Disclosure of Financial Statement Line Items and Insider Trading Around Earnings Announcements

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Abstract

This paper examines the relation between voluntary disclosure of financial statement line items accompanying, and insider trading around, quarterly earnings announcements. We find that investors' reaction to positive earnings news is heightened by the level of financial statement line items disclosed during earnings announcements. We show that managers, being aware of investors' attention on earnings announcements, disclose more financial statement line items along with earnings news and profit more from their insider trading at earnings announcements. These results are more pronounced for CEO/CFO trades and non-routine inside trades. Overall, our results are most consistent with managers' strategically disclosing line items to exploit the short-term return effect to their private benefit. This paper integrates three disparate phenomena – stock returns around earnings announcements, insider trading around earnings announcements, and voluntary disclosures around earnings announcements – into pieces of one mosaic.

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1. Introduction

In this paper, we examine the relation between managers' propensity to provide voluntary disclosure of financial statement line items accompanying, and their inside trading activity around, quarterly earnings announcements. Our study is important, because while researchers have documented that (1) stock returns around earnings announcements are too high relative to their risk (Ball and Kothari 1991; Cohen et al. 2005; Lamont and Frazzini 2007), (2) insiders trade around earnings announcements (Huddart, Ke, and Shi, 2007), and (3) firms voluntarily disclose financial statement line items with their earnings announcements (Chen, DeFond, and Park, 2002; D'Souza, Ramesh, and Shen, 2010; Schroeder, 2016; Li, Nekrasov, and Teoh, 2017), no one has put these three pieces together. As we show, the voluntary disclosure of financial statement line items at earnings announcements is positively related to positive earnings surprises and corresponding stock returns, and insider trading profitability around earnings announcements is positively related to the degree of voluntary disclosure of financial statement line items accompanying these announcements. Collectively, these pieces of evidence portray a coherent picture around earnings announcements: managers strategically disclose financial statement line items along with earnings news to hype their stock and/or to increase the credibility of good news, in order to profit from their insider trading.

We focus on managers' disclosure choice and trading behavior around quarterly earnings announcements. We base our study on the concept that because earnings announcements are the most important and frequent dates of material information release by firms, investors' attention likely peaks at the earnings announcement, and the immediate price reaction depends on what is disclosed during these announcements. Since information provided in the earnings press releases

is salient, investors react to it. This notion is supported by theoretical and empirical work in behavioral finance (Hirshleifer and Teoh 2003; See Daniel et al. 2002 for a review). Thus, the impact of the news on share prices creates incentives for managers to strategically disclose financial statement line items and trade in order to maximize their trading profits.

We hypothesize and show that managers, presumably aware of small investors' trading behaviors at earnings announcements, disclose additional financial statement information to heighten investors' interest and trading, thereby increasing their own insider trading profits. Importantly, we find that this managerial disclosure and trading behavior is concentrated around *positive* earnings announcements: insiders buy before good news announcements, disclose additional financial statement line items at the announcement, and then profitably sell their shares. This suggests that managers strategically disclose more line items so that investors will bid up the stock price during good news announcements.

Analyzing a large sample of quarterly earnings announcements between 1994 and 2015, we proceed as follows. First, following Li, Nekrasov, and Teoh (2017), we examine how voluntary disclosure of financial statement line items affects the market reaction to earnings news. Li, Nekrasov, and Teoh (2017) find that the percent of financial statement line items withheld at the quarterly earnings announcement is negatively associated with the market's response to earnings news. They attribute the market's delayed response to neglect of earnings news that is not accompanied by additional information, due to investors' limited attention at non-earnings announcement periods. Consistent with Li, Nekrasov, and Teoh (2017), we find that the market reacts more strongly to earnings news when there are more line items disclosed during the earnings announcement. We contribute beyond Li et al. (2017) by further showing that this relation is observed only for *positive* earnings surprises.

Next, we examine whether managers' disclosure of financial statement line items depends on the direction of earnings news. We predict that managers disclose more financial statement line items when they have good earnings news, either to take advantage of investors' increased attention and hype the stock or to increase the good news' credibility, analogous to Hutton, Miller, and Skinner (2003), who find that managers make more supplemental disclosures to accompany good news earnings forecasts. We find that managers disclose more financial statement line items when they have good earnings news than bad news. These asymmetric market reaction and disclosure policies imply that managers, aware of the market's increased attention at earnings announcements, inflate the market reaction to positive earnings news by additional disclosures, perhaps to increase insider trading profits.

Thus, we investigate whether managers' private benefit of trading is an important motivation to provide voluntary disclosure of financial statement line items at earnings announcements. We posit that managers have incentives to disclose more detailed information to boost the stock price at the earnings announcement so as to profit from purchasing shares before earnings announcements and selling them after the announcements. To test for this strategic choice of the disclosure level during earnings announcements, we examine the association of insider purchasing before earnings announcements and insider selling after earnings announcements, with the disclosed amount of financial statement line items at the earnings announcement, after controlling for a host of known disclosure determinants.

We find that insiders who purchase more shares before earnings announcements and sell more shares after earnings announcements disclose more financial statement line items in earnings announcement press releases. This evidence is consistent with managerial opportunism in release of financial line items. Firms in which managers purchased their firm's equity and

intend to sell the shares are more likely to disclose more line items to induce investor's optimism and trading activity.

To provide more direct evidence on the strategic aspect of disclosure, we examine whether insider trading profitability around earnings announcements is related to the disclosure of financial statement line items. We find that insider trading profitability is positively associated with the disclosure of financial statement line items, even after controlling for earnings news, risk factors, and other disclosure mechanisms. This result suggests that managers earn greater trading returns by disclosing more financial statement line items around earnings announcements.

We acknowledge the fact that not all insider trading is motivated by a desire to exploit information asymmetries at earnings announcements. Thus, we use Cohen, Malloy, and Pomorski's (2012) classification scheme that distinguishes routine insider trades from opportunistic insider trades. We find that the positive association between voluntary line item disclosure and insider trading profitability is more pronounced for opportunistic buys (sells) than routine buys (sells). We also find that the association is more pronounced when a CEO/CFO trades before or after the earnings announcements, consistent with managerial opportunism at the top of the firm in making voluntary disclosures and trading around earnings announcements. Collectively, our evidence is most consistent with the view that managers opportunistically disclose financial statement line items to exploit the temporary return effect around earnings announcements to their private benefit.

We make numerous contributions to the literature. By showing that managers appear to understand investors' heightened attention at earnings announcements, make voluntary disclosures to take advantage of this attention, and trade opportunistically, we contribute to

literatures on earnings announcement returns, voluntary disclosure of GAAP line items in earnings press releases, and insider trading around earnings announcements. We also contribute to the literature on asymmetric disclosure incentives (Skinner 1994), particularly whether managers differentially manage the disclosure policies of good and bad news. Our study adds to the literature by providing evidence of managers' strategic reporting choices, particularly when they have good earnings news.

Our findings also highlight the importance of considering the interplay between managers' disclosure and trading behavior when studying the costs and benefits associated with voluntary release of financial statement line items around earnings announcements, given the fact that firms increasingly disclose unaudited financial statement line items during earnings announcements (Schroeder 2016). Perhaps more importantly, we provide a better understanding regarding a firm's quarterly earnings announcements by showing that three heretofore disparate phenomena, the earnings announcement premium, voluntary disclosure of financial statement line items with earnings announcements, and insider trading around earnings announcements, are pieces of one mosaic.

More generally, we contribute to the literature on a firm's disclosure policies around earnings announcements. By linking voluntary disclosures to insider trading around earnings announcements, we show that managers' private benefit of trading is an additional motivation to provide more extensive disclosure at earnings announcements. As Hutton, Miller, and Skinner (2003) point out, "For all voluntary earnings disclosures, the question is really one of the timing of stock price effects because earnings realizations must follow the forecasts at some point. Therefore, this argument is really one about why managers benefit from obtaining the higher stock price now rather than later." For voluntary line item disclosures that accompany earnings

announcements, the answer is: investors' heightened attention at the announcements, enhancing the stock price impact of the news, which enables managers to profit from insider trading.

The rest of the paper is organized as follows. Section 2 reviews the relevant literature on the earnings announcement premium, voluntary disclosure of financial statement line items at the earnings announcement, and opportunistic insider trading. Section 3 discusses our hypotheses and research design, and Section 4 discusses our data and sample. Section 5 reports our results, and Section 6 concludes.

2. Literature Review

Our paper is at the intersection of three streams of research: earnings announcement returns, voluntary disclosure of financial statement line items at the earnings announcement, and opportunistic insider trading.

Prior accounting and finance research demonstrates that returns around earnings announcements are higher than can be explained by extant risk models, the so called "earnings announcement premium". Although there is no consensus as to what causes the premium, explanations include non-diversifiable risk due to time clustering of announcements (Ball and Kothari 1991), and the use of actual (as opposed to expected) announcement dates in empirical tests, which upwardly biases the measured announcement return, since bad news may be delayed and good news may be accelerated (Cohen et al. 2005). More recently, Lamont and Frazzini (2007) propose a behavioral explanation for the premium. Finding that small investors increase share purchases at announcements, Lamont and Frazzini (2007) suggest that these investors' attention is heightened at earnings announcements, bidding up prices. They also find that large

(institutional) investors appear to behave opportunistically by taking advantage of this small investor behavior, front running their buying before earnings announcements.

