Information Transfer and Conference Calls[*]

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ABSTRACT: A long-standing literature documents the existence of intra-industry capital market co-movements around earnings releases, yet the dynamics of these information transfers remain largely undocumented. We provide evidence on both the sources and the channels of information transfers by separating two distinct events within the reporting window, and by exploring potential mechanisms of information flows. First, we examine the intra-industry information transfer associated with earnings conference calls, using intra-day data to decouple their effects from those of the associated earnings announcements. We document a significant co-movement of absolute and signed stock returns over the conference call windows of announcing firms and their industry peers. The effect is statistically and economically larger than the one associated with the corresponding earnings announcements. When we turn to mechanisms, we find that shared analyst coverage and coverage by analysts providing industry recommendations, as well as shared institutional ownership and joint financial press mentions, are individually and incrementally associated with higher rate of information transfer. Additional analyses reveal that information transfer occurs both to peers that have already announced and those that are yet to announce. Our findings highlight the importance of conference calls in the generation of intra-industry transferable information and detail channels for its dissemination, adding an important dimension to our understanding of the phenomenon.

Keywords: Conference calls, Information transfer, Intra-day, TAQ, Information intermediaries

JEL Codes: D83, M41

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1 Introduction

Information disclosed by one firm could be useful in updating investors' expectations for related firms subject to similar economic exposures. While a rich literature spanning forty years documents the existence of earnings-related intra-industry information transfers (Firth 1976, Foster 1981), we know little about the dynamics of such transfers. The first goal of this paper is to provide evidence on the relative informativeness of distinct disclosures made during the informationally-rich earnings release period. Specifically, we examine the existence and characteristics of information transfers driven by earnings conference calls relative to those attributable to earnings announcements. The second objective of the paper is to provide insight into the mechanisms that facilitate the information transfer.

Conference calls have gained popularity as an important venue for information dissemination, allowing managers an opportunity to provide information supplementary to their firm's earnings announcement and granting financial market participants a chance to ask questions on both the reported financial results and expected future performance. There are reasons to expect a conference call to induce as much as, if not more, information transfer than the associated earnings announcement. The presentation portion of conference calls frequently offers insights on operational developments within a firm as well as broader economic and regulatory news. The interactive nature of conference calls also allows participants to ask questions to management, and therefore steer the conversation towards issues of interest to the investment community, including macroeconomic and industry trends.[1] Furthermore, exchanges during the question and answer (Q&A) portion of a conference call between managers and analysts, who cover multiple companies in the industry, could reveal participants' private information concerning matters that go beyond the announcing firm. However, since the accompanying earnings announcement already

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[1] As an example, on a PepsiCo conference call an analyst asked the management to address "Coke [saying] the pricing for carbonated soft drinks was up." In another quarter, the analysts covering the Coca-Cola earnings conference call requested management's view on the "competitive landscape, given Pepsi's new strategic alliance with Tingyi." (PepsiCo Q1 2014 Earnings Call on April 17, 2014; The Coca-Cola Q1 2012 Earnings Call on April 17, 2012.) Similar exchanges are frequently seen for other high profile rival pairs such as JC Penny-Macy's and Intel-AMD and in more dispersed multi-competitor markets.

includes a wealth of financial information and often provides guidance from management on expected future performance, the conference call may offer little incremental information about a firm's peers. Furthermore, the search and processing costs of information intermediaries potentially dampen information transfer. As such, the existence and relative rate[2] of intra-industry information transfer via conference calls is an empirical question.

The passage of Regulation Fair Disclosure (Reg FD) in 2000, coupled with technological advances in information access and diffusion, led to the widespread adoption of open conference calls as routine disclosure events accompanying earnings releases. We rely on intraday data to decouple the effects of the two informational events in the context of intra-industry information flows. We contribute to both the information transfer and the conference call literatures by examining whether, on average, earnings conference calls elicit intra-industry information transfers, whether such transfers are of comparable rates as those elicited by earnings announcements, and what mechanisms facilitate the flow of conference-call-related information among firms.

Capitalizing on our observation that most earnings announcements are made outside of trading hours and that many follow-up conference calls are conducted the next business day, we construct a large sample of firm-quarter observations in which the two information events do not overlap. Using Thomson StreetEvents data from 2002 through 2010, we obtain 23,728 announcing firm observations with earnings conference calls (earnings announcements) taking place during (before) trading hours. The corresponding sample of peers comprises 466,526 observations, in which a "peer" is a firm covered by at least one analyst who also covers an announcing firm (as per the Institutional Brokers' Estimate System [I/B/E/S]) and that also belongs to the same four-digit Global Industry Classification Standard (GICS) industry group.

We begin by confirming that the capital market reaction to an announcing firm is economically and statistically significant during the time of the associated earnings conference call itself, in line with the

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[2] Throughout the paper we use the term "rate" of transfer to designate the amount of the information transferred rather than the speed at which it is transferred. We chose the term "rate" because in examining the coefficient of co-movement we express the transfer as a function of the conference call holding firm's own information metric.

2

results in Frankel et al. (1999) and Matsumoto et al. (2011). We find that the average absolute return during the hour from the start of a firm's conference call is 1.3 percent, which is more than a third of the earnings announcement absolute return (we measure the earnings announcement return as the overnight return plus the return during the first 30 minutes of the next trading day).

We explore the first question of the paper—the existence and rate of intra-industry information transfer via earnings conference calls—using seemingly unrelated regression (SUR). First, we evaluate the degree to which information has been transferred from an announcing firm to its peers by regressing peers' absolute and signed returns on the parallel information metrics for the announcing firm, controlling for firm characteristics and historical co-movement of firm pairs. We interpret a significantly positive coefficient as evidence of information transfer, whereby more informative news events trigger stronger stock price movement among peers, and document a statistically and economically significant shift in returns for nonannouncing peer firms during an announcing firm's conference call. Although this novel result is not entirely surprising, given the transfer documented by prior research on other disclosures, the question of the relative rate of information transfers is important. We evaluate the transfers induced by conference calls relative to those stemming from earnings announcements by comparing the estimated coefficients in the two windows. The degree of co-movement between peer and announcing firms' indicators is significantly more pronounced during conference call windows than during the associated earnings announcement windows. Our results suggest that, during the information-dense period of quarterly news releases, conference calls facilitate a greater rate of information transfer to peer firms within an announcer's industry than earnings releases.

Much of the intra-industry information transfer literature focuses on documenting the existence and magnitude of information transfers, measured as capital market co-movements. Despite the observation in Schipper (1990) that the literature reports the phenomenon, but does not explain how it takes place, subsequent papers for the most part do not provide insight into possible drivers. Notable exceptions are Hilary and Shen (2013) and Drake et al. (2016), who respectively highlight the role of financial analysts in facilitating transfers and examine the existence of investor attention co-movement. As our second question,

3

we develop this line of research and examine four mechanisms that could facilitate information transfers: overlap in sell-side analyst coverage, coverage by analysts with more industry expertise (i.e., those who include industry recommendations in their reports), overlap in institutional investor base, and the financial press. Because analysts tend to specialize in certain industries, the choice of coverage likely reflects similarities in both product-market characteristics and business attributes, with overlap suggesting a greater degree of potential information transfer. Analyst overlap may also provide a more direct link in the form of communication with clients, subject to regulatory constraints. Consistent with these arguments, we find that the rate of information transfer is significantly higher among firm pairs with high overlap in analyst coverage. We also document greater information transfer occurring from the conference calls of firms covered by sell-side analysts with high industry expertise. This effect is magnified when both the announcing firm and peer firms are covered by the same industry expert. Turning to institutional investors, we note that unlike sell-side analysts, they do not exhibit significant industry clustering. However, they are more likely to pay attention to the disclosures of firms whose stock they hold and thus are more likely to identify news that may be transferrable. Indeed, we find that high institutional investor overlap is associated with greater information transfer. Finally, joint coverage of firms in financial press items likely both reflects economic similarity and directly aids information transfer. We document greater information transfer among pairs of firms which are jointly mentioned in at least one media item. While analyst coverage overlap appears to have the strongest impact on information transfer, all four mechanisms are incremental.

In additional analyses, we first examine whether information transfer occurs for both peer firms that have already announced earnings and firms that are yet to announce. We document significant backward and forward information transfers from both conference calls and earnings announcements. Although the forward transfers (to peers that have not announced yet) are stronger, consistently with the notion that released information has greater value when uncertainty regarding peer performance is high, the magnitude of the difference is surprisingly small. Forward transfers are, on average, less than 50 percent higher than backward transfers, suggesting a continuous process of belief revision. Next, we consider whether the nature of the economic relation between a conference call firm and its peers impacts the extent

4

of the information transfer. We identify subsamples, true peers and rivals, using the historical pairwise correlation in seasonal sales growth as a basis for the partition.[3] We find that information transfer is greater for true-peers on all windows, with the incremental informativeness of conference calls relative to earnings announcements similar in the two groups. We also carry out our analyses separately for the presentation and the Q&A portions of the calls and find that for both the information transfer is significantly greater than that associated with the earnings announcements.

Finally, we conduct an exploratory analysis aimed at identifying which financial reporting characteristics contribute to information transfers. Examining earnings forecast errors relative to both analyst expectations and managerial guidance, as well as revenue forecast errors relative to analyst expectations, we observe that they contribute to the information transfer associated with the earnings announcements, in support of prior research. However, the magnitude of the estimated coefficients for each of these signals is much smaller for associated conference call windows in the absolute returns specification. Furthermore, the surprises are generally negatively associated with peers' signed returns during the conference call, suggesting a partial reversal of the transfer induced by the earnings announcement. This suggests that conference call transfers are likely driven by other signals. One such signal we observe is a presence of an explicit reference to a peer firm in the conference call.

We also conduct a wide array of validation tests. To allay concerns that the earnings announcement and conference call windows we study are not comparable due to dynamics of overnight informational releases, we repeat our analysis on the sample of firms that report earnings announcements and hold conference calls during trading hours of the same day. Our results on the existence of and the greater rate of information transfer in the conference call windows also manifest in this setting. To evaluate the sensitivity of our results to the capital markets metric choice, we consider three alternative non-directional measures of market reaction: abnormal trading volume, abnormal stock price volatility, and abnormal range (all normalized by time of day and day of week effects). Inferences based on these metrics generally mirror

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[3] We refer to the subsample with positive sales growth correlation as "true peers," while retaining the term "peer" for the full sample.

the reported results. Next, we carry out placebo analyses that confirm our results are not spuriously driven by structural intraday price co-movement trends. Finally, we examine an alternative sample of peer firms defined by industry grouping but lacking analyst overlap to allay concerns that our findings are solely driven by the dynamics of analyst participation. For these firm pairs, we continue to observe greater information transfer during conference call windows as compared to earnings announcement windows.

We believe that this study provides inferences of interest to a wide audience. The results contribute both to the prolific stream of literature on accounting-related information transfers and to the growing body of research on the capital market effects of corporate conference calls. To the best of our knowledge, this is the first study on the intraday dynamics of intra-industry information transfer in the context of quarterly earnings releases and associated conference calls. Our results suggest that examining information transfers over windows lasting a day or more masks the distinct effects of the information released in the earnings announcement and conference call. We are also among the first analyze the multiple mechanisms facilitating these transfers.

The rest of the paper is organized as follows: Section 2 discusses the literature on conference calls and information transfers and outlines our hypotheses. Section 3 describes sample selection, defines variables, and presents summary statistics. Section 4 outlines the research design and presents the results. Section 5 contains robustness and additional analyses, and section 6 concludes.

2 Literature Review and Hypotheses

2.1 Conference Calls

Conference calls have become a ubiquitous venue for corporate disclosure. A firm frequently holds an earnings conference call within a day of issuing an earnings announcement. Such calls typically last less than an hour and include a presentation prepared by the firm's management followed by a question and answer session with invited financial market participants. The conference call literature, albeit small compared to the abundant body of earnings announcement research, yields interesting insights into the use

of and reaction to conference calls.[4] A conference call may provide information about a firm incremental to that disclosed in its earnings release for several reasons. The presentation section of a conference call, significantly lengthier than the contemporaneous terse earnings announcement, contains greater amounts of both quantitative and qualitative disclosure from several key executives (almost always the firm's CEO and CFO, but frequently other key personnel). In addition, the conference call contains nonscripted disclosure driven by the questions of financial market participants such as sell-side analysts.[5] Conference calls may also offer "soft" information, such as the firm's choice and order of speakers, the tone and vocal cues of management, and the presence and attitudes of other participants. Lastly, conference calls reiterate information included in the associated earnings announcements, potentially bringing it to the attention of inattentive participants.

Prior studies find evidence consistent with the notion that conference calls are incrementally informative over the contemporaneous earnings announcements (e.g. Frankel et al. 1999, Bushee et al. 2003, Matsumoto et al. 2011). When examining the capital market reaction to conference calls or to specific call characteristics, most papers utilize metrics based on a full day of trading (Doran et al. 2012, Price et al. 2015). A few studies, including Frankel et al. (1999), Bushee et al. (2003, 2004), Lansford et al. (2009), and Hollander et al. (2010) deviate from this practice and rely on intraday metrics to study the information content of conference calls. Importantly, Matsumoto et al. (2011) argue that equity investors see both the management discussion and the Q&A sections as informative. Others, such as Bowen et al. (2002), Lansford et al. (2009), and Mayew et al. (2013), show that information released in conference calls affects analysts, as evidenced by an increase in their forecasts' timeliness and accuracy, a decrease in their

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[4] Firms are not required to hold conference calls and some choose not to do so (including, famously, Berkshire Hathaway, and many financial institutions). The number of conference-holding firms have grown from less than half of all analyst covered firms in the early years of our sample to more than two-thirds in the later ones. Prior literature has explored the initiation of conference calls in the 1990s and early 2000s, when it was a more discretionary disclosure choice, and found size, analyst coverage, institutional investor ownership, and market to book ratios among the significant determinants (Frankel et al. 1999, Bowen et al. 2002). We include these variables as controls in regression analyses, along with industry and time fixed effects.

