# WHEN DO FIRMS CO-ANNOUNCE CEO TURNOVERS WITH EARNINGS RELEASES?

## Michelle M. Arthur, University of New Mexico Leslie Boni, California State University Mary Anne Majadillas, California State University

## ABSTRACT

Using hand-collected data for U.S. firms from 2009 to 2011, we present stylized facts and test four hypotheses for why firms sometimes co-announce CEO turnovers with earnings releases. We find some support for the hypothesis that co-announcements are simply the result of turnover decision events coinciding with earnings release events. Our results provide stronger support for our hypotheses that firms have incentives to make strategic decisions to co-announce the turnover with the earnings release, and that those decisions are influenced by the firm's anticipated interactions with its sell-side analysts and the number of analysts that cover the firm. Our findings highlight practical considerations for firms, questions for analysts to ask management, and raise interesting questions for future research.

**Keywords:** Voluntary Disclosure, Analysts, CEO Turnovers, Earnings Announcements, Concurrent Events

## INTRODUCTION

Obtaining press releases for 708 U.S. firms that announce a CEO turnover in 2009 to 2011, we observe that firms sometimes issue the press release in the same 24-hour trading window as their quarterly earnings release (i.e., *"co-announce"*). This observation motivates our research question. Why do firms sometimes co-announce the turnover with an earnings release?

Intriguingly, we find 14% of firms with analyst coverage co-announce but firms without coverage almost never do (less than 3%). We develop and test four hypotheses. Our first hypothesis is the *"coincident event"* hypothesis, which is that the firm's board is more likely to make the turnover decision at its quarterly earnings meeting when firms have analyst coverage. While we find some support for this hypothesis, these turnovers (routine successions, CEO dismissals, or outsider successions) are common for firms with or without analyst coverage. We conclude that our findings provide stronger support for the *"anticipated analyst interactions"* hypothesis. Firms have incentives to strategically co-announce the turnover and earnings release in anticipation of the expected earnings conference call with analysts and follow up private communications.

Next, analyzing firms with analyst coverage, we examine whether the decision to coannounce is associated with the firm's number of analysts. The more analysts that cover the firm the greater the opportunities for the firm's management to communicate to investors via analysts. Management's incentives are high to co-announce when turnovers are routine successions (i.e., planned voluntary CEO departure with an insider as successor) in quarters with good earnings. Management can use the earnings call and follow up communications with its analysts to emphasize an expected smooth transition and continuation of successful policies. Consistent with

this hypothesis, we find routine succession co-announcements in good quarters are more likely when firms have more analyst coverage.

In contrast, management has incentives to strategically *avoid* co-announcing routine successions (and the implied continuation of *unsuccessful* policies) in *bad* quarters. In bad quarters management might be reluctant to co-announce even a CEO dismissal, which would provide analysts additional reasons to ask questions during the earnings call. An exception could be for firms with very few analysts. These firms also tend to be smaller firms that risk losing investor interest and analyst coverage when they perform poorly. Mola et al. (2013) find that firms pay a steep price for complete loss of analyst coverage. Firms with just a few analysts might be desperate to try to retain that coverage. Thus, firms with fewer analysts might co-announce to show they are taking proactive steps to return the company to profitability, which may include "scapegoating" the departing CEO. Co-announcing gives firms the opportunity to frame their longer-term strategy and answer analyst questions more completely. We find support for this hypothesis: firms with less analyst coverage are more likely to co-announce CEO dismissals in bad earnings quarters.

For more than 40 years, empirical researchers have viewed concurrent event announcements as nuisances. Examining Wall Street Journal corporate news, Thompson et al. (1987) write: "Commonly used methods for dealing with confounding events have been to ignore them or to exclude from the relevant sample those firms about which extraneous news was released during the event period" (p. 264). We are aware of two papers other than ours that examine firm co-announcement strategies.<sup>1</sup> Warren & Sorescu (2017) analyze co-announcements of new products with corporate good news. They conclude that this attention-grabbing strategy is associated with a subsequent increase in the number of analysts who cover the firm. In research closer to ours, Graffin et al. (2011) focus on CEO successions. They conclude firms strategically co-announce news ("noise") to confound the market's reaction to the board's choice of CEO. Their successions are Fortune 1000 firms during 1999-2004, and they do not examine analyst presence or possible interactions with management. Since that period, firms' strategies for coannouncements may have evolved given changes in analyst regulations. Bradshaw (2009) writes: "There were no less than six significant regulations issued between 2000 and 2003 that affected the activities of sell-side analysts" and the evidence "is strong and convincing that the association between analysts' earnings forecasts and stock recommendations has changed, consistent with analysts' personal conflicts of interest having less impact on their analyses" (p. 1073).

Critical to our analysis is the assumption that firms have some flexibility to time not only the turnover decision but also its disclosure. In the next section, we discuss this in greater detail. We provide further discussion of the hypotheses and their foundation in Section 3. Section 4 provides description of the dataset and empirical analyses. Section 5 concludes, presents practical implications for firm management and analysts, and suggests questions for future research.

### CEO turnover disclosure flexibility, event timelines, and signaling

## CEO turnover disclosure flexibility and event timelines

<sup>&</sup>lt;sup>1</sup> Researchers who examine whether firms strategically manage news releases and other voluntary disclosures over longer event periods (i.e., not co-announcements) include Ahern & Sosyura (2014) during merger negotiations and Kothari et al. (2009) for voluntary earnings forecasts and dividend changes.

CEO retirements, resignations, and terminations are material changes in the firm's financial condition or operations. Firms must file an SEC Form 8-K ("current report") within four business days after a CEO gives notice to resign or retire.<sup>2</sup> While firms have the obligation to disclose CEO departures very quickly once the final decision is reached, we assume they have flexibility as to the specific date that they reach the final decision. The process of solidifying the final decision for CEO retirements, resignations, and terminations, is not reportable and rarely observed except by those involved in the decision. For voluntary departures, the CEO might consider retiring or resigning months before discussing the intent with the board. At that time, some or all of the directors might ask the CEO to consider postponing the decision. For forced departures, the decision process might be unobservable even to the CEO. Vafeas (1999) finds no relation between number of board meetings and CEO dismissals and writes: "*Thus, the evidence suggests that directors may decide on CEO dismissals outside the boardroom, perhaps because the CEO usually sets the agenda for and runs official board meetings*" (page 139). While directors might hold discussions and consider holding a vote to fire the CEO, they likely have flexibility for scheduling the final vote.