Given that individual investors are more likely to buy attention-grabbing stocks than to sell them (Barber and Odean 2008), a growing literature shows that managers opportunistically exploit investors' attention to their personal benefits. For example, Lou (2014) finds that increased advertising spending is accompanied by a contemporaneous rise in retail buying. He also finds that advertising spending increases significantly prior to insider sales, suggesting that managers are aware of this temporary return effect and opportunistically adjust firm advertising. Similarly, Huang, Nekrasov, and Teoh (2018) find a positive association between headline salience and the proxies of managerial incentive to sell equity, consistent with managers opportunistically headlining quantitative information in the earnings press release to incite investor overreaction.[1] In this paper, we contribute to this literature by providing additional evidence that managers also make disclosure decisions during earnings announcements partly to influence the short-term market reaction to earnings news.

Prior research investigates the determinants and consequences of disclosures of additional financial statement line items during earnings announcements. Chen, DeFond, and Park (2002) are the first to study disclosures of additional financial statement figures at earnings announcements, focusing on balance sheet items. They find that firms' tendency to make such disclosures is negatively related to the informativeness of current earnings and positively related to the uncertainty of future earnings. Thus, managers increase line item disclosures to supplement a deficiency in earnings' information. Additionally, D'Souza, Ramesh, and Shen

[1] Related research on strategic scheduling of earnings announcements indicates that managers are aware of investors' attention swings and strategically issue negative (positive) announcements when attention is low (high). See, for example, deHann, Shevlin, and Thornock (2015), Michaely, Rubin, and Vedrashko (2016), and DellaVigna and Pollet (2009).

(2010) examine the intensity of disclosure at the earnings announcement. They construct a voluntary disclosure ratio, DR, equal to the number of financial statement line items disclosed at the earnings announcement press release divided by the number of line items disclosed at the subsequent SEC 10-Q/K filing. They find that DR is related to earnings management: firms that are more prone to manage earnings, such as to smooth income or meet market expectations, are less likely to disclose detailed information, in order to guide investor attention to summary information. In effect, managers' "silence" at the earnings announcements gives them additional freedom to guide investor attention. Moreover, they find that the choice of which specific line items to disclose is made to facilitate valuation. Thus, managers trade off the desire to enhance the information environment versus their desire to manage earnings, in effect showing that self-serving behavior plays a role in the choice of DR.[2]

Most recently, Li, Nekrasov, and Teoh (2017) and Barron, Byard, and Yu (2017) investigate the market consequences of variation in the intensity of voluntary disclosures at earnings announcements. Li et al. (2017) examines market inefficiency with respect to these disclosures. They construct a delayed disclosure (DD) ratio, equal to the fraction of 10-Q/K line items withheld at the earnings announcement. Under the assumption that investor attention is greatest at the earnings announcement and limited thereafter, they find that the greater is DD (i.e., less disclosure at the earnings announcement), the smaller is the market's reaction at the earnings announcement and the greater is the post earnings announcement drift, as the market's full response is not complete until the next earnings announcement, when investor attention is again high. Barron et al. (2017) show that disclosures of balance sheets and segment information around earnings announcements are associated with an increase in the precision of analysts'

[2] Schroeder (2016) also studies incentives for voluntary disclosures of additional financial statement figures at earnings announcements, showing that firms that have more complete and higher quality audits disclose more.

private information regarding near-term earnings. They also find that balance sheet and segment disclosures are associated with more discussion related to these items in the questions-and-answers section of conference calls, suggesting that analysts play an information interpretation role with respect to these disclosures. Thus, Li et al. (2017) and Barron et al. (2017) add a market dimension to the issue of voluntary line item disclosures.

In summary, the accounting literature has focused on the motivation and market consequences of voluntary line item disclosures. We contribute beyond these papers by examining managers' trading motivation related to these disclosures. This is important, because managers' knowledge of what is to be disclosed potentially enables them to earn excess profits. That is, managers can take advantage of investors' increased attention at earnings announcements and tailor their disclosures and trading accordingly.

There is a massive literature on insider trading. Since our study concerns insider trading relating to voluntary disclosure around accounting announcements, most relevant for our purposes are studies that focus on trading around accounting filings and "opportunistic" (as opposed to "routine") trading. Huddart, Ke, and Shi (2007) study insider trading around earnings announcements and 10-Q/K filings. They find that insiders condition their trades around earnings announcements based on their knowledge of information to be disclosed in the forthcoming 10-Q/K. Most importantly, due to potential legal liability, they avoid trading in high "jeopardy" periods, such as before earnings announcements, so they wait until after the announcements, selling (buying) after good (bad) news.

Cohen, Mallory, and Pomorski (2012) extend this line of research by distinguishing between "routine" vs "opportunistic" insider trades. Routine trades, which the authors identify based on insiders' past trading patterns, are not informative about firms' futures, and earn zero

abnormal returns. Opportunistic trades, which are any trades not identified as routine, are informative and profitable. Recently, Ali and Hirshleifer (2017) identify opportunistic insider trades by focusing on insider trading in the days centered around quarterly earnings announcements, when they find that the most profitable insider trades are made. We contribute to this literature by showing that insiders' opportunism relates to not only trading around earnings announcements per se, but to voluntary disclosures of financial statement items accompanying earnings announcements. In effect, we combine Ali and Hirshleifer (2017) and Li, Nekrasov, and Teoh (2017).

Perhaps the closest paper to ours is Cheng and Lo (2006), who study insider trading around management earnings forecasts. Our paper differs from theirs in four important aspects. First, unlike mandatory disclosures such as 10-Q/K reports, managers have considerable discretion in timing the forecasts and determining forecast characteristics such as forecast frequency, form, precision, or horizon (e.g., Rogers and Stocken 2005; Rogers 2008; Cheng et al. 2013). The multiple characteristics of management forecasts may make it difficult to understand what drives the observed association between disclosure, market reaction, and trading incentives. Although line item disclosures are voluntary, they are the exact forthcoming numbers by construction, which significantly reduces the dimensionality of managers' various disclosure choices, especially compared with management range forecasts, which have become the dominant form of management forecasts. Thus, our setting allows us to draw a sharper inference on the relation among trading incentives, investors reaction, and voluntary disclosure of accounting information.

Second, in the unbundled management forecast setting, because the timing of disclosure is voluntary, it is not possible to cleanly identify the point at which managers learn of upcoming

earnings news. Thus, it may not be clear whether managers' decision to trade is based on their foreknowledge of impending news, or some other concurrent event that determined the timing of their trade. In contrast, in our setting, managers clearly have foreknowledge of the line items when they trade before earnings announcements. Thus, by construction, their trading is likely related to the disclosure.

Third, management forecasts are good news or bad news, if they exceed or fall short the prevailing consensus earnings forecast, respectively. Line items are intrinsically neither good news nor bad news, per se; their news direction depends on the forthcoming earnings news that they accompany.

Finally, studying line item disclosures that accompany earnings announcements helps us understand returns and trading incentives around earnings announcements more generally.[3]

3. Empirical Predictions and Research Design

To set the stage for our main analyses of managerial disclosure and trading incentives, we first examine whether investors' reaction to disclosure of financial statement line items varies by the direction of earnings news. Thus, our first premise is that if disclosure of financial statement line items is at least partly motivated by trading incentives to hype the stock and/or increase good news credibility, we should expect a positive relation between disclosure and stock returns only for good earnings news, but not for bad earnings news. To establish our first premise, we replicate Li et al. (2017) by regressing earnings announcement returns against DR and controls, but separately for positive and negative earnings surprises:

$$CAR\,[-1, +1]_{i,q} = \alpha + \beta_1 RSUE_{i,q} + \beta_2 RSUE_{i,q}*DR_{i,q} + \beta_3 DR_{i,q} + \sum\beta_i RSUE_{i,q}*Controls_{i,q} + \sum\beta_j Controls_{i,q} + Quarter/Industry\ FEs + \varepsilon_{i,q} \quad (1)$$

[3] Cheng and Lo (2006) excludes management forecasts concurrent with earnings announcements to mitigate the confounding effect of earnings announcements.

where *CAR [–1, +1]* is three-day cumulative market-adjusted earnings announcement returns. *RSUE* is the decile scaled rank of standardized unexpected earnings, calculated as the difference between announced earnings reported by I/B/E/S and the consensus earnings forecasts scaled by stock price at the end of previous fiscal quarter. *DR* is the voluntary disclosure ratio as defined in Appendix 1. In equation (1), we expect β_2, the coefficient of *RSUE*DR*, to be positive only for good news (positive SUE) firms, but not for bad news (negative SUE) firms. Following Li et al. (2017), we include firm size (*LogMV*), book-to-market ratio (*BTM*), short-term returns momentum (*Past Returns*), information environment (*Analyst Following*, *Institutional Ownership*), fiscal year end (*FYE*).[4]

We interpret our results in terms of the market response to voluntary disclosure of financial statement line items at earnings announcements. However, along with the line items, firms may make other simultaneous voluntary disclosures, such as bundled management forecasts, non-GAAP earnings, and more general information contained in conference calls. Moreover, in the pre-Reg FD period, firms may have disclosed information via private communication with analysts. To attribute investors' reaction to the disclosure of financial statement line items, it is important to rule out the possibility that we are picking up a response to these alternative disclosures. Thus, we control for these alternative disclosures by including dummy variables *Conference*, *Bundled*, and *Non-GAAP*, indicating the presence of a conference call, bundled management earnings forecast, or non-GAAP disclosure, respectively.

