohibit persons speaking on behalf of an issuer, from providing mere positive or negative characterizations, or their optimistic or pessimistic subjective general impressions, based upon or drawn from the material information available to the public," the court concluded that Reg FD required a material difference between the company's public statements and those made in the private meetings, and that there was no material difference in the case before it.⁷

The court's ruling in *Siebel Systems* revealed the difficulty associated with enforcing corporate disclosure regulations in the context of implicit communication, and created a substantial burden for enforcing Reg FD for disclosures made in private meetings through characterizations, tone, or demeanor. The court observed that the SEC's "approach places an unreasonable burden on a company's management and spokespersons to become linguistic experts, or otherwise live in fear of violating Regulation FD." The ruling also signaled to the market participants that even a significant stock price reaction or trading activity by select investors following a private meeting need not constitute proof that management intentionally disclosed material non-public information in an implicit manner.

We posit that the *Siebel* decision signaled to market participants the regulation's ineffectiveness as a tool for policing implicit communication and, in this study, we examine its

⁵ Figures 1 and 2 present *Siebel*'s stock price reaction and trading volume around the date of the private meetings. Also, note that *Siebel System, Inc.* was charged by the SEC twice, first in 2002 and then again in 2004.

⁶ *Siebel* at 704.

⁷ Disclosure regulations under the U.S. federal securities laws and Reg FD define information as material if "there is a substantial likelihood that the information would have been viewed by a reasonable investor as having significantly altered the total mix of information made available" based on the U.S. case laws, *TSC Industries v. Northway Inc.* (1976) and *Basic, Inc. v. Levinson* (1988).

effect on the behavior of capital market participants. In other words, did corporate officials view Siebel as limiting the enforcement scope of Reg FD and modify their disclosure behavior accordingly? We note that the market may have viewed the decision as aberrational or unlikely to cause the SEC to change its approach in enforcing Reg FD with the hope that in the future courts would support the SEC's approach.⁸ Thus, the effect of the Siebel decision on subsequent managers' behavior is an empirical question. A significant increase in selective disclosure after the court's ruling would suggest that the market viewed the decision as a significant impediment to the SEC's enforcement policy going forward. The finding would also suggest that challenges associated with enforcing corporate disclosure regulations in the context of implicit communication can significantly limit the effectiveness of such regulations.

We examine the change in managers' selective disclosure behavior following the Siebel Systems decision by investigating the change in selective disclosure to financial analysts, given that managers' use of implicit communication to convey non-public information privately to analysts was one of the stated concerns of the SEC (see, e.g., SEC 1999a, 2000). We follow Gintschel and Markov's (2004) approach and examine changes in the information content of analyst information outputs after the court's ruling. We use a sample of analyst earnings forecasts and stock recommendations issued from September 1, 2004, to August 31, 2006, the two-year period around the court's ruling. We find that the effect on stock returns due to analyst information outputs (earnings forecasts and stock recommendations) is significantly greater in the one-year period after the court's ruling than that in the one-year period before the court's ruling, 7.6% versus 5.3% absolute standardized stock returns. This result suggests that the court's ruling led to a statistically and economically significant increase in firms' selective disclosure to analysts.

To mitigate the concern that the above results are due to an unspecified time trend, we perform a pseudo-event test (e.g., Kross and Suk 2012). We divide the sample period into three

⁸ For example, Sherman and Sterling LLP noted in its *Client Publication*: "It remains to be seen whether the SEC will appeal the court's decision and whether other courts will agree with what is essentially non-binding dicta in the court's opinion that the close scrutiny brought to bear by the SEC finds no support in the regulation and will have the effect of impeding the broad flow of information to the public (Sherman and Sterling LLP, 2005, page 3)."

overlapping one-year sub-periods (Sept. 1, 2004 – Aug. 31, 2005; Mar. 1, 2005 – Feb. 28, 2006; and Sept. 1, 2005 – Aug. 31, 2006), and use March 1, 2005 and March 1, 2006 as pseudo-event dates for the first and third sub-period, respectively. For the pseudo-event dates, we do not observe a significant change in the information content of analyst information outputs. However, using the actual date of the court's ruling, September 1, 2005, as the event date for the second sub-period, we find results similar to those observed for the full sample. This analysis helps us rule out the time trend explanation for our main results.

To further mitigate the concern that our findings may be due to some other macro events during our two-year sample period, we examine changes in the information content of analyst information outputs over a much shorter sample period, specifically, two months around the court's ruling. We find consistent results, showing a significant increase in the information content of analyst information outputs after the court's ruling. This analysis further suggests that our main finding is likely to be driven by the court's ruling.

Next, we carry out a cross-sectional analysis for further identification of the reason behind our findings. Prior studies have shown that managers discriminate among analysts by granting better private information access to analysts who hold a more favorable view of their firm (e.g., Gintschel and Markov 2004; Chen and Matsumoto 2006). If the increase in the information content of analyst information outputs after the court's ruling is indeed due to an increase in managers' selective disclosure to the analysts, then this increase should be more pronounced if an analyst tends to hold a more favorable view of the firm. We show that, after the court's ruling, the increase in the information content of analyst information outputs related to a firm is more pronounced for those analysts who tend to hold a more favorable view of the firm. Thus, this result further suggests that the increase in the information content of analyst information outputs after the court's ruling is likely to be driven by the increase in selective disclosure by managers to analysts.

Additionally, we use an alternative methodology to examine the effect of the court's ruling on firms' selective disclosure to analysts. We follow Mohanram and Sunder's (2006) approach,

which is based on the notion that an increase in selective disclosure from managers to analysts would reduce the analyst's workload per firm. They measure analyst workload using the average number of firms covered by an analyst as well as the average number of analysts following a firm. We find a significant increase in the average number of firms covered by an analyst and the average number of analysts following a firm in the one-year period after the court's ruling relative to the one-year period before the ruling, and these effects are of similar order of magnitude as those documented by Mohanram and Sunder (2006). These results further suggest that analyst access to selective disclosure increased after the court's ruling.

We note that the scope of our analysis is limited by the fact that the very nature of private meetings prevents us from directly documenting the nature of the information that was conveyed.⁹ Even though we cannot provide direct evidence, our setting offers a unique opportunity to empirically examine the challenge of implicit communication to the effectiveness of enforcing corporate disclosure regulation.¹⁰ We infer that our results are due to officials' increasing use of implicit communication in private meetings for the following reasons. First, both explicit and implicit communication made through *public* disclosures subject corporate officials to potential liability under Rule 10b-5. This liability can be enforced by private litigants through class actions in addition to SEC enforcement actions. Indeed, studies have found that corporate officials' use of optimistic tone in public disclosures can subject them to increased litigation risk (Rogers, Van Buskirk, and Zechman 2011; Cazier, Merkley, and Treu 2019). In contrast, corporate officials are

⁹ Currently, companies are not required to disclose publicly the discussions in their private meetings with analysts or investors (Soltes 2018). Soltes (2014), Solomon and Soltes (2015), and Park and Soltes (2018) overcome this data limitation to some extent by obtaining proprietary records of private meetings from one or two companies. They are able to address several interesting questions with that data. However, due to potential legal concerns with possessing records of management's responses, they could not obtain permission to analyze information that was disclosed by management (cf. Park and Soltes, 2018).

¹⁰ We note that prior studies on the effect of Reg FD also rely on indirect evidence. Studies that address whether Reg FD reduced private disclosure by firms of non-public information to analysts arrive at their conclusions by examining the change in the properties of analysts' forecasts and analysts' workload (Gintschel and Markov 2004; Mohanram and Sunder 2006; Kross and Suk 2012;). Studies that address the existence of private disclosures of non-public information under Reg FD by firms to analysts, also rely on indirect evidence. For example, Green, Jame, Markov, and Subasi (2014) examine whether access to management at broker-hosted investor conferences is associated with more informative research output by analysts.

unlikely to be subject to 10b-5 liability for statements made privately both because such disclosures are made to a limited audience, rendering them unsuitable for a class action lawsuit, and because a private claim would require proof by the plaintiffs that the private disclosures materially altered the total mix of information available, proof that would implicitly concede that the plaintiffs had received material non-public information.¹¹ Second, the Siebel opinion explicitly instructed corporate officials that, in evaluating their private disclosures, the courts would be focused on explicit statements and the extent to which those statements “add, contradict, or significantly alter the material information available to the general public.” Siebel thus allowed officials to infer that implicit communication would not be subject to a similarly exacting degree of judicial scrutiny.¹²

To further examine the likelihood that our results are due to officials’ increasing use of implicit communication in private meetings, we report survey results from 60 lawyers (primarily law firm partners with more than 20 years of experience) about their perceptions of the reason for the effect we document around the court’s ruling.¹³ We selected these lawyers based on their specific expertise in Reg FD. The results show that these lawyers perceive an increase in implicit communication to be a more likely explanation of the effect than an increase in explicit communication or any other reason.

A contemporaneous study by Allee, Bushee, Kleppe, and Pierce (2019), concludes that Siebel decision increased selective disclosure by managers to other market participants, institutional investors, by showing an increase in informed trading by transient institutional investors after the decision. Their finding further supports the proposition that our finding of an increase in the informativeness of analysts output after the Siebel decision is unlikely to be due to

¹¹ If plaintiffs acknowledged receiving material non-public information and trading on that information, they would face potential liability for illegal insider trading.