[5] Call et al. (2017) find a mean of 6.85 non-corporate participants in their conference call sample from 2007 to 2016, of which 6.17 are sell-side analysts and 0.25 buy-side analysts. Using data from 2002 to 2009, Jung et al. (2017) find a very similar distribution, with 7.52 analysts on average, and 0.30 buy-side analysts.

dispersion, and greater issuance of forecast revisions. Overall, this literature confirms that conference calls are informative to various market participants via both hard information, such as forward-looking earnings guidance and clarification of reported numbers (Lansford et al. 2009, Bischof et al. 2013), and soft information, such as the tone and linguistic complexity of managerial discourse (Brochet et al. 2016, Davis et al. 2012, Doran et al. 2012).

2.2 Information transfer

The earnings-related information transfer literature goes back at least four decades, to Firth (1976) and Foster (1981). The basic premise of this research is that news disclosed by one firm is informative to the investors of related firms. The literature builds on the idea that firms are often subject to common economic factors, and that industry peers share both business threats and opportunities. Therefore, when investors observe how economic events and conditions affect one firm, they can extrapolate their effect on industry peers. The extent of information transfer is most frequently measured by the degree of co-movement in stock returns, as the information influencing the price of one firm is expected to affect the price of related firms. This literature finds strong evidence that the stock price of industry peers responds both to the incidence of an earnings announcement (Han and Wild 1997) and to the specific information contained therein (Ramnath 2002, Thomas and Zhang 2008). Notably, since most of the papers on earnings news-related transfers predate Reg FD and the rapid change in disclosure practice that ensued, the literature does not speak to the fact that in the 21st century other informational events, conference calls being the most significant of these, frequently occur simultaneously.

Schipper (1990) observes that while the extant research focuses on documenting the existence and magnitude of information transfers, it does not explain how the transfers actually occur. Hilary and Shen (2013) focus on one potential channel of information transfer and explore the role of sell-side financial analysts in facilitating earnings-announcement-related information transfer. Drake et al. (2016) investigate attention co-movement, which is the degree to which investor's attention to a firm is associated with the

attention to its peers. They document presence of attention co-movement using several week-long measures and find that it helps predict subsequent excess stock return co-movement.

To our knowledge, extant research is silent on the connection between these two literatures, leaving an important gap in our understanding of the interplay between conference calls and information transfer. With this study, we take a step toward filling this void as well as addressing the noted dearth of research on the potential mechanisms facilitating information transfers.

2.3 Hypotheses

2.3.1 Information transfer: Conference calls vs. earnings announcements

Little empirical evidence exists on the content of conference calls beyond the observation that they increase the amount of information available about initiating firms, as opposed to simply reiterating earnings announcements or replacing other mechanisms for disclosure (Bowen et al. 2002). A notable exception is Huang et al. (2017), who use textual analysis to extract thematic content from a large sample of conference calls and related analyst reports. While they do not tabulate the full extent of frequent conference call discussions, Figure 1 and Table 1 of their study report key topics for four industries, which include a multitude of economic and operational matters likely to be of significant interest to peer firms, as well as a strong focus on growth and outlook. Plethora of anecdotal evidence and practitioner guidance support the descriptive findings of Huang et al. (2017) and suggest that topics frequently covered in conference call discussions extend significantly beyond those addressed in earnings releases. National Investor Relations Institute's materials specify that "conference calls/webcasts are typically used as forums in which companies provide additional 'color' in order to expand on information contained in news releases issued prior to conference calls and to respond to call/webcast participants' questions."[6] Practitioner IR and legal guidance suggests that it is crucial for the conference call participants to "be aware of the hot-button

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[6] NIRI "Standards of Practice for Investor Relations: Disclosure" (updated 2016) available at www.niri.org

issues both for your company and for your industry sector(s)"[7] and that conference calls in general contain such significant information:

> In typical earnings calls, companies often take questions and answer, not only questions about past performance but also inquiries about expected performance, business plans and strategies. These questions often can lead to discussions about competitive strategies, including plans for pricing, output and dealing with the competitive environment. *(New York Law Journal 2010)*

Building on the available anecdotal and practitioner evidence, we conjecture that conference calls are conducive of transferable information. In addition, conference call participants have the opportunity to ask questions to management. To the extent that analysts specialize by industry and induce information transfers (Hilary and Shen 2013), we expect them to specifically address industry dynamics or details pertaining to notable rivals or peers.[8] This suggests that the information transfer associated with conference calls may be stronger than that associated with the preceding earnings announcements.

However, certain institutional features provide considerable tension. For example, if hard information, such as earnings and guidance surprises, is the most easily transferable, then an earnings announcement may capture the bulk of information transfer. Furthermore, search and processing costs likely diminish peers' equity holders' capacity to internalize the soft information embedded in conference calls, especially during a short window. The above could attenuate, or even reverse, the conjectured relation. Thus, stated in null form, our first hypothesis is:

H1:   Conference calls induce the same rate of intra-industry information transfer as the preceding earnings announcements.

2.3.2 Effect of analyst and institutional investor overlap and analyst expertise on the intensity of information transfer via conference calls

Our next goal is to examine the mechanisms facilitating information transfer. We present the hypothesis discussion in the context of information transfer from conference calls, but expect to observe similar dynamics for information transfer from earnings announcements.

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[7] http://westwickepartners.com/2013/01/best-practices-for-earnings-call-preparation/
[8] See Appendix C for excerpts from conference call transcripts illustrating discussions apparently containing transferrable information.

Sell-side analysts typically specialize in a limited number of industries, as sector-specific analyst rankings, such as the All-America Research Team, evidence. The choice of coverage likely reflects product-market characteristics and other pertinent attributes. Because of such analyst specialization, firms with high analyst coverage overlap are likely more economically related and should exhibit a greater degree of information transfer than firms that do not have high coverage overlap. Consistently with this idea, Hilary and Shen (2013) argue that analysts are better able to extrapolate the significance of a firm's managerial forecast for a peer firm when they cover both companies. In addition to signaling greater economic connections, analyst overlap may also provide a more direct link in the form of shared analysts alerting their clients to news contained within conference calls, subject to regulatory constraints.

Sell-side analysts likely differ in the degree of industry expertise they possess. We conjecture that coverage by analysts with greater industry expertise is associated with a greater degree of information transfer, as such analysts are both better able to process relevant transferable information and more likely to elicit extensive disclosure of transferable information during conference calls. However, identifying and measuring such differences in industry expertise is complex. Kadan et al. (2012) posit that industry knowledge can take two forms: within-industry expertise and across-industry expertise. Within-industry expertise affects an analyst's ability to rank firms in an industry, while across-industry expertise affects his or her ability to evaluate the overall performance and prospects of an industry. All sell-side analysts provide firm-specific forecasts, targets, and recommendations that are impacted by both types of industry expertise, as well as by firm-level expertise. However, only a subset of sell-side analyst reports include industry recommendations. Equating industry recommendations with industry expertise, we expect greater information transfer from the conference calls of firms covered by analysts who include industry recommendations in their reports than from conference calls of firms lacking such coverage.

In contrast to sell-side analysts, institutional investors do not necessarily target related firms. In fact, they may choose to add highly dissimilar firms to their portfolios, for diversification. However, despite such dissimilarity, they are likely at least to be aware of the information disclosed by nonannouncing firms in their portfolios on any given day. Cohen and Frazzini (2008) show that mutual fund managers holding

both supplier and customer firm stock are likely to trade on relevant information. Jung (2013) finds that overlap in institutional investor ownership is associated with a change in disclosure practices. Thus, we expect that an institutional investor who has significant positions in any two firms is more likely to listen to the conference calls of both of these firms and to recognize news that may be transferrable.

The last channel of information transfer that we explore is the financial press. Bushee et al. (2010) find that business press impacts a firm's information environment incrementally to the effect of other intermediaries, such as financial analysts and institutional investors. Thus, the press also likely plays an incremental role in the information transfer between firms. When a single news item includes references to two or more firms, it both creates or enhances the perceived connections between these firms and directly aids the transfer of relevant information. Additionally, firms which are featured in the same article are likely to be more economically related overall or subject to more shared business events.

Overall, we anticipate that information transfer from conference calls increases with number of shared analysts, the presence of industry experts, the degree of shared institutional investor ownership, and joint financial press coverage. Stated in alternative form, the hypotheses are:

H2a: Intra-industry information transfer rate increases in sell-side analyst coverage overlap.

H2b: Intra-industry information transfer rate increases in sell-side analyst industry expertise.

H2c: Intra-industry information transfer rate increases in institutional ownership overlap.

H2d: Intra-industry information transfer rate increases in joint financial press coverage.

It should be noted that other unobservable mechanisms could have a significant effect on intra-industry transfers. For instance, Heinrichs et al. (2015), using proprietary data to examine the characteristics of conference call listeners, find that the primary consumers of conference calls are institutional investors who do *not* hold a position in the firm. Furthermore, a significant number of sell-side analysts on conference calls do not cover the announcing firm (Mayew 2008; Jung et al. 2015). This supports the notion that calls likely induce information transfers, as investors and analysts process their implications for other stocks. However, our partitions on investor and analyst overlap do not capture this mechanism.

2.3.3 Effect of reporting sequence on the intensity of information transfer via conference calls

The literature on earnings announcement information transfer considers either the effect of a firm's earnings release on all peers, regardless of the timing of their own disclosures (Foster 1981), or only the transfer from early to late announcers (Freeman and Tse 1995). To our knowledge, no study explicitly contrasts information transfer from early to late announcers with that from late to early ones, except Patton and Verardo (2012), who find a greater increase in beta for S&P 500 stocks around early announcers' news compared to late ones. Since conference calls provide rich detail regarding current and future conditions within an industry, we expect that information is transferred in both directions. In other words, investors not only apply the gleaned information to firms that have not yet disclosed their own financial results, but also reevaluate the already reported results of early announcers in light of the detailed information subsequently entering the market. We expect that forward-looking transfers will be greater than backward-looking transfers, as the value of transferable information is inherently higher when uncertainty about a firm's performance is high (as it has not yet reported its own earnings); however, the degree of the difference is an open empirical question. Stated in null form, the related hypothesis is:

H3:   Intra-industry information transfer rate does not vary with the sequencing of conference call and peer firms' earnings announcements during a quarter.

3 Sample and Variables

3.1 Sample

We obtain earnings-related conference call transcripts of U.S. firms between 2002 and 2010 from Thomson StreetEvents. To examine intraday information transfer, we limit our sample to the 51 percent of calls that took place during trading hours.[9] We further exclude calls that started before 10:00 a.m. ET to

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[9] Just like the choice to hold conference calls, the choice of timing appears to be a matter of firm-specific policy and not subject to strategic manipulation. The proportion of firms holding calls during trading hours did not change materially over the sample period (declining slightly from about 55 to 45 percent). Most firms hold their calls consistently during or outside of trading hours, with the remainder generally making one switch in policy over the sample period (consistent with stickiness reported in Matsumoto et al. 2011). Descriptively, the firms holding calls during trading hours are on average larger and have lower market-to-book value of equity. We include these variables as controls in the regression analyses. More so, the practitioner investor relations literature does not suggest that either approach offers incremental benefits (overall or for any subset of firms). Thus, the choice of timing appears to be

allow for trading activity to incorporate the overnight news, and those calls that started after 2:30 p.m. ET, to exclude those running close to or through the close of the trading day. We limit our sample to firm quarters that can be matched to I/B/E/S with an earnings announcement date within five days of a call. Of the remaining conference calls, nearly 90 percent pertain to an earnings announcement released outside of trading hours either the night before or the morning of the conference call day.[10] For consistency, we limit our sample to these observations, thus effectively excluding calls pertaining to earnings announcements released during trading hours on the same day as a call, during trading hours on the prior day, or earlier. We match the conference call observations to non-missing financial, analyst, trading, and intraday data from Compustat, I/B/E/S, Center for Research on Stock Prices (CRSP), and the NYSE Trade and Quote (TAQ) database, respectively, and exclude firms we identify as not having peers (discussed below).[11] Finally, to ensure that our results are not attributable to characteristics of penny stocks or very thinly traded stocks, we require a stock price of at least \$1 and a minimum of five trades in both the earnings announcement window and conference call window. Our final sample contains 23,728 conference calls representing 1,739 distinct firms. Panel A of Appendix B provides details on sample selection. The observations are fairly evenly distributed over time, showing a gradual and monotonic increase from 1,601 calls in 2003 to 3,700 calls in 2010 (2002 has only 716 calls, due to incomplete StreetEvents coverage in that year).

Prior studies take a number of approaches to identify peers. The most common methods are based on the primary business activity codification systems, including Standard Industrial Classification (SIC) codes, Fama and French's (1997) 48 industry groups, the North American Industry Classification System (NAICS), and the GICS. Classifying firms into product-market groupings is complex because industry definitions change, classification coding applications vary (Guenther and Rosman 1994), and multiproduct

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primarily a historical artifact and given the similarity of the two groups, we do not believe that our exclusion of calls held outside of trading hours biases our results.

