The Consequences of *Not* Disclosing Feedback-Stimulating Information*

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Abstract

Recent evidence suggests that managers use voluntary CAPEX guidance to stimulate *market feedback* by incentivizing informed trading in their stock prices. We show that this "feedback disclosure" is associated with a decrease in informed trading in nondisclosing firms. The decrease of informed trading is pronounced in *unexpected* nondisclosure, consistent with the interpretation that traders perceive nondisclosure as indicating low gains from informed trading. The reduction in informed trading is associated with a reduction in investment-q sensitivity and future performance for nondisclosing firms. Overall, we document a novel link between managers' strategic disclosure decisions and real effects.

Keywords: Voluntary Disclosure, Feedback Disclosure, No News Is News, Informed Trading, Real Effects

JEL Codes: D82, G14, G31, M41

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1 Introduction

Corporate voluntary disclosure is a crucial source of information for various stakeholders.[1] While some corporations voluntarily disclose numerous pieces of information (e.g., earnings forecasts, sales projections, or capital-spending plans), other firms remain silent. Thus, it is crucial to understand how the *absence* of voluntary disclosure is perceived and what the consequences are for nondisclosing firms. Classical theories consider a *valuation motive* of disclosure and provide predictions about the implications upon nondisclosure (e.g., Grossman, 1981, Milgrom, 1981, Verrecchia, 1983, and Dye, 1985).[2] Recent evidence, however, suggests that firms also have a *feedback-stimulating motive* when choosing their disclosure practices. A growing body of work provides evidence in favor of the so-called feedback channel where corporations utilize firm outsiders' information.[3] Thus, disclosure of corporate information represents a two-way flow of information as it influences the information acquisition and revelation strategies of firm-outsiders (e.g., informed investors or analysts), ultimately affecting what the manager can learn from them (Goldstein and Yang, 2017). Jayaraman and Wu (2020) and Fox et al. (2021) show that *feedback-intended* voluntary disclosure incentivizes investors to trade on their private information, thereby increasing the manager's ability to extract valuable information from market prices. However, while managers are able to stimulate the feedback channel by voluntarily disclosing information, it remains unclear what the implications are for *nondisclosing* firms.

In this paper, we empirically investigate capital market and real economic consequences for firms that do not engage in feedback-stimulating disclosure activities. However, what consequences should we expect for firms that do not provide feedback-intended disclosure in the first place? A recent stream of theoretical papers considers how corporate disclosure affects the feedback channel (Gao and Liang, 2013, Bond and Goldstein, 2015, Goldstein and Yang, 2019, Yang, 2020, and Schneemeier, 2019). A common feature of those models

[1] Beyer et al. (2010) highlight that about two-thirds of accounting-based return variance is generated by voluntary disclosures.

[2] The empirical literature generally finds support for the "no news is bad news" hypothesis, in that nondisclosing firms experience negative valuation implications. See, e.g., Lev and Penman, 1990, Chen et al., 2011, Houston et al., 2010, and Zhou and Zhou, 2020.

[3] See, among others, Luo, 2005, Chen et al., 2007, Foucault and Frésard, 2014, Edmans et al., 2017, and Dessaint et al., 2019.

is that not all disclosures are made alike: Whether disclosure attracts trading by informed investors and helps the manager to learn from the market depends on the specific information being revealed. Thus, voluntary disclosure may either incentivize or discourage informed traders to invest in a firm's stock.[4] Lassak (2021) proposes a model where the manager's disclosure choice is driven purely by a *feedback-stimulating motive*: the desire to incentivize informed trading and learn from the market. The central finding for our paper concerns the consequences of *nondisclosure*. In the model, the manager may stay silent because she has no private information to disclose or because she is withholding her information strategically in order not to discourage informed trading. Upon nondisclosure, the traders realize that there is a chance that the manager hides information which would destroy gains from informed trading. Thus, nondisclosure of feedback-stimulating information *signals* to informed investors that it is not worthwhile to trade a nondisclosing firm's stock intensively. The consequence is that there will be less informed trading in nondisclosing firms - we call this the *signaling channel* of nondisclosure of feedback-stimulating information.

In this paper, we empirically test the prediction that *nondisclosure* of feedback-stimulating information reduces the degree of informed trading in nondisclosing firms. In addition, we investigate whether a potential change in informed trading has real effects by considering a nondisclosing firm's investment decisions and future operating profitability.

Motivated by the evidence that managers disclose capital expenditure (CAPEX) forecasts to stimulate feedback from firm outsiders (Jayaraman and Wu, 2020, Bae et al., 2021, and Fox et al., 2021), we use firms that do not provide CAPEX guidance as our empirical setting. To guide our analysis on nondisclosing firms, we use a common feature of voluntary disclosure models: a reaction upon *nondisclosure* necessitates that the public *expects* the firm to release information in the first place. If a manager is expected to never disclose any information[5], the absence of disclosure has no informational value. In

[4] All of the cited papers consider *pre-committed* disclosure policies which, by their very nature, ignore the manager's *discretion* in disclosing or withholding information. Langberg and Sivaramakrishnan (2010) study an ex-post disclosure model where the disclosure of managerial information prompts analyst feedback. One crucial assumption is that the analyst is not providing (analyst) guidance or any other form of feedback upon *nondisclosure*. Thus, all of the mentioned theories cannot be used to guide our empirical approach.

[5] For instance, if proprietary costs of disclosure are higher than any potential benefit of disclosure

contrast, if a manager is expected to disclose, investors interpret nondisclosure as a signal itself. Thus, we hypothesize that a nondisclosing firm's degree of informed trading is lower when the market was expecting the firm to provide CAPEX guidance.

We test this prediction using a sample of 4,673 firms over the period from 2004 to 2019 where we observe whether a firm is providing CAPEX guidance in a given quarter. In our main specification, we proxy for the market's disclosure expectation using a nondisclosing firm's peers' disclosing activities. Voluntary disclosure activity is correlated within industries (Seo, 2021), therefore, more peer disclosure should raise investors' awareness and expectation regarding a focal firm's own disclosure. We follow Kim and Ljungqvist (2021) and define for every nondisclosing firm five peers based on their product-market similarity scores (Hoberg and Phillips, 2010, 2016). Our estimates suggest that the presence of at least one disclosing peer firm in a given quarter reduces a nondisclosing firm's measures of informed trading by about 2% relative to the sample mean.[6] In addition, being the only firm within the peer group withholding CAPEX guidance is associated with a 9% lower level of informed trading relative to the sample mean.[7] To put this effect in perspective, Fox et al. (2021) document that CAPEX disclosing firms are able to stimulate an increase of informed trading of about 12%.

One implicit assumption in our analysis thus far is that peer disclosure raises market participants' expectation about a focal firm's own disclosure, with the consequence of an outflow of informed capital upon nondisclosure. However, this signaling role of peer disclosure is surely not the only way how peer disclosure may affect a nondisclosing firm's degree of informed trading. For instance, as CAPEX spending is correlated within industries (Bustamante and Frésard, 2020), peer CAPEX guidance may be informative about nondisclosing firm's investment plans as well, resulting in a decrease of information asym-

(Verrecchia, 1983) or if the public knows that the manager has no private information to disclose (Dye, 1985), the public expects that no firm will disclose any information. Thus, investors do not update their belief about nondisclosing firms.

[6] We control for various standard determinants of informed trading and include firm and year-quarter fixed effects in our tests.

[7] Our findings are consistent across three widely used measures of informed trading: The Probability of Informed Trading (PIN) (Easley et al., 1996, Brown et al., 2004), Stock Price Non-synchronicity (SPN) (Roll, 1988, Morck et al., 2000), and Bid-Ask Spreads (BAS) (Glosten and Milgrom, 1985, Easley and O'hara, 1992).

metries in the nondisclosing firm's stock. Also, given that investors in a given industry may be subject to limited attention or capacity constraints (e.g., Barber and Odean, 2008, DellaVigna and Pollet, 2009, and DeHaan et al., 2015), a peer firm's disclosure may simply pull informed capital out of nondisclosing firms without affecting the perception upon nondisclosure as we assume. To alleviate the concern that our effects are driven by these alternative channels, we repeat our analyses based on a nondisclosing firm's *own CAPEX guidance history*. If a firm has consistently provided CAPEX guidance in the past, it is likely that investors expect the firm to also disclose CAPEX forecasts in a given quarter.[8] Thus, we expect to measure stronger declines in informed trading for nondisclosing firms that have a history of providing CAPEX guidance. Indeed, we find that firms that have issued CAPEX forecasts more extensively in the past experience stronger reductions in informed trading upon nondisclosure.

While the joint evidence based on peer disclosure and a firm's own disclosure are in-line with our proposed signaling channel of nondisclosure, neither of our two proxies of the market's disclosure expectation is perfect.[9] Thus, we perform three additional tests associated with the proposed mechanism to push our findings more in a causal direction (Rajan and Zingales, 1996). In particular, we try to capture plausible variations in the market's expectation about a focal firm's CAPEX guidance, by considering the characteristics of the disclosed information and the disclosing party. Thus, we revert to focusing on a focal firm's disclosing peers as this allows us to perform the cross-sectional tests.

Central to the prediction that peer disclosure affects a nondisclosing firm's degree of informed trading is that managers indeed use CAPEX guidance as a way to stimulate market feedback. While the literature shows evidence in favor of this assumption (Jayaraman and Wu, 2020 and Fox et al., 2021), we turn to earnings per share (EPS) guidance as a

[8] About 72% of firms that provide CAPEX guidance in a given quarter, also disclose a CAPEX forecast in the subsequent quarter.

[9] Peer disclosure per se is informative about nondisclosing firms and also has the potential to "compete" away scarce informed capital. Similarly, a firm's current disclosure may be also informative in future quarters. Another concern of using a firm's disclosure history is that firms' disclosure choices are not time-separate, in that managers arguably take into account the implication of their concurrent choices on future outcomes. However, the consistent evidence across those two specifications bolsters our confidence in that the signaling role of nondisclosure is at least one factor affecting informed trading.

potential placebo test. Prior literature has documented that managers use EPS guidance to affect the valuation of their firms (e.g., Miller, 2002), reduce information asymmetry in the financial market (e.g., Beyer et al., 2010), and to improve stock liquidity (e.g., Balakrishnan et al., 2014). In addition, Fox et al. (2021) show that managers *decrease* the usage of EPS guidance in order to stimulate market feedback. Thus, we expect that peer EPS guidance is not raising the market's expectation regarding a focal firm's feedback-intended CAPEX disclosure and should not affect its degree of informed trading. Indeed, in contrast to peer CAPEX guidance, we find that the negative impact of peers' disclosing activities on a nondisclosing firm's degree of informed trading is absent in the case of voluntary EPS forecasts. This result bolsters our interpretation that it is not the absence of *any disclosure* that has adverse effects on nondisclosing firms' degree of informed trading, but the absence of *feedback-intended* disclosure.

Second, we investigate peers' characteristics and different classifications of the disclosed CAPEX guidance. Gao and Liang (2013) and Fox et al. (2021) stress that firms face a trade-off when deciding upon disclosure items that could affect the feedback channel. On the one hand, disclosing information which incentivizes informed trading helps the manager to extract more decision-relevant information from the market. On the other hand, such disclosing activities increase information asymmetries, negatively affecting a disclosing firm's liquidity and cost of capital (see, e.g., Diamond and Verrecchia, 1991 and Easley and O'hara, 2004). We expect that *financially unconstrained* disclosing firms care relatively more about the feedback channel and thus are more likely to use CAPEX guidance as a tool to incentivize informed trading (Edmans et al., 2017). Here is where we expect to find stronger effects on a nondisclosing firm's informed trading measures. In a similar vein, we distinguish between *initial* and *updated* CAPEX guidance in a given quarter. While initial CAPEX guidance is used to stimulate feedback from analysts and the market (Jayaraman and Wu, 2020 and Fox et al., 2021), the evidence in Bae et al. (2021) suggests that subsequent guidance is merely an update of already *incorporated* analyst feedback and less likely to be used as a feedback-stimulating device again. Thus, we expect that the implications on nondisclosing firms' informed trading are stronger if the peers issue *initial*

CAPEX guidance as opposed to *updated* CAPEX guidance. Our effects are concentrated in peer groups where the disclosing firms are on average financially unconstrained or where firms issue primarily initial CAPEX guidance. The finding supports the interpretation that when firms are likely to disclose in an effort to stimulate market feedback, they raise the market's expectation about their peers' feedback-intended disclosure, ultimately negatively affecting the degree of informed trading upon nondisclosure.

Third, we try to capture differences in the *salience* of the disclosed information and its varying impact on nondisclosing firms' informed trading. A cue's salience is increasing in the distance to a "reference point" (e.g., Thaler, 1985 and Bordalo et al., 2013). We use two measures to proxy for the market's reference point of a disclosing firm's *level* of the CAPEX forecast: the consensus analyst CAPEX forecast and the firm's prior quarter managerial CAPEX forecast. As disclosure choices are positively correlated within industries (Seo, 2021), more salient disclosures may lead the market to be more attentive to the disclosing activity of the whole peer group - including the nondisclosing firms.[10] Thus, we expect stronger effects on nondisclosing firms' degree of informed trading, if peers' disclosure activity is more salient as proxied by the difference to the two reference points of the level of CAPEX guidance. Indeed, we find that the effect of peer disclosure has about twice as large an effect on nondisclosing firms when we split the sample between our high and low salient measures of peer disclosure. The cross-sectional tests are in line with the proposed working mechanism, further increasing confidence in our results.