The SEC gives firms more leeway in terms of when to announce the CEO's successor. Firms may delay disclosure of the new CEO's name and appointment date "until the day on which the company first makes public announcement of the appointment if the company intends to make a public announcement of the appointment other than by means of a report on Form 8-K".<sup>3,4</sup>

The SEC requires listed firms to file financial results each quarter. Firms often issue an earnings press release (and Form 8-K) prior to the filing. For firms with analyst coverage, Michaely et al. (2014) write the following:

In most companies, the CEO or CFO decides on when to make the earnings announcement, typically with consultation with either the audit committee, the investor relation manager, and/or the counsel general. Most companies also have a conference call (primarily with sell-side security analysts) after the earnings announcement, typically within a few hours after the earnings announcements or in the following morning (if announcement is made in the late afternoon or evening). The time between the earnings announcements and conference call is typically used by analysts and investors to absorb the earnings news before addressing management with further questions. (p. 2011)

Figure 1A shows the board's meeting to discuss the quarter's earnings (event "X") prior to the earnings release. The CEO turnover decision event can occur any time during the quarter. Depending on when the CEO decision event occurs within the quarter, the CEO and board have varying degrees of uncertainty as to the most recent quarter's (or current quarter's) earnings. For firms with analyst coverage, Figure 1B shows that if the CEO turnover is co-announced with the earnings release, the board and CEO expect about 91 days before the next earnings release and analyst call. Otherwise, the expected time to the next earnings call is less than 91 days.

#### Firm signals with and without analysts

<sup>&</sup>lt;sup> $^{2}$ </sup> See SEC (2004) Paragraph (b) of Item 5.02.

<sup>&</sup>lt;sup>3</sup> See SEC (2004) Paragraph (c) of Item 5.02.

<sup>&</sup>lt;sup>4</sup> For additional information on corporate disclosures (Lerman & Livnat, 2010; Ahern & Sosyura, 2014).

Important to the CEO turnover literature is the idea that the firm's turnover decision provides signals to market participants.<sup>5</sup> CEO successors hired from outside the firm may be more likely to signal the board's plans to make changes to the firm's strategies and future financial performance. In contrast, because insiders likely helped develop and implement existing policies, firms may turn to insiders when they are looking for a continuation of current policies (Parrino, 1997). Various researchers (e.g., Huson et al., 2004) find that poorly performing CEOs are more likely to be replaced by outsiders and find subsequent improvements in firm performance. Signals for some *types* of turnover decision (e.g., a CEO's decision to leave without naming a successor versus naming an insider or an outsider successor at the same time) are less clear than others (Gangloff et al., 2016). We discuss types of turnovers and signaling further in the hypothesis section.

Figure 2 emphasizes that investors' resources for interpreting any signals the firm intends to send differ depending on whether the firm has analyst coverage. If the firm has analyst coverage, the firm has opportunities to use conference calls and private communications with analysts to add context beyond the turnover press release (Figure 2A). Analysts then communicate to investors their own syntheses, possibly revising earnings forecasts, target prices and stock recommendations. In contrast, for firms without analyst coverage, most investors are unlikely to have direct communication from the firm beyond the press release (Figure 2B).

#### **Hypotheses Development**

We observe that co-announcements of CEO turnovers and earnings releases rarely occur unless the firm has analyst coverage. In this section, we develop testable hypotheses to examine why co-announcement is more likely when the firm has analyst coverage. Then, we develop hypotheses for whether the likelihood of co-announcement depends on the number of analysts who cover the firm.

Firms with analyst coverage could be more likely than firms without coverage (i.e., "neglected firms") to co-announce because their types of turnover decisions are more likely to coincide with updated earnings information. We refer to this as the "coincident event" hypothesis. The firm's board typically meets to discuss the quarterly earnings prior to the firm's earnings announcement. This is the "board earnings meeting event" (i.e., point "X" on the fiscal quarter timeline shown in Figure 1A). The CEO turnover decision is a separate event. We consider three types of CEO turnover decision events which are more likely to occur when the board meets to discuss quarterly earnings.<sup>6</sup>

First, we consider CEOs who do not meet benchmark earnings-based performance measures. When the firm's board members receive information on the most recent quarter's earnings, they can compare the CEO's performance with expectations. The board might even have communicated earlier to the CEO in clear terms that failure to meet expectations would result in immediate dismissal.

Another turnover type is the decision to name an outsider (i.e., someone who is not an employee of the firm) as CEO. Contract negotiations are likely to require weeks or months. The

<sup>&</sup>lt;sup>5</sup> Spence (1978) is often cited as seminal work in the signaling literature.

<sup>&</sup>lt;sup>6</sup> Because board meeting minutes or transcripts are rarely available to the public, researchers know little about how boards make decisions (Schwartz-Ziv & Weisbach, 2013). While the public can rarely observe the board's decision-making process, it is widely accepted that boards (as a whole or subcommittees) provide oversight to management in the preparation of mandatory disclosures (Choudhary et al., 2013) and press releases (Ajinkya et al., 2005). For an example of an annual board calendar and scheduled meeting to discuss quarterly earnings results (Useem, 2006).

outsider CEO candidate and board may have incentives to wait to finalize the contract until information on the most recent quarter's earnings becomes available.

Lastly, consider routine successions. In a routine succession, the firm's management develops a plan, often months to a year in advance, for the current CEO's future retirement and a current firm employee (e.g., the COO) to be named as the CEO's successor. The CEO might put the succession plan vote on the quarterly earnings board meeting agenda, particularly when the quarter's earnings are good.

If these three turnover types are more likely for firms with analyst coverage than for neglected firms, covered firms could be more likely to co-announce simply because the turnover announcement and earnings release are issued immediately following the board meeting. We state this *"coincident event"* hypothesis formally as follows.

 $H_1$ : Firms with analyst coverage are more likely than neglected firms to make CEO turnover decisions at the firm's quarterly earnings board meeting.

The second hypothesis is the "anticipated analyst interactions" hypothesis. Washburn & Bromiley (2016) describe interactions between the firm's management and analysts (earnings forecasts, conference calls, and press releases) as a repeated game in which management and analysts exert mutual influence. Li et al. (2015) highlight the importance of analysts' outputs for shaping the market's interpretation of corporate disclosures, finding that many recommendations are issued after hours on the day of a disclosure. They conclude "analysts not only facilitate price discovery to corporate news through issuing trending revisions but also help reverse prevailing market sentiments following corporate news by issuing contrarian revisions (p. 821)".

Private communications between management and analysts are also important interactions. Studying one firm's communications with analysts, Soltes (2014) concludes private communication allows firms to provide *"additional context to interpret firm news and better understand a firm's opportunities"* (p. 247). Nearly half of private communications are follow up conversations within 72 hours of earnings or other press releases, adding that analysts frequently publish a report for clients within 24 hours of that communication.