[10] We confirm I/B/E/S earnings announcement timestamps with Dow Jones newswire timestamps (available from RavenPack) and find I/B/E/S timestamps outside of trading hours to be highly reliable.

[11] TAQ contains all intraday transactions data for securities listed on the NYSE, AMEX, and NASDAQ. We imposed the standard TAQ data requirements of having PRICE>0, SIZE>0, CORR<2, and COND not equal to A/C/D/N/O/R/Z.

firms are common. Other methodologies to classify firms, or to measure the degree of firm relatedness, rely on professionals' judgment as evidenced in 10-K filings (Li et al. 2013), overlapping analyst coverage (Kaustia and Rantala 2013), or explicit disclosure of competitors in analyst reports (De Franco et al. 2015). We apply a fairly stringent set of criteria by requiring both an industry grouping match and overlapping analyst coverage to identify peer firms. We do so as the degree of likely information transfer depends not only on shared product groupings, but also on other similarities reflected in analyst coverage choices, such as business model and locality. Thus, we classify as peers all firms that belong to the same four-digit GICS group and have an overlap of at least one analyst with a conference call-holding firm in a quarter of interest.[12]

Although earnings announcements are frequently temporally clustered in a specific industry, our focus on intraday analysis avoids many comingling concerns. Furthermore, we apply several filters in constructing the peer sample. In particular, we exclude peer firms announcing earnings within a day of a conference call of interest (days -1 through +1).[13, 14] We also require the peers to have I/B/E/S actual and forecast data for the two earnings announcements closest to the conference call of interest and firm, trading, and intraday data from Compustat, CRSP, and TAQ, respectively. As for the conference-call-holding firms, we impose a minimum stock price of $1 and a minimum of five trades in windows of interest. Our final sample comprises 466,526 firm-quarter peer observations, and the mean (median) number of peers identified for a conference call is 20 (17), with a full range spanning 1 to 86 peers. Panel B of Appendix B provides details on peer sample selection.

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[12] We rely on the GICS classification as it has been shown to be a better technique for identifying peers (Bhojraj et al. 2003). In robustness section 5.5 we discuss the alternative specification of requiring only common GICS grouping but not analyst overlap.

[13] As an example, if a conference call was held during trading hours on Wednesday, July 27, we excluded all peers releasing earnings announcements between 4 p.m. on Monday, July 25, and 4 p.m. on Thursday, July 28.

[14] Even if the peer firm does not have an earnings announcement, it is possible that they disclose or experience significant news which induce capital market reaction. For robustness, we examine whether the observed relations are sensitive to the presence of financial press news (from RavenPack) for peer firms during the 24 hour event window. We find that, while the signed and absolute returns of the peer firm itself are responsive to the presence of news, the coefficient of co-movement during the conference call window is not (not tabulated).

3.2 Variables

We obtain intraday trade data from the NYSE TAQ database to calculate market reaction. A large number of theoretical and empirical studies point to signed returns as measures of information content (Ball and Brown 1968, Holthausen and Verrecchia 1988). In examining stock price co-movements, prior studies mostly focus on positive information transfers in which good (bad) news from a disclosing firm causes, on average, a positive (negative) stock price reaction in a non-disclosing firm. It is likely that firm pairs subject to strong industry commonalities experience positive information transfers. However, it is also possible that firm pairs in industries with a high degree of market share competition experience negative information transfer whereby good (bad) news from a disclosing firm causes on average a negative (positive) stock price reaction in a non-disclosing firm. Thus, examining information transfer as evidenced by signed stock price returns may not yield results on a pooled sample of firms subject to both positive and negative information transfers. For this reason, we also examine absolute returns as a non-directional measure of capital market movements.[15]

We measure the signed and absolute returns as a percentage change from the first trade to the last trade during an event window. We consider two event windows to disentangle peer reaction to the information content of an earnings announcement and associated conference call. For the earnings announcement, we calculate the returns from the closing price on the business day before the event date to the price at 10:00 a.m. ET on the event date. Thus, the return metrics incorporate the information transfer during the after-hours trading and in the 30 minutes after the opening of the exchange of interest. Such window choice is consistent with evidence that earnings news are processed within minutes of release (Patell and Wolfson 1984).[16] We calculate the returns for the conference call window over the 60 minutes beginning with the start of the call. We select this approach since most calls last between 30 and 50 minutes, as per Matsumoto et al. (2011) and confirmed in our sample.[17] We assume that in the absence of firm-

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[15] We examine three additional metrics of non-directional information flows in the robustness section 5.2: trading volume, stock price volatility and price range. The results are consistent with those reported for the absolute returns.
[16] See section 5.1 for a discussion on overnight windows and robustness analyses.
[17] Mean (median) total duration is estimated to be 41 (40) minutes with 5th (95th) percentile of 23 (63) minutes.

specific news, the returns of both conference-call-holding firms and peer firms are on average zero over the intraday periods in question. To allow for the effect of macroeconomic shocks, we normalize the signed returns by subtracting the return on the S&P500 ETF (SPY) over the pertinent windows and calculating the absolute returns after this normalization.[18] The other variables deployed in the analysis are defined in the appropriate results sections. To mitigate the potential effect of outliers, we winsorize the top and bottom 1 percent of the continuous variables.

3.3 Descriptive statistics

Table 1 presents the descriptive statistics for the conference-call-holding firms and their peers. As earning announcements incorporate both good and bad news, it is not surprising that the signed returns over both the earnings announcement and the conference call window for both groups are close to zero. For the conference call firms, the mean (median) absolute return during the first hour after the start of a call is statistically and economically significant 1.3 (0.8) percent, which is about a third of the earnings announcement absolute return of 3.8 (2.4) percent calculated as the overnight return plus the return during the first 30 minutes of the trading day.[19] This confirms the findings in prior research that a conference call is a significant information event for the firm holding the call itself, although the capital market reaction is smaller than that induced by the firm's preceding earnings release. Turning to the other variables, we note that the conference-call-holding firms and their peers are similar in size and book-to-market value of equity. The mean (median) of sell-side analyst coverage overlap for a firm-peer pair is 2 (1), while the overlap in institutional ownership is roughly 40 percent. The average correlation of signed (absolute) daily returns of firm-peer pairs during a nonevent period preceding the earnings announcement is 45 percent (25 percent).

Table 2 reports the Pearson (Spearman) correlations among the variables below (above) the diagonal. We note that for conference call firms, the correlation between absolute earnings announcement and conference call returns is significantly positive; however, the correlation between the respective signed

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[18] Focusing on market-adjusted returns is consistent with prior research (e.g., Thomas and Zhang 2008).
[19] This is consistent with the result in Matsumoto et al. (2011) on their somewhat smaller sample.

returns is negative. The correlations between signed returns during the earnings announcement window of an announcing firm and its peers is very close to the correlation during the conference call window. The absolute returns exhibit a slightly higher correlation during the conference call window than during the earnings announcement window: Pearson (Spearman) correlations of 0.151 vs. 0.117 (0.142 vs. 0.114).[20]

4 Findings

4.1 Comparison of information transfer associated with conference calls and earnings announcements

We examine the relative extent of information transfer from earnings announcements and conference calls using SUR, estimating the following models:

$$INFO\_Peer_{ea,pi,t} = \alpha + \beta_1 INFO\_Firm_{ea,i,t} + \sum P\&F\ controls + \varepsilon_{ea,pi,t} \tag{1a}$$

$$INFO\_Peer_{cc,pi,t} = \alpha + \beta_1 INFO\_Firm_{cc,i,t} + \sum P\&F\ controls + \varepsilon_{cc,pi,t} \tag{1b}$$

where $INFO\_Peer_{ea,pi,t}$ ($INFO\_Firm_{ea,i,t}$) represents either the signed or absolute return for the earnings announcement window for a peer (conference call) firm, respectively, and $INFO\_Peer_{cc,pi,t}$ ($INFO\_Firm_{cc,i,t}$) is defined similarly over the conference call window. The coefficient β_1 in the first (second) model captures the degree of co-movement driven by the news contained in the earnings announcement (conference call) of the announcing firm. As controls, we include size and the book-to-market value of equity ratios of the conference call and peer firms, as well as the analyst following and the percentage of institutional ownership of the announcing firm. To account for cross-sectional variability in co-movement patterns, we include a pairwise Pearson correlation of firm and peer absolute or signed returns in the nonevent period from -70 through -11 days before the conference call date.[21] Finally, we include calendar year-quarter and industry fixed effects, to account for industry and time characteristics not

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[20] Interestingly, the alternative non-directional measures discussed in the robustness analysis in section 5.2 (volume, volatility, and range) exhibit an even higher difference. For example, the Spearman correlation between abnormal volatility for the announcing and peer firm is 0.061 on the earnings announcement window and 0.111on the conference call window (untabulated).
[21] We exclude days on which the peer had an earnings announcement from the nonevent period and require a minimum of 36 days of trading data.

modeled explicitly, and allow the standard errors to cluster by conference call.[22]

Panel A of Table 3 presents the results from the SUR analysis for absolute and signed normalized returns. We note that the coefficient of interest, β_1, is significantly positive across specifications, supporting the existence of information transfer both during the earnings announcement and conference call windows. The magnitude of the estimated coefficients is higher in the conference call window. Focusing on the absolute returns analysis, β_1 is three times larger in the conference calls specification than in the earnings announcements one (0.0364 vs. 0.0109). While the difference is smaller in the signed returns specifications, it remains economically significant: 0.0567 vs. 0.0306. Note that SUR allows for testing joint hypotheses involving parameters in different equations because it estimates the full variance covariance matrix and not just the variance matrix of each equation (Wooldridge 2002). A chi-square test of equivalence confirms the statistical difference of the estimated coefficients for both absolute and signed returns specifications. Thus, we reject the null of H1.

We recognize that return momentum and delayed reaction to earnings announcement news could affect the market metrics observed during conference call windows. For instance, Matsumoto et al. (2011) find a positive correlation between absolute returns around earnings announcements and conference call presentations for announcing firms. Likewise, the implications of the released earnings announcement for a peer firm may be processed gradually, rather than instantaneously. If that were the case, the peer's capital market activity during a conference call window should be associated with the information released in the earnings announcement, as measured by the conference-call-holding firm's capital market measures in the earnings announcement window. Another possibility is that during a conference call window, peer firms are, in fact, reacting to other news that has been revealed to the market. To capture this effect, we consider whether the conference call window trading is associated with the trading during the preceding earnings

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[22] We draw similar inferences when the standard errors are clustered by calendar date to allow for potential correlation across firms in various industries due to macroeconomic shocks. Also, in an untabulated analysis, we estimate the models separately by calendar year to examine whether changes in trading behavior and information channels impact information transfer. We observe that our findings do not exhibit strong temporal variations. We also note that the inferences are not affected when the absolute return analyses are conducted using a Tobit, rather than an OLS, estimator.

announcement window. The generic model is:

$$INFO\_Peer_{cc,pi,t} = \alpha + \beta_1 INFO\_Firm_{cc,i,t} + \beta_2 INFO\_Firm_{ea,i,t} + \qquad (2)$$
$$+\beta_3 INFO\_Peer_{ea,pi,t} + \sum P\&F\ controls + \varepsilon_{cc,pi,t}$$

where the variables are as defined previously. The coefficient β_1 captures the extent to which the information disclosed during the conference call of an announcing firm is related to the trading activity for the respective peer after controlling for the delayed reaction to the information disclosed in the earnings announcements of the conference call firm (β_2) and the momentum from the peer stock movements in the earlier window (β_3). The results are reported in Panel B of Table 3. For both metrics, the coefficient of interest, β_1, is positive and statistically significant, supporting the existence of information-driven co-movement during the conference call window. The measure of delayed reaction to the earnings announcement information of the conference call firms, β_2, is positive but of much smaller magnitude and statistical significance. The measure of momentum trading, β_3, is large and positive (small and negative) for the absolute (signed) returns, consistent with an intraday reversal effect observed in the finance literature (Heston et al. 2010). Notably, the two effects do not subsume the statistical significance of the conference-call-related information transfer captured by β_1.

Overall, our evidence not only supports the existence of information transfer related to earnings conference calls, but also suggests that the effect is economically and statistically larger than that of the associated earnings announcement. These results complement extant research examining earnings announcement–related information transfer at the daily level, documenting that the effect derives in large part from the more expansive and detail-rich conference calls.

4.2 Mechanisms of information transfer

To examine the effect of shared coverage by sell-side analysts formalized in H2a, we estimate Model (2) separately for subsamples with low and high degrees of analyst overlap (we elect reporting the results of Model 2 for brevity and our inference are unchanged when using SUR). We group the conference call firm-peer pairs into high (low) analyst overlap subsamples, conditioning on whether the number of

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shared analysts in a given quarter is more than one (only one).[23] We present the results in Panel A of Table 4. We estimate the model using OLS and cluster the standard errors by conference call.[24] The estimated coefficient β_1 (first row) which captures the conference-call-driven information transfer, is larger for the high-overlap group for both signed and absolute normalized returns. Specifically, the coefficients for the absolute returns regression (columns I and II) are 0.0454 vs. 0.0244, and for the signed returns regression (columns VI and VII), they are 0.0796 vs. 0.0413. A chi-square test of equivalence confirms that the estimated β_1 coefficients are statistically different in the two subsamples, consistently with H2a. The coefficients for delayed reaction and momentum/reversal trading (β_2 and β_3) are similar to those reported for the aggregate sample and do not subsume the statistical significance of the conference-call-related information transfer captured by β_1 for any subsample.