¹² The change in management perceptions, as suggested by our results, is consistent with the change in the SEC’s behavior. After the Siebel Systems decision, SEC enforcement actions were confined to cases in which an issuer’s private statements were explicitly contrary to its public statements. Specifically, SEC brought six such enforcement actions in the years 2007, 2009, 2010, 2011, and 2013 (Bengtzen 2017).

¹³ We assume that the effect the Siebel decision would have had on the behavior of managers would have been most likely through the information and advice they receive from their lawyers, who are likely to have paid much closer attention to Siebel decision than other market participants (Soltes 2018).

some other contemporaneous event. The two studies together suggest that Siebel decision resulted in an increase in selective disclosure by managers to both analysts and investors.¹⁴

Our study makes the following important additional contributions. To the best of our knowledge, our study is the first to focus on the challenge of implicit communication to the effectiveness of enforcing a corporate disclosure regulation. The Siebel decision revealed the inherent difficulty associated with enforcing a disclosure regulation, specifically, Reg FD, when information can be conveyed through implicit communication. Our empirical and survey findings together suggest that private communication between management and analysts increased significantly after the Siebel decision, implying that the market participants believe that after Siebel the SEC would face greater difficulty enforcing Reg FD in the context of implicit communication, and that consequently the effectiveness of Reg FD significantly decreased following the decision.¹⁵

Our findings also have implications for other corporate disclosure regulations such as federal securities laws that prohibit misrepresentation of material information and trading on insider information, such as Rule 10b-5. Specifically, managers may mislead investors not merely through explicit quantitative statements but also through qualitative statements and information conveyed through their tone and demeanor. Enforcement efforts directed to these actions may face similar challenges. Notably, although studies document that private plaintiffs tend to file securities fraud litigation based on optimistic qualitative public disclosures (see, e.g., Rogers et al. 2011; Cazier et

¹⁴ Note that prior studies that examine the effects of Reg FD also tend to focus on the effect on just one type of market participant at a time. The findings of these studies then reinforce each other's conclusions. For example, to document the effectiveness of Reg FD, a set of studies examined changes in financial analyst outputs (e.g., Arya, Glover, Mittendorf, and Narayanamoorthy 2005; Gintchel and Markov 2004; Irani and Karamanou 2003; Mohanram and Sunder 2006) whereas others investigated changes in equity investor behavior (e.g., Ke, Petroni, and Yu 2008; Li, Radhakrishnan, Shin, and Zhang 2011; Sinha and Gadarowski 2010).

¹⁵ Several recent studies show that private communication with management remains an important source of information for analysts (see, e.g., Green et al. 2014; Solomon and Soltes 2015; Bushee, Gerakos, and Lee 2018; Campbell, Twedt, and Whipple 2020). These studies typically use sample periods that are post-2005. The significantly greater difficulty faced by SEC in enforcing Reg FD on implicit communication after the 2005 Siebel Systems decision could be an important factor driving the results of these studies.

al. 2019), courts may not find qualitative disclosures material.¹⁶ Corporate officials can further reduce the prospect of 10b-5 litigation by making optimistic statements in private rather than in public communication. Unlike Rule 10b-5, Reg FD cannot be enforced by private litigants. Because after Siebel decision the SEC would find it difficult to bring enforcement action against company officials making optimistic statements in private meetings, corporations and corporate officials may be less attentive to the risk of providing misleading information through implicit communication in such meetings.

The rest of the paper is organized as follows. Section 2 discusses prior studies, describes Reg FD and the Siebel decision, and presents our empirical predictions. Section 3 and 4 present the main empirical analyses and additional analyses, respectively. Section 5 summarizes our survey approach and provides corresponding results. Section 6 concludes.

2. Related studies, Reg FD, Siebel decision, and empirical predictions

2.1 Related studies

Reg FD, which targets the selective disclosure of material information by corporations and corporate officials, typically in the context of private meetings or phone calls, has been the subject of extensive empirical study. Initial studies of its effect find that the regulation succeeded in significantly reducing selective disclosure of non-public information to analysts (see, e.g., Gintschel and Markov 2004; Mohanram and Sunder 2006; Wang 2007; Kross and Suk 2012). More recent studies show that private communication with management remains an important source of non-public information for analysts (see, e.g., Soltes 2014; Green et al. 2014; Solomon and Soltes 2015; Bushee et al. 2018; Campbell et al. 2020).

Corporate officials can engage in selective disclosure through implicit communication as well as explicit quantitative statements. A growing body of literature shows that the use of implicit

¹⁶ See, e.g. Hoffman (2006), who describes that such cases are frequently dismissed as un-actionable “puffery.”

communication in public disclosures affects capital market perception about firm value. Feldman et al. (2010) document that managers' tone, i.e. the frequency of positive words and negative words, in MD&A is associated with excess market returns in the short window around SEC filings. Similarly, Loughran and McDonald (2011) show that the proportion of negative words in 10-K reports is associated with abnormal returns, abnormal trading volume, and return volatility. Davis, Piger, and Sedor (2012) document significant positive market response to earnings press releases containing net positive language, i.e. the difference between the percentage of positive words and the percentage of negative words. Also, net positive language predicts firms' future performance. Mayew and Venkatachalam (2012a) document that even managers' non-verbal cues convey value-relevant information. They argue that managers' vocal dissonance reflects managers' emotional state and that managers' positive and negative emotional states during the question and answer portion of earnings conference calls are associated with contemporaneous stock returns.

The literature also documents that managers can strategically manipulate market perception through implicit communication. Davis and Tama-Sweet (2012) document that managers with stronger incentives to report strategically, e.g., managers who habitually meet or beat analysts' forecasts, reduce the use of negative language in earnings press releases relative to the use in the corresponding MD&A. Huang, Teoh, and Zhang (2014) show that the language in earnings press releases is more positive (or negative) when firms have a stronger incentive to bias investor perceptions upward (or downward), e.g., at the time of equity offerings and merger and acquisition (or stock option grants). Notably, implicit communication in public disclosures subject corporations and corporate officials to potential liability for securities fraud under Rule 10b-5. Rule 10b-5 is subject to both private enforcement by the SEC and public enforcement through class action litigation. Rogers et al. (2011) and Cazier et al. (2019) show that firms with more positive language in earnings announcements are more likely to experience class action lawsuits when compared to other firms in the same industry. These studies thus document a potential

motivation for corporate officials to make optimistic statements in private rather than public communication, to avoid the prospect of 10b-5 litigation.

Because these studies do not have access to private communication between managers and analysts, they cannot evaluate the role of implicit communication in that context. Private meetings present greater potential for the use of implicit communication in that meeting attendees can better observe a corporate official's demeanor, tone and expression. Reg FD was specifically targeted at private communication between corporate managers and analysts. Interestingly, in its one-year special study evaluating the effectiveness of Reg FD, the SEC reported evidence indicating that issuer use of private meetings had declined substantially (SEC 2001). More recent academic studies document, however, that the use of such private communication continues to be widespread following the adoption of Reg FD. One recent study, Brown, Call, Clement, and Sharp (2019), report that 70 percent of firms grant investors private access to corporate officials. Studies also document that managers use those private meetings to convey subtle yet market-valuable information (Bengtzen 2017; Bushee et al. 2018; Campbell et al. 2020; Solomon and Soltes 2015). Our study documents the importance of the Siebel Systems case in enabling the use of such communication in private meetings to continue.

2.2 Reg FD

2.2.1 Adoption of Reg FD

The SEC adopted Reg FD on August 10, 2000, with the goal of reducing information asymmetry in the market. The regulation was intended to respond to the Supreme Court's decision in *SEC. v. Dirks*, which held that a research analyst who received material non-public information from a corporate insider was not liable for insider trading unless the insider's tip constituted a breach of his fiduciary duty. The rule was highly controversial. Although many commentators believed the rule would level the playing field for small investors, others expressed concern that it would have a chilling effect on the flow of information from issuers to the market (Kobi 2002).

One reason for this concern was uncertainty about the applicable standard of materiality. As adopted, Reg FD prohibits selective disclosure of material information. The rule did not define materiality, however; instead it incorporated a fairly vague judicially-promulgated definition that has been extensively criticized. To assist firm in assessing materiality, the SEC provided detailed interpretive guidelines, which included identifying seven categories of information that “have a higher probability of being considered material” (see, e.g., SEC 1999a, 2000; Maco 2000; Walker 2000).

The task of evaluating materiality is complicated by the fact that issuers convey information through quantitative as well as qualitative statements, through the tone they use as well as the time they devote to discussing certain topics, and through implicit communication. Since the early years after the adoption of Reg FD, the SEC was of the view that managers could convey material information through implicit communication, and this view was reflected in compliance guidance provided by the SEC and its staff members. For example, Walker (2000) states that “the adopting release [of Reg FD] makes clear that selective disclosure of earnings information cannot come in the form of indirect guidance, the meaning of which is apparent though implied.” Thus, issuers who engaged in private communication with analysts and investors after the adoption of Reg FD had to determine the extent to which those meetings could be interpreted as conveying material non-public information.