Our second premise is that if managers are cognizant that the market reaction to good earnings news is enhanced by voluntary line item disclosure, and if they want to hype their firms and/or increase the credibility of good news to trade profitably, then we should expect that

[4] Also following Li et al. (2017), we use industry and quarter fixed effects in our regressions.

managers disclose more line items when they have good news than bad news. To establish our second premise, we regress the voluntary disclosure ratio against a measure of earnings news.

$$DR_{i,q} = \beta_1 RSUE_{i,q}\ (PSUE) + \sum \beta_i\ Controls_{i,q} + Quarter/Industry\ FEs + \varepsilon_{i,q} \quad (2)$$

Following prior research (Chen et al. 2002; D'souza et al. 2010; Li et al. 2017), we include firm size (*LogMV*), book-to-market ratio (*BTM*), short-term returns momentum (*Past Returns*), information environment (*Analyst Following*, *Institutional Ownership*), fiscal year end (*FYE*), earnings volatility (*Earnings Volatility*), loss firms (*Loss*), high-tech firms (*High-tech*), and acquisition (*M&A*) as control variables. In equation (2), we expect β_1, the coefficient on *RSUE* (*PSUE*) to be positive.

After establishing these two premises, we conduct our main analyses by examining the relation between insider trading activities and managers' disclosure of financial statement line items, around earnings announcements. If insiders disclose to profit from trading, then they should be purchasing shares before the earnings announcement and selling shares after the announcement. These trading patterns will translate into a positive association between pre-announcement purchasing (post-announcement selling) and the amount of voluntary disclosure at the announcement. This leads to our first hypothesis:

H1: *There is a positive relation between voluntary disclosure of line items at good earnings announcements and both insider purchases before the announcement and insider sales after the announcement.*

To test H1, we regress the voluntary disclosure ratio against indicators for pre-earnings announcement purchases and post-earnings announcement sales as follows:

$$DR_{i,q} = \alpha + \beta_1\ Pre\text{-}EA\ Purchase_{i,q} + \beta_2\ Post\text{-}EA\ Sale_{i,q} + \sum \beta_i\ Controls_{i,q} + Quarter/Industry\ FEs + \varepsilon_{i,q} \quad (3)$$

where *Pre-EA Purchase* measures aggregate firm-level inside purchases made during the period starting after the release of last quarter's earnings leading up to one day before the release

of current earnings. *Post-EA Sale* measures aggregate firm-level inside sales made during the two-week period starting after the release of current quarter's earnings. Following prior research (e.g., Li et al. 2017), we include earnings news (*RSUE*), firm size (*LogMV*), book-to-market ratio (*BTM*), short-term returns momentum (*Past Returns*), information environment (*Analyst Following*, *Institutional Ownership*), fiscal year end (*FYE*), earnings volatility (*Earnings Volatility*), loss firms (*Loss*), high-tech firms (*High-tech*), and acquisition (*M&A*) as control variables. In equation (3), we expect the coefficients on pre-EA purchases and post-EA sales, β_1 and β_2, to be positive.

If insiders hype the stock and/or increase good news credibility by disclosing more line items at positive earnings announcements, then their trading profits earned around earnings announcements should be positively related to the amount of voluntary disclosure. This leads to our second hypothesis:

H2: *There is a positive relation between insider trading profit and voluntary line item disclosure around good news earnings announcements.*

To test H2, we regress insiders' earnings announcement trading profits against the voluntary disclosure ratio as follows:

$$Trading\ Profitability = \alpha + \beta_1 DR_{i,q} + \sum \beta_i Controls_{i,q} + Quarter/Industry\ FEs + \varepsilon_{i,q} \quad (4)$$

where *Trading Profitability* is firm-level insider trading returns or profits earned around earnings announcements, measured as either three-day cumulative market-adjusted earnings announcement returns multiplied by an indicator for insider trading activities before (or after) earnings announcements or abnormal returns multiplied by the dollar value purchased before (or sold after) earnings announcements. In equation (4), we expect the coefficient on DR to be positive. Consistent with prior research (e.g., Cohen et al. 2012), control variables include firm size (*LogMV*), book-to-market ratio (*BTM*), and past stock returns (*Past Returns*). We also

control for earnings news (*RSUE*) and other simultaneous disclosure mechanisms (*Conference call, Bundled, Non-GAAP).*

Recent research on insider trading distinguishes between routine and opportunistic trading, where only the latter is informative and profitable (Cohen et al, 2012; Ali and Hirshleifer, 2017). To the extent that managers' intention to disclose additional financial statement line items and trade profitably is opportunistic, we expect that the positive association between DR and insider trading profitability is more pronounced for firms when insiders make opportunistic net buy before (opportunistic net sell after) earnings announcements. This leads to our third hypothesis:

H3: *Opportunistic insider trading related to voluntary line item disclosures at earnings announcements is more profitable than non-opportunistic trading.*

To test H3, we regress insider trading profitability against the voluntary disclosure ratio with interactions for opportunistic and routine trades as follows:

$$Trading\ Profitability = \alpha + \beta_1 DR_{i,q} + \beta_2 DR_{i,q} * Opp\ Trades_{i,q} + \beta_3 Opp\ Trades_{i,q} + \sum \beta_i Controls_{i,q} + Quarter/Industry\ FEs + \varepsilon_{i,q} \quad (5)$$

Following Cohen et al. (2012), we classify firm-level trades as routine versus opportunistic based on the trading history of individual insiders. Cohen et al. (2012) define a routine trader as an insider who placed a trade in the same calendar month for at least a certain number of years in the past. They then define opportunistic traders as everyone else, that is, those insiders who have traded in the same years as the routine insiders, but for whom they cannot detect an obvious discernible pattern in the past timing of their trades.[5] We thus define *Opp Trades* equal to one if opportunistic traders make net purchases before (net sales after) earnings

[5]Ali and Hirshleifer (2017) identify opportunistic insider trades as the quintile of firms with the highest insider trading profitability around earnings announcements. Since we want to test for the profitability of opportunistic trades, rather than define opportunistic trades by profitability, their method is not feasible for us.

announcements, and zero otherwise. All other variables are defined similarly as in equation (4). In equation (5), we expect the coefficient on *DR*Opp Trades* to be positive.

Cheng and Lo (2006) compare trades by CEO/CFOs vs non-CEO/CFOs to support the direction of causality from trading to disclosure, although they acknowledge the joint direction of causality. We are not concerned about the direction of causality, since both insider trading and voluntary disclosure are likely jointly determined in our setting. Nevertheless, comparing CEO/CFO vs non-CEO/CFO trades is important for us, because our underlying mechanism is based on voluntary disclosure, and CEO/CFOs should control this decision, implying that they should have greater insider trading profits than non-CEO/CFOs. Thus, the opposite finding would call our mechanism into question. This leads to our fourth hypothesis.

H4: *CEO/CFO trading related to voluntary line item disclosures at earnings announcements is more profitable than non-CEO/CFO trading.*

To test H4, we estimate equation (6) as follows:

$$Trading\ Profitability = \alpha + \beta_1 DR_{i,q} + \beta_2 DR_{i,q}*CEO/CFO\ Trades_{i,q} + \beta_3\ CEO/CFO\ Trades_{i,q} + \sum\beta_i Controls_{i,q} + Quarter/Industry\ FEs + \varepsilon_{i,q} \quad (6)$$

We define *CEO/CFO Trades* equal to one if CEO/CFO makes net purchases before (net sell after) earnings announcements, and zero otherwise. All other variables are defined similarly as in equation (4). In equation (6), we expect the coefficient on *DR*CEO/CFO Trades* to be positive.

4. Data and Sample

Our insider trading sample is based on the Thomson Financial Insiders Data Feed sourced from Form 4 filings over the period from January 1994 to December 2015. A company's financial information is obtained from Compustat database. Following prior research (D'Souza, Ramesh, and Shen 2010; Schroeder 2016; Li et al. 2017), we obtain financial statement items

released during the earnings announcement from Compustat's Quarterly Preliminary History database and financial statement items reported in the initial SEC periodic filing from Compustat's Unrestated Quarterly database. We exclude financial firms from our analyses because they have different financial statement line items compared to nonfinancial firms.

Following D'Souza, Ramesh, and Shen (2010), we calculate the earnings announcement disclosure ratio (DR) as the number of financial statement line items that are disclosed in the quarterly earnings press release scaled by the number of financial statement line items reported in the initial 10-Q/K filing. The ratios are based on a total of 84 data items from the three financial statements (23 from the income statement, 28 from the balance sheet, and 33 from the cash flow statement). Unlike investors, managers already know the value of items at the time of the earnings announcement and choose to disclose the select financial statement line items in the earnings press release. Therefore, we use dollar value-weighted disclosure ratios. However, we find that our results are very similar when we use equal-weighted disclosure ratios. Appendix 1 shows the financial statement line items used to calculate DR.[6]

To measure pre-earnings announcement insider trading, we aggregate all insider trades made during the period starting after the release of last quarter's earnings leading up to current earnings announcement and classify them as buy (sell) trades if the total volume of shares bought is greater (less) than the total volume of shares sold during the quarter. Post-earnings announcement trades are measured during the two-week period starting after the release of current quarter's earnings. This choice is to ensure that we capture the earnings-news-related selling, consistent with Billings and Cedergren (2015).

[6] We use the DR ratio for our empirical tests, rather than DD, because our paper is related to disclosure rather than withholding of information.