During conference calls and private communications, management can make voluntary disclosures to add to, clarify, or contextualize information in press releases and mandatory filings (Tasker, 1998; Frankel et al., 1999). Given the importance of quarterly earnings, firms typically announce earnings release dates (and conference calls expected to follow the same day) two weeks ahead of time so that analysts can prepare (Driskill et al., 2020). Brown et al. (2015) report analysts place great value on private communications (e.g., follow up phone calls to confirm information) that immediately follow earnings releases. Analysts often update outputs following the earnings release and conference call. Zhang (2008) finds the median time between the earnings release and the analyst's forecast revision is 2 days.

By co-announcing the CEO turnover with the earnings release, management maximizes the probability of having its analysts on a conference call and/or private communications during which they can frame the turnover decision. Alternatively, if the firm announces the turnover in isolation, it can still announce its plan to hold a conference call, announced in the turnover press release, but analysts are given short notice and fewer may be able to attend or reach out to follow up in private communications.

Park et al. (2021) discuss challenges analysts face when trying to estimate the impact of the departing CEO - and expected impact of the incoming CEO - on firm performance. The firm's framing of the CEO turnover decision for analysts may be of particular importance in the

three types of turnovers described in the development of H1. For routine successions, selection of an insider as CEO successor signals continuation of the firm's policies (Kavadis et al., 2020). The outgoing CEO and future successor can both be on the earnings call, show a united front and frame the status quo, and, in good quarters, forecast that policies that have resulted in the firm's good past performance will continue. For forced departures, a CEO dismissal paired with an outsider as successor could signal a change in firm direction but paired with an insider successor could be interpreted as an attempt to *"scapegoat"* the departing CEO (Gangloff et al., 2016). Co-announcing has the added benefit of allowing the board to prevent the departing CEO from participating in the earnings call.

For outsider successions (whether the departing CEO leaves voluntarily or not), the incoming CEO is unlikely to join the firm immediately and is thus unlikely to be on the call. By timing the turnover announcement with an earnings release, the firm's management can "*punt*" difficult analyst questions until the next quarter's call when the incoming CEO is on the call. It also maximizes the time before the next earnings call Figure 1B.

Mayew (2008) and Cohen et al. (2013) conclude that some firms attempt to strategically manage analysts questions during earnings conference calls to frame the firm in the best possible light. DeHaan et al. (2015) and Michaely et al. (2016) conclude that at least some firms strategically time earnings releases. We extend these ideas with the hypothesis that firms sometimes strategically time the announcement of the CEO turnover to coincide with an earnings release in anticipation of the conference call and private communications that follow.

We state the "anticipated analyst interactions" hypothesis formally as follows.

 $H_2$ : Firms co-announce the CEO turnover with an earnings release to optimize anticipated interactions with its sell-side analysts.

We next consider whether the decision to co-announce is associated with the number of analysts that cover the firm. Surveying CFOs, Graham, Harvey, and Rajgopal (2005) find that almost "three-fourths of the respondents feel that voluntary disclosures correct gaps of mandatory financial disclosures" and "this concern is severe for firms that are large, high-growth, highly levered, and well covered by analysts" (p. 58). They also note: "Firms with large analyst coverage view reputation for transparent reporting, reducing information risk, increasing predictability and a reduction in the cost of capital as relatively important motivations for voluntary disclosures" (p. 57). This suggests that more analyst coverage could motivate co-announcement of routine successions in quarters when earnings are good. During the earnings call and follow up communications, the firm's management can emphasize its plans for a smooth CEO transition and continuation of the firm's strategies and operations. Stated formally:

 $H_3$ : Firms with more analysts are more likely than firms with fewer analysts to co-announce routine successions in good earnings quarters.

In contrast, Graham, Harvey, and Rajgopal (2005) note that CFOs (and by extension CEOs) "seek to avoid embarrassing inquisitions by stock analysts in conference calls, if stock price falls" (p. 67). This suggests firms might strategically avoid co-announcing CEO dismissals in bad quarters. Firms with fewer analysts, however, might not have the same luxury. They face the possibility of losing investor interest, and by extension, their analyst coverage when they do not perform as expected. Mola et al. (2013) conclude that firms pay a steep price for complete loss of analyst coverage. They "suffer a significant deterioration of bid-ask spreads, trading

volumes, and institutional presence" and "are significantly more likely to delist than their covered peers" (p. 667). Anantharaman & Zhang (2011) find that companies respond to changes in analyst coverage by adjusting their disclosure policies. More specifically, companies increase disclosure (guidance) when they lose analysts to recoup that coverage. We conjecture that firms with less analyst coverage may be more likely to co-announce and use the ensuing conference call with analysts to attribute the firm's underperformance to, i.e., "scapegoat", the departing CEO and outline the company's plans to turn around performance.

*H4:* Firms with fewer analysts are more likely than firms with more analysts to co-announce CEO dismissals in bad earnings quarters.

#### **Dataset Description and Hypothesis Tests**

#### **CEO turnover announcement and earnings release sample**

We obtain the list of CEO turnovers by using Factiva to manually search all days and all U.S.-listed firm trading symbols from September 2009 through December 2011. We use search terms for CEO turnover phrases. We then use Factiva company press release wires to check for the earliest announcement date for these CEO changes. We timestamp all press releases. We define "same trading date" as from the close of normal trading in New York to the following trading day close. If the firm also issues an earnings press release on the same trading date as the turnover announcement (either as a separate press release or as part of the turnover press release), we classify the CEO turnover as co-announced with an earnings release.

We read the press releases to classify turnovers by whether they announce both the current CEO's departure and name a successor or announce only a departure or successor. As in the prior literature, we exclude the following types of turnover announcements from our sample: a co-CEO leaves or is appointed; the CEO leaves but duties are split among other executive officers; the firm has no CEO and one is appointed; the CEO position is eliminated or created as the result of merger, spinoff, restructuring, or bankruptcy; and repeats of prior announcements.

We manually classify all CEO departures as voluntary or forced. We assume the departure is voluntary unless we observe the following:

- 1. The press release states that the CEO was fired.
- 2. The press release indicates the CEO's resignation is effective immediately and will not remain with the firm in any capacity. (The exception is if the press release indicates the CEO is resigning for personal reasons or to pursue other opportunities.)
- 3. The press release or another news article clearly indicates the CEO did not leave voluntarily, specifically the CEO has been forced out by activist shareholders or an investigation for fraud or misconduct involving the CEO is underway, ongoing, or resolved.