2.2.2 SEC Enforcement of Reg FD

Following its adoption of Reg FD and prior to the U.S. federal district court’s ruling on *SEC v. Siebel Systems, Inc.* on September 1, 2005, the SEC brought six enforcement actions against firms for selectively disclosing non-public information (Bengtzen 2017). Two of these explicitly involved implicit forms of communication (Hanley 2003; Fisch 2013). First, in 2002, the SEC penalized Siebel Systems, Inc. and its CEO for selectively disclosing material non-public information using optimistic statements. Specifically, the SEC charged that during a public

earnings call on October 17, 2001, the CEO characterized the IT market as “soft” and stated that “things will be quite tough through the remainder of the year.” At an invitation-only technology conference on November 5, 2001, however, the CEO stated to nearly 200 attendees that “we are pretty optimistic about what we’re seeing at this time...we’re seeing a return to normal behavior in IT buying patterns,” without making a simultaneous public disclosure. The SEC deemed the selective disclosure to be material by noting that immediately afterwards, certain attendees at the conference purchased Siebel’s stock or communicated the CEO’s statements to others who purchased the stock. Moreover, on the day of the conference, the company’s stock price closed approximately 20% higher than the prior day’s close and the trading volume was more than twice the average daily volume.¹⁷ The SEC’s approach of determining materiality by looking at post-disclosure investor actions is consistent with the standards expressed in *Basic, Inc. v. Levinson* (1988) – that information is material if there is a substantial likelihood that a reasonable investor would consider the information important in making an investment decision (Hanley 2003; SEC 1999b).

Second, in 2003, the SEC penalized Schering-Plough and its CEO for selectively disclosing negative material non-public information to financial analysts. Specifically, during the week of September 30, 2002, Schering-Plough’s CEO and senior vice president of investor relations met privately with analysts and portfolio managers of four investment companies. The SEC charged that at each of the meetings with the investment companies, “through a combination of spoken language, tone, emphasis, and demeanor,” Schering-Plough’s CEO disclosed negative material non-public information regarding the firm’s earnings prospects. Soon after the meetings, analysts at the investment companies downgraded Schering-Plough’s stock, and portfolio managers at the companies heavily sold the stock. The price of Schering-Plough’s stock declined over the next several days by more than 17 percent on approximately four times normal trading volume. Through

¹⁷ See *SEC v. Siebel Systems, Inc.* (SEC 2002) for more details. The SEC’s complaint and administrative proceeding are available here: <https://www.sec.gov/litigation/admin/34-46896.htm>; <https://www.sec.gov/litigation/litreleases/lr17860.htm>.

this enforcement action against Schering-Plough and its officials, the SEC reinforced its view about the role that various forms of implicit communication can play in a Reg FD violation (Hanley 2003).

2.3 The Siebel Systems Case

In April 2003, Thomas M. Siebel, Siebel's CEO, made a series of public statements negatively characterizing the company's performance in the first quarter of 2003 and its expected performance in the second quarter of 2003. On April 4, 2003, Siebel Systems warned that first-quarter revenues would fall short of its forecast and attributed the shortfall to deals that did not close before the end of the quarter, i.e., the "deals that slipped." During the earnings warning, the CEO stated that "there is clearly less business activity right now than there was three months ago."

On April 23, 2003, the company hosted an earnings call to discuss first quarter earnings and earnings guidance for the second quarter. In discussing the company's first quarter performance, the CEO characterized the first quarter as a "tough quarter" and linked the company's difficulties to the economy. The CEO further stated that certain deals "didn't get signed...due to basically uncertainty and war and disease and everything that's going on around the world that's kind of yucky right now" and that "the economic situation is really very uncertain out there...we are not in expansive stage of the business cycle yet."

On April 28, 2003, the CEO made a public speech at a conference sponsored by Deutsche Bank. In that speech, the CEO reiterated how "tough" the market was and linked the company's past and future performance to the general economic conditions. The CEO repeated his negative assessment of the economy: "With war, with famine, with disease, I mean it's like the apocalypse out there." When asked what the company was witnessing "in terms of activity levels now in April and the economy," the CEO responded: "Well I read Business Week on the airplane and I see that they've extrapolated the downward trend in software to now boomerang and it's all happy days are here again. We don't see anything in the market to indicate that that's true."

On both April 23 and 28, 2003, the company provided guidance for the second quarter of the fiscal year 2003. It projected that its software license revenues would be in the range of \$120 to \$140 million, which was more than the company's reported revenues for the first quarter. However, the company conditioned its estimate on the performance of the overall economy. It said that if the economy improved, the company's business would improve, and that, conversely, if the economy did not improve, then the company's business would not improve.

On April 30, 2003, two officials at Siebel Systems, Inc., Kenneth A. Goldman, Siebel's CFO, and Mark Hanson, a senior executive, attended two private meetings in New York, a one-on-one meeting with Alliance Capital Management and an invitation-only dinner hosted by Morgan Stanley. At these private meetings, Goldman made statements that, in the view of the SEC, more positively characterized the company's business activity and sales pipeline.

Specifically, during the one-on-one meeting with Alliance Capital Management, the CFO stated that the company's business activity levels were "better," that "new deals" were coming back into the pipeline, and that the pipeline was now "growing." At the invitation-only dinner hosted by Morgan Stanley and stated that the company's business activity levels were "good" and "better" and that its sales pipeline was "building." The CFO's disclosures were significantly more positive and upbeat than the company's public disclosures. Unlike the company's prior public disclosures about its prospective performance in the second quarter, CFO's statements about the company's business were not linked to or conditioned upon the performance of the economy. The attendees at the private meetings reacted either by promptly trading Siebel stock or disseminating the CFO's statements to selected investors. Immediately following the CFO's comments, two Alliance portfolio managers who attended the meeting placed orders to purchase 114,200 shares of the company's stock. Prior to the meeting, the portfolio managers had not held the stock for approximately 12 months in the funds that they managed. Within 24 hours after the meeting, Alliance Capital Management's net position on Siebel stock increased by 222,400 shares. At least two of the attendees at the Morgan Stanley dinner bought the company's stock next morning and

Morgan Stanley disseminated the CFO's positive statements to select investors. For example, a Morgan Stanley institutional sales trader called a client and said that the Morgan Stanley "analyst's take" on the dinner was "the body language was positive...the pipeline is building and expected to grow," and characterized the information as "positive data points." Morgan Stanley also communicated the CFO's positive comments by e-mail to hundreds of investors, many of whom bought Siebel stock on the morning of May 1, 2003. On May 1, the stock price closed roughly 8% higher than the prior day's close. Trading volume on May 1 was nearly double the average daily volume for the preceding 12 months (See Figures 1 and 2).

Following these events, the SEC initiated an enforcement action against Goldman, Hanson and Siebel Systems, alleging violations of Reg FD. Specifically, the SEC complaint alleged that Goldman's private communications were "significantly more positive and upbeat" than the information the company had previously disclosed publicly. The defendants moved to dismiss, arguing that the statements made by Goldman in the private meetings were neither material nor nonpublic. On Sept. 1, 2005, the court granted the motion to dismiss, holding that "the statements relied upon in the complaint fail to support its conclusory allegation that material information disclosed by Mr. Goldman in private, had not already been publicly disclosed by Siebel Systems."

In reaching this conclusion, the Siebel court focused exclusively on the specific statements made by Goldman in the private meetings. In each case, the court concluded either that the private statements were not materially different from the company's public statements or that the information contained in CFO's comments could be inferred from quantitative information that was publicly disclosed during the company's public announcements.

For example, on April 23 and 28, 2003, the company publicly stated that "the company projected that its software license revenues would be in the range of \$120 to \$140 million", which was more than the company's reported revenues for the first quarter. The court argued that these public statements clearly disclosed that the company was projecting an increase in revenues in the

second quarter. Thus, the court claimed that based on the information, a reasonable investor would be aware that the sales pipeline was “growing” and “building.”

The court also argued that the CFO’s private statement that the activity levels were “good” and “better” was based on information available to the public since the company had publicly reported that it anticipated a future increase in the company’s performance: the terms “good” and “better” are merely generalized descriptive labels based on the underlying quantitative information provided publicly by the company. Hence, the statements regarding the company’s performance or activity levels being “good” and “better” did not alter the total mix of information already available to the reasonable investor.

The court also considered the subsequent trading activity by those in attendance at the private meetings, activity that the SEC argued was evidence that Goldman disclosed new material information. Although the court acknowledged that “[a] major factor in determining whether information is material is the importance attached to it by those who were exposed to the information as may be expressed by their reaction to the information,” it concluded that “The actions taken by those in attendance at Mr. Goldman's speaking engagements, although a relevant consideration, do not change the nature or content of Mr. Goldman's statements.”

Significantly, although the court noted in a footnote that corporate officials could violate Reg FD through “Tacit communications, such as a wink, nod, or a thumbs up or down gesture,” the court limited its analysis in the case to the specific statements made by Goldman in private. The court observed that Reg FD does not require that the statements made by corporate officials privately match their public statements “verbatim”, observing that “To require a more demanding standard, in the context of Reg FD, could compel companies to discontinue any spontaneous communications so that the content of any intended communication may be examined by a lexicologist to ensure that the proposed statement discloses the exact information in the same form as was publicly disclosed.” Noting that “The SEC has scrutinized, at an extremely heightened level, every particular word used in the statement, including the tense of verbs and the general

syntax of each sentence,” the court held that “such an approach places an unreasonable burden on a company’s management and spokespersons to become linguistic experts, or otherwise live in fear of violating Reg FD.” It therefore granted the defendants’ motion to dismiss.