While insider trading related to disclosure may be subject to litigation, litigation is not a concern in our setting for two reasons. First, our trading window covers the period from last quarter's earnings announcement to the two weeks after the current quarter's earnings announcement. Purchases as far back as last quarter's earnings announcement should not have any litigation implications, and sales within the two-week period after earnings announcement are generally allowed (Bettis et al, 2000). More important, litigation (and litigation research) relating insider trading and voluntary disclosure concerns the disclosure of (or the failure to disclose) bad news.[7] As pointed out above, line item disclosures are neither good nor bad news per se, and in any event, we focus on good news earnings announcements. Nevertheless, to ensure that our results are not affected by litigation concern, we employ a trading window that excludes typical black-out periods (i.e., the period from the fiscal quarter end to the earnings announcement) and find our results (untabulated) are quantitatively similar.

Table 1, Panel A shows descriptive statistics for our full sample. Around 37.6% of forthcoming 10-Q/K financial statement line items are disclosed with earnings announcement (the mean of *DR* = 0.376), with about 64% of income statement items, 37% of balance sheet items, but less than 15% of cash flow items (*DR_IS* = 0.643, *DR_BS* = 0.373, *DR_CS* = 0.139). With the exception of cash flow disclosures (which are zero at the 75th percentile), there appears to be ample cross-sectional variation of disclosure ratios over time and firms.[8] Consistent with firms making other simultaneous disclosures at earnings announcements, around 0.8%, 13.7%, and 6.8% of our sample firms use conference call, bundled forecasts, and non-GAAP reporting, respectively, as additional disclosure mediums.

[7] See for example, Skinner (1994, 1997), Field et al (2005), and Billings and Cedergren (2015).
[8] The relative paucity of cash flow disclosures is likely due to the fact that cash flow disclosures during earnings announcements is a relatively recent phenomenon, as virtually no firms disclosed cash flows in the 1990s and early 2000s.

In Panel B of Table 1, we provide descriptive statistics by the direction of earnings news to understand how managers' disclosure and trading decision varies based on the information that they possess before the announcements. Consistent with our second premise that managers provide additional line item disclosures when they have good earnings news, *DR* is significantly greater for positive earnings surprise than for negative earnings surprise (0.401 vs 0.339, p-value < 0.01). We also note that managers do not necessarily purchase more when they have positive earnings surprises, as shown by the insignificant difference of purchase frequency between the two groups. This implies that managers do not pursue overt opportunism of exploiting the earnings news in general, consistent with Huddart et al. (2007).

To provide descriptive evidence as to whether trading incentives affect managers' decisions to voluntarily disclose financial statement line items with earnings announcements, we focus the sample on firms with positive earnings surprises and compare stock returns and DR between firms with and without trading incentives. Untabulated analyses suggest that investors seem to react more positively to earnings news when insiders purchase stocks before the announcements than when they don't (Cumulative 3-day abnormal returns = 2.16 vs. 1.61, p-value < 0.01). We argue that this added reaction is incited by disclosing more line items around earnings announcements. Consistent with our conjecture, we find that the mean of *DR* is also greater for firms with inside purchases prior to earnings announcement than those without (0.475 vs 0.392, p-value < 0.01).

Table 2 compares the frequency and volume of intra-quarter inside trades around earnings announcements based on the level of *DR*. Prior research suggests that insider trading during the closed trading window is more likely to be restricted by firms' insider trading regulations (Bettis et al. 2000; Huddart et al. 2007). Following the classification of trading

windows by prior research (Billings and Cedergren 2015), Panel A presents the descriptive statistics for inside purchases by subperiod before earnings announcements, and Panel B presents the corresponding statistics for inside sales after earnings announcements.

Consistent with Huddart et al. (2007), the result shows that insiders trade heavily during the period from the release of the previous quarterly earnings through the fiscal quarter end and that they avoid trading immediately before current quarter's earnings announcement. We also find firms that disclose more line items around earnings announcements are more likely to trade shares, but the difference is only significant during the open trading window. Specifically, inside purchase volumes immediately after the last quarter's earnings announcements for High DR and Low DR firms are 27.94 and 10.20, respectively, with the significant difference (diff = 17.74, $p < 0.01$), while the corresponding volumes immediately before the current quarter's earnings announcements are 5.08 and 4.71, respectively, with the insignificant difference (diff = 0.37, p-value > 0.10). This result suggests that managers refrain from opportunistic trading and strategic disclosure choice when the litigation risk is relatively high.

5. Results

5.1. Disclosure Ratio and Earnings News

As a first step, we establish our first premise that DR affects investors' market reaction only for positive earnings surprise. To do so, we replicate Li et al. (2017) and report the results in Panel A of Table 3. Consistent with Li et al. (2017), we find that the market reacts more strongly to earnings news when there are more line items disclosed during the announcement. As shown in Column 1, the coefficient on *RSUE*DR* is 0.023 is significantly positive (t = 12.46). This effect is incremental to additional control variables not considered in Li et al. (2017), which

include conference call, management bundled earnings forecasts, and Non-GAAP disclosure. We note that of the three additional disclosures, only *Bundled* is significantly related to announcement returns (t = 11.16).

We next examine whether this positive relation is only observed for positive earnings surprises, but not for negative surprises, as our first premise predicts. Columns 2 and 3 show that this is exactly what we find. The coefficient for positive earnings in column 2 is 0.020 (t = 7.17), while the coefficient for negative surprise in column 3 is much smaller at 0.003 and insignificantly different from zero (t = 0.61), and difference between the two coefficients is significant at 1 percent (untabulated). To be confident that our results are not due to private disclosures before Reg FD, we also re-estimate (1) on a post-Reg FD sample. In column 4, the coefficient on *RSUE*DR* is highly significant when examining the post-Reg FD period only (t = 8.46). These results show that our primary results are not caused by other private disclosures made with earnings announcements. Overall, the results in Table 3 imply that the observed pattern in announcement returns provides managers with incentives to increase their trading profits by inflating investor reaction to positive earnings news, consistent with our first premise.

Next, we examine whether managers disclose more financial statement line items when they announce positive earnings news, as our second premise predicts. The results are shown in Table 3, Panel B, which indicates that voluntary line item disclosure is strongly positively related to earnings news, measured as either the decile rank of SUE (column 1) or a dummy variable for positive SUE (column 2). This implies that managers adjust their disclosure of financial statement line items based on the direction of the earnings news, consistent with our second premise.

5.2. Main Results

So far, we have shown that the market reaction to earnings news is amplified by voluntary line item disclosures only for good earnings news (Panel A, Table 3), and accordingly, managers are more likely to make such disclosures when they have good news (Panel B, Table 3). If managers are trading and disclosing opportunistically, managers (1) time their trades based on the foreknowledge of forthcoming earnings news and (2) adjust their disclosures accordingly.

Thus, we now examine whether managers have incentives to disclose more detailed information to boost the stock price at the earnings announcement so as to profit from purchasing shares before earnings announcements and selling them after the announcement. In the analyses hereafter, we focus on the positive earnings surprise subsample where managers' opportunistic trading and disclosure incentives are heightened. To test for the opportunistic choice of the level of disclosure during earnings announcements, we examine the association of insider purchase before earnings announcements and insider selling after earnings announcements, with the disclosed amount of financial statement line items at the earnings announcement. The results are shown in Table 4.

Consistent with H1, the results in Table 4, column 1 show that insiders who purchase more shares before earnings announcements and sell more shares after earnings announcements disclose more financial statement line items in earnings press releases. For example, the coefficients on Pre-EA Buy and Post-EA Sell are both highly significant (t-statistics = 3.71 and 9.28). These relations hold regardless of whether insider trading is measured as dummy variables as in the table (for pre-EA purchasers and post-EA sellers), as well as if it is measured as trading volumes for both trades (untabulated).

The results in column 1 of Table 4 establish a cross-sectional relation between line item disclosure and insider buying before, and selling after, the earnings announcement. However, these results do not necessarily mean that insiders who buy are the same insiders who sell. If insiders indeed link their trades to voluntary line item disclosure, we would expect the pre-disclosure buying and the post-disclosure selling to be related. To test for this "round trip" trading pattern, we include in our model a dummy variable, *Pre-EA Buy & Post-EA Sell*, equal to one only when a firm engages in both pre-purchase and post-sell trades in the model. As shown in column 2 of Table 4, *Pre-EA Buy & Post-EA Sell* loads significantly positively, indicating that these two-way trades occur within the same firm, as we predict.

We next turn our attention to the direct relation between disclosure of additional financial statement line items and insider trading profitability, to test our second hypothesis. If insiders disclose and trade to take advantage of investors' behavior, then insider trading profits should be related to the extent of voluntary disclosure around earning announcements. Thus, we examine whether insiders trading profits increase in the level of voluntary disclosure of financial line items. Results of this test are shown in Table 5.

Consistent with results in Table 4, we show results separately for firms that make net purchases before earnings announcements and for firms that make net sales after earnings announcements. Table 5, columns 1 and 2 (3 and 4) present results for firms where insiders make net purchases before (net sales after) earnings announcements. We measure *Trading Profitability* in two ways. *Trading Returns* are measured as three-day earnings announcement returns for firms that make net purchase before (net sales after) earnings announcements, and otherwise zero. *Trading Profits* are measured as the dollar value purchased before (sold after) earnings

announcements multiplied by three-day earnings announcement returns for firms that make net purchase before (net sale after) earnings announcements, and otherwise zero.

As shown in columns 1 and 2 of Table 5, for firms that make net purchases before earnings announcements, insider trading profitability, measured as either *Trading Returns* or *Trading Profits*, is positively associated with the extent of financial line items disclosure (t = 6.26 and 3.83, respectively). When we focus on firms with net inside sales after earnings announcements, insider trading returns and profits are also positively related to *DR* (t = 11.72 and 10.71, respectively). These results support the prediction that managers with inside ownership prior to earnings announcements are likely to increase *DR* to reap greater earnings announcement trading returns, and that managers who intend to sell their inside ownership after earnings announcements are also likely to increase *DR* to benefit more from earnings announcement returns. Collectively, these results are strongly consistent with H2.