Asserting causality in the observed positive association between analyst overlap and information transfer is challenging because analyst coverage decisions are endogenous. As an additional analysis, we capitalize on an exogenous shock to analyst coverage: reduction driven by brokerage house closings or mergers (Kelly and Ljungqvist 2012). We are able to identify a sample of 450 firm-pairs with all the necessary data for the analysis of one reporting period before and one after the institutional change. In untabulated results, we observe that for these firm-pairs the information transfer in the conference call window, as captured by β_1, is cut roughly in half (the coefficient in the earnings announcements window is reduced in the absolute but not in the signed returns specification). We are cautious about these results in light of the small sample size for this analysis; however, we note that they also support the information transfer channel role of financial analysts.

Next, we examine the effect of the sell-side analysts' level of industry expertise formalized by H2b. We estimate Model (2) separately for the subsample of firms covered by at least one analyst whose report

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[23] We choose this definition since the majority of pairs share one sell-side analyst. This cut-off yields subsamples of 43 percent (56 percent) for the high (low) analyst overlap groups.
[24] We include the same control variables as in SUR specification. In untabulated analysis, we confirm that they are strong predictors of the extent of overlap itself.

includes an industry recommendation in the 120 days around a conference call date.[25] The absolute returns

regression results, presented in column III, Panel A, Table 4, are contrasted with the results from the

subsample of firms not covered by analysts offering industry recommendations (column IV). The estimated

β_1 is 0.0410 for firms covered by these industry experts versus 0.0290 for firms that are not, and the

difference is statistically significant. Using signed returns (columns VIII and IX), we observe an

economically and statistically significant difference of 0.0833 vs. 0.0440 for firms with and without

coverage by an industry expert, respectively. These results are consistent with H2b. As before, the

coefficients on the earnings announcement window metrics do not subsume the effect captured by β_1.

Finally, we consider whether the effect of analyst overlap and analyst industry expertise is additive

and estimate Model (2) for the subsample of firm pairs in which both the conference call firm and its peer

are covered by at least one shared sell-side analyst whose reports also included industry recommendations

in the 120 days around the conference call date. This subsample represents less than 10 percent of the

overall firm pairs in our main analysis. We report the results for absolute and signed returns in columns V

and X, respectively, of Panel A, Table 4. The estimated β_1 coefficients are the highest among the examined

specifications: 0.0589 and 0.1142. We interpret this finding as evidence that the two sell-side analyst effects

act as complements.

To formally test H2c, on the effect of overlap in institutional investor ownership, we estimate

Model (2) separately for the sample partitions with low and high investor overlap. We group the firm-peer

pairs into high (low) investor overlap subsamples on the basis of the calendar-quarter median of the

percentage of outstanding shares in the peer firm held by institutional investors also holding shares in the

conference call firm. We present the results in Panel B of Table 4. We observe that for both the absolute

and signed returns specification, β_1, which captures the conference-call-driven information transfer, is

significantly larger in the high overlap than in the low overlap subsample, consistently with H2c. Again,

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[25] See Kadan et al. (2012) for details on brokerage houses providing industry recommendations and other data notes.

we note that the coefficients on the earnings announcement window metrics of both the announcing and peer firms do not subsume the conference call window coefficient.

To examine the effect of joint financial press coverage formalized in H2d, we estimate Model (2) separately for firm pairs which were mentioned in a single financial press item at any point from two months prior through the event day. The financial press data are obtained from RavenPack and include *Wall Street Journal* articles and Dow Jones News Archives. Approximately a quarter of all firm-pairs are thus identified as having joint financial press coverage and the mean (median) number of joint articles for these firm pairs over the two month window is 11 (2).[26] We report the regression results in Panel C of Table 4. The coefficient of interest, β_1, is statistically and economically larger for firm-pairs with joint financial press coverage for both the signed and absolute normalized returns specifications, consistent with H2d. The difference between the two subsamples is considerably (slightly) less pronounced as compared to the analyst coverage (institutional ownership) overlap partitions.

As additional analysis (untabulated), we examine whether the overlap effects are incremental. We first examine analyst coverage and institutional ownership. In particular, we assign all firm pairs into one of four groups: high analyst–high institution (1), high analyst-low institution (2), low analyst–high institution (3), and low analyst–low institution (4), where the overlaps are defined as above. We examine the information transfer during conference calls separately for the four groups and observe a complementarity in the overlap effects. Specifically, the β_1 coefficients in the absolute returns specification are 0.0544, 0.0339, 0.0307, and 0.0202 for groups 1, 2, 3, and 4, respectively. Similarly, the coefficients for the signed returns are 0.0974, 0.0589, 0.0555, and 0.0319 for groups 1, 2, 3, and 4, respectively. We

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[26] We require the relevance score for both conference call holding firm and peer firm to be 20. This is significantly lower than the 90 score that is frequently required in analysis of significant news items. We chose this lower cut-off in order to include a wider range of material since our interest is any joint occurrence of firm references rather than identification of highly targeted firm news. For example, an article about a manufacturing firm which mentions a supplier in one paragraph will likely assign a score of >90 to the former and a score significantly <90 to the latter but is highly relevant for our analysis. One effect of this lower requirement is an uncommonly large inclusion of "Tabular Materials" which comprise 80 percent of the 1.6 million sample of joint news items. As noted above, since our focus is on any joint occurrence we include these items. See RavenPack manual for more detail on relevance scores and news types.

conduct similar analyses for analyst coverage and joint media mentions, and institutional investor overlap and joint media coverage.[27] Similar to the analyst coverage - institutional ownership case, the β_1 coefficients in both the absolute and signed returns specification exhibit a monotonic decrease in the intensity of the individual mechanisms. We interpret these findings as evidence that the effect of the examined mechanisms is incremental.

Lastly, we carry out all the analyses of this section in the SUR specification and observe that the mechanisms facilitating information transfer are also evident in the earnings announcement window.

4.3 Effect of reporting sequence on the information transfer from conference calls

To examine H3, on the effect of reporting sequence on information transfer, we estimate Models (1a) and (1b) separately for firm pairs labeled "peer leads" and "peer lags," where the partition is based on whether the peer reported an earnings announcement between 16 and 2 days prior or between 2 and 16 days subsequent to the conference call.[28] [29] Each of the two subsamples comprises 35 percent of the firm pairs in our full sample.

The first (last) four columns of Table 5 present the results of the SUR estimation using absolute (signed) returns as a dependent variable for the peer leads and peer lags groups. The coefficient of interest, β_1, is higher for the peer lags group for both windows and both specifications, suggesting more overall information transfer to peers that have not yet reported their own quarterly results but are slated to do so within several days or weeks (all differences in coefficients statistically significant at 1 percent). Notably, β_1 is large in both magnitude and statistical significance over the two windows, even for firms in the peer leads group. In other words, both the earnings announcement and associated conference call contain information transferrable to peers that have recently released their own quarterly performance results. The

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[27] Groups 1, 2, 3, and 4 respectively represent high analyst – joint mention, high analyst – no joint mention, low analyst – joint mention, and low analyst – no joint mention; and, high institution – joint mention, high institution – no joint mention, low institution – joint mention, low institution – no joint mention.
[28] Here and in section 5 below we again focus directly on the relative information transfer associated with conference calls and earnings announcements, and thus report the relevant results based on the SUR estimator.
[29] Recall that we exclude peers reporting within one day of conference calls.

magnitude of the difference is relatively small, with forward transfers being, on average, less than 50 percent higher than their respective backward transfers. This finding supports the notion that investors continuously revise their expectations. Circling back to H1, we also note that conference calls are more informative than earnings announcements in each of the four specifications.[30]

5 Robustness and Additional Analyses

5.1 Intraday earnings announcement firms

The focus on firms that release earnings announcements overnight and hold conference calls during the subsequent trading day gives us an opportunity to separate the two information windows for a large sample in a reliable manner. However, this sample selection design also presents some unique challenges. Mechanically, our earnings announcement information transfer window is different in length than our one-hour conference call transfer window, as it contains an overnight period plus the first 30 minutes of a trading day. As a robustness check, we consider only the 30-minute opening window to measure the earnings announcement returns. The inferences remain unaffected.

An additional conceptual challenge relates to the possibility that the wider overnight window is more likely to contain firm, industry, or macroeconomic information events significant to the reporting or peer firms (and the opening 30 minutes may reflect reactions to these events). While we are not able to address these concerns directly beyond normalizing our returns by subtracting out the market return, we mitigate them by conducting our main analysis on a sample of firms that both report earnings announcements and hold conference calls during trading hours on the same day (but more than one hour apart).[31] Imposing the same data requirements as in the main analyses results in a sample of 407 reporting firms and 7,417 peers.

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[30] In additional analysis, we examine whether the earliest reporters within an industry exhibit information transfer intensity differently from the other firms leading their peers. We find no consistent evidence that first reporters are significantly different from other peer lags firms.

[31] Because the earnings announcement timestamps are of particular importance in this analysis, we cross-reference the I/B/E/S timestamp with the Dow Jones newswire timestamp (available from RavenPack).

Table 6 presents the results of our main SUR analysis specification for absolute and signed normalized returns for this intraday sample. Earnings announcement (conference call) returns are calculated for the one hour starting with the timestamp of the announcement (start of the call). The coefficient of interest, β_1, is significantly positive across specifications, confirming the existence of information transfer in this sample. Notably, the relative magnitude of the estimated coefficients in the conference call window over the earnings announcement window is even greater in this setting characterized by comparable window lengths. While β_1 is three times larger for the absolute returns specification in our main analysis (0.0364 vs. 0.0109), it is six times larger in this sample (0.0848 vs. 0.0137). Similarly, β_1 is 85 percent larger for the signed returns specification in our main analysis (0.0567 vs. 0.0306), but 128 percent larger in the intraday sample (0.1117 vs. 0.0490). A chi-square test of equivalence confirms the statistical difference of the estimated coefficients. These results support the claim that neither the mechanics of overnight trading nor different window lengths likely drive our findings on the existence and relative rate of information transfer during conference call and earnings announcements windows.

5.2 Alternative measures of information signal

In addition to the absolute stock returns, we consider three alternative nondirectional measures of informativeness used in the literature: trading volume, stock price volatility, and price range (Karpoff 1986, Holthausen and Verrecchia 1990, Lee et al. 1994). Conceptually, these metrics capture aspects of market activity that may be different from those driving absolute stock return. Namely, while the absolute return can be interpreted as the amount of net information, the ability of the information signal to move the price, it may or may not be associated with large trading volume or a high degree of volatility among prices, depending both on the disagreement among market participants and the timing of the information releases within the window of interest. The range, in turn, is an extreme-value variance estimator that captures the same aspect of disagreement as volatility but gives disproportionate weight to the extreme positions. The variables are defined as follows:

VOLATILITY   = SDPRC / MEANPRC[32]
RANGE   = (HIGHPRC – LOWPRC) / LOWPRC
VOLUME   = Number of shares traded during the event window[33]

where

ENDPRICE   = The price of the last trade during the event window
STARTPRICE   = The price of the first trade during the event window
SDPRC   = The standard deviation of price during the event window
MEANPRC   = The mean price during the event window
HIGHPRC   = The highest stock price during the event window
LOWPRC   = The lowest stock price during the event window

The earnings announcement metrics are calculated for the 30-minute window starting with the opening of the stock exchange at 9:30 a.m. ET after the overnight earnings release. We do not consider the after-hours trading for these metrics as reliable data for the complete overnight period are lacking. Even in the absence of information events, the levels of these nondirectional metrics are likely to have nonzero means, and prior research suggests that there are day-of-the-week and intraday patterns of trading, which may cause these metrics to vary systematically (Jain and Joh 1988). For these reasons, we normalize the event window metrics by subtracting from each measure the respective average for the same window on the same trading day during the prior four weeks. In other words, the raw trading volume (volatility, range) during a conference call occurring on a Tuesday between 11:30 a.m. ET and 12:30 p.m. ET will be adjusted by subtracting the average of the trading volume (volatility, range) within the same one-hour window on the four prior Tuesdays (days -7, -14, -21, and -28) from the conference call date. For the peer firms, we exclude nonevent days with earnings announcement releases. Thus, abnormal volume, volatility, and range metrics represent unusual levels of trading for a given firm window: positive (negative) values imply greater (smaller) trading activity during conference calls or earnings announcement intraday windows than during comparable nonevent windows for a given firm. Untabulated descriptive statistics confirm that, as expected,

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[32] Following extant research (Bushee et al. 2003, 2004), we measure volatility as a coefficient of variation, a unit-free measure of variability obtained by scaling the standard deviation of prices (rather than of trade-to-trade returns) by the average price.

[33] Similarly to prior research (e.g., Frankel et al. 1999), we use the total number of shares traded rather than a metric of turnover, such as share volume scaled by the shares outstanding. Any impact of cross-sectional variation in float is minimized by the normalization of the volume against a nonevent window.

the means and medians of all metrics for the conference-call-holding firms are significantly different from zero on both the earnings announcement and the conference calls windows. The mean abnormal metrics for peer firms are generally small and positive, suggesting they experience a slightly elevated level of trading activity over the two windows.[34]

We present the results from Models (1a) and (1b) for the three nondirectional metrics in Table 7. Because the variables are normalized relative to nonevent period trading patterns, the β_1 coefficients represent the degree of commonality in trading activity above the baseline for a given day of the week and time of day. Our inferences on the relative information transfer for the earnings announcement and conference call windows extend to the abnormal volatility and range metrics. Specifically, the coefficients on the earnings announcement and conference call window information transfer are respectively 0.0293 and 0.0564 for abnormal volatility and 0.0256 and 0.0579 for abnormal range, and the differences are statistically significant. This evidence suggests that despite the potential conceptual differences in the constructs discussed above, they capture a similar aspect of trading activity in our setting. We also observe similar, although somewhat smaller, effect for abnormal volume. The β_1 coefficients are positive and statistically significant in both windows, and the conference call coefficient is 29 percent larger than the earnings announcement one. The coefficients are statistically different at the 0.05 level. The cross-sectional results based on analyst and institutional investor overlap are also generally unaffected when we use these alternative nondirectional metrics (untabulated).