2.4 Enforcement of Reg FD on implicit communication – The Effect of SEC v. Siebel

The Siebel court’s ruling revealed the difficulty of enforcing Reg FD. First, in the context of private meetings, there is typically no transcript or verbatim record of the information conveyed. Second, private meetings provide an opportunity for corporate officials to convey information both explicitly and implicitly through the use of more or less positive language, emphasis and non-verbal cues. Third, Siebel conveyed to market participants the message that, even a significant stock price reaction or trading activity by select investors following a private meeting would not constitute proof that those investors had received material non-public information.

Further, Siebel was a high-profile decision. It was the first litigated case involving the SEC’s enforcement of Reg FD. As a result, the court case generated national attention even in its preliminary stages (Page and Yang 2005). The Chamber of Commerce of the United States filed an *amicus brief* in support of the Siebel System Inc.’s motion to dismiss the civil lawsuit brought by the SEC.¹⁸ At the same time, a group of 24 securities law professors also filed *amicus briefs* in opposition to the motion to dismiss. Moreover, the U.S. federal district court’s ruling on *SEC v. Siebel Systems, Inc.* (2005) was the first judicial opinion on SEC’s enforcement actions under Reg FD and the court’s decision was promptly and widely publicized by major news media outlets.¹⁹ Thus, the managers of U.S. firms would have quickly become aware of the ruling and its significance.

Siebel’s effect on selective disclosure by corporate officials depended on the following factors. The market may have viewed the court’s ruling as likely to make it more difficult for the

¹⁸ Available here: <http://www.uschamber.com/nclc/caselist/briefsrtoz.htm>. The Chamber and others argued that Reg FD was an unconstitutional restriction of free speech. See Norris (2005).

¹⁹ Wall Street Journal (Solomon 2005), the New York Times (Labaton 2005), the Washington Post (Johnson 2005), and the Financial Times (Parker 2005) featured the ruling the next day.

SEC to bring enforcement actions in connection with implicit communication made through private meetings. Alternatively, the market may have viewed the decision as aberrational or unlikely to cause the SEC to change its approach in enforcing Reg FD. That is, the market may have expected the SEC to continue to enforce the regulation aggressively with the hope that in the future, courts would support the SEC's approach (Sherman and Sterling LLP 2005).

The above discussion suggests that the net effect of the court's ruling on selective disclosure by firms is an empirical question. If we find a significant increase in selective disclosure after the court's ruling, it would suggest that the market believed that the arguments put forward by the court were persuasive, and that the SEC would be unlikely to challenge the ruling successfully in the future. Such a finding would also suggest that the challenges associated with enforcing corporate disclosure regulations on implicit communication can significantly limit the effectiveness of the regulations.

3. Empirical analyses

3.1 Research design

To address the effect on U.S. firms' selective disclosure behavior due to the Siebel Systems decision, we examine changes in the flow of non-public information from managers to analysts, by following an approach that is similar to Gintschel and Markov (2004). Their study examines whether the flow of private information from managers to analysts decreases following the passage of Reg FD by estimating the change in the incremental absolute stock returns around analyst information outputs. As in Gintschel and Markov (2004), we consider the following two-step process:

$$|\text{RETURN}|_{i,t} = \alpha_t + \beta_t \text{ANALY_OUT}_{i,t} + \varepsilon \quad (1)$$

$$\alpha_t = a_1 + a_2 \text{POST_RULING}_t + e \quad (2)$$

$$\beta_t = b_1 + b_2 \text{POST_RULING}_t + e \quad (3)$$

where Equation (1) is a cross-sectional regression. It is run separately for each trading day in our two-year sample period. The dependent variable $|\text{RETURN}|_{i,t}$ is absolute standardized stock returns for firm i on date t . To control for cross-sectional variation in the stock price volatility across different firms, each individual firm's time-series daily stock returns are standardized to a mean of zero and a standard deviation of one over the sample period. $\text{ANALY_OUT}_{i,t}$ equals to one for firm i on date t if at least one analyst earnings forecast or one stock recommendation exists for the firm around date t . If an analyst information output is announced within two calendar days following the firms' public disclosures such as earnings announcements or management earnings forecasts, then these days are excluded from the definition of $\text{ANALY_OUT}_{i,t}$, because it is not possible to determine the incremental effect of each of the events on stock returns (Gintchel and Markov 2004).

To determine the window for measuring the information content of analyst information outputs, Gintchel and Markov (2004) examine stock market reactions on each of -10 to +5 days around analyst information outputs for their two-year sample period around the implementation of Reg FD in 2000. They find that absolute standardized stock returns are significantly positive for each of the -5, -4, -3, -2, -1, 0, and +1 days around analyst information output. Accordingly, they use [-5, +1] days window around each analyst information output to measure the information content of analyst information outputs. We carry out a similar analysis for the two-year sample period around the U.S. federal district court's ruling on *SEC v. Siebel Systems, Inc.* (2005) on September 1, 2005. We find that the absolute standardized stock market reactions are significantly positive for each of the days -1, 0, and +1 around analyst information outputs. Thus, we use [-1, +1] days window around analyst information outputs to examine the change in the information content of analyst information outputs.²⁰

²⁰ The three-day window has been commonly used in the literature (e.g., Francis and Soffer 1997; Lin and McNichols 1998; and Park and Stice 2000). In any case, we show that our results are robust to using the [-5, +1] window.

In Equation (1), α_t captures absolute standardized stock returns for firm-date observations without analyst information outputs. β_t captures the incremental absolute standardized stock returns due to analyst information outputs. We regress 505 daily estimates of α_t and β_t on POST_RULING (Equation (2) and Equation (3), respectively). POST_RULING equals one if a trading day is after the U.S. federal district court's ruling on *SEC v. Siebel Systems, Inc.* (2005) on September 1, 2005, and zero otherwise. Thus, the estimated coefficient on POST_RULING in Equation (2), i.e. a_2 , captures the average change in the absolute standardized stock returns for days without analyst information outputs. The estimated intercept in Equation (3), i.e. b_1 , captures the incremental absolute standardized stock returns due to analyst information outputs in the one-year period before the court's ruling. The estimated coefficient on POST_RULING in Equation (3), i.e. b_2 , captures the average change in the incremental absolute standardized stock returns due to analyst information outputs following the court's ruling. If the flow of private information from managers to analysts increases after the court's ruling, then we expect the estimated coefficient on POST_RULING in Equation (3) to be positive.²¹

3.2 Data and sample

Table 1 reports the sample selection procedure and descriptive statistics. The sample includes stocks issued by U.S. firms with analyst earnings forecasts and stock recommendations available from September 1, 2004, to August 31, 2006, in International Brokers' Estimate System (IBES). Following Gintchel and Markov (2004), we require each stock to have at least one analyst earnings forecast and at least one stock recommendation in each of the one-year periods before and after the court's ruling on September 1, 2005. We also require each stock to have a complete series of stock returns over the sample period, which includes 505 trading days, available in CRSP. We exclude stocks with missing data in Compustat for net sales, total assets, and market

²¹ We repeat the analysis by combining Equation (1) and (2) into a single model using an interaction term and the results are similar.

capitalization, for the fiscal year 2003. Our final sample contains 3,172 stocks and 1,601,860 (= 3,172 stocks x 505 trading days) daily stock returns observations. The mean (median) of absolute standardized stock returns, $|RETURN|$, is 0.707 (0.525). The mean value of ANALY_OUT is 0.208 suggesting that 20.8% of the 1,601,860 firm-date observations in our final sample have at least one analyst earnings forecast or one stock recommendation within [-1, +1] days.

3.3 Main results

Table 2 reports results for the test of changes in the information content of analyst outputs after the court's ruling. Panel A reports a change around the court's ruling in the absolute standardized stock returns for firm-date observations without analyst information outputs. The estimated coefficient on POST_RULING is 0.018 (t-statistic = 1.37), indicating an insignificant change. Panel B reports a change due to the court's ruling in the incremental absolute standardized stock returns for firm-date observations with analyst information outputs within [-1, +1] days. The estimated intercept is 0.053 (t-statistic = 12.53) suggesting that the absolute standardized stock returns are significantly greater on days with than without analyst information outputs in the period prior to the court ruling. The estimated coefficient on POST_RULING is 0.023 (t-statistic = 3.80). It suggests that the stock market reaction to analyst information outputs increases to 0.076 (= 0.053 + 0.023) absolute standardized stock returns following the court ruling. These results suggest that the information content of analyst information outputs increased significantly after the court's ruling on *SEC v. Siebel Systems, Inc.* (2005). This finding is consistent with managers significantly increasing selective disclosure to analysts after the court's ruling. This change in managers' disclosure behavior implies that the ruling revised market participants' belief about the difficulty the SEC would face in the future enforcing the corporate disclosure regulation on implicit communication.