Next, we test our third hypothesis and consider routine versus opportunistic trades. Exploiting the fact that insiders trade for a variety of reasons, prior research analyzes individual insiders' past trading history and distinguishes routine traders from opportunistic traders based on the discernible pattern in the timing of their trades (Cohen et al. 2012). To the extent that managers' intention to disclose additional financial statement line items and trade profitably is opportunistic, we expect that the positive association between DR and insider trading profitability is more pronounced for firms when insiders make opportunistic net buys before (opportunistic net sells after) earnings announcements.

Results of H3 are shown in Table 6. Consistent with H3, we find that the profitability of insider trades related to *DR* is significantly greater for opportunistic trades than for routine trades (t = 2.22 for pre-EA purchases and t = 3.16 for post-EA sales, respectively). This suggests that

our results are likely to be driven by insiders' opportunism based on their information advantage, rather than by their personal liquidity or diversification motives. These results also suggest that at least to some extent, the mechanism underlying the profitability of opportunistic trading at earnings announcements documented by Ali and Hirshleifer (2017) relates to line item disclosures.

Finally, we test our fourth hypothesis by comparing the profitability of insider trades by CEO/CFOs vs other insiders. Results for this analysis are shown in Table 7, and they are consistent with H4. For pre-EA net purchase firms, the positive associations between *Trading Returns* (*Trading Profits*) and *DR* are more pronounced when CEO/CFO purchases or sell the stock around earnings announcements (t = 3.78 and t = 1.73), supporting our inferences about CEO/CFO's superior information advantage about earnings news and their predominant roles in disclosure decision at earnings announcements.[9]

5.3 Additional Analyses

Finally, to provide further evidence on the relation between insider trading and disclosure of financial statement line items at earnings announcements, we include firm-fixed effects, examine line items from the three financial statements, investigate active vs passive informed trading, and conduct a placebo test.

5.3.1. Firm-Fixed Effects

A key assumption of our analysis is that firms increase their line item disclosures when they have good earnings news. Our evidence of a positive relation between DR and earnings news (Table 3, Panel B) is consistent with this interpretation. However, it is also consistent with

[9] Note that the positive CEO/CFO dummy (last row) is consistent with previous research that CEO's and CFO's have greater inside knowledge and thus their trading is more profitable than other insider trading. For example, Billings and Cedergren (2015) find that CEO/CFO trades are more informative about future earnings.

the possibility that some firms on average have more good news and higher DR, than other firms. To eliminate this possibility, we conduct two additional tests.

First, we use firm-fixed effects in equation (2). Previously, we used industry effects to be consistent with prior research, but firm-fixed effects are better suited to address this issue, since firm effects compare a firm relative to its own mean, thereby eliminating the cross-sectional variation in *DR* across firms. In effect, this approach allows us to determine whether earnings news can explain within-firm variation in *DR*. Results of estimating equation (2) with fixed firm (and quarter) effects are shown in Table 8, Panel A. The significantly positive coefficients on *RSUE* (column 1) and *PSUE* (column 2) show that while some firms may have higher average disclosure rates than other firms, this is unlikely to be causing our results.

Second, we use a change specification, associating the change in earnings news with a change in the disclosure ratio. Results of the changes analysis are shown in Table 8, Panel B. The significantly positive coefficients on $\Delta RSUE$ (column 1) and $\Delta PSUE$ (column 2) again show that cross-firm variation in the level of disclosure and good news is unlikely to be causing our results. Together, the results in Table 8 support our interpretation that firms increase their line item disclosures when they have good news.[10]

5.3.2. Income Statement vs. Other Financial Statements

Given that our underlying mechanism is based on managers' intention to hype the stock and/or increase the credibility of good news at earnings announcements and investors' attention to earnings news, we expect that our results are more pronounced for income-statement line

[10] In untabulated analysis, we also examined the probability of firms disclosing individual line items when the firm had good earnings news in one quarter and bad earnings news in the previous quarter, and vice versa. Out of a total of 84 line items for all three statements, when the firm went from bad to good, 63 line items showed a significant increase and zero showed a significant decrease; when the firm went from good to bad, 12 line items showed a significant decrease and 7 showed a significant increase.

items because income statement line items, mainly earnings components, are the most relevant information for investors' processing of earnings news.

To test this prediction, we rerun equation (1) after decomposing DR into income statement and other financial statements (i.e., balance sheets and cash flow statement components). As shown in Table 9, Panel A, the market reaction to positive earnings news is strongly increasing in income statement (t = 11.67) disclosures, while there is no relation with balance sheet and cash flow disclosures (t = -0.82). When we focus on the relation between insider trading profitability and disclosure ratio by financial statements in Panel B, insider purchase returns and profits are highly associated with income statement line items (t = 4.05), providing additional evidence supporting our hyping/credibility mechanism.

5.3.3. Active vs Passive Informed Trading

Prior research suggests that if a trade is driven by the insider's desire to profit from a particular disclosure, the direction and magnitude of insider trades both *before* and *after* the disclosure event should be correlated with the price reaction to the disclosure, because insiders may engage in both active and passive trading strategies (Seyhun 1998).

To profit from foreknowledge of a public announcement of good news, an insider may purchase before the announcement, anticipating the stock price rise after the good news is disclosed. Empirically, a positive association between net trading value (both trading frequency and dollar volume) *before* the announcement and abnormal announcement returns indicates active informed trading. Alternatively, an insider may delay selling until after the announcement, anticipating that the stock price will rise after the good news is disclosed. Empirically, a negative association between net trading value *after* the announcement and abnormal announcement returns indicates passive informed trading. We examine whether voluntary disclosure of financial

statement line items is associated with informativeness of passive and active trading around earnings announcements. The results are reported in Table 10.

In Table 10, we find that the magnitude of insider trading profits is positively related to pre-earnings announcement net trades (evidence of active informed trading) and negatively related to post earnings announcement net trades (evidence of passive informed trading). Moreover, we find that both active and passive informed trading are positively related to the degree of voluntary line item disclosures at earnings announcements, suggesting that the line item disclosures during earnings announcement increase the informativeness of active and passive trading. Overall, this result is consistent with the notion that managers exploit line item disclosures in their both active and passive trading to profit more from earnings announcements.[11]

5.3.4. Placebo Test

To provide further evidence on our underlying mechanism, we conducted a "placebo test" using a pseudo earnings announcement period, the 3-day trading window in *the week before the actual announcement*. If our hypothesis is correct that insiders understand that small investors are most attentive to voluntary disclosures at earnings announcements, and they trade opportunistically based on this understanding, then the disclosure ratio (*DR*) should be related to insiders' trading profits around the earnings announcements, but it should not be related to insiders' profits before the announcements. The results, in Table 11, show that *DR* is neither related to pseudo insider trading returns nor to pseudo profits, which indicates that *DR* is related to only earnings-announcement-driven trading returns, not other non-event trading returns. This result is important, because it shows that the decision to disclose the line items is related to opportunistic trading specifically around earnings announcements, and not to opportunism more

[11] We also use trading frequency as a measure of insider trading activity with similar results (untabulated).

generally. In summary, all of our results are consistent with our proposed mechanism: aware that investors focus on earnings announcements, insiders voluntarily disclose financial statement line items along with earnings news, to hype their stock and/or increase good news credibility and profit from insider trading.

6. Conclusion

This paper examines the relation between voluntary disclosure of financial statement line items accompanying, and insider trading around, quarterly earnings announcements. We show that investors' reaction to earnings news is heightened by the level of financial statement line items disclosed during earnings announcements. We also provide consistent evidence that managers, being aware of investors' attention on earnings announcements, seem to disclose more financial statement line items along with earnings news, in order to hype their stock and profit more from their insider trading. Our results are more pronounced for CEO/CFO trades and opportunistic trades and robust after controlling for other simultaneous disclosures made around earnings announcements. Overall, we show that three heretofore seemingly unrelated phenomena: stock returns around earnings announcements, insider trading around earnings announcements, and voluntary disclosures around earnings announcements, are really pieces of one mosaic.