5.3 Placebo tests

While our research design is geared toward isolating the information transfer associated with conference calls, endogeneity remains a concern. To this end, we deploy a falsification test, identifying a setting in which the examined covariance in measures of information signal should be muted. Specifically, we redefine our firm-peer groups, replacing each conference call firm with a firm holding a conference call

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[34] We note that the medians of some metrics are negative. A likely explanation for this is that while we exclude from the four nonevent days of each peer firm the dates on which it released its own earnings announcements, we are not able to fully eliminate the effect of all information events during this "control" period.

during the same day and time of the day, but belonging to a different industry. Further, we limit the peer group to firms with no overlap in sell-side analyst coverage. Thus, each conference call firm is matched over the same earnings announcement and conference call window to a set of "peers" that do not belong to the same industry, are not jointly covered by the same analyst, and are expected to be responding to the earnings announcement and conference call information of some other firm. Because our research design should capture information transfer induced by the conference calls, we expect the coefficients of interest to decline and converge to zero.[35]

Table 8 replicates the main information transfer analysis for the absolute and signed return metrics. We note that the values of β_1 are now either insignificant or much smaller in magnitude than those reported in Table 3. In particular, the coefficient for the absolute (signed) returns specification is reduced from 0.0109 to 0.0001 (from 0.0306 to 0.0024) on the earnings announcement window and from 0.0364 to 0.0130 (from 0.0567 to 0.0100) on the conference call window. These results support our interpretation of the documented results.

A second concern is a systematically higher covariance of information signal measures during any given hour within a trading day than during the window spanning overnight activity and the first 30 minutes of the trading day. To examine this possibility, we repeat our main analysis using pseudo-conference-call and -earnings-announcement windows. Specifically, for each set of a conference call firm and its peers, we obtain the return metrics for the respective conference call and earnings announcement windows 28 days prior to the actual event.[36] We exclude peers making their own earnings announcements within a day of the nonevent date. Replicating the analyses in Table 3 on these nonevent windows (untabulated), we observe that the covariance during the pseudo-conference-call window is not systematically higher than the

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[35] To the extent that our variables of interest retain some time-of-the-day effect or a macro component, the estimated coefficients will not equal zero.

[36] Namely, for a conference call held at 11 a.m. on Wednesday July 27, we define the pseudo-conference-call window as starting at 11 a.m. and ending at 12 p.m. on June 29 and the pseudo-earnings-announcement window as starting at 4 p.m. on June 28 and ending at 10 a.m. on June 29. All return variables are normalized by subtracting out the return of the S&P500 ETF over the same window.

covariance during the pseudo-earnings-announcement window. Namely, while the coefficient for the conference call window is 233 (85) percent higher than the earnings announcement window coefficient on the event date for absolute (signed) returns, it is 2 (28) percent higher (lower) on the nonevent windows.[37]

5.4 Drivers of information transfer

While we infer information transfers from correlations in market metrics, the results beg the question as to what underlying information disclosed during conference calls elicits those transfers. We extend our analysis by examining a set of reported information characteristics that may contribute to information transfer. Frost (1995) suggests that directly estimating and examining an information signal is a good alternative to using announcing firm's returns. As prior research documents significant information transfers from revenue, earnings, and management forecasts, we modify Model (1a) by replacing the conference call firm's absolute (signed) return metric with the absolute (signed) earnings forecast error measured relative to analyst expectations and managerial guidance, and the absolute (signed) revenue forecast error relative to analyst expectations.[38] The results are reported in Table 9. While we observe that analyst earnings forecast errors are significantly positively associated with peer returns in the absolute specifications for both windows, they are positive in the signed specification only over the earnings announcement window. In fact, the coefficient on the earnings surprise is negative and significant in the conference call window, suggesting a partial reversal of the earnings announcement transfer (the coefficient magnitude in the conference call window being about a third of that in the earnings announcement window). Managerial earnings forecast errors are positively associated with peer returns in both windows and both specifications, but are only statistically significant in the earnings announcement windows. Lastly, revenue forecast errors are, surprisingly, significantly negatively related to peer returns in both windows in the absolute specification and are positive for the signed returns only over the earnings announcement window.

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[37] It is worth noting that on nonevent days the means/medians of returns are significantly lower and the covariances are significantly higher than on event days for both conference call and earnings announcement windows. These results are in line with expectations, as only shared market and industry-wide information would be expected to move both conference call and peer firms' prices on nonevent days.

[38] To preserve sample comparability, we also deploy an indicator variable for firm quarters for which forecasts are not available.

It is important to note that the magnitude of the estimated coefficients for each of these signals and specifications is greater for the earnings announcement window than for the associated conference call window. This suggests that such informational signals contribute more to information transfer during earnings announcements, while non earnings/revenue signals likely drive information transfer during conference calls. We observe that one example of transferable information are peer mentions (untabulated). The presence of an explicit mention of a peer firm in a conference call is significantly associated with that peer firm's absolute stock return during the conference calls window.

5.5 Alternative identification of peer firms

We define peers by requiring both shared four-digit GICS industry code and overlapping analyst coverage. To allay the concern that introducing the latter requirement mechanically selects the peers where the information transfer is likely to be more pronounced in conference calls as compared to earnings announcements due to analysts' call participation, we also repeat our analysis for peer firms with only the shared GICS code requirement. For the same sample of conference-call holding firms we identify a set of peer firms which are in the same four-digit GICS code but do not share any analyst coverage. We impose all the same data availability and liquidity requirements as before and obtain a sample of 23,642 conference call holding firms and 1,899,571 peer firms. In untabulated analysis we replicate our main SUR results and continue to find greater intra-industry transfer around conference calls relative to earnings announcements for these firm pairs. Specifically, the coefficient of interest capturing the absolute (signed) stock return co-movement during the conference call window is 0.0180 (0.0249) as compared to 0.0022 (0.0116) during the earnings announcement window. The difference is statistically significant and the results are confirmed with single model estimation.

We note that the overall magnitudes of co-movement for both the earnings announcement and the conference call holding window are smaller for this alternative peer specification. This is not surprising since the removal of the shared analyst coverage requirement creates looser groupings. The mean (median) number of peers in this sample is 67 (62) as compared to the main sample's 20 (17). We repeat the analysis

by requiring peer firms to be in the same eight-digit GICS code but still lacking any analyst overlap. Thus defined peer groups have a mean (median) of 15 (8) firms. We observe that both earnings announcement and conference call window co-movement coefficients, while stronger than in the four-digit GICS sample, are still about fifty percent smaller than those reported for the main sample. Namely, the absolute (signed) return co-movement coefficients are 0.0188 (0.0287) during the conference call window and 0.0027 (0.0155) during the earnings announcement window. This suggests that analyst overlap is an important criteria to identify firms most likely to be subject to shared economic forces. Notably, we still observer that conference calls are associated with greater information transfer than earnings announcements, alleviating the concerns that our findings are driven solely by analyst activities.

5.6 Effect of competition and contagion on information transfer via conference calls

In our main analysis, we approach information transfers by either abstracting from the direction of the news or by assuming co-movement of positive signed returns, given the pooled positive correlations between the returns of conference-call-holding firms and their peers (Table 2). However, what is good (bad) news for an announcing firm need not be good (bad) news for all its peers. Prior research on information transfers documents both contagion effects (i.e., the stock prices of the announcing and peer firms move in the same direction) and competitive effects (i.e., the stock prices of the announcing and peer firms move in opposite directions), depending on context (Lang and Stulz, 1992, Akhikbe 2002). The competitive versus contagion effects of earnings conference calls may be more difficult to detect ex ante, as conference calls are more likely to contain mixed transferrable information. For example, while news of an increased market share will be adverse to a firm's rivals, simultaneous discussion of an overall loosening of government regulation or of a market-wide increase in customers' disposable income will lead to a positive transfer. To explore this issue, we identify contrasting subsamples by examining pairwise Pearson correlations in historical sales growth between announcing and peer firms. The "true peer" ("rival") subsample comprises firms in which the historical pairwise Pearson correlation of sales growth between the conference call and the control firm is greater (lower) than or equal to 0.25 (-0.25). We estimate Models (1a) and (1b) separately

32

for the two subsamples (untabulated for brevity). We observe that the measure of the information transfer during conference calls is statistically significant for both true peers and rivals in both the absolute and signed return specifications. The information transfer for true peers is more pronounced on both conference call and earnings announcement windows. Somewhat surprisingly, we find that β_1 is positive for signed returns on both windows, even among rival firms. This suggests that despite a competitive relationship, the majority of the transferrable information impacts the two firms in the same direction.

5.7 Presentation and Q&A components

We examine whether our findings differ between the presentation and the Q&A portion of a conference call. Matsumoto et al. (2011) find that both segments have incremental information content for the announcing firm; however the Q&A is the more informative, particularly for firms with greater analyst coverage. Because macroeconomic and industry-wide transferrable information is likely to be present in both sections, we do not have a directional prediction on the relative rate of information transfers. We estimate the length of the presentation and the Q&A portions on the basis of the number of words transcribed.[39] The mean and the median of both the presentation and Q&A sections are approximately 20 minutes. First, we note that using the estimated total duration of a call yields similar results as using the 60 minutes duration adopted for uniformity in the rest of the paper (untabulated). Replicating the results presented in Table 3, we observe that the coefficient of interest, β_1, is positive and significantly larger than the coefficient for the earnings announcement window for both the presentation and the Q&A portions. In the absolute returns specification, the coefficient of the presentation section is about 40 percent higher than the coefficient of the Q&A section, and in the signed returns specification the two coefficients are comparable.[40]

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[39] We estimate a simple model of predicting the duration based on the number of words separately for presentation and Q&A sections using a small sample of calls made in 2014. We limit the analysis in this section to 98 percent of conference calls with both presentation and Q&A sections estimated to last between 6 and 46 minutes. Our estimated average durations are comparable to those reported in Matsumoto et al. (2011).

[40] The similarity of findings for presentation and Q&A sections have been observed in other conference call literature, such as Larcker and Zakolyukina (2012).

6 Conclusion

Using intraday data, we examine the intra-industry information transfer related to conference calls. Specifically, we identify a large sample of firms that announced earnings after trading hours and held a conference call during the next business day, allowing us to decouple the two effects. We document a statistically and economically significant co-movement in absolute and signed returns between conference call firms and their non-announcing industry peers during conference call windows. Importantly, we find that the returns co-movement is much larger during a conference call window than during its associated earnings announcement window. Conjecturing that shared analyst base and institutional ownership are likely mechanisms facilitating this information transfer, we document that the effect is significantly larger when multiple sell-side analysts jointly cover the firms and when the same set of institutional investors owns a larger portion of the shares of an announcing firm and its peers. Additionally, we observe that coverage by an analyst with greater industry expertise increases information transfer, as does joint financial press coverage. The information transfer elicited by conference calls is material for both peer firms that are yet to announce and those that have already announced financial results for a period, and it is evident for both true peers and rivals, as identified using historical sales growth correlation. In additional analysis, we extend our results with similar findings for a small sample of firms that hold both earnings announcements and conference calls during trading hours and with analysis of alternative trading activity metrics: trading volume, stock price volatility, and stock price range.

Our results contribute to both the information transfer and conference calls streams of research. Specifically, we believe this is the first study exploring the intraday dynamics of intra-industry information transfer around quarterly earnings releases and associated conference calls. Our findings suggest that examining information transfers associated with earnings announcements over windows lasting a day or more overstates the effect of the information released in the announcement itself. Importantly, we also explore several potential mechanisms which facilitate these transfers. As such, our findings should be of interest to wide audience, including academics and practitioners, among others. Future research may explore in greater depth what underlying signals are being transferred during conference calls.

Appendix A: Variable Definitions

Capital Market Variables

EA Ret	=	The raw return is calculated as the stock price at 10 am after the overnight release of the earnings announcement divided by the prior business day closing stock price minus 1. It is normalized by subtracting out the return of the S&P500 ETF over the same window.
Abs EA Ret	=	The absolute of the raw return (calculated as the stock price at 10am after the overnight release of the earnings announcement divided by the prior business day closing stock price minus 1 less the return of the S&P500 ETF over the same window).
Abn EA Volume	=	The total number of shares traded between 9:30 am and 10:00 am after the overnight release of the earnings announcement minus the average of the total number of shares traded between 9:30 am and 10:00 am in four of the prior same weekdays.
Abn EA Volatility	=	The standard deviation of prices between 9:30 am and 10:00 am after the overnight release of the earnings announcement, scaled by the mean price in that window, minus the average of the standard deviation of prices between 9:30 am and 10:00 am, scaled by mean price, in four of the prior same weekdays.
Abn EA Range	=	The difference between the highest and the lowest stock price between 9:30 am and 10:00 am after the overnight release of the earnings announcement, scaled by the lowest price in that window, minus the average of the difference between the highest and the lowest stock price between 9:30 am and 10:00 am, scaled by the lowest price, in four of the prior same weekdays.
CC Ret	=	Same as EA Ret above but calculated for one hour from the start of the conference call.
Abs CC Ret	=	Same as Abs EA Ret above but calculated for one hour from the start of the conference call.
Abn CC Volume	=	Same as Abn EA Volume above, but calculated for one hour from the start of the conference call.
Abn CC Volatility	=	Same as Abn EA Volatility above, but calculated for one hour from the start of the conference call.
Abn CC Range	=	Same as Abn EA Range above, but calculated for one hour from the start of the conference call.