3.4 Pseudo-event tests

To mitigate the concern that our results may be driven by a time trend, we perform a pseudo-event test. We divide our two-year sample period into three partially-overlapping one-year sub-periods: i) the first sub-period is from September 1, 2004 to August 31, 2005, and is entirely before the court's ruling; ii) the second sub-period straddles the court's ruling, and is from March 1, 2005 to February 28, 2006; and iii) the third sub-period is from September 1, 2005 to August 31, 2006, and is entirely after the court's ruling.

Table 3, column 2, reports results for the second sub-period, using the actual date of the court's ruling, i.e. September 1, 2005, as the event date. We find results that are similar to that of the full sample. In Panel A, the estimated coefficient on POST_RULING is 0.001 (t-statistic = 0.06), indicating an insignificant change in the absolute standardized stock returns for firm-date observations without analyst information outputs. In Panel B, the estimated coefficient on POST_RULING is 0.024 (t-statistic = 2.86), suggesting a significant increase in the information content of analyst information outputs from the six-month period before to the six-month period after the court's ruling. Columns 1 and 3 of Table 3 report results for the first and third sub-periods, using March 1, 2005, and March 1, 2006, as pseudo-event dates, respectively. The results show an insignificant change in the information content of analyst information outputs from the period before to the period after the pseudo-event dates. These results suggest that our main findings are unlikely to be driven by a time trend.

3.5 Shorter sample periods

The analysis in Table 2 is based on a two-year sample period, comprising of one year before and one year after the court's ruling, and thus it is possible that unspecified macro events during that two-year sample period may be responsible for our results. To address this concern, we examine a shorter sample period, specifically, two months around the court's ruling. Table 4, Panel A, reports a change after the court's ruling in the absolute standardized stock returns for

observations without analyst information outputs. The estimated coefficient on POST_RULING is 0.006 (t-statistic = 0.019), indicating an insignificant change in the absolute standardized stock returns for firm-date observations without analyst information outputs. Panel B reports a change in the incremental absolute standardized stock returns for firm-date observations with analyst information outputs within [-1, +1] days. The estimated coefficient on POST_RULING is 0.080 (t-statistic = 4.37), suggesting that after the court's ruling, there was a significant increase in the absolute standardized stock returns due to analyst information outputs. These results mitigate the concern that some unspecified macro event²² is responsible for the observed change in the information content of analyst output after the court's ruling.²³

3.6 Cross-sectional test

Gintchel and Markov (2004) argue that managers reward financial analysts who hold a more favorable view of their firms by granting them more access to private information. If the court's ruling on *SEC v. Siebel Systems, Inc.* (2005) made it more difficult for the SEC to enforce Reg FD on managers' selective disclosure through implicit communication, then more favorable analysts should benefit more from the increase in selective disclosure following the court's ruling. We examine whether, after the court's ruling, the increase in the information content of analyst information outputs is more pronounced for analysts with a more favorable view of the firm. For this test, we use the following regression models:

$$|\text{RETURN}|_{i,t} = \alpha_t + \beta_t \text{ANALY_OUT}_{i,t} + \gamma_t \text{FAVORABLE}_{i,t} \times \text{ANALY_OUT}_{i,t} + \varepsilon \quad (4)$$

$$\alpha_t = a_1 + a_2 \text{POST_RULING}_t + e \quad (5)$$

²² The New York Times provides a news archive that covers the two-month period around the court's ruling: https://query.nytimes.com/search/sitesearch/#/*from20050801to20050930/allresults/90/allauthors/oldest/Business/. We searched business news articles published in the New York Times during the two-month period around the court's ruling. We reviewed 1,677 articles, one of which is Labaton (2005), which features the court's ruling. We did not find any other event that can alternatively explain the change in the information content of analyst information outputs.

²³ We note that the information environment for research analysts was affected by the Research Analyst scandal and the subsequent Global Research Settlement (Fisch 2007). The scandal was initially revealed to the public through a press release by the NY State Attorney General in April 2002. The Global Research Settlement received court approval on Oct. 31, 2003. See <https://www.sec.gov/litigation/litreleases/lr18438.htm>. Because the Settlement predates the start of our sample period, September 1, 2004, to August 31, 2006, by almost a year, the effect that we observe is more plausibly attributed to the Siebel decision, which occurred in the middle of our sample period.

$$\beta_t = b_1 + b_2 \text{POST_RULING}_t + e \quad (6)$$

$$\gamma_t = c_1 + c_2 \text{POST_RULING}_t + e \quad (7)$$

where $\text{FAVORABLE}_{i,t}$ equals one for firm i on date t if at least one earnings forecast or one stock recommendation issued by an analyst affiliated with a favorable brokerage firm, falls within $[-1, +1]$ days around date t . A brokerage firm is defined as favorable on a firm-date if the average of analyst earnings forecasts or stock recommendations issued by the brokerage firm during the past six months is above the median of all brokerage firms that follow the firm. Equation (4) is estimated separately for each of the 505 trading days in our sample period. The coefficient β_t captures the incremental absolute stock returns due to analyst information outputs, and the coefficient γ_t captures the additional effect for analysts belonging to a favorable brokerage firm. In Equations (5), (6), and (7), 505 estimates of α_t , β_t , and γ_t from Equation (4) are regressed on the variable POST_RULING , which equals one if the trading day is after the court's ruling on September 1, 2005, and zero otherwise. The coefficient on POST_RULING in Equation (5) captures the change following the court's ruling in the absolute standardized stock returns for firm-dates without analyst information outputs. The coefficient on POST_RULING in Equation (6) captures the change following the court's ruling in the incremental absolute standardized stock returns due to analyst information outputs issued by non-favorable analysts. The coefficient on POST_RULING in Equation (7) captures the change following the court's ruling in the additional incremental absolute standardized stock returns due to analyst information outputs issued by favorable analysts as compared other analysts.

In Table 5 Panel A, the estimated coefficient on POST_RULING is 0.018 (t-statistic = 1.37), indicating an insignificant change after the court's ruling in the absolute standardized stock returns for firm-date observations without analyst information outputs. Panel B reports a change after the court's ruling in the incremental absolute standardized stock returns due to analyst information outputs issued by non-favorable analysts. The coefficient on POST_RULING is 0.018 (t-statistic = 3.07), suggesting a significant increase in the information of analyst outputs issued by non-

favorable analysts. Panel C reports the additional incremental absolute standardized stock returns due to analyst information outputs issued by favorable analysts as compared non-favorable analysts. Specifically, the estimated intercept c_1 , is 0.061 (t-statistic = 12.76), suggesting that the information content of analyst information outputs is greater for analysts affiliated with favorable brokerage firms than for analysts affiliated with non-favorable brokerage firms. This result is consistent with the evidence in the literature that managers discriminate among analysts by granting more private information access to analysts who hold a more favorable view of their firm (e.g., Gintchel and Markov 2004; Chen and Matsumoto 2006). Further, the estimated coefficient on POST_RULING is 0.012 (t-statistic = 1.77), suggesting that after the court's ruling the increase in information content of analyst information outputs is greater for analysts from more favorable brokerage firms than for analysts from other brokerage firms. This finding suggests that more favorable analysts are bigger beneficiaries of the increase in managers' selective disclosure behavior after the court's ruling.²⁴ This cross-sectional evidence helps further identify that after the court's ruling, increase in information content of analyst information outputs is due to an increase in selective disclosure from managers to analysts.

4. Additional analyses: Analysts' workload per firm

The preceding analysis uses the Gintchel and Markov (2004) methodology, which is based on the notion that the increase in managers' selective disclosure through implicit communication to analysts would make analysts outputs more informative. We examine the sensitivity of our resulting conclusions using an alternative methodology. Mohanram and Sunder (2006) argue that when access to firms' private information reduces, analysts have to spend greater effort on gathering and discovering information, and consequently analysts have to significantly decrease their coverage. To show the effectiveness of Reg FD in curbing selective disclosure by firms to analysts, Mohanram and Sunder (2006) show that the average number of firms covered by an

²⁴ This distinction becomes more meaningful in light of the Global Research Settlement, which led to more balanced recommendations (Fisch, 2007).

analyst and the average number of analysts following a firm decreased significantly after Reg FD. We follow Mohanram and Sunder's approach, and to provide evidence for the change in selective disclosure behavior of firms due to the court's ruling on *SEC v. Siebel Systems, Inc.* (2005), we examine its effect on analysts' workload, measured as the average number of firms covered by an analyst and the average number of analysts following a firm.

In Panel A of Table 7, we provide the sample selection procedure for this analysis. We restrict our sample to analysts that follow at least one U.S. firm in each of the one-year periods before and after the court's ruling on September 1, 2005 (Mohanram and Sunder 2006). Our final sample includes 3,434 analysts. Panel B shows that following the court's ruling, the average number of firms covered by an analyst increases by 0.84 (t-statistic = 4.53), from 10.30 firms to 11.14 firms, suggesting that analysts' workload per firm decreased after the court's ruling, presumably due to an increase in selective disclosure to analysts by managers. In Panel C, we provide the sample selection procedure for the sample examining a change in the average number of analysts following a firm, before versus after the court's ruling. For this analysis, we restrict our sample to U.S. firms that are followed by at least one analyst in each of the one-year periods before and after the court's ruling. Our final sample includes 4,588 firms. Panel D shows that the average number of analysts following a firm increases by 0.34 (t-statistic = 2.03), from 8.49 analysts to 8.83 analysts. These results further suggest that analysts' workload per firm decreased following the court's ruling, presumably due to an increase in selective disclosure from managers to analysts. Note that the effects reported in Table 7 are of similar order of magnitude to that observed by Mohanram and Sunder (2006) underscoring the economic significance of the effect of the court's ruling on managers' selective disclosure behavior.