Appendix 1. Variable Definition

Variables	Definition
DR	The disclosure ratio, calculated as the number of financial statement items that are released in the earnings announcement scaled by the number of non-missing financial statement items reported in the corresponding 10-Q/K filing
RSUE	The decile ranks of standardized unexpected earnings, SUE, where SUE is calculated as the difference between announced earnings as reported by I/B/E/S and the consensus earnings forecasts, scaled by stock price at the end of previous fiscal quarter. When consensus analyst forecast is not available, SUE is calculated as EPS for quarter t minus EPS for quarter t-4, scaled by stock price at the end of the fiscal quarter.
PSUE	The indicator variable that equals one if SUE is greater than zero.
Log(MV)	The natural logarithm of market value of equity at the end of the fiscal quarter.
BTM	The book-to-market ratio measured at the end of the fiscal quarter.
Past Returns	The stock returns prior to the earnings announcement measured over the window [-60, -3].
FYE	The indicator variable that equals one if quarter t is the end of the fiscal year, and 0 otherwise.
Analyst Following	Analyst following, measured as the natural logarithm of the number of analysts following the firm in quarter t
Institutional Ownership	Institutional ownership, measured as the sum of all institutional holdings of the stock scaled by the number of shares outstanding. The measure is based on the most recent institutional ownership in month t-1.
Earnings Volatility	The standard deviation of earnings before extraordinary items scaled by total assets, calculated over past eight quarters
Loss	The indicator variable that equals one if the firm reports negative net income before extraordinary items in quarter t, and 0 otherwise.
High-tech	The indicator variable that equals one for firms with following SIC industry classifications: 2833-2836, 8731-8734, 7371-7379, 3570-3577, 3600-3674, and 3810-3845, and 0 otherwise.
M&A	The indicator variable that equals one if the firm engages in merger and acquisition activities in the quarter t, and 0 otherwise.
CAR[-1, +1]	The cumulative market-adjusted returns over the earnings announcement window [-1, +1].
Conference Call	The indicator variable that equals one if the firm files conference call transcript during the 5-day window after the earnings announcement
Bundled forecasts	The indicator variable that equals one if the firm provides an earnings guidance during the 5-day window surrounding the earnings announcement
Non-GAAP Reporting	The indicator variable that equals one if the firm's earnings press releases include following languages: "pro-forma", "pro forma", "proforma", "earnings excluding", "net income excluding", "adjusted net income", "adjusted loss", "earnings before", "free cash flow", "normalized EPS", "normalized earnings", "recurring earnings", "distributable cash flow", "GAAP one-time adjusted", "GAAP adjusted", "cash loss" and exclude following languages: "EBIT", "Earnings Before Interest and Taxes", "EBITDA", "Earnings Before Interest, Taxes, Depreciation, and Amortization".

Appendix 2. Financial Statement Items Used to Calculate DR

Financial Statement	Line Items
Income Statement (23 Items)	Selling, General, and Administrative Expenses Sales (Net) Minority Interest R&D Expense Depreciation and Amortization Income Taxes Income Before Extraordinary Items Income Before Extraordinary Items – Adjusted for CSE Operating Income Before Depreciation Interest Expense Pretax Income Dividends – Preferred Income Before Extraordinary Items – Available for Common Extraordinary Items and Discontinued Operations Cost of Goods Sold Non-Operating Income (Expense) Special Items Discontinued Operations Deferred Taxes (Income Account) Net Income (Loss) Accounting Changes – Cumulative Effect Extraordinary Items Common Stock Equity – Dollar Savings
Balance Sheet (28 Items)	Cash and Short-Term Investments Receivables – Total Inventories - Total Current Assets – Other Current Assets – Total Depreciation, Depletion, and Amortization (Accum.) Property, Plant, and Equip – Total (Net) Assets – Others Assets – Total Debt in Current Liabilities Account Payable Income Taxes Payable Current Liabilities – Other Current Liabilities – Total Liabilities – Other Long-Term Debt - Total Deferred Taxes and Inv. Tax Credits Minority Interest Liabilities – Total Preferred Stock – Carrying Value Common Stock Capital Surplus Retained Earnings Common Equity – Total Stockholders' Equity – Total Preferred Stock – Redeemable Treasury Stock – Total Dollar Amount Property, Plant, and Equipment – Total (Gross)
Statement of Cash Flows (33 Items)	Cash and Cash Equity – Inc. (Dec.) Changes in Current Debt

	Income Before EI
	Depreciation and Amortization
	EI and Discontinued Operations
	Deferred Taxes
	Equity in Net Loss (Earnings)
	Funds from Operations – Others
	Sale of Property, Plant, and Equipment
	Sale of Common and Preferred Stock
	Sale of Investments
	Long-Term Debt – Issuance
	Cash Dividends
	Capital Expenditures
	Increase in Investments
	Long-Term Debt – Reduction
	Purchase of Com. And Preferred Stock
	Acquisitions
	Sale of PP&E and Sale of Investment
	Accounts Receivable – Dec. (Inc.)
	Inventory – Dec. (Inc.)
	Acct Payable and Accrued Liability
	Income Tax – Accrued
	Assets and Liabilities – Other
	Operating Activities – Net CF
	Short-Term Investment – Change
	Investing Activities – Other
	Investing Activities – Net CF
	Financing Activities – Other
	Financing Activities – Net CF
	Exchange Rate Effect
	Interest Paid – Net
	Income Taxes Paid

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Table 1 Descriptive Statistics

This table provides descriptive statistics for variables used in our analyses. Our full sample consists of 433,796 firm-quarter observations for the period of 1994 through 2015. Panel A provides summary statistics for full sample and Panel B presents the descriptive statistics by the sign of earnings news. In Panel B, firms are classified based on whether insiders purchase shares during the period from the release of last quarter's earnings to the current earnings announcements. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests. All variables except for indicators are winsorized at 1% and 99% levels. All variables are defined in Appendix 1.

Panel A Summary Statistics (*N* = 433,796)

Variables	Mean	25th Pctl	Median	75th Pctl	Std.
DR	0.3764	0.0355	0.1366	0.7610	0.3763
DR_IS	0.6432	0.4823	0.7919	0.9668	0.3654
DR_BS	0.3728	0.0000	0.0000	0.8117	0.4161
DR_CS	0.1391	0.0000	0.0000	0.0000	0.3322
SUE	-0.0116	-0.0049	0.0001	0.0047	2.6076
CAR[-1, +1]	0.0016	-0.0425	0.0000	0.0435	0.0926
Log(MV)	5.4061	3.8260	5.3130	6.8822	2.2138
BTM	0.6167	0.2468	0.4607	0.7922	0.6769
Past Returns	0.0173	-0.0915	0.0043	0.1073	0.2454
Analyst Following	1.1445	0.0000	1.0986	1.9459	1.0067
Institutional Ownership	2.2708	0.0000	2.3979	4.2341	2.1394
FYE	0.2519	0.0000	0.0000	1.0000	0.4341
Earnings Volatility	0.0287	0.0044	0.0104	0.0270	0.0544
Loss	0.3496	0.0000	0.0000	1.0000	0.4768
High-tech	0.3199	0.0000	0.0000	1.0000	0.4665
M&A	0.0088	0.0000	0.0000	0.0000	0.0936
Conference Call	0.0081	0.0000	0.0000	0.0000	0.0895
Bundled Forecasts	0.1370	0.0000	0.0000	0.0000	0.3439
Non-GAAP	0.0683	0.0000	0.0000	0.0000	0.2523

Panel B Descriptive Statistics by Earnings News

	Firms with Positive Earnings Surprise (*N* = 263,806)		Firms with Negative Earnings Surprise (*N* = 170,063)		Mean Difference
Variables	Mean	Median	Mean	Median	
DR	0.401	0.254	0.339	0.096	0.061***
DR_IS	0.667	0.865	0.609	0.649	0.058***
DR_BS	0.398	0.212	0.333	0.000	0.065***
DR_CS	0.151	0.000	0.116	0.000	0.034***
CAR (%)	1.675	0.988	-2.182	-1.583	3.857***
Purchase Frequency (#)	0.291	0.000	0.292	0.000	0.001
Purchase Volume ($ thousands)	59.142	0.000	71.517	0.000	12.375***

Table 2 Disclosure Ratio and Intra-Quarter Inside Trading Activity by Period

This table provides descriptive statistics for intra-quarter insider trading activities by period. Panel A (Panel B) indicates the frequency and volume of inside purchase (inside sale) made before (after) earnings announcements. High DR (Low DR) indicates firms with DR above (below) median. EA_q indicates earnings announcement in quarter q, and FQE_q indicates quarter q's fiscal end. All variables are winsorized at 1% and 99% levels. All other variables are defined in Appendix 1. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

Panel A Inside Purchase Before Earnings Announcements by Period

	(1) High DR (N = 131,903)		(2) Low DR (N = 131,903)		(3) Diff: (1) – (2)	
Trading Windows	Frequency (#)	Volume ($ thousands)	Frequency (#)	Volume ($ thousands)	Frequency (#)	Volume ($ thousands)
[EA_{q-1} +1, EA_{q-1} +14]	0.187	27.94	0.102	10.20	0.084***	17.74***
[EA_{q-1} + 15, FQE_q]	0.244	34.84	0.167	19.38	0.077***	15.45***
[FQE_q + 1, EA_q – 2]	0.030	5.08	0.041	4.71	-0.011	0.37
Total	0.462	67.88	0.311	34.30	0.150***	33.57***

Panel B Inside Sale After Earnings Announcements by Period

	(1) High DR (N = 131,903)		(2) Low DR (N = 131,903)		(3) Diff: (1) – (2)	
Trading Windows	Frequency (#)	Volume ($ thousands)	Frequency (#)	Volume ($ thousands)	Frequency (#)	Volume ($ thousands)
[EA_q +2, EA_q +15]	2.112	894.92	0.668	308.47	1.444***	586.45***

Table 3 Disclosure Ratio and Earnings News

Panel A (Panel B) presents results from estimating equation (1) (equation (2)). The definitions of the variables are presented in Appendix 1. In Panel A, Column 1 reports results for the full sample and Columns 2 and 3 reports results for firms with positive and earnings surprise, respectively. Column 4 reports results for firms with positive earnings surprise after Reg FD. The definitions of the variables are presented in Appendix 1. All variables except for indicators are winsorized at 1% and 99% levels. Quarter and industry fixed effects are included but not reported. Robust standard errors are clustered by firm and quarter. t-statistics are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