In our final set of analyses, we investigate whether the reductions of informed trading in nondisclosing firms go beyond a financial market effect and have real implications. We follow the feedback literature and measure nondisclosing firm's investment-q sensitivity and future performance (e.g., Chen et al., 2007, Bai et al., 2016 Edmans et al., 2017, Jayaraman and Wu, 2019, and Jayaraman and Wu, 2020). Thinking about real effects, the reduction in informed trading may have at least two different implications being related to the distinction between revelatory price efficiency (RPE) and forecasting price

[10]The salience of a firm's nondisclosure is important for the market's reaction upon nondisclosure, as Zhou and Zhou (2020) show that the market's reaction to non-earnings-guidance is stronger if the attention towards a nondisclosing firm is higher.

efficiency (FPE) outlined by Bond et al. (2012). The RPE implication predicts a decrease of investment-q sensitivity for nondisclosing firms as the stock price is less useful to guide the firm's investment decision, resulting in worse future performance. In contrast, the FPE channel predicts a positive impact on investment-q sensitivity and performance. By reducing the advantage of informed traders vis-à-vis uninformed market participants, the reduction in informed trading implies a reduction in a nondisclosing firms' adverse selection costs and eases potential financial constraints. Thus, a firm is more flexible in reacting to investment opportunities predicting an increase in investment-q sensitivity and profitability. Our results are mostly in-line with the RPE implications of the reduction of informed trading in nondisclosing firms: Whenever the market expects a firm to provide CAPEX guidance - proxied by the presence of peer disclosure - its investment-q sensitivity is lower upon nondisclosure compared to when the market is not expecting disclosure.

While a decrease of investment-q sensitivity suggests less efficient investment, we turn to future return on assets (ROA) to directly test profitability implications. As the loss of market feedback is arguably stronger for firms with more informed trading, we follow Jayaraman and Wu (2019) and condition on pre-period informed trading. We find that nondisclosing firms with a high level of informed trading have lower future performance when the market was expecting guidance to occur. Overall, our findings are in line with the RPE interpretation that nondisclosing managers' are able to extract less valuable information from their stock price when the market is expecting CAPEX guidance to be released.

Our paper makes three main contributions. First, our paper contributes to the literature studying the implications of voluntary disclosure, and importantly, the lack thereof. The literature on voluntary disclosure has intensively highlighted negative valuation implications of nondisclosure (Lev and Penman, 1990, Chen et al., 2011, Houston et al., 2010, and Zhou and Zhou, 2020). However, to the best of our knowledge, this paper is the first to study the implications of voluntary feedback-intended disclosure on nondisclosing firms. We highlight significant feedback implications, where nondisclosing firms suffer from a reduction in informed trading which weakens their ability to learn from

the market. In addition, our results highlight that the consequences of nondisclosure of feedback-stimulating information crucially depend on the market's expectation of disclosure. Whenever the absence of feedback-intended disclosure is perceived as a strategic choice, we find a reduction of informed trading which has real implications by limiting the nondisclosing manager's ability to incorporate value-enhancing market information.

Second, we add to the growing literature on the interaction between corporate disclosure and the feedback channel. While existing papers have examined the effect of enhanced mandatory disclosures (Jayaraman and Wu, 2019, Pinto, 2019) and voluntary disclosure practices (Jayaraman and Wu, 2020, Fox et al., 2021) on market feedback, our paper is the first to consider the implications on *nondisclosing* firms. In particular, while Jayaraman and Wu (2020) and Fox et al. (2021) highlight that managers use their discretion in voluntary disclosure to stimulate the feedback channel, we show an associated consequence for nondisclosing firms. Voluntary disclosure by peers and/or a firm's past voluntary disclosure is associated with a significant outflow of informed capital upon nondisclosure, negatively affecting the feedback channel. Thus, while the prior literature documents firm-level benefits of voluntary disclosure in stimulating feedback from the market, we identify an associated cost for nondisclosing firms.

Third, while the vast majority of papers in the voluntary disclosure literature study earnings-related items (see, e.g., Beyer et al., 2010), we add to the literature focusing on non-earnings related voluntary disclosure - in particular, CAPEX guidance. In addition to a feedback-stimulating motive (Jayaraman and Wu, 2020, Bae et al., 2021, and Fox et al., 2021), the literature has identified that firms issue CAPEX forecasts to fight competition by potential entrants (Li, 2010), to camouflage bad earnings news (Lu and Tucker, 2012), to compete for investor attention (Park et al., 2019), and to satisfy information demands from capital market participants (Chapman and Green, 2018). However, while all of these papers emphasizes motives why firms issue CAPEX guidance or highlight the consequences for the disclosing firms, our paper is unique in stressing the implications for *nondisclosing* firms.

The paper proceeds as follows. The next section presents the data and construction

of the sample. In section 3, we describe the empirical strategy and present our main results on the relation between not disclosing feedback-stimulating information and informed trading. We extend the main analysis with additional tests to further investigate the signaling channel of nondisclosure of feedback-stimulating information. Section 4 examines the implications of our main results, i.e., the consequences of a lower stock price informativeness for nondisclosing firms on investment-q sensitivity and profitability. Section 5 concludes.

2 Data and Sample

2.1 Sample Construction

Essential for our study is the identification of voluntary disclosure which is motivated by stimulating market feedback. Prior empirical work points to the *feedback-eliciting* role of CAPEX forecasts (Jayaraman and Wu, 2019, Bae et al., 2021, Fox et al., 2021), which frames the focus of this paper.

To construct our sample, we obtain data from several sources. Financial information comes from Compustat, stock price and return data from CRSP, management forecasts and analyst following from I/B/E/S Guidance, the Probability of Informed Trading (PIN) by Easley et al. (1996), estimated and made available by Brown and Hillegeist (2007), and the text-based network industry classification (TNIC) based on firms' product similarity to identify our peers by Hoberg and Phillips (2016). Following prior literature, we exclude firms in the financial industries (SIC code 6000-6999), utilities industries (SIC 4000-4999), firm-quarter observations with less than $10 million in book value of assets (Chen et al., 2007, Bae et al., 2021, Fox et al., 2021) and observations that contain missing values for variables used in our subsequent analyses.

We collect information on annual CAPEX forecasts from I/B/E/S Guidance for the quarters in 2004 through 2019.[11] To define the set of *feedback* disclosure events, we follow prior literature and select annual CAPEX guidance where the forecasting year equals the

[11] We choose 2004 as starting year, because the data coverage of CAPEX forecasts shows a significant increase from 2003 to 2004 with an increasing but relatively stable frequency from 2004 onward.

target year of the forecast (Bae et al., 2021). Our goal is to use peer disclosure (and later, a firm's own history of disclosures) as a proxy for the market's expectation of the incidence of feedback-intended disclosure at a focal firm. Thus, we try to identify disclosure which are indeed aimed at stimulating market feedback. Forecasts for the current year and more imminent actions might be more likely to be disclosed in order to attract market feedback than for periods which are further away than one year.[12]

We combine the information on management forecasts with our initial sample of U.S. firms that have available information on their industry peers as defined by Hoberg and Phillips (2016). The Hoberg and Phillips (2016) TNIC matrix provides a product-market similarity score using firms' product descriptions in 10-K filings for every pair of Compustat firms, which is updated annually and time-varying. Following Kim and Ljungqvist (2021), we use the TNIC matrix to identify peers. Based on the product-market similarity scores of all firms in the TNIC matrix, we assign every firm its most similar five peers.[13]

Our full sample consists of 100,954 firm-quarter observations for 4,673 unique firms. The data on PIN as a measure of informed trading is limited to the years 2004-2010 (made available by Brown and Hillegeist (2007)), reducing our sample size to 45,896 observations in the respective tests.

2.2 Descriptive Statistics

Panel A of Table 1 presents the descriptive statistics of the main variables in our analyses. Note that we refer to a firm which is (not) disclosing a CAPEX forecast in a given quarter as a discloser (nondiscloser). Therefore, a single firm may alternate between being a discloser and nondiscloser in our description. Nondisclosure accounts for 79% of firm-quarter observations in our sample.[14] The mean value for the presence of at least one

[12] Around 20% of firms in our sample disclose multiple annual CAPEX guidances for the current forecasting year in the same quarter. If that is the case, we use the information of the earliest annual CAPEX forecast per quarter.

[13] We take the annual definition of peers and break it down to quarters because our main tests are at the firm-quarter level.

[14] If firms are covered by the TNIC matrix with available data in Compustat and CRSP but are not covered by I/B/E/S Guidance, we set CAPEX forecasts, earnings forecasts and analyst coverage to zero. Including these firms as nondisclosers leads to the higher amount of nondisclosing quarters compared to disclosing quarters. However, we see this approach as more conservative and should, if anything, work against our findings. As argued in the main text, we hypothesize that peer disclosure and/or a firm's

peer issuing CAPEX guidance (*Peer Feedback Indicator*) for nondisclosers is 0.458, which suggests that approximately half of the nondisclosing firms observe *feedback* disclosure by peers during the quarter. The number of peers issuing CAPEX guidance during the quarter ranges from none to all peers disclosing with an average of 0.804 (*Peer Feedback Count*). Conditional on observing peer firm disclosure, the average number of disclosing peers is 1.7 (untabulated). We discuss different disclosure practices between disclosers and nondisclosers in more detail below.

[Insert Table 1 here.]

Disclosers are on average larger, have more analyst following them, lower return volatility, and higher turnover. In addition, firms providing CAPEX guidance are more likely to also issue EPS forecasts than non-CAPEX guiding firms (mean values of 39.4% and 18.4%, respectively). Thus, the information environment of CAPEX disclosing firms is generally more transparent. An opaque information environment incentivizes information acquisition and trading by sophisticated traders, being associated with higher asymmetric information among investors (see, e.g., Welker, 1995, Brown and Hillegeist, 2007, and Balakrishnan et al., 2014). This is also reflected in significant differences in our measures of informed trading across disclosing and nondisclosing firms.

The mean value of *Prior-quarter Disclosure* is 0.719 for disclosers and 0.068 for nondisclosers. In addition, disclosing firms exhibit a significantly longer history of CAPEX disclosure of approximately 58% of all prior quarters in the sample, compared to 7% for the nondisclosers. Taken together, this suggests that once a firm starts forecasting CAPEX, it is likely that the firm will continue to do so in the future (in line with Bae et al. (2021)). However, nondisclosure of CAPEX guidance does not imply a lower importance of investments for the firm. Nondisclosing firms show on average slightly higher investment and capital expenditure rates compared to disclosers - nondisclosers (disclosers): INV 0.076 (0.067); CPXRD 0.058 (0.052)).

prior disclosures raise the markets' disclosure expectation and is the driver behind a reduction of informed trading upon nondisclosure. These "never-disclosers" should therefore attenuate our findings. Indeed, our results are robust to excluding firms not covered by I/B/E/S Guidance and even become more significant.

Panel B of Table 1 presents the correlation matrix our main disclosure variables and our measures of informed trading: Probability of informed trading (PIN), stock price non-synchronicity (SNS), and bid-ask-spread (BAS). We find a positive correlation of disclosure activities within peer groups and a positive auto-correlation of disclosure practices within firms. In addition, we find a strong positive correlation among our three proxies for the amount of informed trading in firms' price PIN, SNS, and BAS.

In Table 2, we provide further insights about CAPEX guidance practices. Panel A presents the distribution of peer CAPEX guidance over our sample period. Overall, in about 46% of cases where a firm is not disclosing a CAPEX forecast, at least one of its peers is providing CAPEX guidance. In contrast, for firms that do provide CAPEX forecasts, peer disclosure occurs about 83% of the time, indicating complementarities in peers' disclosure decisions.

[Insert Table 2 here.]

In Table 2 Panel B, we identify the number of consecutive nondisclosure quarters (disclosure breaks) after a firm disclosed CAPEX guidance in a given quarter. For instance, if a firm is disclosing CAPEX forecasts in Q3-2010, Q1-2011, and Q2-2015, its consecutive nondisclosure quarters are one (Q4-2010), sixteen (Q2-2011 to Q1-2014), and eighteen (Q3-2015 to Q4-2019, the end of our sample), respectively.

About 59% of firms that disclose at least one CAPEX forecasts in our sample have a reporting break, that is, stop providing guidance in one of the subsequent quarters. The average number of consecutive nondisclosures after a disclosing quarter is approximately 4.15 quarters (untabulated). Thus, for the average firm, it takes about one year until they disclose the next CAPEX forecast. However, the distribution varies greatly with a standard deviation of 7 and a maximum of 59 consecutive nondisclosure quarters (untabulated). Panel B of Table 2 presents the frequency of the number of consecutive nondisclosure quarters in more detail. For brevity, we report the distribution until the 20^{th} subsequent nondisclosure quarter, which represents 95% of the sample. Once CAPEX guidance is issued in a quarter, 41% of firms continue to do so in the next quarter. 15%

of firms have one, 8% have two, and 6% have three consecutive nondisclosure quarters.

3 Nondisclosure of Feedback-Eliciting Information

3.1 Empirical Model

The goal of this study is to investigate nondisclosure of *feedback*-eliciting information. However, a reaction upon nondisclosure necessitates that investors perceive nondisclosure as a strategic decision and thus as a *signal itself*. Motivated by prior studies showing complementarities among firms' disclosure policies within industries (e.g. Seo, 2021) and our affirmative descriptive statistics (Tables 1 and 2), we argue that investors consider nondisclosure as a (stronger) signal if (more) peers of a focal firm choose to disclose in a given quarter. In particular, we consider the top five industry peers' CAPEX disclosure behavior and its impact on the degree of informed trading in nondisclosing firms.