We read the press releases to classify successors as interim or permanent and as insiders (current employees of the firm) or outsiders. We obtain quarterly earnings per share data from Compustat. We include turnovers for all U.S.-listed firms with CRSP share code of 10 or 11 for which Compustat earnings data are available for current quarter and prior year and stock price is greater than \$1/share on the announcement date.<sup>7</sup> We determine the number of analysts (from

<sup>&</sup>lt;sup>7</sup> We exclude firms with common stock priced less than \$1/share because these firms are much more likely to have to consider a high probability of being delisted within the coming year. As a result, they may pursue different co-announcement strategies than firms with common shares trading above \$1/share.

IBES) that provide quarterly earnings forecasts the month in which the CEO turnover is announced. Consistent with the academic literature, we refer to firms without any analyst coverage as "*neglected*" (e.g., Demiroglu & Ryngaert, 2010). Our final sample consists of 708 turnover announcements.

Table 1 (Panel A) describes the turnover sample. Almost half (47.7%) of turnovers announce that the current CEO is leaving and names a replacement. The others are about evenly split between those that announce only that the current CEO is leaving (29.1%) or a successor (23.2%). While 12.7% of the turnovers are co-announcements, only 2 of those are neglected firms.

The table also shows the three *types* of turnover decisions that, as discussed in the hypothesis section, we reason are more likely to coincide with the board earnings meeting than are other types of turnovers. Routine successions (i.e., CEO's voluntary departure announced with an insider as CEO successor) are about a third (32.5%) of the sample. Forced departures and outsider successions account for 14.3% and 22.0%, respectively.

A little less than half (46.8%) of firms have a "bad quarter", which we define as the change in the firm's earnings per share (EPS), year-over-year, less than or equal to 0. Graham et al. (2005) report on a survey of top management in which CEOs and CFOs are asked how they are judged on their performance. They indicate the firm's year-over-year earnings per share and whether the firm meets analyst forecasts are important measures. Because inclusion of firms without analyst coverage is critical for our analysis, we use year-over-year earnings per share instead of analyst forecast measures. Neglected firms account for 11.2% of the sample.

Table 1 (Panel B) reports summary statistics for number of analysts and the other variables used in the analyses. Market capitalization is closing price and shares outstanding as of the month end of the month prior to the turnover announcement. Book-to-market ratio is the Compustat value of common stock equity divided by CRSP market capitalization as of the end of the fiscal quarter immediately prior to the fiscal quarter the turnover is announced. Momentum is daily abnormal return accumulated over the period 270 to 21 days prior to the announcement. Number of independent directors is as reported in Schedule 14A, the firm's proxy statement, filed with the SEC prior to the announcement.

## Hypothesis tests

We first examine whether firms with analyst coverage are more likely to experience the three types of turnovers (routine successions, forced departures, and outsider successions) discussed in the hypothesis section for H1. For each turnover type, we use two-way classification tests. Table 2 reports the results of the analysis. Routine succession turnovers account for 33.9% of all turnovers of firms with analyst coverage (i.e., "non-neglected firms") compared to 21.5% of all turnovers of neglected firms. Using the two-way classification test, we reject the null hypothesis that routine successions are equally likely in firms with and without analyst coverage (chi-squared statistic = 4.88, *p*-value = 0.027). The difference is driven by routine successions in good quarters, which are 21.0% of all non-neglected firm turnovers but just 6.3% of all neglected firm turnovers (chi-squared statistic = 9.66, *p*-value = 0.002). In contrast, routine successions in bad quarters are as likely regardless of whether the firm has analyst coverage (i.e., 12.9% and 15.2% with and without coverage, respectively but chi-squared statistic = 0.33, *p*-value = 0.566). The finding that routine successions are more likely in good quarters for firms with analyst coverage provides support for H1. For the other two types of turnovers of interest for testing H1,

8

neither forced departures nor outside successions are more likely for firms with analyst coverage than for neglected firms.

For completeness, we also test "other turnovers" (i.e., CEO voluntary departures that do not announce the successor, or announcement of an insider as CEO successor but the prior CEO's departure is announced in prior days or months). Other turnovers in good quarters are more likely for neglected firms. The final rows show that in our turnover sample overall, firms are as likely to announce turnovers in good or bad quarter.

Overall, the results in Table 2 provide some support for H1 but only for routine successions announced in good quarters and not for forced departures or outsider successions. It is also worth highlighting, as shown in the last two columns of Table 2, firms with analyst coverage sometimes co-announce the turnover with an earnings release *for every type of turnover* (except for the rare turnovers that announce both a CEO dismissal and hire of an outsider replacement in a good quarter). In contrast, the few turnovers co-announced by firms without analyst coverage are "other turnovers".

We now turn to tests of whether the number of analysts following covered firms is associated with the decision to co-announce using probit regressions to further examine each turnover type. We adopt the following probit regression specification:

Prob (Co-announcement) =  $\beta_0 + \beta_1 No.$  of analysts +  $\beta_2 Bad$  quarter +  $\beta_3 No.$  of analysts x Bad quarter +  $\beta_4 Log(market cap) + \beta_5 Book-to-market$ +  $\beta_6 Momentum + \beta_7 No.$  of independent directors +  $\epsilon$  (1)

Where *Co-announcement* is an indicator variable that equals one if the turnover is coannounced with earnings, and zero otherwise. On the right-hand side, we include variables to examine not only the relationship between co-announcement and number of analysts (*No. of analysts*) but also with earnings type (*Bad quarter*). We interact the analyst and bad quarter variables to examine whether firms with more analysts are more likely to co-announce routine successions in good earnings quarters (**H3**) and less likely to co-announce CEO dismissals in bad earnings quarters (**H4**). We include the other variables as controls for other firm characteristics which could influence the decision to co-announce.

Regressions are estimated separately for the routine succession, forced departure, outsider succession, and other turnover samples. Observations are included only if the firm has analyst coverage. Estimation results are reported in Table 3. For routine successions, only the coefficient for *No. of analysts* is significant (positive 0.057, *p*-value = 0.004). The positive coefficient indicates the probability of co-announcing routine successions with an earnings release increases with the number of analysts covering the firm. For forced departures, the positive coefficient for *Bad quarter* indicates the probability of co-announcing is higher during bad quarters. The coefficient for the interaction term for *No. of analysts* and *Bad quarter* are significant for the forced departure and outsider succession samples. Only the *book-to-market* coefficient is significant for the other turnovers sample.