The addition of "Peer" to a variable name indicates that the variable is measured for the peer firm, as opposed to the conference call holding firm.

Mechanism and Control Variables

Ln(MVE)	=	Natural log of the market value of equity for the firm at the end of the fiscal quarter.
BM	=	Book to market value of equity for the firm at the end of the fiscal quarter.
# Analysts	=	The number of individual earnings forecasts for the quarter as reported by I/B/E/S.
% Inst Ownership	=	Percentage shares held by institutional investors.

Analysts' FE	=	The difference between the reported earnings per share and the latest median consensus forecast for the quarter as reported by I/B/E/S.
Abs Return Corr	=	The pairwise Pearson correlation of absolute daily returns between the conference call holding firm and peer in days -70 through -11 before the conference call date.
Return Corr	=	The pairwise Pearson correlation of daily returns between the conference call holding firm and peer in days -70 through -11 before the conference call date.
# Overlapping Analysts	=	The number of sell side analysts providing forecast for both the conference call firm and the respective peer.
Industry Expert	=	Indicates coverage by an analyst whose reports include an industry-level recommendation.
% Inst Overlap	=	The percentage of the peer's shares held by institutions, which also hold shares of the conference call firm.
Joint Media Coverage	=	The number of financial press article with explicit mentions of both conference call firm and the respective peer from -62 days before through the day of the conference call date.

Appendix B: Sample Construction

	Panel A: Conference Call Observations	Firm Quarters
1a	US, non-ADR, earnings related conference calls, 2002-2010	93,828
1b	Less observations **not** meeting the following timing requirements:	
1c	-- Conference call takes place during trading hours	(46,250)
1d	-- Conference call starts between 10am and 2:30pm	(2,928)
1e	-- Firm-quarter can be matched to I/B/E/S EA date within 5 days of the call	(4,668)
1f	-- EA was released between 4 pm on prior day and 9:30 am on conference call day	(5,121)
1g	Subtotal of calls held between 10 am and 2:30 pm with the preceding overnight EA	34,861
1h	Less firm-quarter observations **not** meeting the following data availability requirements:	
1i	-- I/B/E/S contains non-missing actual and forecast earnings data	(2,493)
1j	-- CRSP contains non-missing stock data for CC day and preceding trading day	(908)
1k	-- Compustat contains non-missing quarterly data and GICS group data	(182)
1l	Subtotal of conference call holding firm-quarters meeting data availability requirements	31,278
1m	-- Less firm-quarters with no valid peer firm-quarters (from line *2f*)	(6,312)
1n	-- Less firms missing TAQ data for EA and CC windows for the event date and at least one of the four control non-event dates (days -7,-14, -21, -28)	(658)
1o	-- Less firm-quarters with price <$1 or with <5 trades in EA or CC window	(534)
1p	-- Less firm-quarters missing other relevant data (firm, ownership, correlation, etc.)	(46)
1r	Final sample of conference call holding firm-quarters	23,728

	Panel B: Peer Observations	Firm Quarters
2a	Firm-quarters with at least 1 shared analyst with the subtotal sample (n=31,278 - line *1l*)	1,363,945
2b	Less firm-quarters **not** meeting the following requirements:	
2c	-- Peer firms not in the same GICS group (or missing Compustat id data)	(659,731)
2d	-- I/B/E/S has non-missing actual and forecast earnings data for two EAs: +/- 100 days	(88,310)
2e	-- No peer firm EA within 1 day of CC date	(102,385)
2f	-- CRSP contains non-missing stock data for CC day and preceding trading day	(3,660)
2g	-- Less firms missing TAQ data for EA and CC windows for the event date and at least one of the four control non-event dates (days -7,-14, -21, -28)	(19,528)
2h	-- Less firm-quarters with price <$1 or with <5 trades in CC or EA window	(19,929)
2i	-- Less firm-quarters missing other relevant data (firm, ownership, correlation, etc.)	(3,876)
2j	Final sample of peer firm quarters	466,526

Appendix C: Conference Call Transcript Examples

The following are excerpts from select conference calls held in the first calendar quarter of 2014 which are likely to contain varied information relevant to peers of the conference call holding firm.

Q4 2013 Hilton Worldwide Holdings Inc Earnings Conference Call - 27 February 2014

ANALYST: … Earlier you painted a generally optimistic picture for net unit growth. Can you talk about the mood in the hotel development community, specifically in China right now? …

CHRIS NASSETTA: … And what we see so far in China in the beginning of this year, and we just had our investment committee meeting in the last couple of weeks where we review all the deals we're doing, it feels -- it still feels pretty good … I think there's no question that full service and luxury we still have pretty good momentum in China, but the pace at which the new development is getting done I think in the market generally at the higher end of the business has slowed somewhat. And I think it's picking up in the mid-scale segments of the business…

Q1 2014 Visa Inc. Earnings Conference Call - 30 January 2014

CHARLES SCHARF: Let me just switch topics for a second and just talk for a second about V.me … We are pleased that the work is now coming to market with the first phase of our redesigned platform released last week providing merchants with faster integration and easier time to market. I can share now that Joseph Bank, Ticketmaster, AutoZone, Petco will be some of the first merchants to go live with V.me through this new simplified integration…

Q1 2014 Lennar Corporation Earnings Conference Call - 20 March 2014

ANALYST: … It seems to me the biggest hurdle is regulatory uncertainties, so maybe what specifically are you doing and maybe a little bit about what the industry is doing …

STUART MILLER: … I know that we've seen some initial readings from the Senate's, I guess, finance committee or banking committee that's already approved GSE reform in a sense, but it's a long way until those reforms are adopted by both Houses of Congress and actually moved forward. A lot of people think that there might not be much movement this year and maybe not for a couple years, we'll have to wait and see. What we have seen though in the field is that at the margins credit has been reverting to more normalized levels in a very slow kind of orderly fashion…

Q1 2014 Spectrum Brands Holdings Inc Earnings Conference Call - 29 January 2014

ANALYST: … I have a question on the competitor discounting in the small appliances segment. How are you thinking about, going forward, responding to that discounting? And how is that -- I guess, can you give a little bit of color on how that is potentially impacting the product introductions that you are planning in that platform over the course of the year?

DAVE LUMLEY: … There is primarily one competitor that has taken their prices down dramatically. And they will get some unit sales from that, but we have been down that road two years ago. They are almost -- be in position now like the private-label pricing, which is always in this business, the small appliances. Why we are bringing out new products -- so first part is, I don't think that is sustainable. Two, we have a whole breadth of product line through Black & Decker, George Foreman, where we have different price points. And we're ready for it. But more importantly, our new products are priced higher than these very low prices that you are seeing in the market price, with much better products…

Q3 2014 Oracle Earnings Conference Call - 18 March 2014

ANALYST: … If you look at the IBM numbers, they are declining quite significantly. You mentioned some of the drivers already. Can you go a little bit deeper in there? And also how you see that -- we've been waiting for a turnaround in hardware for a while. Now, all the things that you're talking are coming through. Is that something sustainable, and how do you see that playing out against the competition going forward?

MARK HURD: … Our T-systems, our network attach storage or ZFS storage and our engineered systems are now almost 70% of our revenue, and all three of those are growing and they are gaining share. So, is it sustainable? Listen, I can't predict the macro, but I can predict we will continue to gain share. And to add to Larry's point, we just don't compete with the server vendors. We actually do a lot of other things than just compete with an IBM. We compete with EMC, frankly, when we get into those environments because we radically change our customer's storage requirements. If our customer's got a petabyte of storage, we know how to compress that data with Exadata …

Q4 2013 Moody's Corporation Earnings Conference Call - 7 February 2014

RAY MCDANIEL: … I will conclude this morning's prepared remarks by discussing our full-year guidance for 2014. Moody's outlook for 2014 is based on assumptions about many macroeconomic and capital market factors including interest rates, corporate profitability, business investment spending, mergers and acquisition activity, consumer borrowing and securitization and the amount of debt issued… Corporate finance and public, project and infrastructure finance revenues are both projected to grow in the high single-digit percent range. Revenue from structured finance is expected to grow in the low single-digit percent range while revenue from financial institutions is expected to grow in the mid-single-digit range… Revenue from research, data and analytics is projected to grow in the high single-digit percent range while revenue for enterprise risk solutions is projected to grow in the low teens percent range…

Q3 2014 General Mills, Inc. Earnings Conference Call - 19 March 2014

DON MULLIGAN: … As we noted in our preliminary release last week, several factors restrained our third-quarter operating performance. Severe winter weather resulted in weak sales trends across the food industry and our categories…

ANALYST: … Could you just talk about what you are seeing with the weather and exactly what you meant by that?

KEN POWELL: … as the weather improves we are seeing those categories recover. Just in terms of the nature of the weather impact, basically on our side it really disrupted plant operations and logistics… on the retail side, we will let the retailers give you all the detail there, but I think basically it is just fewer trips for all the obvious reasons - fewer trips to restaurants and then of course in schools and universities which were closed they're just serving fewer meals in cafeterias and those sales are clearly lost.

Q3 2014 John Wiley & Sons Earnings Conference Call - 11 March 2014

ANALYST: … Would it be fair to say that there's not really been any change in the overall market? That the structural concerns that people had about open access haven't really come through? That you've still got moderate price inflation in the US, and you've got good growth in the US…? Second of all… It certainly seems, perhaps, a more reassuring message than what we've heard, for example, a few weeks back, that was suggesting that 2014 is going to be a very difficult year. Is there anything in the mix of your businesses that insulates you, perhaps, from some of the issues that they're facing?

STEVE SMITH: Your first question, on journals. I think, it's certainly true to say that our journal business remains stable and robust. And although we saw some challenges, particularly in Europe, related mostly to budgeted concerns rather than structural issues relating to open access, particularly after the last economic downturn, the demand remains really strong for the content…

There is still, I think, some confusion in the market for print books around blurring of channels, particularly with the development of rental. But I do feel that we've seen much of the disruption that we're going to get from rental. It's still a challenging marketplace in 2014. We certainly know, from looking at market data, that Wiley continues to win market share in the US.

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Table 1: Descriptive Statistics
Conference Call Firms

	# Obs.	Mean	(p-value)	Q1	Median	Q3	StDev
Ln(MVE)	23,728	7.126	(0.000)	6.092	7.053	8.022	1.445
BM	23,728	0.568	(0.000)	0.300	0.484	0.731	0.436
# Analysts	23,728	7.610	(0.000)	4.000	6.000	10.00	5.290
% Inst Ownership	23,728	0.707	(0.000)	0.553	0.742	0.881	0.237
EA Ret	23,728	0.002	(0.000)	-0.022	0.001	0.026	0.054
Abs EA Ret	23,728	0.038	(0.000)	0.010	0.024	0.052	0.041
CC Ret	23,728	-0.000	(0.793)	-0.008	-0.000	0.008	0.019
Abs CC Ret	23,728	0.013	(0.000)	0.003	0.008	0.017	0.015

Peer Firms

	# Obs.	Mean	(p-value)	Q1	Median	Q3	StDev
Ln(MVE)	466,526	7.602	(0.000)	6.510	7.466	8.576	1.513
BM	466,526	0.550	(0.000)	0.295	0.469	0.703	0.392
# Analysts Overlap	466,526	2.207	(0.000)	1.000	1.000	2.000	2.130
% Inst Ownership Overlap	466,526	0.399	(0.000)	0.273	0.396	0.520	0.178
Return Corr	466,526	0.451	(0.000)	0.282	0.465	0.636	0.238
Abs Return Corr	466,526	0.246	(0.000)	0.063	0.232	0.419	0.241
EA Ret	466,526	-0.000	(0.000)	-0.007	-0.000	0.006	0.014
Abs EA Ret	466,526	0.010	(0.000)	0.003	0.007	0.013	0.010
CC Ret	466,526	-0.000	(0.000)	-0.004	-0.000	0.004	0.009
Abs CC Ret	466,526	0.006	(0.000)	0.002	0.004	0.008	0.006

All continuous variables are winsorized at 1% and 99% for the conference call and peer firm samples, respectively. All variables are defined in Appendix A. The "p-value" column presents the p-value of a t-test for equivalence to zero at the mean.

Table 2: Correlation Matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) EA Ret	-	0.056	0.134	0.007	-0.016	-0.030	0.008	0.011
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
(2) Abs EA Ret	0.038	-	0.010	0.114	-0.005	0.247	-0.002	0.095
	(0.00)		(0.00)	(0.00)	(0.00)	(0.00)	(0.19)	(0.00)
(3) EA Ret Peer	0.118	0.012	-	-0.043	-0.002	0.001	-0.020	0.008
	(0.00)	(0.00)		(0.00)	(0.23)	(0.72)	(0.00)	(0.00)
(4) Abs EA Ret Peer	0.014	0.117	0.025	-	-0.002	0.097	-0.004	0.210
	(0.00)	(0.00)	(0.00)		(0.27)	(0.00)	(0.01)	(0.00)
(5) CC Ret	-0.029	0.002	-0.001	-0.001	-	-0.008	0.131	-0.010
	(0.00)	(0.22)	(0.33)	(0.63)		(0.00)	(0.00)	(0.00)
(6) Abs CC Ret	-0.062	0.268	0.006	0.108	0.007	-	-0.008	0.142
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)		(0.00)	(0.00)
(7) CC Ret Peer	0.011	0.002	-0.016	-0.006	0.124	-0.007	-	-0.013
	(0.00)	(0.15)	(0.00)	(0.00)	(0.00)	(0.00)		(0.00)
(8) Abs CC Ret Peer	0.014	0.106	0.019	0.281	-0.009	0.151	-0.024	-
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	

Pearson (Spearman) correlations are below (above) the diagonal. p-values are reported in brackets below the coefficients. All continuous variables are winsorized at 1% and 99%. All variables are as defined in Appendix A.