We exploit the fact that not all firms experience *feedback* disclosure by their peers and argue that the extent of peer disclosure affects the interpretation of nondisclosure. In particular, we test the hypothesis that more peer disclosure leads to a stronger reduction of informed trading in nondisclosing firm's stock. To test our hypothesis, we estimate the following ordinary least squares (OLS) regression model:

$$InformedTrading_{i,t} = \beta_0 + \beta_1 PeerDisclosure_{i,t} + \gamma X_{i,t} + \alpha_i + \lambda_t + \epsilon_{i,t} \tag{1}$$

Where *PeerDisclosure* will be characterized both by the occurrence (*Peer Feedback Indicator*) and the extent (*Peer Feedback Percent*) of peer disclosure. The first is an indicator variable equal to one if at least one out of the top five peers issues CAPEX guidance during a quarter. The latter refers to the percentage of the top five peers issuing CAPEX guidance. Accordingly, the coefficient β_1 on *PeerDisclosure* represents the change in informed trading between nondisclosers whose peers' issue CAPEX guidance and nondisclosers without peer firm disclosure. If by peer disclosure, investors' interpretation of nondisclosure follows our predictions, we expect β_1 to be significantly negative.

As dependent variables (*InformedTrading*), we use three different proxies for the amount

of informed trading, namely the Probability of Informed Trading (*PIN*), stock price non-synchronicity (*SNS*), and bid-ask spreads (*BAS*). The empirical literature supports the interpretation that these proxies are associated with trading activities by informed investors (Easley et al., 2002, Vega, 2006, Kacperczyk and Pagnotta, 2019, and Ahern, 2020). Whether each of the measures indeed captures trading activities by informed investors and what information these traders posses is debated in the literature (Aktas et al., 2007, Collin-Dufresne and Fos, 2015, and Ahern, 2020). We therefore perform our analysis on all three measures in an effort to alleviate the concern of the validity of each individual proxy.

X represents a vector of control variables being associated with informed trading, including the following firm characteristics: firm size (*Size*), the inverse of the quarter-end stock price (*Inverse Price*), the variability of stock returns (*Return Volatility*), trading activity (*Turnover*), the number of analysts following a firm, (*Analyst Following*), the market surprise to quarterly earnings announcements by the firm in a given quarter (*Earnings Surprise*), and a firm's history of issuing annual earnings guidance (*EPS Disclosure History*). See Appendix A1 for further details on the measurement and data sources of each variable. We include firm (α) and year-quarter (λ) fixed effects. The estimated effect is based on within-nondisclosing-firm variation in informed trading in the presence or absence of peer disclosure. An advantage of the empirical design in Equation 1 is that we do not expect nondisclosing and disclosing firms to have similar underlying economics.[15] As disclosure decisions are based on firm-and-time specific trade-offs and are not random, they are not expected to be identical (Zhou and Zhou, 2020).

In a second test, we interact *PeerDisclosure* with *Non_Disclosure* to examine the differential impact of peers' disclosure on firms that withhold information vis-à-vis CAPEX disclosing firms.

$$InformedTrading_{i,t} = \beta_0 + \beta_1 Non\_Discloser_{i,t} \times PeerDisclosure_{i,t} + \beta_2 PeerDisclosure_{i,t} + \beta_3 Non\_Discloser_{i,t} + \gamma X_{i,t} + \alpha_i + \lambda_t + \epsilon_{i,t} \quad (2)$$

[15] Differences in observable characteristics can be seen in Panel A of Table 1.

Our coefficient of interest is β_1, which captures the incremental change in the degree of informed trading for nondisclosers whose peers' issue CAPEX guidance. In contrast, β_3 captures the difference in the level of informed trading between nondisclosers and disclosers without the impact of peer disclosure, and β_2 is an estimate of the impact of peer disclosure for CAPEX disclosing firms. We keep the same fixed effects structures and control variables as in Equation 1.

3.2 Nondisclosure, Peers' Disclosure, and Informed Trading

Table 3 reports the results of our main test based on Equation 1 and *PIN* as the dependent variable, subsequently adding our set of control variables. Consistent with our prediction, we find a negative and statistically significant coefficient on the *Peer Feedback Indicator*. This result suggests that nondisclosing firms experience a decline in informed capital when the market observes peers' CAPEX disclosure. The effect's magnitude slightly decreases but remains highly significant in Model (2), after adding the main control variables used in prior literature (Jayaraman and Wu, 2019): *Size*, *Inverse Price*, *Return Volatility*, and *Turnover*.

In the feedback context, we are interested in information in prices that is new to the manager. To alleviate concerns that *PIN* is influenced by information that the manager already knows, we follow Chen et al. (2007) and add *Earnings Surprise* as a proxy for managerial private information in Model (3). Arguably, a manager has knowledge about earnings prior to its public announcement. Thus, the market's earnings surprise reflects superior managerial information at the announcement date. In addition, we add *Analyst Following* and a firm's history of issuing annual earnings guidance *EPS Disclosure History* to control for the general information environment of a firm. The result remains robust and highly significant. The coefficient of -0.004, on the *Peer Feedback Indicator* in Model (3) suggests that peer disclosure reduces a nondisclosing firm's *PIN* by 2% relative to the sample mean.

[Insert Table 2 here.]

In Model (1) in Panel B of Table 3, we replace the indicator variable with *Peer Feedback Percent* to capture the effect of an increasing extent of peer firm disclosure. We argue that peer disclosure is signaling to investors that a nondisclosing firm is doing so *strategically*. Thus, more peer disclosure should strengthen the signaling role and result in a starker reduction in informed trading for nondisclosing firms. Indeed, we find that the percentage of peers' disclosing CAPEX guidance is significantly and negatively associated with the level of informed trading (*Peer Feedback Percent* = -0.010).

To ease interpretation, we include separate indicator variables depending on the number of disclosing peers in Model (2).[16] There is a slightly increasing negative trend between the number of disclosing peers and the probability of informed trading for nondisclosers (coefficients range from -0.004 to -0.0176). While being statistically significant *individually*, the coefficients on having one, two, three, or four disclosing peers are not statistically different from each other. However, the results suggest that the consequences for nondisclosers are strongest - and statistically different from having four peer disclosures - if the focal firm is the only one withholding its CAPEX forecast in its peer group. The coefficient of -0.017 on the*Peer Feedback Indicator [5]* suggests a reduction in nondisclosing firm's probability of informed trading by about 9% relative to the sample mean. To put this effect in perspective, Fox et al. (2021) document that CAPEX disclosing firms are able to stimulate an increase in informed trading of about 12% relative to the sample mean.

We repeat the same analysis with our two additional measures of informed trading. Table 4 reports the results with *SNS* and *BAS* as dependent variables using both the indicator and level measure for peer disclosure. We find consistent results and significant negative associations between peer feedback disclosure and firm's stock price non-synchronicity and bid-ask spreads, suggestive of less informed trading.

[Insert Table 4 here.]

Next, we consider the full sample of CAPEX disclosers and nondisclosers and investigate the impact of peers disclosure on informed trading according to Equation 2. Table 5

[16] No peer firm disclosure is the omitted benchmark category.

presents the results with *PIN*, *SNS*, and *BAS* as dependent variables and peer feedback defined by our *Peer Feedback Indicator* in Model (1) to (3), and the percentage of disclosing peers in Model (4) to (6). In line with the summary statistics, nondisclosing firms have a less transparent information environment than disclosing firms which is associated with higher levels of informed trading (e.g., a significant coefficient of 0.007 in Model (1) on *Non_Discloser*). The insignificant coefficients on our peer disclosure variables suggest a negligible impact of peer disclosure on firms that also issue CAPEX guidance themselves.

In support of our predictions and prior results, in the presence of peer disclosure, nondisclosers experience a significant decline in measures of informed trading compared to nondisclosure without disclosing peers (e.g., Model (1), *Non_Discloser×Feedback Percent* = -0.003). Taken together, the results so far lend initial support to our prediction that nondisclosure in the feedback context, in particular if it is at odds with investors' expectations, discourages informed trading.

3.3 Nondisclosure, Firm's Disclosure History, and Informed Trading

Our previous analyses are based on the assumption that investors' awareness and reaction to nondisclosure is triggered by peer disclosure. However, peer disclosure may affect nondisclosing firms' degree of informed trading also through other channels.

Bustamante and Frésard (2020) show that CAPEX spending is correlated within industries. Thus, CAPEX forecast disclosure may not only affect the market's expectation of whether a peer firm will disclose itself, it is also informative regarding a peer firm's future CAPEX spending. More peer disclosure may help investors to gauge a nondisclosing firms' future investment plans, reducing the information advantage of informed traders and ultimately our measures of informed trading. Thus, our results so far may be driven by this alternative *information-spillover channel*. In addition, to the extent that informed capital may be in short supply or subject to limited attention within industries, peer disclosure may simply attract informed capital away from nondisclosing firms (Fishman and Hagerty, 1989, Schneemeier, 2019, Park et al., 2019, and Machado and Pereira, 2020) without affecting the perception upon nondisclosure itself. Thus, according to the

attention-grabbing channel it is peer disclosure that *attracts* informed capital as opposed to (unexpected) *nondisclosure* signaling low trading and thus lead to an outflow of informed capital.

To address concerns that our results are purely driven by the alternative information-spillover and/or attention-grabbing channel, we use a second proxy for investors' disclosure expectation - a single firm's history of providing CAPEX guidance. Prior literature suggests that a firm's voluntary disclosure behavior is correlated with past disclosure decisions (Houston et al., 2010, Allee et al., 2021). This is also the case in our sample, as we find that CAPEX guidance is positively auto-correlated (see Tables 1 and 2). Given the relatively sticky nature of CAPEX guidance, we expect that disclosure in the previous quarter raises investors' expectation about contemporaneous disclosure. We therefore use the dummy *Prior-quarter disclosure* as a proxy for the market's disclosure expectation. In addition, the longer a firm has been issuing CAPEX guidance, the stronger we expect the reaction after nondisclosure to be. Thus, our second proxy is *Disclosure History Percent*, the percent of quarters in our sample in which a firms has provided CAPEX guidance.[17]

We repeat the analysis of Section 3.2 replacing peer disclosing activity with our measures for a firm's disclosure history and present the results in Table 6.

[Insert Table 6 here.]

In Panel A, Models (1) and (3), we perform our tests only on the sample of nondisclosers, while Model (2) and Model (4) consider the whole sample of disclosers and nondisclosers. Overall, the results are fairly similar to the results based on peer disclosure in Section 3.2. For instance, the results in Model (1) indicate that a nondisclosing firm has a lower PIN of 0.005 if it was providing CAPEX guidance in the previous quarter, after controlling for standard determinants of informed trading. This is almost identical to the coefficient size of 0.004 found in Table 3. In combination with the results in Model (3) and (4) based on a firm's whole disclosure history, the results suggest that higher market expectation of disclosure leads to a greater decline in informed trading upon nondisclosure.

[17] We start calculating disclosure and nondisclosure quarters from the first quarter a firm is providing CAPEX guidance. See Table A1 in the appendix for more details.

In Panel B, we include both our proxies for the market's disclosure expectation peer disclosure and firm's disclosure history in our analysis. The results suggest that both peer disclosure and a firm's own previous CAPEX forecasting history negatively affect the degree of informed capital upon nondisclosure. However, the impact of firm's own disclosure history has about twice as large an effect on the reduction in informed trading upon nondisclosure compared to concurrent peer disclosure.

Overall, the results are consistent with the interpretation that nondisclosure, especially when it is unexpected and indicative of strategic withholding of information, signals lower gains from speculation and leads to a reduction of informed trading. As already highlighted, peer disclosure may also be associated with an *information-spillover* and *attention-grabbing* channel, interfering with our proposed *signaling* channel. The information-spillover and attention-grabbing channels should, however, affect our analyses using a firm's own disclosure history to a lesser extent. Take the information-spillover channel. The results in Model (3) and (4) of Panel A in Table 6 show that the impact on informed trading is stronger if we include *older* disclosures in the analysis. While this is in line with our proposed signaling channel where the market is strongly (weakly) expecting disclosure of a firm which consistently (irregularly) provided CAPEX guidance in the past, we argue it is less so with the information-spillover channel. More distant disclosures should be *less* informative for concurrent shareholders than the disclosure one quarter ago. Thus, the doubling of the coefficient when moving from using the *Prior-quarter Disclosure* dummy to the *Disclosure History Percent* is harder to reconcile with the information-spillover channel.[18] Similarly, the results in Table 6 are less likely to be driven by the attention-grabbing channel. By construction, a firm's prior disclosures do not occur in a given quarter, thus, do not represent concurrent attention-grabbing events. Even when controlling for concurrent peer disclosure in Panel B, the effect of a firm's previous disclosing activity remains sizable.

While the joint evidence based on peer disclosure and a firm's own disclosure are in-

[18] We cannot rule out the information-spillover channel completely, however. While each of the previous disclosures may have a diminishing effect on concurrent informed trading, the total of the disclosed information may lead to the strong effect we measure with *Disclosure History Percent*.

line with our proposed signaling channel of nondisclosure, neither of our two proxies of the market's disclosure expectation is perfect. Thus, we perform additional tests associated with the proposed mechanism to be able to interpret our findings more in a causal sense (Rajan and Zingales, 1996). In particular, we try to capture plausible variations in the market's expectation about a focal firm's CAPEX guidance, by considering the characteristics of the disclosed information and the disclosing peers.

3.4 Additional Tests

In this section, we aim to further investigate the signaling channel of nondisclosure of feedback-stimulating information.

3.4.1 Placebo Test: The Disclosure of Earnings Guidance

The signaling channel of nondisclosure in our paper is specific to a *feedback-eliciting* motive of disclosure. Only when investors expect the firm to disclose feedback-stimulating information, nondisclosure is perceived as a signal that gains from informed trading are low.

While prior evidence suggests that managers use CAPEX guidance to stimulate market feedback (Jayaraman and Wu, 2019 and Fox et al., 2021), voluntary disclosure of earnings forecasts is associated with different motives. Managers use earnings guidance to affect the valuation of their firms (e.g., Miller, 2002), reduce information asymmetry in the financial market (e.g., Beyer et al., 2010), and to improve stock liquidity (e.g., Balakrishnan et al., 2014). In addition, Fox et al. (2021) suggest that managers even *reduce* disclosing earnings forecasts when seeking market feedback.