Ai & Norton (2003) caution against directly interpreting interaction terms in nonlinear models in the same manner as in OLS regressions. For this reason, we instead use the probit estimations to generate predicated probabilities to understand the results in the context of the hypotheses. We estimate predicted probabilities at the  $10^{th}$  and  $90^{th}$  percentiles for *No. of analysts* for each turnover type and good and bad quarters (i.e., *Bad quarter* = 0 or 1). Predicted

probabilities are estimated using each observation's characteristics except with the value for *No. of analysts* and *Bad quarter* indicated. Table 4 reports the average of predicted probabilities for each turnover type. We also report the differences of the averages for the 10<sup>th</sup> versus 90<sup>th</sup> percentiles of *No. of analysts* as well as for good versus bad quarters.

For routine successions (Panel A), in good quarters the probability of co-announcing increases with number of analysts (8.9% for the  $10^{th}$  percentile of *No. of analysts* versus 37.2% at the 90<sup>th</sup> percentile, both significant at the 1% level). The difference of 28.3% is significant (*p*-value = 0.005). This result strongly supports **H3**. It is also worth noting as well that at the 90<sup>th</sup> percentile of *No. of analysts*, firms are significantly *less* likely to co-announce routine successions in *bad* quarters (difference = -0.229, *p*-value = 0.032).

Moving on to forced departures, Panel B shows that in bad quarters the probability of coannouncing decreases with number of analysts (36.1% for the  $10^{th}$  percentile of *No. of analysts*, significant at the 1% level, versus 15.6% at the 90<sup>th</sup> percentile, not significant). This result strongly supports **H4**. For forced departures in good quarters for firms, probability of coannouncing increases with number of analysts (21.1% for the 90<sup>th</sup> percentile, *p*-value = 0.039, versus 6.2%, *p*-value = 0.107, for the 10<sup>th</sup> percentile). The difference (14.9%) is almost significant at conventional levels (*p*-value of 0.140). Although we did not develop a hypothesis for the relationship between number of analysts and forced departures in good quarters prior to performing the hypothesis tests, it is reasonable to ex-post conjecture that firms with more analysts feel pressure to co-announce forced departures in good quarters to provide an explanation during the earnings call as to why the CEO is dismissed when earnings are good.

Although our hypotheses do not predict an association between the number of analysts and probability of co-announcing for outsider successions and other turnovers, we include predicted probability analyses for completeness. They indicate little relationship between number of analysts and probability of co-announcing for these turnover types. In un-tabulated tests, we repeat the two-way classification tests and probit analyses for the following robustness checks: (1) Bad quarter if defined as year-over-year change in earnings per share is *strictly* less than 0; (2) indicator variable for number of analysts equals zero if number of analysts greater than the median number of analysts for firms with coverage, or otherwise equal to 0; and (3) exclusion of turnover observations for which there is a forced departure *and* an outsider succession in the same turnover observation. Results are qualitatively unchanged for these robustness tests. Overall, the results of the two-way classification tests and the probit analyses provide some support for **H1** and strong support for **H2**, **H3** and **H4**.

#### CONCLUSIONS

Our empirical results support the hypotheses that at least some firms intentionally coannounce the CEO turnover with an earnings release in anticipation of expected interactions with sell-side analysts. Given the timing flexibility we highlight, firms not yet aware of the flexibility might be well advised to consider it, particularly given anecdotal evidence of *nearly* concurrent announcements that went spectacularly wrong.<sup>8</sup> Our findings similarly have implications for

<sup>&</sup>lt;sup>8</sup> Vikram Pandit's resignation surprised analysts, employees, and other market participants. Subsequent reporting by The New York Times revealed that Pandit had met with the chairman of the board the day before (after the earnings announcement) and was shown three press releases to choose from regarding his departure from the firm (Silver-Greenberg & Craig, 2012).

potential co-announcement strategies for other C-suite turnovers as well.<sup>9</sup> Our findings also suggest questions for analysts to ask management during CEO turnover conference calls. If firms co-announce the turnover with earnings, analysts can ask if the turnover decision was reached at the same time as the board discussed the quarterly earnings results and why. If the turnover is not co-announced with earnings, analysts can ask why not.

Admittedly our sample period is relatively short. Future research could extend the sample period. Researchers could then examine the consequences of the decision *not* to co-announce. Extension of the sample could also explore whether firms' increased use of a single-step versus two-step earnings release process reduces the use of the co-announcement strategy.<sup>10</sup>

Finally, our findings contribute to the literature more broadly. Historically researchers have treated concurrent news events as nuisances.<sup>11</sup> In contrast, we conclude that confounding events are not nuisances, but rather they may reveal strategic decisions by firms to manage analysts and, thereby, the public's perceptions.

#### APPENDIX

Panel A reports summary statistics for CEO turnovers announced by U.S. listed firms during 2009 to 2011. Routine successions are turnovers for which the CEO's departure is voluntary, the CEO's successor is one of the firm's top executives (i.e., an *"insider"*), and the departure and succession are announced together. Forced departures are turnovers for which the departing CEO is fired, forced out because of federal or internal investigations, or resigning all positions immediately. Outsider successions are turnovers for which the CEO's successor is not a current or former employee. Neglected firms are firms without any sell-side analyst coverage. Bad quarter indicates the firm's earnings per share (EPS), year-over-year, are less than or equal to 0. Information sources and additional definitions for classifications in Panel A and analysis variables in Panel B are provided in the Appendix.

Table 1		
PANEL A: CEO TURNOVER SAMPLE		
	Obs.	% of Sample
Turnover press release announces CEO's departure	206	29.1
Turnover press release announces CEO's departure and CEO's successor	338	47.7
Turnover press release announces CEO's successor	164	<u>23.2</u>
Total	708	100.0
Co-announced with an earnings release	90	12.7
By firms with analyst coverage	88	12.4
By neglected firms	2	0.3
Routine succession	230	32.5
Forced departure	101	14.3
Outsider succession	156	22.0
Neglected firm	79	11.2
Bad quarter	331	46.8

<sup>&</sup>lt;sup>9</sup> IBM, announcing the departure of its president after the fiscal quarter's end and three weeks before its expected earnings release, experienced a 5% one-day decline in stock price (Novet, 2021).

<sup>&</sup>lt;sup>10</sup> Arif et al. (2019) provide evidence that firms are increasingly reporting earnings announcements at the same time as the 10-K filing (i.e., a *"single-step"* process) rather than of issuing a prior *'stand-alone'* EA (*"two-step"* process). <sup>11</sup> The exceptions are Warren & Sorescu (2017) and Graffin et al. (2011) as noted in the introduction.

The exceptions are warren & Sorescu (2017) and Granin et al. (2011) as noted in the introduction.