5. Survey

One difficulty in our investigation is that private communication between managers and investors/analysts is unobservable. In order to peer into this black box in relation to our research

questions, we need the perspective of professionals who understand the legal implications of Reg FD, the *Siebel Systems* case, and managers' interactions with investors and analysts. Therefore, to further investigate the reason for the effect that we document in the previous sections, we survey lawyers with expertise in Reg FD about the reasons that they perceive to be driving the effect. These securities lawyers are uniquely positioned to provide this perspective because they understand the implications of the law and also inform and advise managers in securities law compliance.

5.1 Participants and survey distribution

We compile a hand-collected database of contact information for securities lawyers with relevant expertise by searching the internet for law firm memos written about Reg FD and recording the names and email addresses of the memos' authors. Our final pool of potential survey respondents totals 307 lawyers from 74 different law firms.

To distribute the survey, we email out a Qualtrics survey link to potential participants followed by a reminder email one week later. We open the survey on 6/22/2020 and close it on 7/20/2020. We receive a total of 76 completed responses for a response rate of 24.8 percent, which is higher than similar surveys of experienced professionals conducted via email such as the survey of investor relations officers (IROs) by Brown et al. (2019) with a response rate of 14.5 percent and the survey of chief financial officers (CFOs) by Dichev, Graham, Harvey, and Rajgopal (2013) with a response rate of 5.4 percent.

Of the 76 completed responses, 16 participants fail one or both initial screening questions and therefore complete the survey without answering any additional questions. As shown in Table 8 Panels A and B, the 75 percent of participants identify as a law firm partner and 82 percent report more than 20 years of experience.

5.2 Survey questions

The survey consists of two screening questions (referenced previously) followed by the main survey question, which has five parts, and then two questions about participants' experience practicing law, which are displayed in Table 8 Panels A and B.²⁵ The two screening questions allow the lawyers to self-report their (1) Reg FD-related experience and (2) familiarity with the *SEC v. Siebel Systems, Inc.* case. Both are yes-no questions and a 'no' response to either question results in the termination of the survey without the opportunity to respond to any additional questions.

To ensure clear understanding, the survey next differentiates between two sets of terms: (a) implicit and explicit communication and (b) public and private disclosure settings. Then, after explaining the existence of the effect we observe in our archival analyses, the question asks participants to rate the likelihood of five potential explanations (which are shown in random order) on a 5-pt scale with scale points ranging from 0 = 'Not at all likely' to 4 = 'Extremely likely.' Figure 3 displays this main research question.

The five explanations that participants rate in the main survey question are different possible explanations for the results we observe in our archival analyses in sections 3 and 4 of this paper. The effect could be occurring because managers engaged in more explicit *or* more implicit communication post-Siebel and managers might be doing this intentionally *or* unintentionally. Or, the results could be driven by another reason entirely. Each of these possible explanations is shown in Figure 3.

5.3 Survey results

Table 8 Panel C displays the results to the main survey question. Survey participants' responses indicate the most likely explanation for the effect is that managers unintentionally increased implicit communication in private meetings with analysts after the *SEC v. Siebel*

²⁵ We received and incorporated feedback from three law firm partners before administering the survey.

Systems, Inc. (2005) court case ruling. This explanation is rated by the lawyers as significantly more likely than any other explanation. Further, both types (unintentional and intentional) of increases in implicit communication are rated as significantly more likely than increases in either type (intentional or unintentional) of explicit communication. These results, from highly experienced professionals uniquely qualified to weigh in on the subject, support the conclusion that managers' increases in implicit communication are most likely responsible for the increases in information content of analyst reports post-Siebel.

The survey results further suggest that the lawyers consider an increase in unintentional implicit communication to be a significantly more likely explanation than an increase in intentional implicit communication for the effect. This finding is consistent with the notion that managers may not intend to violate Reg FD in private meetings, but that, after the Siebel decision, they may have become less concerned about the possibility of communicating non-public information through implicit communication, since the court ruled that SEC's approach of monitoring implicit communication places an "unreasonable burden" on managers.²⁶ Our survey results also suggest that the lawyers did not rule out an increase in intentional implicit communication as a possible explanation for the increase in information content of analyst reports post-Siebel. This finding is consistent with the notion that the court ruling may have also signaled to the market participants that circumstantial evidence such as a significant stock price reaction or trading activity by select investors following a private meeting may not be sufficient proof that management intentionally disclosed material non-public information. Thus, the ruling could also have increased managers' incentives to take chances and intentionally make selective disclosures through their tone or body language, if they perceive potential benefits from doing so, such as better relations with important analysts and less price volatility (Allee et al. 2019).

²⁶ This explanation was also echoed in our interviews of three securities lawyers who have expertise in Reg FD.

6. Conclusion

This study examines the effectiveness of enforcing a corporate disclosure regulation when information is communicated in an implicit as well as explicit manner. In a unique federal court case, *SEC v. Siebel Systems, Inc.* (2005), the court took a literal approach in determining when a corporate official engaged in selective disclosure and thereby violated Reg FD. The court focused on a close reading of the text of the official's statements rather than the official's tone and demeanor to conclude that his private disclosures were equivalent in substance to the information publicly disclosed by the company. We posit that the market viewed the Siebel decision as a signal that the SEC could not effectively enforce Reg FD against corporate officials who privately communicated information through positive or negative language, tone, and non-verbal cues. As a result, the Siebel decision opened the door for officials to convey information selectively through implicit communication. Using a variety of tests, we provide evidence consistent with conclusion that the court's ruling led to a statistically and economically significant increase in managers' selective disclosure to financial analysts. Our results from the survey of lawyers suggest that the most likely explanation for the effect of the Siebel decision is increase in managers' implicit communication. By documenting the effect of the Siebel decision on the behavior of market participants and on the effectiveness of the disclosure regulation, our study sheds light on the challenges associated with regulatory enforcement of a disclosure regulation, when information is conveyed in an implicit manner.

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Appendix: Variable definitions

Variable	Definition
RETURN	Absolute standardized stock returns. Each individual firm's time-series daily stock returns are standardized to a mean of zero and a standard deviation of one over the sample period to control for cross-sectional variation in the stock price volatility across different firms (Gintchel and Markov, 2004).
ANALY_OUT	Indicator variable that equals one if a trading day is within [-1, +1] days around at least one analyst earnings forecast or one stock recommendation, and zero otherwise.
POST_RULING	Indicator variable that equals to one if a trading day is after the U.S. federal district court's ruling on <i>SEC v. Siebel Systems, Inc</i> (2005) on September 1, 2005, and zero otherwise.