Panel A Market Reaction by Earnings News

	(1) Full Sample	(2) SUE ≥ 0	(3) SUE < 0	(4) SUE ≥ 0 & Post Reg-FD
Dep Var =		*CAR [-1, +1]*		
RSUE	0.065***	0.049***	0.029***	0.041***
	(28.56)	(9.92)	(3.95)	(6.74)
*RSUE*DR*	0.023***	0.020***	0.003	0.027***
	(12.46)	(7.17)	(0.61)	(8.46)
*RSUE*Log(MV)*	-0.008***	-0.009***	-0.003***	-0.008***
	(-22.06)	(-9.97)	(-2.68)	(-9.23)
*RSUE*BTM*	0.004***	0.003*	0.031***	0.005**
	(4.12)	(1.96)	(8.03)	(2.01)
*RSUE*Past Returns*	-0.005*	0.003	-0.036***	0.013*
	(-1.85)	(0.52)	(-3.18)	(1.69)
*RSUE*Analyst Following*	0.034***	0.028***	0.034***	0.029***
	(31.77)	(14.13)	(12.51)	(12.39)
*RSUE*Institutional Ownership*	0.004***	0.006***	0.001	0.007***
	(10.05)	(9.76)	(0.83)	(9.51)
*RSUE*FYE*	-0.011***	-0.008**	-0.012**	-0.012***
	(-4.82)	(-2.24)	(-1.99)	(-3.12)
*RSUE*Conference*	0.004	-0.002	0.008	0.002
	(0.67)	(-0.26)	(0.43)	(0.22)
*RSUE*Bundled*	0.040***	0.037***	-0.008	0.040***
	(11.16)	(8.75)	(-0.83)	(9.31)
*RSUE*Non-GAAP*	0.003	0.008*	-0.005	0.008*
	(1.13)	(1.84)	(-0.48)	(1.96)
DR	-0.008***	-0.006***	-0.004***	-0.011***
	(-7.41)	(-3.36)	(-2.75)	(-5.13)
Log(MV)	0.004***	0.004***	0.002***	0.005***
	(11.86)	(5.24)	(7.04)	(6.11)
BTM	0.003***	0.003**	0.001**	0.000
	(5.69)	(2.57)	(2.20)	(0.26)
Past Returns	-0.013***	-0.021***	-0.010***	-0.028***
	(-8.63)	(-3.99)	(-6.03)	(-5.19)
Analyst Following	-0.016***	-0.013***	-0.016***	-0.015***
	(-29.63)	(-10.71)	(-20.18)	(-9.96)
Institutional Ownership	-0.001***	-0.003***	-0.000	-0.003***
	(-6.95)	(-8.34)	(-1.43)	(-7.53)
FYE	0.007***	0.004*	0.009***	0.006**
	(6.12)	(1.78)	(6.34)	(2.20)
Conference	-0.004	0.001	-0.005	-0.003
	(-1.25)	(0.16)	(-1.12)	(-0.40)
Bundled	-0.021***	-0.021***	-0.010***	-0.023***
	(-10.52)	(-8.32)	(-3.34)	(-8.98)
Non-GAAP	-0.000	-0.003	0.002	-0.004

	(-0.03)	(-1.31)	(0.63)	(-1.66)
Fixed effects	Ind, Qtr	Ind, Qtr	Ind, Qtr	Ind, Qtr
N	433796	263806	169990	144791
R^2	0.0636	0.0311	0.0244	0.0371

Panel B Disclosure Ratio by Earnings News

	(1)	(2)
Dep Var =	*DR*	
RSUE	0.015***	
	(5.56)	
PSUE		0.014***
		(8.75)
Log(MV)	0.003	0.003
	(1.39)	(1.33)
BTM	0.002	0.002
	(0.90)	(0.94)
Past Returns	-0.003	-0.004
	(-0.81)	(-1.03)
Analyst Following	0.089***	0.089***
	(21.32)	(21.40)
Institutional Ownership	0.005***	0.005***
	(4.24)	(4.24)
Q4	0.024***	0.024***
	(3.97)	(3.96)
Earnings Volatility	-0.260***	-0.260***
	(-9.16)	(-9.23)
Loss	-0.022***	-0.022***
	(-4.75)	(-4.64)
High-tech	0.011	0.011
	(1.29)	(1.29)
M&A	-0.029***	-0.029***
	(-3.25)	(-3.25)
Fixed effects	Ind, Qtr	Ind, Qtr
N	433796	433796
R^2	0.1971	0.1972

Table 4 Trading Incentives and Disclosure Ratio around Earnings Announcements

This table presents results from estimating equation (3). *Pre-EA Buy* (*Post-EA Sell*) is an indicator variable for net insider purchase prior to (net insider sale after) earnings announcements. *Pre-EA Opp Buy (Pre-EA Rou Buy)* is an indicator variable for non-routine (routine) insider purchase based on insiders' past trading history following Cohen et al. (2012)'s classifications. *Post-EA Opp Sell* (*Post-EA Rou Sell*) is insider sales defined similarly. The definitions of the variables are presented in Appendix 1. All variables are winsorized at 1% and 99% levels. Quarter and industry fixed effects are included but not reported. Robust standard errors are clustered by firm and quarter. t-statistics are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

	(1)	(2)
Dep Var =	*DR*	
Pre-EA Buy	0.013***	
	(3.71)	
Post-EA Sell	0.038***	
	(9.28)	
Pre-EA Buy & Post-EA Sell		0.021***
		(3.82)
Log(MV)	0.000	0.001
	(0.12)	(0.23)
BTM	0.001	0.000
	(0.46)	(0.08)
Past Returns	-0.001	0.002
	(-0.23)	(0.52)
Analyst Following	0.086***	0.088***
	(20.30)	(20.37)
Institutional Ownership	0.004***	0.005***
	(3.17)	(3.65)
Q4	0.024***	0.024***
	(3.84)	(3.84)
Earnings Volatility	-0.225***	-0.230***
	(-7.48)	(-7.61)
Loss	-0.024***	-0.026***
	(-5.07)	(-5.28)
High-tech	0.010	0.010
	(1.14)	(1.13)
M&A	-0.037***	-0.036***
	(-3.40)	(-3.31)
SUE	-0.003***	-0.003***
	(-5.00)	(-5.14)
Fixed effects	Ind, Qtr	Ind, Qtr
N	263806	263806
R^2	0.2162	0.2150

Table 5 Insider Trading Profitability and Disclosure Ratio around Earnings Announcements

This table presents results from estimating equation (4). *Trading Returns* is insiders' earnings announcement trading returns earned from purchases before (sales after) earnings announcements, measured as three-day cumulative market-adjusted returns around earnings announcements, multiplied by an indicator for net purchase (net sales) before (after) earnings announcements. *Trading Profits* is insiders' earnings announcement trading profits earned from purchases before (sales after) earnings announcements, measured as the abnormal earnings announcement returns multiplied by the dollar value purchased before (sold after) earnings announcements for firms with pre-EA net purchase (post-EA net sale), scaled by market value of equity. All variables are winsorized at 1% and 99% levels. Quarter and industry fixed effects are included but not reported. Robust standard errors are clustered by firm and quarter. t-statistics are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

	(1) Pre-EA Purchase Profitability		(2) Post-EA Sale Profitability	
Dep Var =	*Trading Returns*	*Trading Profits*	*Trading Returns*	*Trading Profits*
DR	0.001***	0.004***	0.003***	0.068***
	(6.26)	(3.83)	(11.72)	(10.71)
RSUE	0.000***	0.001***	0.001***	0.002**
	(8.78)	(5.40)	(6.29)	(2.17)
Log(MV)	-0.000***	-0.001***	0.000***	-0.001
	(-2.85)	(-4.22)	(6.77)	(-0.79)
BTM	0.001***	0.003***	-0.001***	-0.039***
	(4.31)	(3.52)	(-7.78)	(-9.44)
Past Returns	-0.002***	-0.007**	0.000	0.105***
	(-4.64)	(-2.38)	(1.01)	(7.42)
Non-GAAP	0.000*	0.001	0.000	-0.000
	(1.77)	(0.53)	(0.69)	(-0.01)
Bundled	0.000*	0.001	0.003***	0.065***
	(1.83)	(1.37)	(8.70)	(7.48)
Conference	-0.000	0.000	0.000	-0.009
	(-0.11)	(0.05)	(0.40)	(-0.42)
Fixed effects	Ind, Qtr	Ind, Qtr	Ind, Qtr	Ind, Qtr
N	263806	263806	263806	263806
R^2	0.0059	0.0068	0.0157	0.0215

Table 6 Profitability of Opportunistic vs Routine Trades

This table presents the results for estimating equation (5). *Trading Returns* is insiders' earnings announcement trading returns earned from purchases before (sales after) earnings announcements, measured as three-day cumulative market-adjusted returns around earnings announcements, multiplied by an indicator for net purchase (net sales) before (after) earnings announcements. *Opp Trades* is an indicator variable for opportunistic net inside purchase prior to (net inside sale after) earnings announcements, based on insiders' past trading history following Cohen et al. (2012)'s classifications. All other variables are defined in Appendix 1. All variables are winsorized at 1% and 99% levels. Quarter and industry fixed effects are included but not reported. Robust standard errors are clustered by firm and quarter. t-statistics are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