Table 1 PANEL B: ANALYSIS VARIABLES						
	Obs.	Mean	Median	Std. dev.	25 <sup>th</sup> percentile	75 <sup>th</sup> percentile
No. of analysts	708	7.54	5	7.39	2	11
Market cap (million \$)	708	5,243.8	435.7	23,877.1	125.8	2,097.5
Book-to-market	708	0.795	0.640	0.860	0.354	1.023
Momentum	708	0.247	0.195	0.487	-0.023	0.467
No. of independent directors	708	6.86	7	2.35	5	8
EPS (year-over-year, \$)	708	0.01	0.02	1.42	-0.15	0.17

This Table 2 reports results of two-way classification tests. Turnovers are first classified by type as routine successions, forced departures, outside successions, or other turnovers. The second classification is by whether the turnovers are for firms with analyst coverage ("non-neglected firms") or without analyst coverage ("neglected firms"). The two-way test compares proportion of firms for a turnover type (e.g., routine successions) versus all other turnovers in the sample of 708 turnovers. For each turnover type, additional two-way tests are performed for a finer partition of turnover type (good quarter versus bad quarter). The two-way test in the last two rows compare all turnover types classified as good quarter or bad quarter and classified by with or without analyst coverage. "N/A" indicates too few observations for a valid chi-squared test. \*\*\*, \*\*, and \* indicate significance of chi-squared statistic at the 1%, 5%, and 10% level, respectively. The last two columns report percent co-announced with earnings for each turnover type.

			T ASSIEICAT	Table 2 ION TESTS BY	V TUDNOVED	TVDE	
Turnover Type	n	% of Non- neglected	% of Neglected	Chi-Sq. Statistic	<i>p</i> -value	% Co-annou	nced with an s release
						Non- neglected	Neglected
Routine successions	230	33.9	21.5	4.88**	(0.027)	15.5	0
Good quarter	137	21.0	6.3	9.66***	(0.002)	20.5	0
Bad quarter	93	12.9	15.2	0.33	(0.566)	7.4	0
Forced departures	101	14.3	13.9	0.01	(0.927)	21.1	0
Good quarter	42	5.7	7.6	0.44	(0.507)	13.9	0
Bad quarter	59	8.6	6.3	0.47	(0.494)	25.9	0
Outsider successions	156	21.8	24.1	0.21	(0.646)	8.8	0
Good quarter	90	12.9	11.4	0.14	(0.709)	3.7	0
Bad quarter	66	8.9	12.7	1.17	(0.279)	16.1	0
Forced & Outsider	10	1.1	3.8	N/A	N/A	42.8	0
Good quarter	6	0.6	2.5	N/A	N/A	0	0
Bad quarter	4	0.5	1.3	N/A	N/A	100	0
Other							
turnovers	231	31.2	44.3	5.52**	(0.019)	13.8	5.7
Good quarter	114	14.2	31.7	15.59***	(<0.001)	14.6	4.0
Bad quarter	117	17.1	12.7	0.96	(0.326)	13.1	6.7
All	708	100	100			14.0	2.5
Good quarter	377	53.3	54.4	0.05	(0.823)	14.4	2.3

Citation Information: Arthur, M.M., Boni, L., & Majadillas, M.A. (2022). When do firms co-announce ceo turnovers with earnings releases?. Academy of Accounting and Financial Studies Journal, 26(6), 1-18.

Bad quarter	331	46.9	45.6		13.6	2.8

The Table 3 reports the coefficient estimates (and robust *p*-values in parentheses) for probit regressions that examine the firm's decision to announce the CEO turnover with or without an earnings release. Observations are included only if the firm has at least one sell-side analyst's coverage. Regressions are estimated separately to examine turnover announcements that are routine successions, forced departures, outside successions, or other turnovers, which are defined along with the independent variables, in the Appendix. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% level, respectively.

PROBIT REGRESSIONS FO		able 3		VED WITH OD	
PROBIT REGRESSIONS FU		ARNINGS RELEA		VER WITH OK	
Decision variable	Co-announced with earnings				
Sample	Routine Successions	Forced Departures	Outsider Successions	Other Turnovers	
Independent variables					
No. of analysts	0.057***	0.046	-0.084	0.016	
	(0.004)	(0.106)	(0.117)	(0.494)	
Bad quarter	-0.384	1.417**	0.015	0.016	
	(0.414)	(0.010)	(0.976)	(0.962)	
No. of analysts x Bad quarter	-0.018	-0.087**	0.101*	-0.007	
	(0.619)	(0.050)	(0.065)	(0.811)	
Log(market cap)	0.029	-0.095	0.248	0.071	
	(0.747)	(0.506)	(0.108)	(0.507)	
Book-to-market	0.024	-0.558***	-0.189	-0.344*	
	(0.873)	(0.006)	(0.273)	(0.074)	
Momentum	-0.156	0.371	-0.125	-0.466	
	(0.630)	(0.259)	(0.689)	(0.122)	
No. of independent directors	-0.076	0.046	-0.202***	-0.076	
	(0.184)	(0.639)	(0.008)	(0.173)	
Constant	-1.094*	-1.063	-1.307*	-0.842	
	(0.052)	(0.196)	(0.068)	(0.163)	
Observations	213	90	137	196	
Pseudo R-squared	0.107	0.143	0.181	0.0708	

This Table 4 reports predicted probabilities (and *p*-values in parentheses) of coannouncing a CEO turnover with an earnings release derived from the probit estimations in Table 3. Observations are included only if the firm has at least one sell-side analyst's coverage. Predicted probabilities are reported for the  $10^{th}$  percentiles and  $90^{th}$  percentiles of number of analysts covering the firm and for good and bad quarter. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% level, respectively.