Figure 1

Siebel's stock price movements around private meetings on April 30

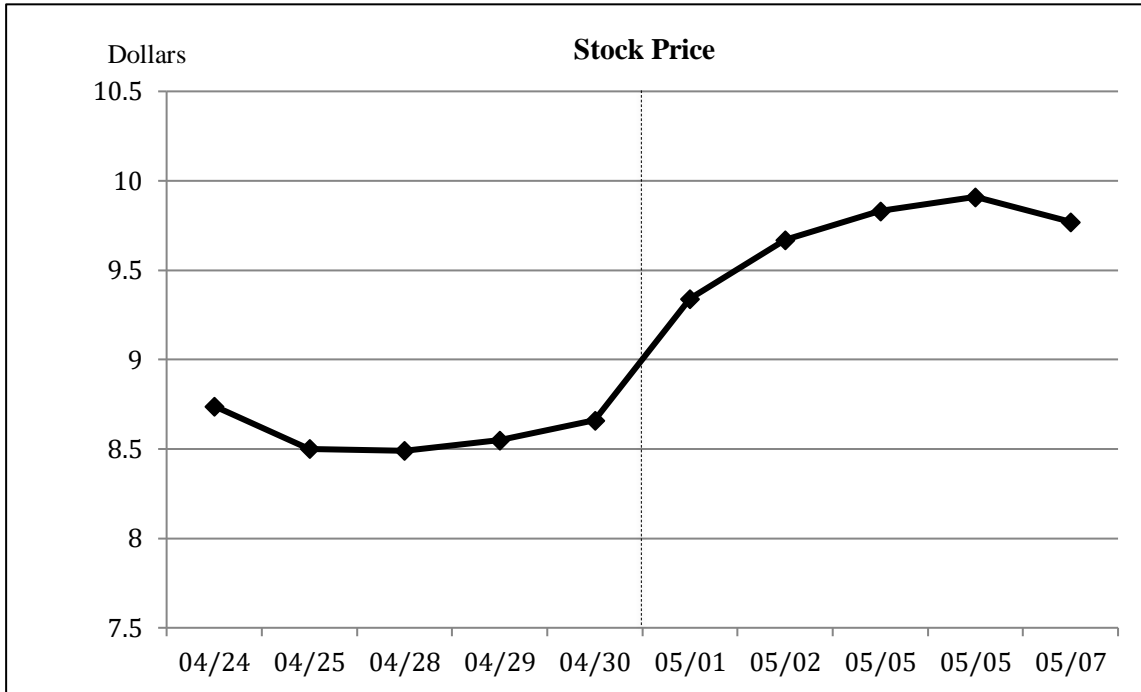


Figure 2

Siebel's trading volume movements around private meetings on April 30

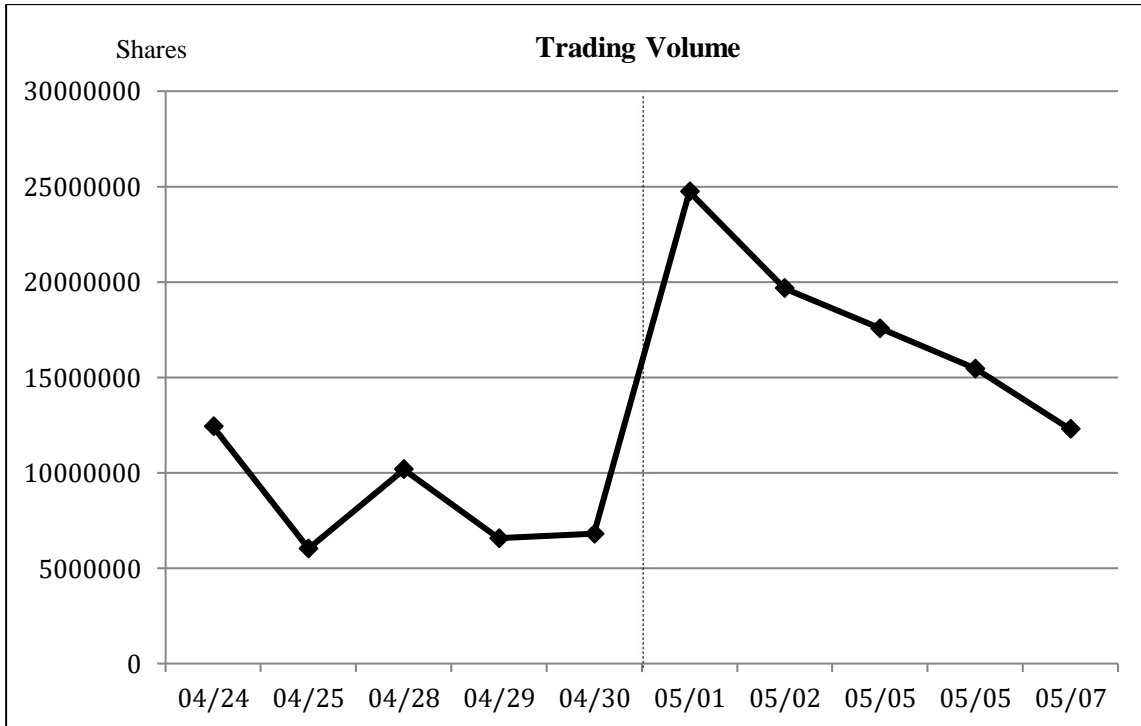


Figure 3

Main survey question

Survey Question

Recent research finds a significant change in the capital market information environment after the 2005 Siebel Systems case decision. Specifically, sell-side analyst earnings forecasts and buy/sell recommendations issued just after the decision are significantly more informative to the market (i.e., induce a greater stock price reaction) compared to sell-side analyst outputs issued just before the decision. The study shows the effect exists in the one-year *and* one-month periods immediately before and after the decision, indicating the effect is likely not due to something other than the decision.

Below, shown in random order, are several potential explanations for these findings. Keeping in mind that these explanations are not mutually exclusive, please rate the likelihood that each contributed to these findings. (Please feel free to refer to definitions of *implicit* and *explicit* communication and *private meetings* using the back button on the survey below.)

[Not at all likely](#) [Somewhat likely](#) [Moderately likely](#) [Very likely](#) [Extremely likely](#)

After the Siebel Systems decision, corporate officials *intentionally* increased **explicit communication** of non-public information during private meetings with analysts.

After the Siebel Systems decision, corporate officials *intentionally* increased **implicit communication** of non-public information during private meetings with analysts.

After the Siebel Systems decision, corporate officials *unintentionally* increased **implicit communication** of non-public information during private meetings with analysts.

After the Siebel Systems decision, corporate officials *unintentionally* increased **explicit communication** of non-public information during private meetings with analysts.

Another explanation (select "Not at all likely" if you do not have another explanation):

Table 1

Sample selection and summary statistics

Panel A: Sample selection

Filter	Number of Obs.	Data Source
U.S. stocks with at least one stock recommendation or analyst earnings forecast from 9/1/2004 to 8/31/2005 and from 9/1/2005 to 8/31/2006, the one-year period before and the one-year period after the court's ruling on 9/1/2005, respectively.	3,910	IBES
Stocks with complete stock return series during the sample period from 9/1/2004 to 8/31/2006 (505 trading days).	3,358	CRSP
Stocks with non-missing and non-negative sales, assets, and market capitalization at the beginning of the fiscal year 2004.	3,172	Compustat

The final sample includes 1,601,860 observations: 3,172 stocks x 505 trading days

Panel B: Summary statistics

	N	Mean	25 th percentile	Median	75 th percentile	Std. dev.
RETURN	1,601,860	0.707	0.232	0.525	0.968	0.706
ANALY_OUT	1,601,860	0.208	0.000	0.000	0.000	0.406
POST_RULING	505	0.499	0.000	0.000	1.000	0.500

Panel A reports the sample selection procedure. The sample period is from September 1, 2004, to August 31, 2006, the two-year period around the U.S. federal district court's ruling on *SEC v. Siebel Systems, Inc* (2005) on September 1, 2005. Panel B reports summary statistics. Variable definitions are in the Appendix.

Table 2

Effect of the court's ruling on the information content of analyst information outputs

$$|\text{RETURN}|_{i,t} = \alpha_t + \beta_t \text{ANALY_OUT}_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$\alpha_t = a_1 + a_2 \text{POST_RULING}_t + e \quad (2)$$

$$\beta_t = b_1 + b_2 \text{POST_RULING}_t + e \quad (3)$$

Panel A: Absolute returns on days without analyst information outputs

Dependent Variable: α_t	Coefficient	t-statistic
a_1 : Before the court's ruling	0.684***	73.17
a_2 : Change following the court's ruling	0.018	1.37
Adj-R ²	0.0017	
Number of observations	505	

Panel B: Incremental absolute returns due to analyst information outputs

Dependent Variable: β_t	Coefficient	t-statistic
b_1 : Before the court's ruling	0.053***	12.53
b_2 : Change following the court's ruling	0.023***	3.80
Adj-R ²	0.0260	
Number of Observations	505	

This table reports changes in the information content of analyst information outputs following the U.S. federal district court's ruling on *SEC v. Siebel Systems, Inc.* (2005) on September 1, 2005. In Equation (1), the dependent variable $|\text{RETURN}|_{i,t}$ is absolute standardized stock returns for firm i on date t . To control for cross-sectional variation in the stock price volatility across different firms, each individual firm's time-series daily stock returns are standardized to a mean of zero and a standard deviation of one over the sample period. ANALY_OUT is an indicator variable that equals one if a trading day is within $[-1,+1]$ days of at least one analyst earnings forecast or one stock recommendation, and zero otherwise. The estimated daily intercepts and coefficients from Equation (1) are regressed on the indicator variable POST_RULING that equals one if a trading day is after the U.S. federal district court's ruling on 9/1/2005, and zero otherwise. The coefficient on POST_RULING in Equation (2), i.e. a_2 , captures the change after the court's ruling in absolute standardized stock returns for days without analyst information outputs. The coefficient on POST_RULING in Equation (3), i.e. b_2 , captures the change after the court's ruling in the information content of analyst information outputs. ***, ** and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 3

Effect of the court's ruling on the information content of analyst information outputs: Pseudo-event test

Panel A: Absolute returns on days without analyst information outputs

	First One-Year Period 9/1/04 – 8/31/05 (1)		Middle One-Year Period 3/1/05 – 2/28/06 (2)		Last One-Year Period 9/1/05 – 8/31/06 (3)	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
a ₁ : Before the court's ruling	0.691***	60.88	0.679***	56.29	0.680***	45.06
a ₂ : Change following the court's ruling	-0.012	-0.75	0.001	0.06	0.045**	2.12
Adj-R ²	-0.0017		-0.0040		0.0137	
Number of Observations	253		252		252	

Panel B: Incremental absolute returns due to analyst information outputs

	First One-Year Period: 9/1/04 – 8/31/05 (1)		Middle One-Year Period: 3/1/05 – 2/28/06 (2)		Last One-Year Period: 9/1/05 – 8/31/06 (3)	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
b ₁ : Before the court's ruling	0.051***	9.19	0.055***	9.23	0.079***	12.13
b ₂ : Change following the court's ruling	0.004	0.49	0.024***	2.86	-0.007	-0.74
Adj-R ²	-0.0030		0.0278		-0.0018	
Number of Observations	253		252		252	