	(1)	(2)
	Pre-EA Purchase Profitability	Post-EA Sale Profitability
Dep Var =	*Trading Returns*	
DR	0.000***	0.001***
	(4.52)	(8.52)
*DR*Opp Trades*	0.004**	0.004***
	(2.22)	(3.16)
RSUE	0.000***	0.001***
	(9.33)	(9.48)
Log(MV)	-0.000***	-0.000***
	(-3.56)	(-8.43)
BTM	0.001***	-0.000***
	(4.54)	(-3.98)
Past Returns	-0.002***	-0.003***
	(-4.65)	(-10.21)
Non-GAAP	0.000	-0.001*
	(1.44)	(-1.85)
Bundled	0.000	-0.000
	(0.45)	(-0.34)
Conference	-0.001	0.000
	(-0.85)	(0.20)
Opp Trades	0.015***	0.031***
	(11.50)	(27.72)
Fixed effects	Ind, Qtr	Ind, Qtr
N	263806	263806
R^2	0.0630	0.1135

Table 7 CEO/CFO vs Other Inside Trades

This table presents the results for estimating equation (6). *Trading Returns* is insiders' earnings announcement trading returns earned from purchases before (sales after) earnings announcements, measured as three-day cumulative market-adjusted returns around earnings announcements, multiplied by an indicator for net purchase (net sales) before (after) earnings announcements. *CEO/CFO Trades* is an indicator variable for CEO/CFO's net inside purchase prior to (net inside sale after) earnings announcements. All other variables are defined in Appendix 1. All variables are winsorized at 1% and 99% levels. Quarter and industry fixed effects are included but not reported. Robust standard errors are clustered by firm and quarter. t-statistics are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

	(1)	(2)
	Pre-EA Purchase Profitability	Post-EA Sale Profitability
Dep Var =	*Trading Returns*	
DR	0.001***	0.002***
	(4.90)	(10.46)
*DR*CEO/CFO Trades*	0.009***	0.004*
	(3.78)	(1.73)
RSUE	0.000***	0.001***
	(8.63)	(7.67)
Log(MV)	-0.000	0.000**
	(-1.22)	(2.11)
BTM	0.001***	-0.001***
	(4.26)	(-5.96)
Past Returns	-0.002***	-0.001***
	(-4.59)	(-4.71)
Non-GAAP	0.000	-0.000
	(1.62)	(-0.41)
Bundled	0.000*	0.002***
	(1.75)	(5.10)
Conference	-0.000	0.001
	(-0.53)	(0.64)
CEO/CFO Trades	0.015***	0.032***
	(8.45)	(19.66)
Fixed effects	Ind, Qtr	Ind, Qtr
N	263806	263806
R^2	0.0207	0.0390

Table 8 Disclosure Ratio and Earnings News: Firm-Fixed Effects and Change Specification

This table presents the results for estimating equation (2) using alternative specifications. In Panel A, firm and quarter fixed effects included in equation (2). In Panel B, both dependent and independent variables in equation (2) are defined as change variables. All other variables are defined in Appendix 1. All variables are winsorized at 1% and 99% levels. Robust standard errors are clustered by firm and quarter. t-statistics are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

Panel A Firm-Fixed Effects

	(1)	(2)
Dep Var =	*DR*	
RSUE	0.005***	
	(2.75)	
PSUE		0.004***
		(2.85)
Log(MV)	0.026***	0.026***
	(11.89)	(11.87)
BTM	0.012***	0.012***
	(5.18)	(5.17)
Past Returns	-0.001	-0.001
	(-0.32)	(-0.33)
Analyst Following	0.034***	0.034***
	(12.46)	(12.47)
Institutional Ownership	0.003*	0.003*
	(1.89)	(1.89)
Q4	0.033**	0.032**
	(2.21)	(2.20)
Earnings Volatility	-0.131***	-0.131***
	(-8.78)	(-8.77)
High-tech	0.079	0.079
	(0.76)	(0.76)
M&A	-0.023***	-0.023***
	(-3.51)	(-3.51)
Fixed effects	Firm, Qtr	Firm, Qtr
N	433620	433620
R^2	0.4867	0.4867

Panel B Change Specification

	(1)	(2)
Dep Var =	Δ*DR*	
Δ*RSUE*	0.005***	
	(3.07)	
Δ*PSUE*		0.002**
		(2.27)
Δ*Log(MV)*	0.007*	0.007*
	(1.76)	(1.75)
Δ*BTM*	0.008***	0.008***
	(2.93)	(2.96)
Δ*Past Returns*	-0.001	-0.001
	(-0.22)	(-0.20)
Δ*Analyst Following*	0.010***	0.010***
	(3.14)	(3.13)
Δ*Institutional Ownership*	0.001	0.000
	(0.21)	(0.19)

$\Delta Q4$	0.022***	0.022***
	(3.56)	(3.56)
Δ*Earnings Volatility*	-0.100***	-0.098***
	(-4.84)	(-4.75)
Δ*M&A*	-0.013*	-0.013*
	(-1.85)	(-1.86)
N	406467	406467
R^2	0.0029	0.0028

Table 9 Disclosure Ratio by Financial Statements

This table presents the results for estimating equation (2) after decomposing DR into income statement and other statement line items (*DR_IS* and *DR_BS/CFS*). All variables except for indicators are winsorized at 1% and 99% levels. Quarter and industry fixed effects are included but not reported. Robust standard errors are clustered by firm and quarter. t-statistics are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

Panel A Disclosure Ratio by Financial Statements and Market Reaction to Earnings News

Dep Var =	*CAR [-1, +1]*
RSUE	0.036***
	(7.26)
*RSUE*DR_IS*	0.268***
	(11.67)
*RSUE*DR_BS/CFS*	-0.003
	(-0.82)
DR_IS	-0.087***
	(-5.18)
DR_BS/CFS	0.001
	(0.50)
Controls	Included
*RSUE*Controls*	Included
Fixed effects	Ind, Qtr
N	263806
R^2	0.0285

Panel B Disclosure Ratio by Financial Statements and Pre-EA Purchase Trading Profitability

Dep Var =	*Trading Returns*
DR_IS	0.006***
	(4.05)
DR_BS/CFS	0.000*
	(1.81)
RSUE	0.000***
	(9.22)
Log(MV)	-0.000***
	(-3.12)
BTM	0.001***
	(4.64)
Past Returns	-0.002***
	(-4.70)
Non-GAAP	0.000
	(1.46)
Bundled	0.000
	(0.40)
Conference	-0.001
	(-0.90)
CEO/CFO Trades	0.006***
	(5.15)
Opp Trades	0.015***
	(14.85)
Fixed effects	Ind, Qtr
N	263805
R^2	0.0398

Table 10 Active vs. Passive Informed Trading and Disclosure Ratio Around Earnings Announcements

This table presents the results from estimating the following equation (7) for the positive earnings surprise subsample:

$$CAR\ [-1, +1]_{i,q} = \alpha + \beta_1 Pre\text{-}EA\ Net\ Trade_{i,q} + \beta_2 Post\text{-}EA\ Net\ Trade_{i,q} + \beta_3 Pre\text{-}EA\ Net\ Trade_{i,q}*DR_{i,q} + \beta_4 Post\text{-}EA\ Net\ Trade_{i,q}*DR_{i,q} + \beta_5 DR_{i,q} + \sum \beta_i Controls_{i,q} + Quarter/Industry\ FEs + \varepsilon_{i,q} \quad (7)$$

DR is the disclosure ratio, measured as the number of financial statement line items disclosed in the quarterly earnings press release scaled by the number of financial statement line items reported in the initial 10-Q/K filing. *Pre-EA Net Trade* captures net inside trades occurred during the period starting after the release of last quarter's earnings leading up to one day before the release of current quarter's earnings. *Post-EA Net Trade* captures net inside trades occurred during the two-week period starting after the release of current quarter's earnings. All variables except for indicators are winsorized at 1% and 99% levels. Quarter and industry fixed effects are included but not reported. Robust standard errors are clustered by firm and quarter. t-statistics are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

Dep Var =	*CAR [–1,+1]*
Pre-EA Net Trade Volume	0.000***
	(8.81)
Post-EA Net Trade Volume	-0.002***
	(-24.57)
*Pre-EA Net Trade Volume*DR*	0.001***
	(7.04)
*Post-EA Net Trade Volume*DR*	-0.000***
	(-3.54)
DR	0.007***
	(9.92)
Log(MV)	-0.004***
	(-16.05)
BTM	0.007***
	(11.27)
Past Returns	-0.021***
	(-11.01)
Analyst Following	0.002***
	(5.16)
Institutional Ownership	0.000**
	(2.14)
Q4	-0.001
	(-1.10)
N	263806
R^2	0.0290

Table 11 Placebo Test

This table presents results from estimating equation (4) with pseudo trading returns (profits) as a dependent variable. *Pseudo Trading Returns* (*Profits)* is insiders' trading returns (profits) earned during 3-trading days in a week before the actual earnings announcements for firms with pre-EA net purchase, otherwise we assign zeros. All variables are winsorized at 1% and 99% levels. Quarter and industry fixed effects are included but not reported. Robust standard errors are clustered by firm and quarter. t-statistics are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively, for two-tailed tests.

	(1)	(2)
Dep Var =	*Trading Returns*	*Trading Profits*
DR	-0.000	-0.000
	(-0.48)	(-0.30)
RSUE	0.000*	0.000**
	(1.95)	(2.14)
Log(MV)	-0.000	-0.000
	(-1.45)	(-0.86)
BTM	-0.000*	-0.001
	(-1.93)	(-1.41)
Past Returns	-0.000**	-0.006
	(-2.18)	(-1.54)
Non-GAAP	0.000	-0.000
	(0.98)	(-0.31)
Bundled	0.000	0.001
	(0.57)	(0.90)
Conference	-0.000	-0.001
	(-1.18)	(-1.59)
Fixed effects	Ind, Qtr	Ind, Qtr
N	263962	263962
R^2	0.0005	0.0004