Because the signaling channel of nondisclosure is based on a feedback-elicitating motive of disclosure, we do not expect that peers' earnings forecasts affect the market's expectation regarding a focal firm's CAPEX disclosure. Thus, we expect not to find a negative association between peers' earnings per share (EPS) forecasts and a non-CAPEX-disclosing firm's degree of informed trading. Table 7 presents the results of the associated falsification test, where we repeat the analysis of Section 3.2 but use peers' annual EPS guidance

instead of CAPEX guidance.

[Insert Table 7 here.]

For almost all of our specifications, we do not find a significant impact of peer EPS guidance on non-CAPEX-disclosing firm's measures of informed trading. If anything, we find that peer EPS guidance leads to an increase of bid-ask-spreads for non-CAPEX-disclosing firms. This result provides additional support for our signaling channel: when the market is expecting a firm to disclosure *feedback-stimulating* information, nondisclosure leads to an outflow of informed capital.

3.4.2 Cross-sectional Tests: The Feedback-Stimulating Role of Disclosure

While the results in Jayaraman and Wu (2020) and Fox et al. (2021) suggest that CAPEX guidance is used by managers to stimulate market feedback, the authors also document significant cross-sectional differences in the likelihood that a given firm indeed uses CAPEX guidance to do so. We build on their findings and differentiate between characteristics of the firms, either peers or focal firm, (Table 8, Panel A) and characteristics of the CAPEX guidance (Table 8, Panel B) to identify situations in which we expect *feedback-intended* disclosure to be more or less prevalent.

[Insert Table 8 here.]

Our first differentiation is among financially constrained and unconstrained peers. Prior literature points to the trade-off that firms face when deciding upon disclosure items (Gao and Liang, 2013 and Fox et al., 2021). One the one hand, disclosing information which incentivizes informed trading helps the manager to extract more decision-relevant information from the market. One the other hand, such disclosing activities have the potential to increase information asymmetries, affecting a disclosing firm's liquidity and cost of capital (see, e.g., Diamond and Verrecchia, 1991 and Easley and O'hara, 2004). Financially unconstrained firms should care relatively more about stimulating informed trading as opposed to reducing information asymmetries. Further, because they are not

limited by capital constraints, financially unconstrained firms are more flexible to react to price signals, e.g. by adjusting investments and expenditures more quickly (Chen et al., 2007, Edmans et al., 2017). Thus, we expect that *financially unconstrained* disclosing firms care relatively more about the feedback channel and thus are more likely to use CAPEX guidance as a tool to incentivize informed trading (Edmans et al., 2017). Here is where we expect to find stronger effects on a nondisclosing peer's informed trading measures.

We follow related literature (Jayaraman and Wu, 2019) and use the index constructed by Whited and Wu (2006) to measure firms' financing constraints. We compute the index for a focal firm's peer group by taking the average over the five peers' constraint measure. Based on the median value within the group of nondisclosers, we assign our peer disclosure indicator to two groups: *Peer Feedback Indicator [Low]* and *Peer Feedback Indicator [High]*, where the former (latter) represents on average financially unconstrained (constrained) peer groups.

Model (1) in Table 8 presents the results. We find that the negative impact on nondisclosing firms is concentrated when peers issuing CAPEX guidance are financially unconstrained. *Peer Feedback Indicator [Low]* has a significant coefficient of -0.005, whereas the coefficient on *Peer Feedback Indicator [High]* is insignificant. The finding supports the notion that unexpected nondisclosure of feedback-stimulating information signals low trading gains for traders, leading to a reduction of informed trading.

Second, we distinguish between initial and updated CAPEX guidance by disclosing firms. Bae et al. (2021) show that managers incorporate *analyst feedback* based on their *initial* CAPEX guidance. Thus, while *initial* guidance is used to stimulate feedback, subsequent managerial guidance is likely to be merely an update of already incorporated feedback and less likely to be used as a feedback-stimulating device again.

Thus, we expect the implications on nondisclosing firms' informed trading to be stronger if peers issue *initial* CAPEX guidance as opposed to *updated* CAPEX guidance. We create an indicator variable that equals one if the disclosure is denoted as initial by I/B/E/S Guidance, and zero for updated guidance. Again, we take the average across the nondisclosing firm's disclosing peers. Table 8, Panel B, Model (1) shows the results for Peer

Feedback Indicator [High] ([Low]) if a nondisclosing firm's peer group discloses above (below) median initial forecasts. The decrease in informed trading for nondisclosing firms is about twice as large when its peers issue primarily *initial* as opposed to *updated* CAPEX guidance. Thus, when the market is expecting a firm to disclose to *stimulate* market feedback, nondisclosure results in a reduction of informed trading.

Third, as we argue that peer disclosure raises the public's awareness and expectation of a focal firm's disclosure, the salience of the disclosed information may affect the perception upon nondisclosure. A cue's salience is increasing in the distance to a "reference point" (e.g., Thaler, 1985 and Bordalo et al., 2013). Thus, we would expect investors to pay more attention to disclosed information which is at odds with their reference point or expectation. We use two measures to proxy for the market's expectation about the disclosing firm's *level* of CAPEX guidance: the consensus analyst CAPEX forecast and the firm's prior quarter managerial CAPEX forecast. More salient disclosures may not only increase the attention of investors towards the disclosing firm, but also to the disclosing activity of the whole peer group - including the nondisclosing firms. Zhou and Zhou (2020) show that the market's reaction upon nondisclosure depends on the attention investors are paying to the nondisclosing firm. Thus, we conjecture stronger effects on nondisclosing firms' degree of informed trading if peer disclosure is more salient.

Our first proxy for the salience of peer disclosure is whether peers issue CAPEX guidances that are in-line with analysts' consensus. *Analyst Forecast Surprise* for each CAPEX forecast is indicated with one if it deviates from the mean analyst forecast, and zero otherwise. The second salience proxy - *Forecast News Content* - is the percentage change of the current to the previous quarter's managerial CAPEX forecast.[19] For both salience proxies, we take the average within each peer group and divide the *Peer Feedback Indicator* into above and below median salient peer disclosure.

The results, displayed in Panel B, Model (2) for *Analyst Forecast Surprise* and Model

[19]Note, if a firm discloses multiple annual CAPEX guidances for the current forecasting year in the same quarter, we use the characteristics of the earliest annual CAPEX forecast per quarter. If there was no CAPEX forecast in the previous quarter, we set the percentage change to 100%. Alternatively, we do not compute a measure of news content for forecasts for which there is no prior quarterly forecast, and set the percentage change to a missing value. The results do not change.

(3) for *Forecast News Content*, go in the same direction, however, with different significance levels. When proxied by *Analyst Forecast Surprise*, strongly salient peer disclosures have twice as large an effect on informed trading for nondisclosing firms compared to disclosures with low salience. Similarly, the effect of peer disclosures with high *Forecast News Content* measures also have a stronger impact on nondisclosing firms. However, in contrast to the analysis based on *Analyst Forecast Surprise*, the coefficients from the high and low salience estimation are not significantly different from each other. Thus, we interpret the results to be weakly in-line with our proposed signaling mechanism of nondisclosure: when the market is (strongly) paying attention to the disclosure of feedback-stimulating information, nondisclosure results in a (large) reduction of informed trading.

Another variation we try to exploit is the similarity of peer groups. We use the similarity scores of firms' product-descriptions constructed by Hoberg and Phillips (2016) to categorize focal firms with on average high or low similarity to their top five peers. The idea is that the disclosing behavior of more similar peers makes the market pay stronger attention to the nondisclosing focal firms. Panel A, Model (2) report the results. We find the same negative and statistically significant decline in informed trading for nondisclosers as in our main results (Table 3). This result supports our main inferences, but suggests that nondisclosure in the presence of disclosure by more or less similar peers is not perceived differently in the market. However, we note that our research design is limited to focal firms' top five industry peers and may lack sufficient variation in peers' similarity as we already select the five most similar peers.

Furthermore, depending on nondisclosers' own history of issuing CAPEX guidance, we find a twice as large decrease in the probability of informed trading for nondisclosers that have a longer history of CAPEX disclosure compared to nondisclosers with a shorter CAPEX disclosure history (Panel A, Model (3)). While, the difference is not statistically significant, this finding is weakly in line with our proposed mechanism that unexpected nondisclosure leads to a reduction of informed trading.

In sum, whenever the disclosure of peer firms is likely to be feedback-driven or more salient, we find that nondisclosure is associated with (sometimes weakly) more pronounced

decreases in informed capital. Overall, we interpret the joint findings to be in line with the *signaling channel* of nondisclosure of feedback-stimulating information.

4 Consequences of a lower Stock Price Informativeness

4.1 Nondisclosure, Stock Price Informativeness, and Learning from Prices

Our analysis so far suggests that upon nondisclosure, a firm experiences declines in informed trading and thus reductions in the informativeness of its own stock price. What follows is the question - does the change in price informativeness upon nondisclosure affect firms' real activities? In this section, we address this question using investment-q sensitivity analyses (Chen et al., 2007, Edmans et al., 2017).

Bond et al. (2012) discuss how activities in the financial market may affect real decisions at the firm. In particular, two notions of price efficiency have to be considered. First, forecasting price efficiency (FPE) which reflects the extent to which prices are informative about future cashflows of the traded assets. Second, revelatory price efficiency (RPE) which reflects the extent to which prices are informative for the real decision-maker, for instance, the firm manager. In order to study how a potential decrease in informed trading may affect nondisclosing firms' real activities, we have to evaluate the implications for both the FPE and RPE channel.

The traditional accounting and finance literature studies the implications of measures of informed trading on FPE. More information acquisition and trading by sophisticated investors is associated with higher bid-ask spreads (Glosten and Milgrom, 1985), illiquidity (Diamond, 1985), and cost of capital (Diamond and Verrecchia, 1991, Easley and O'hara, 2004). Thus, under the FPE view, a reduction in measures of informed trading is associated with easing of financial constraints rendering the manager more flexible to react to investment opportunities. Under the FPE view, we would predict that a decreases of informed trading is associated with an *increases* a firm's reliance on the stock price. That is, we would expect to measure a higher investment-q sensitivity.

The opposite association prevails under the RPE view. More information acquisition

and trading by firm outsiders increases the likelihood that the manager may learn information that is new to her. Thus, more informed trading is desirable through helping the manager to extract decision-relevant information from the stock market (Edmans et al., 2017). Given that the stock price provides more information for the manager, she relies more on price variations to guide her investment decision (Chen et al., 2007), ultimately predicting a reduction in the investment-q sensitivity associated with a decline in informed trading.

To examine consequences of changes in price informativeness and nondisclosing firms' ability to learn from stock prices, we estimate the following OLS regression model. We extend the classical investment-q regression model (Foucault and Frésard, 2012, Edmans et al., 2017) with interactions for nondisclosure and peer disclosure similar to our main specification.

$$\begin{aligned} Investment_{i,t+1} = \beta_0 &+ \beta_1 q_{i,t} + \beta_2 Non\_Discloser_{i,t} + \beta_3 Non\_Discloser_{i,t} \times q_{i,t} \\ &+ \beta_4 PeerFeedbackIndicator_{i,t} + \beta_5 PeerFeedbackIndicator_{i,t} \times q_{i,t} \\ &+ \beta_6 Non\_Discloser_{i,t} \times PeerFeedbackIndicator_{i,t} \\ &+ \beta_7 Non\_Discloser_{i,t} \times q_{i,t} \times PeerFeedbackIndicator_{i,t} \\ &+ \gamma X_{i,t} + \alpha_i + \lambda_t + \epsilon_{i,t} \end{aligned} \tag{3}$$

where Investment_{t+1} denotes either $CPXRD_{t+1}$, capital expenditures plus R&D expenditures, or INV_{t+1} additionally including acquisitions minus cash receipts from sales of property, plant, and equipment, each scaled by scaled by total assets at the beginning of the quarter (e.g., Biddle et al., 2009, Durnev and Mangen, 2020). We include Tobin's q, as the price-based measure of investment opportunities, measured as the ratio of quarter-end market value of assets (market value of equity plus the book value of debt), scaled by the book value of total assets. We standardize the continuous explanatory variables by deducting the respective sample means and scale by the respective sample standard deviation to be able to interpret the coefficients as the marginal impact of one standard deviation.

As in Equation 1, we include firm (α) and quarter (λ) fixed effects, and augment the model with *Size* and *Cash Flow* as control variables (Chen et al., 2007, Foucault and Frésard, 2014, Jayaraman and Wu, 2019, Fox et al., 2021). Our coefficient of interest is β_7, which captures the differential investment-q sensitivity between nondisclosing firms with and without CAPEX guiding peers. The RPE channel predicts a negative coefficient, as the reduction of informed trading is associated with a weakened feedback channel upon *unexpected* nondisclosure. In contrast, according to the FPE view, the reduction in the amount of informed trading entails a reduction in information asymmetries (e.g., nondisclosers can benefit from easier access to capital), positively influencing nondisclosers' investment-q sensitivity.

We report the results in Panel A of Table 9, where our dependent variables, $CPXRD_{t+1}$, and INV_{t+1} denote next-quarter investments. It is impossible to determine when the potentially incorporated market feedback will be reflected in capital expenditures. Short-term investment plans may already have an impact on next quarter's capital expenditures, but others that require planning and preparation may only take shape after a longer time lag. Standard investment-q sensitivity models (Edmans et al., 2017, Chen et al., 2007) define future investments by one year ahead. We account for a longer time horizon by taking the average of quarterly investments over the next four quarters as dependent variable in Model (3), and Model (5).[20]

In Table 9, Panel A, Model (1), we interact q with *Non_Discloser*. The negative and significant coefficient indicates that discloser have a higher investment-q sensitivity than nondisclosures. This result is corroborating the findings by Jayaraman and Wu (2020) and Fox et al. (2021) that firms actively disclose CAPEX to stimulate market feedback.