In this table, we break the full sample period into three overlapping one-year sub-periods: 9/1/2004-8/31/2005, 3/1/2005-2/28/2006, and 9/1/2005-8/31/2006. For the first (third) sub-period, the pseudo-event date is 3/1/2005 (3/1/2006). For the second sub-period, the event date is 9/1/2005, which is the actual date of the U.S. federal district court's ruling on *SEC v. Siebel Systems, Inc.* (2005). ***, ** and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 4

Effect of the court's ruling on the information content of analyst information outputs: Short sample period

Panel A: Absolute returns on days without analyst information outputs

Dependent Variable: α_t	Coefficient	t-statistic
a_1 : Before the court's ruling	0.640***	27.62
a_2 : Change following the court's ruling	0.006	0.19
Adj-R ²	-0.0229	
Number of Observations	44	

Panel B: Incremental absolute returns due to analyst information outputs

Dependent Variable: β_t	Coefficient	t-statistic
b_1 : Before the court's ruling	0.044***	3.42
b_2 : Change following the court's ruling	0.080***	4.37
Adj-R ²	0.2957	
Number of Observations	44	

In this table, we repeat the analysis in Table 2 after replacing the two-year sample period with a two-month sample period around the U.S. federal district court's ruling on *SEC v. Siebel Systems, Inc.* (2005) on September 1, 2005. ***, ** and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 5

Cross-sectional test: Favorable vs. non-favorable analysts

$$|\text{RETURN}|_{i,t} = \alpha_t + \beta_t \text{ANALY_OUT}_{i,t} + \gamma_t \text{ANALY_OUT}_{i,t} \times \text{FAVORABLE}_{i,t} + \varepsilon \quad (4)$$

$$\alpha_t = a_1 + a_2 \text{POST_RULING}_t + e \quad (5)$$

$$\beta_t = b_1 + b_2 \text{POST_RULING}_t + e \quad (6)$$

$$\gamma_t = c_1 + c_2 \text{POST_RULING}_t + e \quad (7)$$

Panel A: Absolute returns on days without analyst information outputs

Dependent Variable: α_t	Coefficient	t-statistic
a ₁ : Before the court's ruling	0.684***	73.17
a ₂ : Change following the court's ruling	0.018	1.37
Adj-R ²	0.0017	
Number of Observations	505	

Panel B: Incremental absolute returns due to non-favorable analyst information outputs

Dependent Variable: β_t	Coefficient	t-statistic
b ₁ : Before the court's ruling	0.029***	6.89
b ₂ : Change following the court's ruling	0.018***	3.07
Adj-R ²	0.0165	
Number of Observations	505	

Panel C: The effect of favorable analysts

Dependent Variable: γ_t	Coefficient	t-statistic
c ₁ : Before the court's ruling	0.061***	12.76
c ₂ : Change following the court's ruling	0.012*	1.77
Adj-R ²	0.0042	
Number of Observations	505	

This table reports the effect of the court's ruling on *SEC v. Siebel Systems, Inc.* (2005) on the information content of information outputs of analysts who are favorable versus non-favorable to the firm. In Equation (4), the dependent variable $|\text{RETURN}|_{i,t}$ is the natural log of absolute standardized stock returns for firm i on date t . ANALY_OUT is an indicator variable that equals one if a trading day is within $[-1,+1]$ days of at least one analyst earnings forecast or one stock recommendation, and zero otherwise. FAVORABLE is an indicator variable that equals to one if a trading day is within $[-1,+1]$ days of at least one analyst earnings forecast or one stock recommendation issued by an analyst who is affiliated with a more favorable brokerage firm, and zero otherwise. A brokerage firm is defined as favorable on a firm-date if the average of analyst earnings forecasts or stock recommendations issued by the brokerage firm during the past 180 days is above the median of all brokerage firms following the firm. In Equations (5), (6), and (7), 505 observations of α_t , β_t , and γ_t estimates from Equation (4) are regressed on the indicator variable POST_RULING that equals one if a trading day is following the court's ruling on 9/1/2005, and zero otherwise. The coefficient on POST_RULING in Equation (6), i.e. b_2 , captures the change after the court's ruling on the incremental information content of information outputs issued by analysts affiliated with non-favorable brokerage firms. The coefficient on POST_RULING in Equation (7), i.e. c_2 , captures the change after the court's ruling on the additional incremental information content of analyst information outputs issued by analysts affiliated with favorable as against non-favorable brokerage firms. ***, ** and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 6

Robustness test: Alternate windows for measuring information content

Panel A: Absolute returns on days without analyst information outputs -- [-5, +1] window

Dependent Variable: α_t	Coefficient	t-statistic
a_1 : Before the court's ruling	0.690***	73.91
a_2 : Change following the court's ruling	0.016	1.19
Adj-R ²		0.0008
Number of Observations		505

Panel B: Incremental absolute returns due to analyst information outputs -- [-5, +1] window

Dependent Variable: β_t	Coefficient	t-statistic
b_1 : Before the court's ruling	0.016***	3.93
b_2 : Change following the court's ruling	0.021***	3.60
Adj-R ²		0.0232
Number of Observations		505

Panel C: Absolute returns on days without analyst information outputs -- [0, 0] window

Dependent Variable: α_t	Coefficient	t-statistic
a_1 : Before the court's ruling	0.685***	73.29
a_2 : Change following the court's ruling	0.020	1.50
Adj-R ²		0.0025
Number of Observations		505

Panel D: Incremental absolute returns due to analyst information outputs -- [0, 0] window

Dependent Variable: β_t	Coefficient	t-statistic
b_1 : Before the court's ruling	0.111***	21.06
b_2 : Change following the court's ruling	0.026***	3.49
Adj-R ²		0.0217
Number of Observations		505

In this table, we report results using alternate windows for measuring the information content of analyst information outputs. We repeat the analysis in Table 2 after replacing the [-1, +1] window with [-5, +1] and [0, 0], respectively. [-5, +1] window is consistent with that in Gintchel and Markov (2004). ***, ** and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 7

Additional test: Effect of the court's ruling on analysts' workload

Panel A: Sample selection for the sample examining the number of firms covered by an analyst

Filter	Number of Obs.	Data Source
Analysts who issued at least one EPS forecast for U.S. firms from 9/1/2004 to 8/31/2005, the one-year period prior to the court's ruling on 9/1/2005.	4,402 Analysts	IBES
Analysts who also issued at least one EPS forecast for U.S. firms from 9/1/2005 to 8/31/2006, the one-year period following the court's ruling on 9/1/2005.	3,434 Analysts	IBES

Panel B: Number of firms covered by an analyst before and after the court's ruling

	Pre	Post	H ₀ : Pre = Post
Mean	10.297	11.135	(t-statistic = 4.53)

Panel C: Sample Selection for the sample examining the number of analysts covering a firm

Filter	Number of Obs.	Data Source
U.S. firms that have at least one EPS forecast available from 9/1/2004 to 8/31/2005, the one-year period prior to the court's ruling on 9/1/2005.	5,084 Firms	IBES
U.S. firms that also have at least one EPS forecast available firms from 9/1/2005 to 8/31/2006, the one-year period following to the court's ruling on 9/1/2005.	4,588 Firms	IBES

Panel D: Number of analysts covering a firm before and after the court's ruling

	Pre	Post	H ₀ : Pre = Post
Mean	8.488	8.831	(t-statistic = 2.03)

This table presents the change in analysts' workload as reflected by the number of firms covered by an analyst and the number of analysts covering a firm. Panel A reports the sample selection procedure for the sample examining the number of firms covered by an analyst. Panel B reports the average number of firms covered by an analyst in the period before and in the period after the U.S. federal district court's ruling on *SEC v. Siebel Systems, Inc.* (2005). Panel C reports the sample selection procedure for the sample examining the number of analysts covering a firm. Panel D reports the average number of analysts covering a firm in the period before and in the period after the court's ruling. ***, ** and * indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 8

Survey results

Panel A: Job titles of survey participants

Job Title	Percent of Participants
Partner/Law Firm Partner/Managing Partner	75.0
Counsel/Of Counsel/Senior Counsel	11.7
Other/Blank	13.3

Panel B: Survey participants' years of law practice

Years of Law Practice	Percent of Participants
More than 20 years	81.7
Between 15 and 20 years	8.3
Between 10 and 15 years	6.7
Between 5 and 10 years	1.7
Less than 5 years	1.7

Panel C: Main survey question results

Explanation	Average (SD) likelihood rating	Significantly greater than
(1) <i>Unintentional</i> increase in <i>implicit</i> communication	1.4	2-5
(2) <i>Intentional</i> increase in <i>implicit</i> communication	0.9	3-4
(3) <i>Unintentional</i> increase in <i>explicit</i> communication	0.8	4
(4) <i>Intentional</i> increase in <i>explicit</i> communication	0.5	-
(5) Another explanation	0.7	-

Column 1 reports the average likelihood ratings on 5-pt scales ranging from 0 = "Not at all likely" to 4 = "Extremely likely" for five explanations of the effect documented in sections 3 and 4 of this paper. Column 2 reports the results of pairwise t-tests testing the null hypothesis that the average likelihood ratings are equivalent for each set of two explanations. We report the explanations for which a given explanation is significantly greater than another explanation at the 10% level using the Bonferroni-Holm method to adjust for multiple comparisons.