Table 3: Relation between Announcing and Peer Firms' Absolute and Signed Returns around Earnings Announcements and Conference Calls

Panel A: SUR Estimation of Earnings Announcement Window and Conference Call Window

| Metric = | Dependent Variable = Peer's Metric | | | |
| | Abs Returns | | Signed Returns | |
	EA	CC	EA	CC
Metric	0.0109	0.0364	0.0306	0.0567
	(11.85)	(19.31)	(24.98)	(21.97)
Ln(MVE)	0.0001	0.0000	-0.0000	-0.0000
	(1.66)	(0.70)	(-0.69)	(-0.88)
BM	0.0001	-0.0000	0.0004	-0.0000
	(0.82)	(-0.25)	(2.26)	(-0.36)
Ln(MVE)_Peer	-0.0008	-0.0007	0.0000	0.0000
	(-61.87)	(-85.66)	(1.71)	(2.77)
BM_Peer	0.0019	0.0011	0.0008	-0.0001
	(24.44)	(23.69)	(7.23)	(-1.28)
# Analysts	0.0000	0.0000	0.0000	0.0000
	(3.52)	(4.31)	(1.41)	(0.02)
% Inst Ownership	0.0003	0.0005	0.0001	-0.0001
	(2.01)	(5.57)	(0.46)	(-0.52)
(Abs) Return Corr	0.0006	0.0001	0.0002	0.0002
	(5.46)	(1.78)	(1.04)	(1.81)
Time FE	*Included*	*Included*	*Included*	*Included*
Industry FE	*Included*	*Included*	*Included*	*Included*
Adj. R^2	13.68%	14.40%	1.34%	1.71%
# Observations	466,526		466,526	
CC Metric / EA Metric	3.330		1.8524	
CC Metric = EA Metric	p < 0.000		p < 0.000	

The models are fit using a SUR estimator. The standard errors are clustered by conference call. The Adj. R^2 reflects the fit under an OLS. All continuous variables are winsorized at 1% and 99%. *Metric* takes the value of the respective announcing firm's metric while *Peer's Metric* takes the value of the peer for the same metric. All variables are as defined in Appendix A. The sample excludes peer firms announcing on the same day as the conference call firm. Z-statistics are reported in brackets below the coefficients. The "CC Metric = EA Metric" row reports the p-values of a chi-square test of equivalence of the respective coefficients.

Panel B: Single Model Estimation of Conference Call Window

Metric =	Dependent Variable = CC Peer's Metric	
	Abs Returns	**Signed Returns**
CC Metric	0.0331	0.0569
	(17.90)	(26.28)
EA Metric	0.0020	0.0026
	(3.66)	(3.84)
EA Peer's Metric	0.1051	-0.0115
	(62.99)	(-5.12)
Ln(MVE)	0.0000	-0.0000
	(0.90)	(-0.88)
BM	-0.0000	-0.0000
	(-0.57)	(-0.37)
Ln(MVE)_Peer	-0.0006	0.0000
	(-76.11)	(2.80)
BM_Peer	0.0009	-0.0001
	(20.63)	(-1.13)
# Analysts	0.0000	0.0000
	(3.80)	(0.05)
% Inst Ownership	0.0005	-0.0001
	(5.08)	(-0.56)
(Abs) Return Corr	0.0001	0.0002
	(0.88)	(1.82)
Time FE	*Included*	*Included*
Industry FE	*Included*	*Included*
# Observations	466,526	466,526
Adj. R^2	16.85%	1.77%

The models are fit using OLS and the errors are clustered by conference call. All continuous variables are winsorized at 1% and 99%. *Metric* takes the value of the respective announcing firm's metric while *Peer's Metric* takes the value of the peer for the same metric. All variables are as defined in Appendix A. The sample excludes peer firms announcing on the same day as the conference call firm. Z-statistics are reported in brackets below the coefficients.

Table 4: Conference Call Information Transfer Intermediaries
Panel A: Analyst Overlap and Industry Expertise

Metric =	Dependent Variable = CC Peer's Metric									
	Absolute Returns					Signed Returns				
	High Overlap	Low Overlap	Industry Expert	No Industry Expert	Industry Expert Overlap	High Overlap	Low Overlap	Industry Expert	No Industry Expert	Industry Expert Overlap
	I	II	III	IV	V	VI	VII	VIII	IX	X
CC Metric	0.0454	0.0244	0.0410	0.0290	0.0589	0.0796	0.0413	0.0833	0.0440	0.1142
	(17.62)	(12.91)	(12.14)	(13.10)	(10.16)	(27.07)	(19.33)	(21.14)	(17.44)	(18.72)
EA Metric	0.0016	0.0023	0.0026	0.0016	0.0012	0.0042	0.0013	0.0038	0.0017	0.0055
	(2.02)	(4.23)	(2.61)	(2.55)	(0.66)	(4.64)	(1.85)	(2.92)	(2.21)	(2.60)
EA Peer's Metric	0.0988	0.1086	0.1024	0.1061	0.1000	-0.0079	-0.0148	-0.0101	-0.0127	-0.0105
	(40.56)	(53.81)	(38.37)	(49.64)	(19.68)	(-2.58)	(-5.95)	(-2.72)	(-4.63)	(-1.69)
Ln(MVE)	0.0001	0.0000	0.0000	0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000
	(1.17)	(0.76)	(1.39)	(0.35)	(0.61)	(-0.76)	(-0.66)	(-0.05)	(-1.00)	(0.36)
BM	0.0000	-0.0001	-0.0001	0.0000	-0.0003	0.0000	-0.0001	0.0001	-0.0001	0.0006
	(0.05)	(-1.05)	(-1.23)	(0.13)	(-1.61)	(0.60)	(-1.05)	(0.73)	(-1.07)	(2.01)
Ln(MVE)_Peer	-0.0006	-0.0006	-0.0006	-0.0006	-0.0005	0.0000	0.0000	0.0000	0.0000	-0.0000
	(-49.85)	(-63.79)	(-46.00)	(-61.05)	(-18.51)	(1.32)	(3.16)	(2.03)	(1.98)	(-0.28)
BM_Peer	0.0010	0.0009	0.0009	0.0010	0.0015	-0.0002	-0.0000	-0.0002	0.0000	-0.0002
	(15.09)	(16.55)	(11.26)	(17.53)	(9.21)	(-1.55)	(-0.30)	(-1.77)	(0.03)	(-1.01)
# Analysts	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	(3.46)	(2.76)	(2.14)	(2.51)	(2.46)	(0.20)	(0.05)	(0.13)	(0.68)	(0.33)
% Inst Ownership	0.0007	0.0003	0.0007	0.0004	0.0009	-0.0000	-0.0001	-0.0001	-0.0001	-0.0004
	(5.44)	(3.34)	(4.02)	(4.12)	(3.18)	(-0.09)	(-0.77)	(-0.37)	(-0.51)	(-0.97)
(Abs) Return Corr	0.0003	-0.0002	0.0003	-0.0000	0.0004	0.0003	0.0003	0.0000	0.0004	-0.0000
	(3.46)	(-2.58)	(2.31)	(-0.52)	(1.99)	(1.68)	(1.80)	(0.23)	(2.33)	(-0.02)
Time FE	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*
Industry FE	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*
# Observations	202,311	264,215	171,250	295,276	37,208	202,311	264,215	171,250	295,276	37,208
Adj. R^2	17.17%	16.73%	17.67%	16.44%	20.87%	3.20%	1.07%	3.13%	1.28%	6.22%
High Ov / Low Ov	1.8581					1.9269				
High Ov=Low Ov	$p < 0.000$					$p < 0.000$				
Expert / No Expert			1.4162						1.8920	
Expert=No Expert			$p < 0.003$						$p < 0.000$	

The models are fit using OLS and the errors are clustered by conference call. All continuous variables are winsorized at 1% and 99%. The sample excludes peer firms announcing on the same day as the conference call firm. T-statistics are reported in brackets below the coefficients. The "High Ov = Low Ov" row reports the p-values of a chi-square test of the equivalence of the *CC Metric* estimated coefficients in the respective partition. *Metric* is absolute and signed normalized returns, respectively. "High Overlap" ("Low Overlap") indicates that more than one (one) analyst covered the conference call and peer firm during the period. "Industry Expert" ("No Industry Expert") indicates that the conference call holding firm was (was not) followed by at least one analyst whose reports included industry recommendations in the 120 days around the conference call date. The "Industry Expert Overlap" sample includes conference call holding firm-peer pair with at least one overlapping analyst whose reports included industry recommendations in the 120 days around the conference call date. All other variables are defined in Appendix A.

Panel B: Institutional Ownership Overlap

Metric =	Dependent Variable = CC Peer's Metric			
	Abs Returns		Signed Returns	
	High	Low	High	Low
CC Metric	0.0421	0.0251	0.0757	0.0413
	(15.33)	(14.14)	(25.02)	(19.16)
EA Metric	0.0019	0.0020	0.0031	0.0019
	(2.62)	(3.27)	(3.51)	(2.67)
EA Peer's Metric	0.0990	0.1084	-0.0091	-0.0140
	(42.94)	(51.17)	(-3.10)	(-5.33)
Ln(MVE)	0.0001	-0.0000	-0.0000	-0.0000
	(2.66)	(-1.33)	(-1.08)	(-0.54)
BM	-0.0000	-0.0001	-0.0000	-0.0000
	(-0.11)	(-0.78)	(-0.20)	(-0.46)
Ln(MVE)_Peer	-0.0006	-0.0007	0.0000	0.0000
	(-47.89)	(-64.98)	(1.76)	(1.95)
BM_Peer	0.0010	0.0009	-0.0000	-0.0001
	(16.19)	(15.65)	(-0.29)	(-1.29)
# Analysts	0.0000	0.0000	0.0000	-0.0000
	(1.48)	(4.81)	(0.72)	(-0.72)
% Inst Ownership	0.0002	0.0006	-0.0001	-0.0001
	(1.45)	(5.67)	(-0.55)	(-0.34)
(Abs) Return Corr	-0.0000	0.0001	0.0002	0.0003
	(-0.34)	(0.74)	(1.43)	(1.68)
Time FE	*Included*	*Included*	*Included*	*Included*
Industry FE	*Included*	*Included*	*Included*	*Included*
# Observations	233,254	233,272	233,254	233,272
Adj. R^2	16.46%	17.38%	2.88%	1.07%
High / Low	1.6807		1.8341	
High = Low	p < 0.000		p < 0.000	

The models are fit using OLS and the errors are clustered by conference call. All continuous variables are winsorized at 1% and 99%. The sample excludes peer firms announcing on the same day as the conference call firm. T-statistics are reported in brackets below the coefficients. The "High = Low" row reports the p-values of a chi-square test of the equivalence of the *CC Metric* estimated coefficients in the respective partition. *Metric* is absolute and signed normalized returns, respectively. "High" ("Low") indicates that the overlap between the percentage of shares held by institutional investors of the peer and conference call firms is above (below) the median for the year-quarter. All other variables are defined in Appendix A.

Panel C: Joint Financial Press Coverage

Metric =	Dependent Variable = CC Peer's Metric			
	Abs Returns		**Signed Returns**	
	Yes	**No**	**Yes**	**No**
CC Metric	0.0464	0.0289	0.0804	0.0501
	(13.50)	(15.99)	(21.84)	(23.48)
EA Metric	0.0020	0.0020	0.0044	0.0020
	(1.98)	(3.76)	(3.70)	(3.08)
EA Peer's Metric	0.0991	0.1063	-0.0085	-0.0127
	(30.70)	(59.13)	(-2.23)	(-5.39)
Ln(MVE)	0.0001	-0.0000	-0.0001	-0.0000
	(2.14)	(-0.71)	(-0.95)	(-0.68)
BM	0.0000	-0.0001	-0.0000	-0.0000
	(0.45)	(-1.32)	(-0.01)	(-0.42)
Ln(MVE)_Peer	-0.0006	-0.0007	0.0000	0.0000
	(-39.34)	(-69.85)	(1.19)	(2.75)
BM_Peer	0.0013	0.0008	-0.0003	-0.0000
	(14.31)	(16.77)	(-2.41)	(-0.12)
# Analysts	0.0000	0.0000	0.0000	-0.0000
	(2.23)	(3.59)	(0.49)	(-0.14)
% Inst Ownership	0.0003	0.0005	-0.0001	-0.0001
	(1.74)	(5.77)	(-0.50)	(-0.50)
(Abs) Return Corr	0.0000	0.0000	0.0001	0.0003
	(0.22)	(0.56)	(0.70)	(1.87)
Time FE	*Included*	*Included*	*Included*	*Included*
Industry FE	*Included*	*Included*	*Included*	*Included*
# Observations	109,097	357,429	109,097	357,429
Adj. R^2	19.24%	16.23%	3.33%	1.42%
Yes / No	1.6042		1.6034	
Yes = No	$p < 0.000$		$p < 0.000$	

The models are fit using OLS and the errors are clustered by conference call. All continuous variables are winsorized at 1% and 99%. The sample excludes peer firms announcing on the same day as the conference call firm. T-statistics are reported in brackets below the coefficients. The "Yes = No" row reports the p-values of a chi-square test of the equivalence of the *CC Metric* estimated coefficients in the respective partition. *Metric* is absolute and signed normalized returns, respectively. "Yes" ("No") indicates that the conference call holding firm and the peer firm are both mentioned in at least one news item at some point from 62 days before through the day of the conference call. All other variables are defined in Appendix A.