However, the purpose of this paper is to identify the consequences when a firm is unexpectedly not disclosing feedback-stimulating information. Thus, we include the impact of peers' *feedback* disclosure in Models (2) and (4) to proxy for the market's expectation of a focal firm's disclosure. The coefficient of -0.004 on *Non_Discloser*$\times q \times$*Peer Feedback Indicator* indicates a reduction for nondisclosers' investment-q sensitivity when the market

[20] Additionally, we reconstruct our sample on firm-year level (Table 10) and find similar results.

was expecting the firm to disclose.

This suggests that the reduction of nondisclosers' investment-q sensitivity is indeed significantly influenced by the presence of *feedback* disclosure by peers - in line with our interpretation that peer disclosure changes the market' perception upon nondisclosure.

We obtain similar results when using INV as a different measure of corporate investment in Model (4) to (6).[21]

To ease interpretation, we split the sample depending on the occurrence of peer disclosure in Panel B. We can see that the decline in nondisclosers' investment-q sensitivity is concentrated when peers issue CAPEX guidance and thus affect the perception of nondisclosure. The findings are in line with the *signaling channel* of nondisclosure - firms that unexpectedly do not disclose feedback-stimulating CAPEX guidance experience an outflow of informed capital, inhibiting their ability to learn from te market.

To corroborate the previous results, facilitate comparability to related studies, and to examine whether the adverse consequences on nondisclosers' ability to learn from the market also persist at a yearly perspective, we aggregate our original firm-quarter sample to the annual level. While this entails a reduction of observations, the categorization of nondisclosers also changes. The definitions of (discloser) nondisclosure of focal firms or peer firms, respectively, denote now firms that do (not) issue CAPEX guidance during the entire year, instead of one quarter.

We provide summary statistics of the firm-year sample in Panel A of Table 10. 68% of yearly observations are nondisclosers. The average investment rate is 6.2%, which is slightly higher than that reported in Fox et al. (2021). The mean (median) of q is 1.99 (1.44) and comparable to related studies (Jayaraman and Wu, 2019, Fox et al., 2021).

The different coefficients on q for disclosers (omitted) and nondisclosers (-0.011) in Model (2), are similar to those reported in the recent study by Fox et al. (2021). In Model (3) and (4), we partition the sample into firms with and without peer disclosure during the year. Model (5) reports the results based on Equation and the firm-year sample. Consistent with the findings on firm-quarter level, we find that nondisclosers' investment-q

[21] We perform several additional tests. For example, the results are robust to the inclusion of industry and industry-year-quarter fixed effects or different forms of clustering.

sensitivity lower when the market was expecting the firm to disclose.

Overall, our results are in-line with the RPE implications of *signaling channel* of nondisclosure: Whenever the market expects a firm to provide CAPEX guidance, its investment-q sensitivity is lower upon nondisclosure compared to when the market is not expecting disclosure.

4.2 Nondisclosure, Stock Price Informativeness, and Future Performance

Prior evidence by Chen et al. (2007) and Jayaraman and Wu (2019) suggests that a decrease in investment-q sensitivity is associated with lower future operating performance. If the price contains information new to managers and the amount of private information in prices declines for nondisclosers, we would expect negative consequences on firm's future performance. In particular, the loss in learning should be pronounced for firms with higher prior level of informed trading. We therefore test the profitability implications with a regression of future performance on price informativeness scores following Chen et al. (2007). The price informativeness score is defined as the percentile rank of the prior quarters' level of informed trading in the sample, using either *PIN* or *SNS*. Future performance is defined as the average ROA over the next three-quarter periods after quarter t.[22]

We interact the price informativeness score with our *Non_Discloser* and *Peer Feedback* indicator to gauge the consequences of unexpected nondisclosure of feedback-stimulating information, especially for firms wih high pre-period levels of informed trading. The results are summarized in Table 11, using *PINScore* in Panel A, and *SNSScore* in Panel B.

[Insert Table 11 here.]

The results in Model (1) support the findings in Chen et al. (2007) of a positive correlation between informed trading and future performance, and the findings by Fox et al. (2021) that this relationship is stronger for disclosers. In Model (2) and (3), we split the sample based on whether nondisclosing firms experience CAPEX disclosure by

[22] As a robustness check, we use our firm-year level sample and test the future performance consequences. We find similar results, supporting our inferences.

peers. We find that the negative performance consequences upon nondisclosure for firms with higher level of informed trading are driven by the effect that peer disclosure has on nondisclosing firms. The findings in Model (4), where we use a triple interaction term, corroborate these results.

In conclusion, we interpret the findings to be in-line with a reduction of managerial learning following nondisclosure: Whenever the market expects a firm to provide CAPEX guidance, nondisclosure signals low gains from trading. The consequence is a reduction of informed trading which implies an inhibited feedback channel, negatively affecting a nondisclosing firm's future performance.

5 Conclusion

Recent evidence suggests that managers use voluntary CAPEX guidance to improve their ability to learn from stock prices, that is, to stimulate *market feedback*. In this paper, we study the consequences for firms that do not engage in feedback-stimulating disclosure activities, and use firms that do not provide CAPEX guidance as our empirical setting. To guide our analysis on nondisclosing firms, we use a common feature of voluntary disclosure models: a reaction upon nondisclosure necessitates that the public expects the firm to release information in the first place. Using contemporaneous disclosures of product market peers, and a firm's own history of CAPEX guidance as proxies for the market's expectation about the occurrence of the focal firm's CAPEX guidance, we find a reduction in the degree of informed trading for *unexpected* nondisclosure. Additional cross-sectional tests using characteristics and salience of peers' CAPEX guidance strengthen our inferences. We find that the effect on nondisclosing firms is stronger in situations where we expect peers' disclosure to be more feedback-intended, and where the market is expected to be more attentive to the disclosure activity of the peer group - including the nondisclosing firms. The findings are in line with our proposed interpretation of a signaling channel of nondisclosure, where nondisclosure of feedback-stimulating information signals to informed investors that it is not worthwhile to trade a nondisclosing firm's stock intensively. In our final set of analyses, we investigate whether the change in informed trading has real

implications by considering a nondisclosing firm's investment decisions and future operating profitability. The reduction in informed trading of nondisclosing firms is associated with a reduction in investment-q sensitivity, and future profitability. Overall, our findings are in line with the interpretation that nondisclosing managers' are able to extract less valuable information from their stock price when the market is expecting CAPEX guidance to be released. Overall, our paper provides novel evidence regarding the interaction between voluntary disclosure and the feedback channel. In particular, we highlight that *unexpectedly* nondisclosing firms suffer a reduction of informed trading, negatively affecting investment and future performance.

References

Ahern, K. R. (2020). Do proxies for informed trading measure informed trading? evidence from illegal insider trades. *The Review of Asset Pricing Studies*, *10*(3), 397–440.

Aktas, N., De Bodt, E., Declerck, F., & Van Oppens, H. (2007). The pin anomaly around m&a announcements. *Journal of Financial Markets*, *10*(2), 169–191.

Allee, K. D., Christensen, T. E., Graden, B. S., & Merkley, K. J. (2021). The genesis of voluntary disclosure: An analysis of firms' first earnings guidance. *Management Science*, *67*(3), 1914–1938.

Bae, J., Biddle, G. C., & Park, C. W. (2021). Managerial learning from analyst feedback to voluntary capex guidance, investment efficiency, and firm performance. *Management Science*.

Bai, J., Philippon, T., & Savov, A. (2016). Have financial markets become more informative? *Journal of Financial Economics*, *122*(3), 625–654.

Balakrishnan, K., Billings, M. B., Kelly, B., & Ljungqvist, A. (2014). Shaping liquidity: On the causal effects of voluntary disclosure. *The Journal of Finance*, *69*(5), 2237–2278.

Barber, B. M., & Odean, T. (2008). All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. *The Review of Financial Studies*, *21*(2), 785–818.

Beyer, A., Cohen, D. A. ., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics*, *50*(2-3), 296–343.

Biddle, G. C., Hilary, G., & Verdi, R. S. (2009). How does financial reporting quality relate to investment efficiency? *Journal of Accounting and Economics*, *48*(2-3), 112–131.

Bond, P., Edmans, A., & Goldstein, I. (2012). The real effects of financial markets. *Annu. Rev. Financ. Econ.*, *4*(1), 339–360.

Bond, P., & Goldstein, I. (2015). Government intervention and information aggregation by prices. *The Journal of Finance*, *70*(6), 2777–2812.

Bordalo, P., Gennaioli, N., & Shleifer, A. (2013). Salience and consumer choice. *Journal of Political Economy*, *121*(5), 803–843.

Brown, S., & Hillegeist, S. A. (2007). How disclosure quality affects the level of information asymmetry. *Review of Accounting Studies*, *12*(2), 443–477.

Brown, S., Hillegeist, S. A., & Lo, K. (2004). Conference calls and information asymmetry. *Journal of Accounting and Economics*, *37*(3), 343–366.

Bustamante, M. C., & Frésard, L. (2020). Does firm investment respond to peers' investment? *Management Science*.

Chapman, K., & Green, J. R. (2018). Analysts' influence on managers' guidance. *The Accounting Review*, *93*(1), 45–69.

Chen, Goldstein, I., & Jiang, W. (2007). Price informativeness and investment sensitivity to stock price. *The Review of Financial Studies*, *20*(3), 619–650.

Chen, Matsumoto, D., & Rajgopal, S. (2011). Is silence golden? an empirical analysis of firms that stop giving quarterly earnings guidance. *Journal of Accounting and Economics*, *51*(1-2), 134–150.

Collin-Dufresne, P., & Fos, V. (2015). Do prices reveal the presence of informed trading? *The Journal of Finance*, *70*(4), 1555–1582.

DeHaan, E., Shevlin, T., & Thornock, J. (2015). Market (in) attention and the strategic scheduling and timing of earnings announcements. *Journal of Accounting and Economics*, *60*(1), 36–55.

DellaVigna, S., & Pollet, J. M. (2009). Investor inattention and friday earnings announcements. *The Journal of Finance*, *64*(2), 709–749.

Dessaint, O., Foucault, T., Frésard, L., & Matray, A. (2019). Noisy stock prices and corporate investment. *The Review of Financial Studies*, *32*(7), 2625–2672.

Diamond, D. W. (1985). Optimal release of information by firms. *The Journal of Finance*, *40*(4), 1071–1094.

Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. *The Journal of Finance*, *46*(4), 1325–1359.

Durnev, A., & Mangen, C. (2020). The spillover effects of md&a disclosures for real investment: The role of industry competition. *Journal of Accounting and Economics*, *70*(1), 101299.

Dye, R. A. (1985). Disclosure of nonproprietary information. *Journal of Accounting Research*, 123–145.

Easley, D., Hvidkjaer, S., & O'hara, M. (2002). Is information risk a determinant of asset returns? *The Journal of Finance*, *57*(5), 2185–2221.

Easley, D., Kiefer, N. M., & O'hara, M. (1996). Cream-skimming or profit-sharing? the curious role of purchased order flow. *The Journal of Finance*, *51*(3), 811–833.

Easley, D., & O'hara, M. (1992). Time and the process of security price adjustment. *The Journal of Finance*, *47*(2), 577–605.

Easley, D., & O'hara, M. (2004). Information and the cost of capital. *The Journal of Finance*, *59*(4), 1553–1583.

Edmans, A., Jayaraman, S., & Schneemeier, J. (2017). The source of information in prices and investment-price sensitivity. *Journal of Financial Economics*, *126*(1), 74–96.

Fishman, M. J., & Hagerty, K. M. (1989). Disclosure decisions by firms and the competition for price efficiency. *The journal of finance*, *44*(3), 633–646.

Foucault, T., & Frésard, L. (2012). Cross-listing, investment sensitivity to stock price, and the learning hypothesis. *The Review of Financial Studies*, *25*(11), 3305–3350.

Foucault, T., & Frésard, L. (2014). Learning from peers' stock prices and corporate investment. *Journal of Financial Economics*, *111*(3), 554–577.

Fox, Z. D., Kim, J., & Schonberger, B. (2021). Investment opportunities, market feedback, and voluntary disclosure: Evidence from the shale oil revolution. *Available at SSRN 3782638*.

Gao, P., & Liang, P. J. (2013). Informational feedback, adverse selection, and optimal disclosure policy. *Journal of Accounting Research*, *51*(5), 1133–1158.

Glosten, L. R., & Milgrom, P. R. (1985). Bid, ask and transaction prices in a specialist market with heterogeneously informed traders. *Journal of Financial Economics*, *14*(1), 71–100.

Goldstein, I., & Yang, L. (2017). Information disclosure in financial markets. *Annual Review of Financial Economics*, *9*, 101–125.

Goldstein, I., & Yang, L. (2019). Good disclosure, bad disclosure. *Journal of Financial Economics*, *131*(1), 118–138.

Grossman, S. J. (1981). The informational role of warranties and private disclosure about product quality. *The Journal of Law and Economics*, *24*(3), 461–483.

Hoberg, G., & Phillips, G. (2010). Product market synergies and competition in mergers and acquisitions: A text-based analysis. *The Review of Financial Studies*, *23*(10), 3773–3811.

Hoberg, G., & Phillips, G. (2016). Text-based network industries and endogenous product differentiation. *Journal of Political Economy*, *124*(5), 1423–1465.

Houston, J. F., Lev, B., & Tucker, J. W. (2010). To guide or not to guide? causes and consequences of stopping quarterly earnings guidance. *Contemporary Accounting Research*, *27*(1), 143–185.