Table 4 PREDICTED PROBABILITIES OF CO-ANNOUNCING A CEO TURNOVER WITH AN EARNINGS RELEASE					
	Panel A: Rout	ine successions			
	10 <sup>th</sup> percentile of number	90 <sup>th</sup> percentile of number	Difference		
	of analysts of analysts				
Good quarter	0.089***	0.372***	0.283***		

13

1528-2635-26-6-470

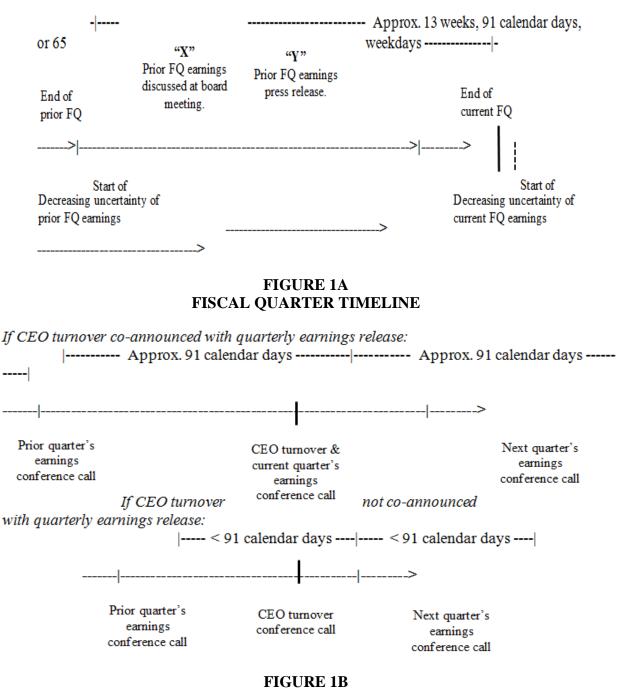
	(0.008)	(0.000)	(0.005)
Bad quarter	0.039	0.143	0.104
	(0.224)	(0.125)	(0.362)
Difference	-0.050	-0.229**	
	(0.238)	(0.032)	

#### Table 4 PREDICTED PROBABILITIES OF CO-ANNOUNCING A CEO TURNOVER WITH AN EARNINGS RELEASE

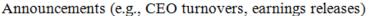
	Panel B: Forced departures				
	10 <sup>th</sup> percentile of number	90 <sup>th</sup> percentile of number	Difference		
	of analysts	of analysts			
Good quarter	0.062	0.211**	0.149		
	(0.107)	(0.039)	(0.140)		
Bad quarter	0.361***	0.156	-0.205		
	(0.006)	(0.171)	(0.342)		
Difference	0.299**	-0.055			
	(0.024)	(0.653)			

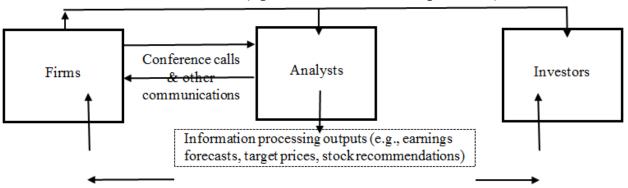
PREDICTED PROBA	BILITIES OF CO-ANNOUN	ole 4 CING A CEO TURNOVER V EASE	WITH AN EARNINGS
		der successions	
	10 <sup>th</sup> percentile of number	90 <sup>th</sup> percentile of number	Difference
	of analysts	of analysts	
Good quarter	0.108	0.009	-0.099
	(0.131)	(0.435)	(0.198)
Bad quarter	0.129*	0.186*	0.057
	(0.079)	(0.091)	(0.722)
Difference	0.021	0.177	
	(0.795)	(0.101)	

PREDICTED PR	Table 4 PREDICTED PROBABILITIES OF CO-ANNOUNCING A CEO TURNOVER WITH AN EARNINGS				
		EASE	WITH AN EARININGS		
	Panel D: Ot	her turnovers			
	10 <sup>th</sup> percentile of number	90 <sup>th</sup> percentile of number	Difference		
	of analysts	of analysts			
Good quarter	0.118**	0.166***	0.048		
	(0.013)	(0.002)	(0.497)		
Bad quarter	0.120**	0.145**	0.025		
	(0.017)	(0.019)	(0.778)		
Difference	0.002	-0.021			
	(0.978)	(0.774)			



Analyst conference calls timelines with and without co-announced events





## FIGURE 2A INFORMATION FLOW WITH ANALYSTS

Announcements (e.g., CEO turnovers, earnings releases)



## FIGUFRE 2B INFORMATION FLOW WITHOUT ANALYSTS

	Appendix DEFINITIONS			
Classification or Variable	Definition			
Co-announced with earnings	The CEO turnover is announced with quarterly or fiscal year earnings, manually determined using Factiva press releases and firm's SEC filings.			
Voluntary departure	The departing CEO is retiring, resigning to join another company, or, resigning for " <i>personal reasons</i> " or " <i>to pursue other opportunities</i> ", manually determined using Factiva press releases.			
Routine succession	The CEO's departure is voluntary, and the CEO's successor is one of the firm's top executives (i.e., an <i>"insider"</i> ). Departure and succession are announced together, manually determined using Factiva press releases.			
Forced departure	The departing CEO is fired, forced out because of federal or internal investigations, or resigning all positions immediately, manually determined using Factiva press releases.			
Outsider succession	The CEO's successor is not a current or former employee or board member, manually determined using Factiva press releases and firm's SEC filings.			
Other turnovers	Turnover is not a routine succession, a forced departure, or an outsider succession.			
No. of analysts	The number of analysts in IBES that provide quarterly earnings forecasts the month in which the CEO turnover is announced.			
Neglected firm	No. of analysts equals 0.			

Citation Information: Arthur, M.M., Boni, L., & Majadillas, M.A. (2022). When do firms co-announce ceo turnovers with earnings releases?. Academy of Accounting and Financial Studies Journal, 26(6), 1-18.

Bad quarter	An indicator variable equal to 1 (and firm's classification) if EPS	
	(year-over-year, \$) is less than or equal to 0.	
Good quarter	Firm's classification if Bad quarter indicator variable equals 0.	
Market cap	CRSP closing share price times CRSP shares outstanding as of the	
	month end before the CEO turnover announcement.	
Book-to-market	Compustat value of common stock equity divided by market cap as of	
	the end of the fiscal quarter before the CEO turnover announcement.	
Momentum	Daily abnormal return accumulated over the period 270 to 21 days	
	before the CEO turnover announcement, calculated using CRSP daily	
	stock returns and CRSP value-weighted index as the proxy for the	
	market return.	
No. of independent directors	The number of independent directors as reported in Schedule 14A, the	
	firm's proxy statement, filed with the SEC before the CEO turnover	
	announcement.	
EPS (year-over-year, \$)	The firm's change in quarterly earnings per share from the same	
	quarter of the prior year from Compustat.	