Table 5: Relation between Announcing and Peer Firms' Returns as a Function of Reporting Sequence

Metric =	Dependent Variable = Peer's Metric							
	Abs Returns				Signed Returns			
	Peer Leads		Peer Lags		Peer Leads		Peer Lags	
	EA	CC	EA	CC	EA	CC	EA	CC
Abs Returns	0.0097	0.0324	0.0150	0.0477	0.0284	0.0518	0.0392	0.0743
	(8.06)	(15.55)	(9.84)	(15.23)	(17.68)	(19.05)	(19.77)	(20.59)
Ln(MVE)	0.0000	-0.0001	0.0001	0.0000	-0.0001	-0.0000	-0.0001	-0.0001
	(1.14)	(-1.86)	(1.17)	(0.74)	(-0.79)	(-0.02)	(-0.91)	(-1.63)
BM	-0.0001	-0.0001	0.0001	0.0000	0.0006	0.0001	0.0002	-0.0000
	(-0.67)	(-1.06)	(0.94)	(0.16)	(2.44)	(0.89)	(0.84)	(-0.23)
Ln(MVE)_Peer	-0.0008	-0.0006	-0.0008	-0.0007	0.0001	0.0000	-0.0001	0.0000
	(-40.04)	(-51.38)	(-30.56)	(-43.02)	(3.41)	(2.14)	(-2.28)	(1.65)
BM_Peer	0.0026	0.0015	0.0018	0.0011	0.0015	0.0000	0.0007	-0.0001
	(21.01)	(18.66)	(13.87)	(13.61)	(7.69)	(0.04)	(4.17)	(-0.97)
# Analysts	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0000	0.0000	0.0000
	(1.96)	(2.86)	(1.49)	(1.64)	(0.02)	(-1.06)	(2.16)	(0.67)
% Inst Ownership	0.0002	0.0005	0.0005	0.0007	0.0003	0.0001	0.0003	-0.0001
	(1.01)	(4.49)	(2.19)	(4.78)	(0.69)	(0.44)	(0.78)	(-0.21)
(Abs) Return Corr	0.0041	-0.0000	0.0005	0.0002	0.0003	0.0000	0.0006	0.0004
	(4.84)	(-0.04)	(2.76)	(2.16)	(0.68)	(0.07)	(1.83)	(1.93)
Time FE	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*
Industry FE	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*
Adj. R^2	14.58%	14.37%	14.95%	15.44%	1.30%	1.68%	1.39%	2.54%
# Observations	163,903		161,437		163,903		161,437	
CC Metric / EA Metric	3.3539		3.1696		1.8267		1.8970	
CC Metric = EA Metric	p < 0.000		p < 0.000		p < 0.000		p < 0.000	

The models are fit using a SUR estimator. The standard errors are clustered by conference call. The Adj. R^2 reflects the fit under an OLS. All continuous variables are winsorized at 1% and 99%. The "Peer Leads" ("Peer Lags") sample consists of observations where the peer firms have reported results for the period before (after) the conference call firm. Observations outside the 15-day window on each side of the mean earnings announcement date for the period are excluded. All other variables are defined in Appendix A. The sample excludes peer firms announcing on the same day as the conference call firm. Z-statistics are reported in brackets below the coefficients. The "CC Metric = EA Metric" row reports the p-values of a chi-square test of equivalence of the respective coefficients.

Table 6: Relation between Announcing and Peer Firms' Absolute and Signed Returns around Earnings Announcements and Conference Calls: An Intraday Sample

| Metric = | Dependent Variable = Peer's Metric | | | |
| | Abs Returns | | Signed Returns | |
	EA	CC	EA	CC
Metric	0.0137	0.0848	0.0490	0.1117
	(1.21)	(3.55)	(4.09)	(5.17)
Ln(MVE)	-0.0005	0.0001	0.0001	-0.0000
	(-1.88)	(0.33)	(0.37)	(-0.04)
BM	-0.0005	-0.0006	-0.0001	-0.0002
	(-1.00)	(-2.05)	(-0.19)	(-0.43)
Ln(MVE)_Peer	-0.0006	-0.0006	-0.0000	0.0001
	(-8.18)	(-11.94)	(-0.36)	(0.84)
BM_Peer	0.0022	0.0018	-0.0000	0.0001
	(5.53)	(4.84)	(-0.03)	(0.27)
# Analysts	0.0001	-0.0000	-0.0001	-0.0000
	(1.59)	(-0.72)	(-0.95)	(-0.56)
% Inst Ownership	-0.0001	0.0005	-0.0004	-0.0002
	(-0.09)	(0.75)	(-0.27)	(-0.18)
(Abs) Return Corr	0.0013	0.0001	0.0008	0.0001
	(2.00)	(0.21)	(0.69)	(0.18)
Time FE	*Included*	*Included*	*Included*	*Included*
Industry FE	*Included*	*Included*	*Included*	*Included*
Adj. R^2	19.88%	19.15%	7.68%	6.67%
# Observations	7,417		7,417	
CC Metric / EA Metric	6.2125		2.2771	
CC Metric = EA Metric	p < 0.005		p < 0.010	

The models are fit using a SUR estimator. The standard errors are clustered by conference call. The Adj. R^2 reflects the fit under an OLS. All continuous variables are winsorized at 1% and 99%. *Metric* takes the value of the respective announcing firm's metric. All other variables are defined in Appendix A. The sample comprises firm-quarters where the earnings announcement and the conference call took place during the same trading day. The sample excludes peer firms announcing on the same day as the conference call firm. Z-statistics are reported in brackets below the coefficients. The "CC Metric = EA Metric" row reports the p-values of a chi-square test of equivalence of the respective coefficients.

Table 7: Relation between Announcing and Peer Firms' Alternative Information Metrics

Metric =	Abn Volatility		Abn Range		Abn Volume	
	EA	CC	EA	CC	EA	CC
Metric	0.0293	0.0564	0.0256	0.0579	0.0124	0.0161
	(13.78)	(20.21)	(12.57)	(20.54)	(8.79)	(10.19)
Ln(MVE)	0.0000	0.0001	0.0002	0.0002	-524.52	-634.55
	(3.81)	(5.48)	(4.60)	(6.00)	(-1.07)	(-1.07)
BM	-0.0000	0.0000	-0.0001	0.0001	-1,142.0	-192.93
	(-1.08)	(0.97)	(-0.89)	(1.00)	(-0.82)	(-0.12)
Ln(MVE)_Peer	-0.0000	0.0000	-0.0001	-0.0000	-890.07	2,044.5
	(-1.95)	(0.22)	(-6.37)	(-2.32)	(-2.18)	(4.17)
BM_Peer	0.0000	0.0000	0.0001	0.0002	2,325.3	5,567.5
	(1.05)	(2.53)	(0.79)	(2.45)	(2.19)	(4.29)
# Analysts	0.0000	-0.0000	0.0000	-0.0000	105.30	-88.083
	(1.07)	(-0.38)	(0.99)	(-0.66)	(0.81)	(-0.59)
% Inst Ownership	-0.0001	-0.0001	-0.0004	-0.0003	-5,797.4	-888.05
	(-1.33)	(-1.46)	(-1.79)	(-1.57)	(-2.83)	(-0.37)
Abs(Return) Corr	-0.0001	-0.0001	-0.0007	-0.0004	10,366	9,595.0
	(-3.88)	(-2.13)	(-4.30)	(-3.08)	(5.92)	(4.61)
Time FE	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*
Industry FE	*Included*	*Included*	*Included*	*Included*	*Included*	*Included*
Adj. R^2	2.28%	3.18%	2.84%	4.20%	0.87%	1.24%
# Observations	466,473		466,526		466,526	
CC Metric / EA Metric	1.9243		2.2636		1.2909	
CC Metric = EA Metric	$p < 0.000$		$p < 0.000$		$p < 0.019$	

The models are fit using a SUR estimator. The standard errors are clustered by conference call. The Adj. R^2 reflects the fit under an OLS. All continuous variables are winsorized at 1% and 99%. *Metric* takes the value of the respective announcing firm's metric (abnormal volatility, abnormal range, or abnormal volume). All variables are defined in Appendix A. The sample excludes peer firms announcing on the same day as the conference call firm. Z-statistics are reported in brackets below the coefficients. The "CC Metric = EA Metric" row reports the p-values of a two-tailed chi-square test of equivalence of the respective coefficients.

Table 8: Relation between Announcing and Peer Firms' Absolute and Signed Returns around Earnings Announcements and Conference Calls: Placebo Analysis

Metric =	Dependent Variable = Peer's Metric			
	Abs Returns		Signed Returns	
	EA	CC	EA	CC
Metric	0.0001	0.0130	0.0024	0.0100
	(0.10)	(7.76)	(1.88)	(4.88)
Ln(MVE)	0.0000	0.0000	-0.0000	0.0000
	(0.09)	(1.51)	(-0.56)	(0.04)
BM	-0.0001	-0.0001	-0.0005	0.0001
	(-1.33)	(-0.80)	(-2.54)	(0.47)
Ln(MVE)_Peer	-0.0009	-0.0008	0.0000	0.0000
	(-62.51)	(-79.87)	(0.57)	(2.62)
BM_Peer	0.0012	0.0007	0.0008	-0.0002
	(13.07)	(12.01)	(5.82)	(-1.83)
# Analysts	-0.0000	-0.0000	0.0000	-0.0000
	(-0.42)	(-1.56)	(0.51)	(-0.03)
% Inst Ownership	0.0001	0.0001	0.0004	-0.0003
	(0.52)	(0.88)	(1.52)	(-1.59)
(Abs) Return Corr	0.0002	-0.0002	-0.0001	0.0001
	(1.45)	(-2.88)	(-0.50)	(0.36)
Time FE	*Included*	*Included*	*Included*	*Included*
Industry FE	*Included*	*Included*	*Included*	*Included*
Adj. R^2	12.10%	16.62%	0.39%	0.27%
# Observations	393,075		291,557	
CC Metric / EA Metric	139.253		4.1302	
CC Metric = EA Metric	p < 0.000		p < 0.002	

The models are fit using a SUR estimator. The standard errors are clustered by conference call. The Adj. R^2 reflects the fit under an OLS. All continuous variables are winsorized at 1% and 99%. *Metric* takes the value of the respective announcing firm's metric. All other variables are defined in Appendix A. The sample structure is described in section 5.3. Z-statistics are reported in brackets below the coefficients. The "CC Metric = EA Metric" row reports the p-values of a chi-square test of equivalence of the respective coefficients.

Table 9: Relation between Fundamental Signals and Peer Firms' Absolute and Signed Returns around Earnings Announcements and Conference Calls

Panel A: Individual Regressions for Each Signal

Metric =	Dependent Variable = Peer's Metric					
	Abs Returns			**Signed Returns**		
	EA	**CC**	**p-value**	**EA**	**CC**	**p-value**
(abs) FE	0.0011	0.0005	0.003	0.0014	-0.0005	0.000
	(5.25)	(3.68)		(3.44)	(-2.04)	
(abs) Rev Surprise	-0.0002	-0.0001	0.088	0.0003	-0.0001	0.000
	(-3.99)	(-3.49)		(3.65)	(-2.76)	
(abs) Guidance Surprise	0.0013	0.0004	0.048	0.0047	0.0001	0.000
	(2.94)	(1.39)		(5.44)	(0.11)	

Panel B: Joint Estimation

Metric =	Dependent Variable = Peer's Metric					
	Abs Returns			**Signed Returns**		
	EA	**CC**	**p-value**	**EA**	**CC**	**p-value**
(abs) FE	0.0012	0.0006	0.004	0.0010	-0.0004	0.003
	(5.58)	(4.16)		(2.39)	(-1.69)	
(abs) Rev Surprise	-0.0003	-0.0001	0.007	0.0002	-0.0001	0.000
	(-5.90)	(-4.74)		(2.80)	(-2.39)	
(abs) Guidance Surprise	0.0012	0.0004	0.074	0.0042	0.0003	0.000
	(2.65)	(1.25)		(4.75)	(0.57)	

The models are fit using a SUR estimator. The standard errors are clustered by conference call. All continuous variables are winsorized at 1% and 99%. (Abs) FE is the (absolute) earnings surprise per share measured relative to the latest analysts' consensus forecast, as reported by IBES. (Abs) Rev Surprise is, similarly, per share and measured relative to the latest analysts' consensus forecast, as reported by IBES. (Abs) Guidance Surprise is measured as the difference between the latest analysts' consensus forecast and the respective managerial earnings guidance. To prevent sample attrition, the models include indicator variables set to 1 if there is insufficient data to measure the respective variable. Each model includes a vector of controls comprising BM, ln(MVE), BM_Peer, ln(MVE)_Peer, # Analysts, % Inst Ownership, (abs) Return Corr, as well as time and industry fixed effects. The variables are defined in Appendix A. "p-value" reports the p-value of a chi-square test of the equivalence of the respective coefficients