Jayaraman, S., & Wu, J. (2020). Should i stay or should i grow? using voluntary disclosure to elicit market feedback. *The Review of Financial Studies*, *33*(8), 3854–3888.

Jayaraman, S., & Wu, J. S. (2019). Is silence golden? real effects of mandatory disclosure. *The Review of Financial Studies*, *32*(6), 2225–2259.

Kacperczyk, M., & Pagnotta, E. S. (2019). Chasing private information. *The Review of Financial Studies*, *32*(12), 4997–5047.

Kim, J. H., & Ljungqvist, A. (2021). Information externalities among listed firms. *Available at SSRN 3804235*.

Langberg, N., & Sivaramakrishnan, K. (2010). Voluntary disclosures and analyst feedback. *Journal of Accounting Research*, *48*(3), 603–646.

Lassak, M. (2021). Voluntary disclosure, price informativeness, and efficient investment. *Available at SSRN 3556575*.

Lev, B., & Penman, S. H. (1990). Voluntary forecast disclosure, nondisclosure, and stock prices. *Journal of Accounting Research*, *28*(1), 49–76.

Li, X. (2010). The impacts of product market competition on the quantity and quality of voluntary disclosures. *Review of Accounting studies*, *15*(3), 663–711.

Lu, H.-Y. R., & Tucker, J. W. (2012). Nonearnings corporate guidance. *Financial Management*, *41*(4), 947–977.

Luo, Y. (2005). Do insiders learn from outsiders? evidence from mergers and acquisitions. *The Journal of Finance*, *60*(4), 1951–1982.

Machado, C., & Pereira, A. E. (2020). Competing for stock market feedback. *Available at SSRN 3632063*.

Milgrom, P. R. (1981). Good news and bad news: Representation theorems and applications. *The Bell Journal of Economics*, 380–391.

Miller, G. S. (2002). Earnings performance and discretionary disclosure. *Journal of Accounting Research*, *40*(1), 173–204.

Morck, R., Yeung, B., & Yu, W. (2000). The information content of stock markets: Why do emerging markets have synchronous stock price movements? *Journal of Financial Economics*, *58*(1-2), 215–260.

Park, S. Y., Schrand, C. M., & Zhou, F. (2019). Management forecasts and competition for limited investor resources. *Available at SSRN 3357603*.

Pinto, J. (2019). *Does reduced mandatory disclosure increase price efficiency* (tech. rep.). Working Paper.

Rajan, R. G., & Zingales, L. (1996). *Financial dependence and growth* (tech. rep.). National Bureau of Economic Research.

Roll, R. (1988). R^2. *Journal of Finance*, *43*(3), 541–566.

Schneemeier, J. (2019). Optimal disclosure and fight for attention. *Available at SSRN 2938045*.

Seo, H. (2021). Peer effects in corporate disclosure decisions. *Journal of Accounting and Economics*, *71*(1), 101364.

Thaler, R. (1985). Mental accounting and consumer choice. *Marketing science*, *4*(3), 199–214.

Vega, C. (2006). Stock price reaction to public and private information. *Journal of Financial Economics*, *82*(1), 103–133.

Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of Accounting and Economics*, *5*, 179–194.

Welker, M. (1995). Disclosure policy, information asymmetry, and liquidity in equity markets. *Contemporary Accounting Research*, *11*(2), 801–827.

Whited, T. M., & Wu, G. (2006). Financial constraints risk. *The Review of Financial Studies*, *19*(2), 531–559.

Yang, L. (2020). Disclosure, competition and learning from asset prices. *Rotman School of Management Working Paper*, (3095970).

Zhou, F. S., & Zhou, Y. (2020). The dog that did not bark: Limited price efficiency and strategic nondisclosure. *Journal of Accounting Research*, *58*(1), 155–197.

Table 1: Descriptive Statistics - Main Variables

This table presents the summary statistics for the main variables used in our analyses. Panel A displays summary statistics for the full sample split into nondisclosing and disclosing firm-quarters. Panel B presents the correlation matrix of the main disclosure and outcome variables. All continuous variables are winsorized at the 1st and 99th percentile. See Appendix A1 for detailed variable definitions and data source.

Panel A: Descriptive Statistiscs

	Nondisclosure			Disclosure		
Variable	Mean	Median	Std.	Mean	Median	Std.
Peer Feedback Indicator	0.458	0.000	0.498	0.825	1.000	0.380
Peer Feedback Percent	0.161	0.000	0.218	0.385	0.400	0.273
Peer Feedback Count	0.804	0.000	1.090	1.925	2.000	1.365
Prior-quarter Disclosure	0.068	0.000	0.252	0.719	1.000	0.450
Disclosure History Count	1.797	0.000	5.028	13.396	10.000	11.785
Disclosure History Percent	0.068	0.000	0.160	0.583	0.640	0.258
Peer EPS Indicator	0.520	1.000	0.500	0.616	1.000	0.486
Own EPS Indicator	0.184	0.000	0.388	0.394	0.000	0.489
EPS Disclosure History	0.176	0.000	0.314	0.347	0.130	0.388
PIN*	0.184	0.156	0.111	0.108	0.098	0.061
SNS	0.737	0.809	0.251	0.570	0.614	0.269
BAS	0.678	0.227	1.065	0.161	0.083	0.324
Size	6.132	5.993	1.947	7.594	7.546	1.617
Inverse Price	0.227	0.082	0.407	0.083	0.037	0.182
Analyst Following	1.062	1.099	0.929	1.526	1.609	0.956
Earnings Surprise	0.028	0.022	0.028	0.026	0.021	0.025
Return Volatility	0.033	0.028	0.018	0.026	0.023	0.015
Turnover	2.044	2.061	0.794	2.385	2.369	0.625
Q	2.163	1.553	1.800	1.687	1.288	1.302
CF	0.016	0.024	0.061	0.030	0.029	0.037
CPXRD	0.058	0.040	0.060	0.052	0.033	0.059
INV	0.076	0.049	0.085	0.067	0.040	0.080
Obs.	80,029			20,925		

*The number of observations for Nondisclosure and Disclosure are 46,211 and 9,651, respectively.

Note: Mean differences are statistical significant for all variables.

Panel B: Correlation matrix - Main Variables

	Non_Discloser	Peer Feedback Indicator	Peer Feedback Percent	Priorquarter Disclosure	Disclosure History Percent	EPS Disclosure History	SNS	BAS
Peer Feedback Indicator	-0.298***							
Peer Feedback Percent	-0.367***	0.781***						
Priorquarter Disclosure	-0.656***	0.275***	0.334***					
Disclosure History Percent	-0.698***	0.347***	0.415***	0.794***				
EPS Disclosure History	-0.206***	0.148***	0.113***	0.211***	0.282***			
SNS	0.257***	-0.214***	-0.251***	-0.262***	-0.324***	-0.147***		
BAS	0.214***	-0.100***	-0.104***	-0.211***	-0.274***	-0.245***	0.327***	
PIN	0.265***	-0.142***	-0.158***	-0.261***	-0.342***	-0.289***	0.407***	0.666***

Table 2: Distribution of CAPEX (non)guidance

This table presents the distribution of CAPEX disclosure and nondisclosure. Panel A shows the distribution of peer CAPEX guidance by year for nondisclosers, and disclosers, respectively. Panel B presents the distribution of consecutive nondisclosure quarters after disclosing CAPEX guidance at least once. Note: Panel B shows the number and distribution of consecutive nondisclosure quarters for >95% of the observations. The remaining numbers of consecutive nondisclosure quarters are omitted for legibility.

Panel A: Distribution of Peer CAPEX guidance by year

	Nondisclosers					Disclosers				
Year	Without Peer Feedback Disclosure		With Peer Feedback Disclosure		Total	Without Peer Feedback Disclosure		With Peer Feedback Disclosure		Total
	Obs.	%	Obs.	%		Obs.	%	Obs.	%	
2004	3,518	71.85%	1,378	28.15%	4,896	143	39.29%	221	60.71%	364
2005	4,316	64.70%	2,355	35.30%	6,671	246	30.94%	549	69.06%	795
2006	3,328	55.73%	2,644	44.27%	5,972	276	24.64%	844	75.36%	1,120
2007	4,060	65.56%	2,133	34.44%	6,193	266	30.68%	601	69.32%	867
2008	2,811	49.19%	2,903	50.81%	5,714	297	18.52%	1,307	81.48%	1,604
2009	2,391	47.44%	2,649	52.56%	5,040	242	13.86%	1,504	86.14%	1,746
2010	2,132	45.58%	2,545	54.42%	4,677	227	13.67%	1,434	86.33%	1,661
2011	2,028	44.78%	2,501	55.22%	4,529	240	14.68%	1,395	85.32%	1,635
2012	1,707	41.98%	2,359	58.02%	4,066	212	14.27%	1,274	85.73%	1,486
2013	1,996	46.95%	2,255	53.05%	4,251	231	15.03%	1,306	84.97%	1,537
2014	2,518	50.32%	2,486	49.68%	5,004	228	13.36%	1,479	86.64%	1,707
2015	2,724	52.21%	2,493	47.79%	5,217	262	16.79%	1,298	83.21%	1,560
2016	2,624	52.57%	2,367	47.43%	4,991	228	15.56%	1,237	84.44%	1,465
2017	2,513	53.96%	2,144	46.04%	4,657	209	16.73%	1,040	83.27%	1,249
2018	2,612	56.31%	2,027	43.69%	4,639	190	15.25%	1,056	84.75%	1,246
2019	2,098	59.74%	1,414	40.26%	3,512	159	18.01%	724	81.99%	883
Total	43,376	54.20%	36,653	45.80%	80,029	3,656	17.47%	17,269	82.53%	20,925

Panel B: Consecutive CAPEX nondisclosure quarters

Quarters	Frequency	%	Cum.	Quarters	Frequency	%	Cum.
0	15,040	40.86%	40.86%				
1	5,434	14.76%	55.62%	11	469	1.27%	88.28%
2	3,073	8.35%	63.97%	12	424	1.15%	89.43%
3	2,150	5.84%	69.81%	13	392	1.07%	90.50%
4	1,432	3.89%	73.70%	14	357	0.97%	91.47%
5	1,197	3.25%	76.95%	15	302	0.82%	92.29%
6	1,021	2.77%	79.72%	16	271	0.74%	93.03%
7	833	2.26%	81.98%	17	256	0.70%	93.73%
8	679	1.84%	83.82%	18	232	0.63%	94.36%
9	617	1.68%	85.50%	19	202	0.55%	94.91%
10	555	1.51%	87.01%	20	190	0.52%	95.43%

Table 3: Nondisclosure, Peer Disclosure, and the Probability of Informed Trading

The table presents the results of ordinary least squares models examining the relation between feedback-eliciting disclosure by peers and the probability of informed trading (*PIN*) for nondisclosing focal firms. The independent variable of interest is *Peer Feedback Indicator*, which is equal to one if at least one out of the top five peers of firm i issues CAPEX guidance in quarter t, and zero otherwise. In Panel B, we add separate *Peer Feedback Indicator* variables depending on the number of disclosing peers as reported in brackets. See Appendix A1 for definitions of the remaining variables and data sources. The sample period covers 2004 to 2010 due to the availability of PIN, the probability of informed trading, obtained from Brown and Hillegeist, 2007. We drop singletons and report standard errors in parentheses adjusted for heteroscedasticity and within correlation by firm. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Occurrence of peer disclosure

	(1)	(2)	(3)
Dependent Variable	PIN	PIN	PIN
Peer Feedback Indicator	-0.006***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.001)
Size		-0.030***	-0.030***
		(0.001)	(0.001)
Inverse Price		0.035***	0.035***
		(0.003)	(0.003)
Return Volatility		-0.139***	-0.140***
		(0.052)	(0.052)
Turnover		-0.044***	-0.044***
		(0.001)	(0.001)
Analyst Following			-0.003***
			(0.001)
Earnings Surprise			-0.062***
			(0.014)
EPS Disclosure History			-0.017***
			(0.003)
Firm FE	Yes	Yes	Yes
Year-quarter FE	Yes	Yes	Yes
Adj. R2	0.602	0.687	0.687
Within-R2	0.001	0.214	0.216
Obs.	45,896	45,896	45,896
Clustering	Firm	Firm	Firm
#Clusters	3,631	3,631	3,631

Panel B: Number of disclosing peers

	(1)	(2)	p-value of test:
Dependent variable	PIN	PIN	[n]=[n+1]
Peer Feedback Percent	-0.010***		
	(0.003)		
Peer Feedback Indicator [1]		-0.004***	0.000***
		(0.001)	
Peer Feedback Indicator [2]		-0.004***	0.9687
		(0.001)	
Peer Feedback Indicator [3]		-0.005**	0.5695
		(0.002)	
Peer Feedback Indicator [4]		-0.006*	0.7958
		(0.003)	
Peer Feedback Indicator [5]		-0.017***	0.071*
		(0.006)	
Controls	Yes	Yes	
Firm FE	Yes	Yes	
Year-quarter FE	Yes	Yes	
Adj. R2	0.687	0.688	
Within-R2	0.216	0.216	
Obs.	45,896	45,896	
Clustering	Firm	Firm	
#Clusters	3,631	3,631	

Table 4: Nondisclosure, Peer Disclosure, and other Measures relating to Informed Trading