#### REFERENCES

- Ahern, K. R., & Sosyura, D. (2014). Who writes the news? Corporate press releases during merger negotiations. *The Journal of Finance*, 69(1), 241-291.
- Ai, C., & Norton, E.C. (2003). Interaction terms in logit and probit models, *Economics Letters*, 80, 123-129.
- Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors and the properties of management earnings forecasts. *Journal of Accounting Research*, 43(3), 343-376.
- Anantharaman, D., & Zhang, Y. (2011). Cover me: Managers' responses to changes in analyst coverage in the postregulation FD period. *The Accounting Review*, 86(6), 1851-1885.
- Arif, S., Marshall, N. T., Schroeder, J. H., & Yohn, T. L. (2019). A growing disparity in earnings disclosure mechanisms: The rise of concurrently released earnings announcements and 10-Ks. *Journal of Accounting* and Economics, 68(1), 101221.
- Bradshaw, M. T. (2009). Analyst information processing, financial regulation, and academic research. *The Accounting Review*, 84(4), 1073-1083.
- Brown, L. D., Call, A. C., Clement, M. B., & Sharp, N. Y. (2015). Inside the "black box" of sell-side financial analysts. *Journal of Accounting Research*, 53(1), 1-47.
- Choudhary, P., Schloetzer, J. D., & Sturgess, J. D. (2013). Boards, auditors, attorneys and compliance with mandatory SEC disclosure rules. *Managerial and Decision Economics*, 34(7-8), 471-487.
- Cohen, L., Lou, D., & Malloy, C. (2013). Playing favorites: How firms prevent the revelation of bad news (No. w19429). *National Bureau of Economic Research*.
- 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.
- Demiroglu, C., & Ryngaert, M. (2010). The first analyst coverage of neglected stocks. *Financial Management*, 39(2), 555-584.
- Driskill, M., Kirk, M. P., & Tucker, J. W. (2020). Concurrent earnings announcements and analysts' information production. *The Accounting Review*, 95(1), 165-189.
- Frankel, R., Johnson, M., & Skinner, D. J. (1999). An empirical examination of conference calls as a voluntary disclosure medium. *Journal of Accounting Research*, 37(1), 133-150.
- Gangloff, K. A., Connelly, B. L., & Shook, C. L. (2016). Of scapegoats and signals: Investor reactions to CEO succession in the aftermath of wrongdoing. *Journal of Management*, 42(6), 1614-1634.
- Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, 40(1-3), 3-73.
- Graffin, S. D., Carpenter, M. A., & Boivie, S. (2011). What's all that (strategic) noise? Anticipatory impression management in CEO succession. *Strategic Management Journal*, 32(7), 748-770.
- Huson, M. R., Malatesta, P. H., & Parrino, R. (2004). Managerial succession and firm performance. *Journal of Financial Economics*, 74(2), 237-275.
- Kavadis, N., Heyden, M. L., & Sidhu, J. S. (2020). Fresh in the saddle: The influence of a new CEO's vision and origin, and CEO succession type on market actors' reactions. *Long Range Planning*, 102050.

- Kothari, S. P., Shu, S., & Wysocki, P. D. (2009). Do managers withhold bad news?. Journal of Accounting research, 47(1), 241-276.
- Lerman, A., & Livnat, J. (2010). The new Form 8-K disclosures. Review of Accounting Studies, 15(4), 752-778.
- Li, E. X., Ramesh, K., Shen, M., & Wu, J. S. (2015). Do analyst stock recommendations piggyback on recent corporate news? An analysis of regular-hour and after-hours revisions. *Journal of Accounting Research*, 53(4), 821-861.
- Mayew, W. J. (2008). Evidence of management discrimination among analysts during earnings conference calls. Journal of Accounting Research, 46(3), 627-659.
- Michaely, R., Rubin, A., & Vedrashko, A. (2014). Corporate governance and the timing of earnings announcements. *Review of Finance*, *18*(6), 2003-2044.
- Michaely, R., Rubin, A., & Vedrashko, A. (2016). Further evidence on the strategic timing of earnings news: Joint analysis of weekdays and times of day. *Journal of Accounting and Economics*, 62(1), 24-45.
- Mola, S., Rau, P. R., & Khorana, A. (2013). Is there life after the complete loss of analyst coverage?. *The Accounting Review*, 88(2), 667-705.
- Novet, J. (2021). IBM President Jim Whitehurst steps down less than two years after he joined through Red Hat acquisition. *CNBC*. Retrieved from https://www.cnbc.com/2021/07/02/ibm-president-jim-whitehurst-steps-down-after-red-hat-deal.html
- Park, S.H., Chung, S.H., & Rajagopalan, N. (2021). Be careful what you wish for: CEO and analyst firm performance attributions and CEO dismissal. *Strategic Management Journal*, 42(10), 1880-1908.
- Parrino, R. (1997). CEO turnover and outside succession a cross-sectional analysis. *Journal of financial Economics*, 46(2), 165-197.
- Schwartz-Ziv, M., & Weisbach, M. S. (2013). What do boards really do? Evidence from minutes of board meetings. *Journal of Financial Economics*, 108(2), 349-366.
- Silver-Greenberg, J., & Craig, S. (2012). October 26, Citi chairman is said to have planned chief's exit over months, *New York Times*. Retrieved from https://www.cnbc.com/2012/10/26/citi-chairman-is-said-to-have-plannedchiefs-exit-over-months.html (last accessed October 7, 2022)
- Soltes, E. (2014). Private interaction between firm management and sell-side analysts. *Journal of Accounting Research*, 52(1), 245-272.
- Spence, M. (1978), Job market signaling, Quarterly Journal of Economics, 87, 355-374.
- Tasker, S. C. (1998). Bridging the information gap: Quarterly conference calls as a medium for voluntary disclosure. *Review of Accounting Studies*, *3*(1), 137-167.
- Thompson, R. B., Olsen, C., & Dietrich, J. R. (1987). Attributes of news about firms: An analysis of firm-specific news reported in the Wall Street Journal Index. *Journal of Accounting Research*, 245-274.
- Useem, M. (2006). How well-run boards make decisions. Harvard Business Review, 84(11), 130.
- Vafeas, N. (1999). Board meeting frequency and firm performance. *Journal of Financial Economics*, 53(1), 113-142.
- Warren, N. L., & Sorescu, A. (2017). When 1+ 1> 2: How investors react to new product releases announced concurrently with other corporate news. *Journal of Marketing*, 81(2), 64-82.
- Washburn, M., & Bromiley, P. (2014). Managers and analysts: An examination of mutual influence. Academy of Management Journal, 57(3), 849-868.
- Zhang, Y. (2008). Analyst responsiveness and the post-earnings-announcement drift. *Journal of Accounting and Economics*, 46(1), 201-215.

**Received:** 07-Oct-2022, Manuscript No. AAFSJ-22-12659; **Editor assigned:** 07-Oct -2022, PreQC No. AAFSJ-22-12659(PQ); **Reviewed:** 21-Oct-2022, QC No. AAFSJ-22-12659; **Revised:** 24-Oct-2022, Manuscript No. AAFSJ-22-12659(R); **Published:** 31-Oct-2022