The table presents the results of ordinary least squares models examining the relation between feedback-eliciting disclosure by peers and our additional measures of informed trading in nondisclosing focal firms. The dependent variables are stock return non-synchronicity, SNS, and bid-ask spread, BAS. Stock price non-synchronicity is one minus the R^2 obtained from regressing daily returns on value-weighted market and industry returns over quarter t. BAS denotes the quarterly average of the firm's daily relative bid ask spread, defined as the spread scaled by the midprice and multiplied by 100. The first independent variable of interest is *Peer Feedback Indicator*, which is equal to one if at least one out of the top five peers of firm i issues CAPEX guidance in quarter t, and zero otherwise. *Peer Feedback Percent* is the percentage of the top five peers of firm i that issue CAPEX guidance in quarter t. See Appendix A1 for definitions of the remaining variables and data sources. All models include the entire set of control variables of Model (4) in Table 3. The sample period covers 2004 to 2019. We drop singletons and report standard errors in parentheses adjusted for heteroscedasticity and within correlation by firm. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	(1)	(2)	(3)	(4)
Dependent Variable	SNS	BAS	SNS	BAS
Peer Feedback Indicator	-0.005***	-0.019***		
	(0.002)	(0.007)		
Peer Feedback Percent			-0.010**	-0.043**
			(0.005)	(0.019)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Year-quarter FE	Yes	Yes	Yes	Yes
Adj. R2	0.726	0.805	0.726	0.805
Within-R2	0.041	0.399	0.041	0.399
Obs.	79,979	79,979	79,979	79,979
Clustering	Firm	Firm	Firm	Firm
#Clusters	4,570	4,570	4,570	4,570

Table 5: Nondisclosure, Disclosure, Peer Disclosure, and Informed Trading

The table presents the results of ordinary least squares models examining the relation between peers' feedback disclosure and firm's probability of informed trading given firm's own nondisclosure or disclosure of CAPEX guidance in quarter t. *Non_Discloser* refers to an indicator variable equal to one if focal firm i does not issue CAPEX guidance during the quarter, and zero otherwise. *Peer Feedback Indicator* is equal to one if at least one out of the top five peers of firm i issues CAPEX guidance in quarter t, and zero otherwise. *Peer Feedback Percent* is the percentage of the top five peers of firm i that issue CAPEX guidance in quarter t. See Appendix A1 for definitions of the variables and data sources. All models include the entire set of control variables of Model (4) in Table 3. The sample period with *PIN* as dependent variable covers 2004 to 2010 due to data availability. The sample period in the remaining models covers 2004 to 2019. We drop singletons and report standard errors in parentheses adjusted for heteroscedasticity and within correlation by firm. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable	PIN	SNS	BAS	PIN	SNS	BAS
Non_Discloser#Peer Feedback Indicator	-0.003**	-0.007**	-0.004			
	(0.001)	(0.004)	(0.009)			
Peer Feedback Indicator	-0.001	0.003	-0.014*			
	(0.001)	(0.003)	(0.008)			
Non_Discloser#Peer Feedback Percent				-0.007**	-0.016**	-0.019
				(0.003)	(0.007)	(0.018)
Peer Feedback Percent				-0.003	0.007	-0.018
				(0.002)	(0.006)	(0.014)
Non_Discloser	0.007***	0.014***	0.015*	0.006***	0.013***	0.017**
	(0.001)	(0.003)	(0.008)	(0.001)	(0.003)	(0.007)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Yearquarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.711	0.738	0.806	0.711	0.738	0.806
Within-R2	0.220	0.037	0.385	0.220	0.037	0.385
Obs.	55,483	100,954	100,954	55,483	100,954	100,954
Clustering	Firm	Firm	Firm	Firm	Firm	Firm
#Clusters	3,686	4,673	4,673	3,686	4,673	4,673

Table 6: Nondisclosure, Disclosure History, and Informed Trading

The table presents the results of ordinary least squares models examining the relation between firm's own disclosure history in Panel A (in combination with peers' feedback-eliciting disclosure in Panel B) and firm's probability of informed trading. *Non_Discloser* refers to an indicator variable equal to one if focal firm i does not issue CAPEX guidance during the quarter, and zero otherwise. We consider a firm's own disclosure history of CAPEX guidance using two measures. *Prior-quarter Disclosure* is an indicator variable equal to one if firm i issued CAPEX guidance in the prior quarter. *Disclosure History Percent* is the percentage of prior quarters in which firm i issued CAPEX guidance to all quarters of firm i, starting with the first quarter observation of an CAPEX guidance. Model (1) and Model (3) in Panel A comprise the sample of nondisclosers, whereas Model (2) and Model (4), and Panel B, uses the full sample of nondisclosers and disclosers. All models include the entire set of control variables of Model (4) in Table 3, and firm as well as year-quarter fixed effects. See Appendix A1 for definitions of the variables and data sources. The sample period covers 2004 to 2010 due to data availability. We drop singletons and report standard errors in parentheses adjusted for heteroscedasticity and within correlation by firm. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Disclosure History

	(1)	(2)	(3)	(4)
Dependent Variable	PIN	PIN	PIN	PIN
Disclosure History Variable	Prior-quarter Disclosure	Prior-quarter Disclosure	Disclosure History Percent	Disclosure History Percent
Disclosure History	-0.005***	0.002**	-0.010***	0.004
	(0.001)	(0.001)	(0.003)	(0.003)
Non_Discloser		0.007***		0.010***
		(0.001)		(0.001)
Non_Discloser#Disclosure History		-0.007***		-0.015***
		(0.001)		(0.003)
Controls	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Year-quarter FE	Yes	Yes	Yes	Yes
Within-R2	0.215	0.220	0.216	0.220
Obs.	45,896	55,483	45,896	55,483
Clustering	Firm	Firm	Firm	Firm

Panel B: Disclosure History and Peer Disclosure combined

	(1)	(2)
Dependent Variable	PIN	PIN
Disclosure History Variable	Prior-quarter Disclosure	Disclosure History Percent
Non_Discloser#Disclosure History	-0.007***	-0.014***
	(0.001)	(0.003)
Disclosure History	0.002*	0.003
	(0.001)	(0.003)
Non_Discloser	0.009***	0.011***
	(0.001)	(0.002)
Peer Feedback Indicator	-0.001	-0.001
	(0.001)	(0.001)
Non_Discloser#Peer Feedback Indicator	-0.003**	-0.003*
	(0.001)	(0.001)
Controls	Yes	Yes
Firm FE	Yes	Yes
Year-quarter FE	Yes	Yes
Within-R2	0.220	0.220
Obs.	55,483	55,483
Clustering	Firm	Firm

Table 7: Placebo Test - Impact of Peers' EPS Guidance

The table presents the results of ordinary least squares models examining the relation between the disclosure of annual EPS guidance by peers and firm's probability of informed trading for (CAPEX) nondisclosing firms. In Panel A, the independent variable of interest is *Peer EPS Disclosure*. In Model (1) to (3), we use the indicator variable, which is equal to one if at least one out of the top five peers of firm i issues an EPS guidance in quarter t, and zero otherwise. In Model (4) to (6), *Peer EPS Disclosure* represents the percentage of top five peer firms issuing annual EPS guidance. Further, we include the *Own EPS Indicator*, which indicates if the focal firm issues an EPS guidance in quarter t, and zero otherwise. See Appendix A1 for definitions of the remaining variables and data sources. In Panel B, the models include the interaction of peers' CAPEX and EPS Disclosure. The sample period is from 2004 to 219. When using *PIN* as dependent variable, the sample period covers 2004 to 2010 due to the availability of the probability of informed trading, obtained from Brown and Hillegeist, 2007. We drop singletons and report standard errors in parentheses adjusted for heteroscedasticity and within correlation by firm. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Peer EPS Disclosure

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	PIN	SNS	BAS	PIN	SNS	BAS
	Peer EPS Disclosure Indicator			*Peer EPS Disclosure Percent*		
Peer EPS Disclosure	0.001	0.003	0.011	0.003	0.002	0.041*
	(0.001)	(0.002)	(0.009)	(0.003)	(0.005)	(0.021)
Own EPS Indicator	-0.003***	-0.010***	0.030***	-0.003***	-0.010***	0.029***
	(0.001)	(0.003)	(0.009)	(0.001)	(0.003)	(0.009)
Size	-0.030***	-0.038***	-0.139***	-0.030***	-0.038***	-0.139***
	(0.001)	(0.002)	(0.010)	(0.001)	(0.002)	(0.010)
Inverse Price	0.035***	0.014***	0.551***	0.035***	0.014***	0.551***
	(0.003)	(0.003)	(0.026)	(0.003)	(0.003)	(0.026)
Return Volatility	-0.139***	-0.308***	15.535***	-0.139***	-0.308***	15.536***
	(0.052)	(0.065)	(0.464)	(0.052)	(0.065)	(0.464)
Turnover	-0.044***	-0.003*	-0.504***	-0.044***	-0.003**	-0.504***
	(0.001)	(0.002)	(0.013)	(0.001)	(0.002)	(0.013)
Analyst Following	-0.003***	-0.014***	-0.036***	-0.003***	-0.014***	-0.036***
	(0.001)	(0.002)	(0.008)	(0.001)	(0.002)	(0.008)
Earnings Surprise	-0.064***	-0.010	0.382***	-0.064***	-0.010	0.382***
	(0.014)	(0.020)	(0.091)	(0.014)	(0.020)	(0.091)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Yearquarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.687	0.726	0.805	0.687	0.726	0.805
Obs.	45,896	79,979	79,979	45,896	79,979	79,979
Clustering	Firm	Firm	Firm	Firm	Firm	Firm

Panel B: Interaction Peer EPS and Peer CAPEX Disclosure

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	PIN	SNS	BAS	PIN	SNS	BAS
	Peer EPS Disclosure Indicator			*Peer EPS Disclosure Percent*		
Peer CAPEX Disclosure	-0.004***	-0.006**	-0.020**	-0.012***	-0.015**	-0.085***
	(0.002)	(0.002)	(0.010)	(0.004)	(0.007)	(0.027)
Peer EPS Disclosure	0.001	0.003	0.014	0.003	0.001	0.026
	(0.001)	(0.002)	(0.010)	(0.003)	(0.006)	(0.024)
Peer EPS Disclosure#Peer CAPEX Disclosure	0.000	0.002	-0.001	0.005	0.013	0.117**
	(0.002)	(0.003)	(0.012)	(0.008)	(0.015)	(0.055)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Yearquarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.687	0.726	0.805	0.687	0.726	0.805
Obs.	45,896	79,979	79,979	45,896	79,979	79,979
Clustering	Firm	Firm	Firm	Firm	Firm	Firm

Table 8: Cross-sectional Tests: Variation in the feedback-eliciting role of peers' Disclosure

The table presents the results of regressions that examine cross-sectional predictions for variation in the effect of peers' CAPEX guidance on informed trading of the nondisclosing focal firm. The dependent variable is PIN, the probability of informed trading, obtained from Brown and Hillegeist, 2007. The independent variable of interest, *Peer Feedback Indicator*, is the indicator variable for peers' feedback disclosure in quarter *t*. In Panel A, we split the sample of nondisclosing focal firms and corresponding peer feedback into [Low] and [High] depending on whether the focal firm has an above or below median value of the partitioning variable concerning its own or its peers' characteristics. In Panel B, we split the sample with peer feedback into [Low] and [High] depending on whether the focal firm has an above or below median value of the partitioning variable referring to the characteristics of peers' disclosure. See Appendix A1 for the definitions of all variables. All models include the entire set of control variables of Model (4) in Table 3. The sample period covers 2004 to 2010. We drop singletons and report standard errors in parentheses adjusted for heteroscedasticity and within correlation by firm. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Characteristics of Peers and Focal Firm

	(1)	(2)	(3)
Dependent Variable	PIN	PIN	PIN
Partitioning Variable	*Financially Constraint Peers*	*Peer Similarity*	*Focal Firm Disclosure History*
Peer Feedback Indicator [Low]	-0.005***	-0.004***	-0.003***
	(0.001)	(0.001)	(0.001)
Peer Feedback Indicator [High]	-0.002	-0.004***	-0.006***
	(0.001)	(0.001)	(0.001)
p-value of test: [low]=[high]	0.059*	0.902	0.166
Controls	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year-quarter FE	Yes	Yes	Yes
Adj. R2	0.687	0.687	0.688
Within-R2	0.216	0.216	0.216
Observations	45,896	45,896	45,896
Clustering	Firm	Firm	Firm

Panel B: Characteristics of Peers Capex Disclosure

	(1)	(2)	(3)
Dependent Variable	PIN	PIN	PIN
Partitioning Variable	*Initial Peer Forecast*	*Analyst Forecast Surprise*	*Forecast News Content*
Peer Feedback Indicator [Low]	-0.003**	-0.003***	-0.003***
	(0.001)	(0.001)	(0.001)
Peer Feedback Indicator [High]	-0.006***	-0.007***	-0.004***
	(0.002)	(0.002)	(0.001)
p-value of test: [low]=[high]	0.023**	0.008***	0.172
Controls	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year-quarter FE	Yes	Yes	Yes
Adj. R2	0.688	0.688	0.687
Within-R2	0.216	0.216	0.216
Observations	45,896	45,896	45,896
Clustering	Firm	Firm	Firm

Table 9: Nondisclosure, Peer Disclosure, and Investment-q Sensitivity

The table presents the results of ordinary least squares regressions that examine the baseline model of investment-q sensitivity for nondisclosing firms, and in interaction with feedback-eliciting disclosure by peers. The dependent variable is next-quarter investment ($CPXRD_{t+1}$, INV_{t+1}). In Model (3) and Model (6) we use the average of the next four quarters of the respective investment variable. Tobin's q (q) is defined as the ratio of quarter-end market value of assets (market value of equity plus the book value of debt), scaled by the book value of total assets of firm i in quarter t. See Appendix A1 for the definitions of the variables. The sample period covers 2004 to 2019. We drop singletons and report standard errors in parentheses are adjusted for heteroscedasticity and within correlation by firm. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Main test

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable	$CPXRD_{t+1}$	$CPXRD_{t+1}$	$CPXRD_{t+1,+2,+3,+4}$	INV_{t+1}	INV_{t+1}	$INV_{t+1,+2,+3,+4}$
q	0.013***	0.010***	0.007***	0.014***	0.010***	0.010***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
Non_Discloser	-0.000	-0.000	0.001	0.002*	-0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Non_Discloser#q	-0.002**	0.001	-0.001	-0.005***	-0.001	-0.003**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
Peer Feedback Indicator		0.000	-0.000		-0.005***	-0.003*
		(0.001)	(0.001)		(0.002)	(0.001)
Peer Feedback Indicator#q		0.005***	0.005***		0.007***	0.008***
		(0.001)	(0.001)		(0.002)	(0.002)
Non_Discloser#Peer Feedback Indicator		-0.001	-0.000		0.004**	0.002
		(0.001)	(0.001)		(0.002)	(0.002)
Non_Discloser#q#Peer Feedback Indicator		-0.004***	-0.003**		-0.005**	-0.004**
		(0.001)	(0.001)		(0.002)	(0.002)
Size	-0.003**	-0.003**	-0.000	0.010***	0.010***	0.007***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)
Cash Flow	0.001***	0.001***	0.002***	0.001***	0.001***	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Yearquarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.629	0.629	0.756	0.365	0.365	0.495
Obs.	100,954	100,954	86,135	100,954	100,954	86,135
Clustering	Firm	Firm	Firm	Firm	Firm	Firm

Panel B: Sample splits

		(1)	(2)		(3)	(4)
Dependent Variable		$CPXRD_{t+1}$	$CPXRD_{t+1}$		INV_{t+1}	INV_{t+1}
Split Variable		*Without Peer Feedback Disclosure*	*With Peer Feedback Disclosure*		*Without Peer Feedback Disclosure*	*With Peer Feedback Disclosure*
q		0.014***	0.009***		0.014***	0.011***
		(0.001)	(0.001)		(0.002)	(0.002)
Non_Discloser		-0.000	-0.001		-0.001	0.001
		(0.001)	(0.001)		(0.002)	(0.001)
Non_Discloser#q		0.001	-0.002**		-0.000	-0.004***
		(0.001)	(0.001)		(0.002)	(0.001)
Size		-0.021***	0.013***		-0.009***	0.027***
		(0.002)	(0.002)		(0.002)	(0.002)
Cash Flow		0.000	0.002***		0.000	0.002**
		(0.000)	(0.000)		(0.001)	(0.001)
Firm FE		Yes	Yes		Yes	Yes
Yearquarter FE		Yes	Yes		Yes	Yes
Adj. R2		0.646	0.648		0.365	0.397
Obs.		46,728	53,610		46,728	53,610
Clustering		Firm	Firm		Firm	Firm

Table 10: Nondisclosure, Expected Disclosure, and Investment-q Sensitivity - Yearly Level

The table presents the results of ordinary least squares regressions that examine the baseline model of investment-q sensitivity for nondisclosing firms, and in interaction with measures for investors' expectation of disclosure on firm-year level. Panel A presents summary statistics of the variables used in the analysis on firm-year level. *Non_Discloser* in this analysis equals to one if the firm does not issue CAPEX guidance in the entire year, and zero otherwise. The remaining variables are defined in the same way as at quarter level (See Appendix A1), but on an annual basis. The dependent variable is next year's investment (CPX_{t+1}), defined as capital expenditures in year *t+1*, scaled by total assets in year *t*. Tobin's q (q) is defined as the ratio of year-end market value of assets (market value of equity plus the book value of debt), scaled by the book value of total assets of firm i in year t. The sample period covers 2005 to 2018. We drop singletons and report standard errors in parentheses adjusted for heteroscedasticity and within correlation by firm. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Summary Statistics - Firmyear					
Variable	Obs.	Mean	Q1	Median	Q3
Non_Discloser	20,038	0.638	0.000	1.000	1.000
Peer Feedback Indicator	20,038	0.701	0.000	1.000	1.000
CPX	20,038	0.062	0.014	0.032	0.070
q	20,038	1.990	0.945	1.444	2.405
Size	20,038	6.605	5.240	6.552	7.877
Cash Flow	20,038	0.096	0.030	0.112	0.194
Panel B: Regressions Results					
		(2)	(3)	(4)	(5)
Dependent Variable		CPXt+1	CPXt+1	CPXt+1	CPXt+1
Split Variable			*Without Peer Feedback Disclosure*	*With Peer Feedback Disclosure*	
q		0.018***	0.010***	0.020***	0.009***
		(0.002)	(0.003)	(0.002)	(0.002)
Non_Discloser		0.004**	0.003	0.002	0.004**
		(0.001)	(0.002)	(0.002)	(0.002)
Non_Discloser#q		-0.011***	-0.003	-0.010***	-0.005**
		(0.002)	(0.003)	(0.002)	(0.002)
Peer Feedback Indicator					-0.001
					(0.002)
Peer Feedback Indicator#q					0.013***
					(0.003)
Non_Discloser#Peer Feedback Indicator					-0.001
					(0.002)
Non_Discloser#q#Peer Feedback Indicator					-0.006**
					(0.003)
Size		0.019***	-0.001	0.026***	0.018***
		(0.002)	(0.002)	(0.003)	(0.002)
Cash Flow		0.003***	0.001**	0.005***	0.003***
		(0.001)	(0.001)	(0.001)	(0.001)
Firm FE		Yes	Yes	Yes	Yes
Year FE		Yes	Yes	Yes	Yes
Adj. R2		0.666	0.564	0.659	0.667
Obs.		20,038	5,554	13,748	20,038
Clustering		Firm	Firm	Firm	Firm

Table 11: Nondisclosure, Price Informativeness, and Future Performance

The table presents the results of ordinary least squares regressions of that examine the effect of price-informativeness scores and nondisclosure on future performance. Panel A presents the results with the price-informativeness score based on *PIN*. In Panel B, the price-informativeness score is based on *SNS*. The score is a variable between 0 and 1, and represents the percentile rank of the prior quarters' level of informed trading in the sample, using *PIN* or *SNS*. The dependent variable is *ROA*, calculated as the percentage of operating income to total assets and averaged over the four-quarter periods after quarter *t*. The sample period covers 2004 to 2010 (Panel A), due to the availability of the probability of informed trading, and 2004 to 2018 in Panel B. We drop singletons and report standard errors in parentheses adjusted for heteroscedasticity and within correlation by firm. ***, **, * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Price Informativeness Score based on PIN				
	(1)	(2)	(3)	(4)
Dependent Variable		ROA		
		Without Peer Feedback Disclosure	*With Peer Feedback Disclosure*	
PINScore	1.080***	0.253	0.945***	0.209
	(0.203)	(0.371)	(0.243)	(0.310)
Non_Discloser	0.253***	-0.032	0.155*	-0.009
	(0.078)	(0.151)	(0.080)	(0.133)
Non_Discloser#PINScore	-0.427**	0.392	-0.456*	0.304
	(0.205)	(0.376)	(0.237)	(0.327)
Size	0.748***	0.851***	0.576***	0.749***
	(0.074)	(0.111)	(0.084)	(0.074)
Peer Feedback Indicator				-0.484***
				(0.128)
Peer Feedback Indicator#PINScore				1.124***
				(0.340)
Non_Discloser#Peer Feedback Indicator				0.270*
				(0.145)
Non_Discloser#Peer Feedback Indicator#PINScore				-0.823**
				(0.367)
Firm FE	Yes	Yes	Yes	Yes
Yearquarter FE	Yes	Yes	Yes	Yes
Adj. R2	0.820	0.839	0.772	0.821
Obs.	43,215	21,124	21,516	43,215
Clustering	Firm	Firm	Firm	Firm

Panel B: Price Informativeness Score based on SNS				
	(1)	(2)	(3)	(4)
Dependent Variable		ROA		
		Without Peer Feedback Disclosure	*With Peer Feedback Disclosure*	
SNSScore	0.622***	0.486*	0.482***	0.094
	(0.144)	(0.261)	(0.153)	(0.235)
Non_Discloser	0.345***	0.089	0.265***	0.089
	(0.077)	(0.135)	(0.076)	(0.125)
Non_Discloser#SNSScore	-0.505***	-0.194	-0.468***	-0.091
	(0.153)	(0.278)	(0.163)	(0.259)
Size	0.895***	0.899***	0.852***	0.895***
	(0.067)	(0.112)	(0.061)	(0.067)
Peer Feedback Indicator				-0.526***
				(0.119)
Peer Feedback Indicator#SNSScore				0.656***
				(0.255)
Non_Discloser#Peer Feedback Indicator				0.261*
				(0.133)
Non_Discloser#Peer Feedback Indicator#SNSScore				-0.407
				(0.285)
Firm FE	Yes	Yes	Yes	Yes
Yearquarter FE	Yes	Yes	Yes	Yes
Adj. R2	0.811	0.830	0.732	0.811
Obs.	82,327	37,636	44,128	82,327
Clustering	Firm	Firm	Firm	Firm

Table A1: Variable Definitions and Data Sources

Outcome Variables	
PIN	The probability of informed trading. Obtained from Brown and Hillegeist, 2007. Source: https://scholar.rhsmith.umd.edu/sbrown/pin-data
BAS	The quarterly average of daily bid-ask spreads defined as the spread scaled by the midpoint and multiplied by 100. Source: CSRP
SNS	One minus R^2 from regressing daily returns of firm i on value-weighted market and industry returns over quarter t. Source: CRSP
CPXRD	Capital expenditures plus R&D expenditures of quarter t, scaled by total assets in *t-1*. Source: Compustat
CPX	Capital expenditures of quarter t, scaled by total assets in *t-1*. Source: Compustat
INV	Capital expenditures plus R&D expenditures and acquisitions minus cash receipts from sales of property, plant, and equipment of quarter t, scaled by total assets in *t-1*. Source: Compustat
ROA	Operating income (i.e., earnings before interest, taxes, depreciation and amortization) as a percentage of total assets. Source: Compustat
Explanatory and Partitioning Variables	
Non_Discloser	Indicator variable equal to one if firm i is not issuing annual CAPEX guidance in quarter t, and zero otherwise. Source: I/B/E/S Guidance
Peer Feedback Indicator	Indicator variable equal to one if at least one out of the top five peers issues annual CAPEX guidance in quarter t, zero otherwise. Source: I/B/E/S Guidance
Peer Feedback Percent	Percent of top five peers which issue annual CAPEX guidance in quarter t. Source: I/B/E/S Guidance
Peer Feedback Count	Count variable of the number of top five peers which issue annual CAPEX guidance in quarter t. Source: I/B/E/S Guidance
Peer EPS Indicator	Indicator variable equal to one if at least one out of the top five peers issues annual earnings guidance in quarter t, zero otherwise. Source: I/B/E/S Guidance
Peer EPS Percent	Percent of top five peers which issue annual earnings guidance in quarter t. Source: I/B/E/S Guidance
Priorquarter Disclosure	Indicator variable equal to one if firm i has issued annual CAPEX guidance in quarter *t-1*, and zero otherwise. Source: I/B/E/S Guidance
Disclosure History Percent	Percentage of prior quarters in which firm i issued annual CAPEX guidance to all observed quarters of firm i, starting with the first quarter observation of annual CAPEX guidance. Source: I/B/E/S Guidance
Disclosure History Count	Count of prior quarters in which firm i issued annual CAPEX guidance Source: I/B/E/S Guidance
q	Tobin's q measured as the ratio of quarter-end market value of assets (market value of equity plus the book value of debt), scaled by the book value of total assets of firm i in quarter t. Source: Compustat
Financially Constraint Peers	Average of the top five peers' Whited and Wu (2006) index of financial constraints. Source: Whited and Wu, 2006; Compustat
Peer Similarity	Average similarity score across the top five peers of firm i. Obtained from Hoberg and Phillips (2010), Hoberg and Phillips (2016). Source: https://hobergphillips.tuck.dartmouth.edu/industryclass.htm
Forecast News Content	Average of the top five peers' forecast news content. Forecast news content is defined as the difference of the current forecasted CAPEX value to the prior CAPEX forecast value, divided by the prior CAPEX forecast value. Source: I/B/E/S Guidance
Analyst Forecast Surprise	Average of the top five peers' analyst forecast surprise indicator. Analyst forecast surprise is defined as an indicator variable equal to one if the CAPEX forecast falls short or beats analysts' mean consensus, and zero if the CAPEX forecast matches analysts' expectations. Source: I/B/E/S Guidance
Initial Peer Forecast	Average of the top five peers' initial forecast indicator. Initial peer forecast equals one for initial annual CAPEX guidance and zero for updated CAPEX guidance as denoted by I/B/E/S. Source: I/B/E/S Guidance
Control Variables	
Own EPS Indicator	Indicator variable equal to one if firm i is issuing annual earnings guidance in quarter t, and zero otherwise. Source: I/B/E/S Guidance
EPS Disclosure History	Percentage of prior quarters in which firm i issued annual earnings guidance to all observed quarters of firm i, starting with the first quarter observation of annual earnings guidance. Source: I/B/E/S Guidance
Size	The natural logarithm of the market value of equity. Source: Compustat
Return Volatility	The natural logarithm of the standard deviation of daily stock returns of firm i computed over quarter t. Source: CRSP
Turnover	The natural logarithm of the quarterly average of daily turnover of firm i. Source: CRSP
Inverse Price	Inverse of the quarter-end closing price. Source: Compustat
Analyst Following	The natural logarithm the number of analysts issuing forecasts for firm i in quarter t. Source: I/B/E/S Guidance
Earnings Surprise	Average of the abnormal returns of [-1, 1] days around the quarterly earnings announcement of firm i in quarter t (i.e. abnormal return is firm return minus S&P500 index return). Source: Compustat, CSRP
CF	Net income before extraordinary items plus depreciation and amortization, plus R&D expenditures, scaled by total assets in *t-1*. Source: Compustat