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"Intraindustry Information Transfers: An Analysis of Confirmatory and Contradictory Earnings News"

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Intraindustry Information Transfers: An Analysis of Confirmatory and Contradictory Earnings News

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Abstract

Prior research on intraindustry information transfers finds that earnings announcements are information events not only for the announcing firm but also for others in the industry. This paper adds to this literature by investigating whether the informativeness of a firm's earnings surprise is conditional on the nature of the earnings news previously announced by other firms in the industry. I find that the market assigns a confirmation premium to nonnegative earnings surprises that confirm earlier earnings news but that no such effect emerges for confirmatory earnings with negative surprises. Further analysis also reveals that confirmatory earnings with nonnegative (negative) surprises are more (less) persistent than earnings with contradictory surprises. Although the presence of a confirmation premium for confirmatory nonnegative earnings surprises appears to be a rational response to their greater persistence, the market does not seem to recognize the lower persistence of confirmatory negative earnings surprises.

Keywords: *intraindustry information transfers, earnings, analyst estimates, market efficiency*

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Intraindustry Information Transfers: An Analysis of Confirmatory and Contradictory Earnings News

I. INTRODUCTION

It has now been well established that in pricing a firm, the market takes into account not only the firm's own earnings information but also the information contained in the earnings announcements of other firms in the industry (Foster 1981; Lang and Lundholm 1996). Such intraindustry information transfers are value relevant because of industry-wide commonalities and/or because they inform the market of competitive shifts within the industry. In particular, a preponderance of evidence suggests that intraindustry information transfers are "positive" on average, meaning that good (bad) news for an announcing firm is good (bad) news for non-announcing industry members (Foster 1981; Clinch and Sinclair 1987: Han et al. 1989; Freeman and Tse 1992a).

Little is known, however, about whether the nature and magnitude of the market reaction to a firm's own earnings announcement is conditional on the previously announced earnings news of industry peers. Not all firms in an industry announce their earnings at the same time. As some firms make earnings announcements ahead of others, the market is likely to revise its expectations about firms that are yet to announce to the extent that the early announcements are informative about the late announcing firms as well. Indeed, anecdotal evidence suggests that the nature of the information revealed by industry member earnings announcements affect how the market may view subsequent earnings releases. For example, in a recent *Wall Street Journal* article on the strong earnings of J.P. Morgan Chase & Co. for the second quarter of 2011, Fitzpatrick (2011) makes the following comment:

> J.P. Morgan Chase & Co. raised the bar for its rivals by posting strong quarterly results as both profits and revenue soared on the strength of its investment bank… The performance puts pressure on Citigroup Inc., which reports Friday, as well as Wall Street heavyweights Goldman Sachs Group Inc. and Morgan Stanley.

The sequential nature of this information flow raises important questions about the formation of expectations in the market place. For instance, is it possible to characterize the market reaction to a firm's earnings announcement when the news *confirms* rather than *contradicts* the news from prior earnings announcements by industry peers? If company A announces first and exceeds market expectations, how would the market react to company B's subsequent announcement if it fails to meet expectations (contradictory) or exceeds expectations (confirmatory)? Do such confirmatory earnings signals have different implications for a firm's future performance vis-à-vis contradictory signals?

Motivated by these questions, in this paper, I explore the valuation implications of the sequential flow of information on a firm's earnings performance that is associated with intraindustry information transfers. Specifically, I investigate the market response to a firm's earnings announcement conditional on the nature of previously announced industry member earnings. In prior literature, Lang and Lundholm (1996) investigate the incremental value relevance of industry member earnings news, when the firm's own earnings is known. Amir and Lev (1996) find that the value relevance of cellular companies' earnings increases when earnings news is combined with other industry specific performance measures. Kane et al (1984) find that the market takes the corroborative nature of both earnings and dividends information into account when pricing stocks, while Freeman and Tse (1989) find a confirmatory discount when current period earnings news confirms that of previous period. In this paper, I build on this body of work to examine how the market reacts to a firm's earnings announcement depending on whether the news in the announcement confirms/contradicts the news in prior earnings

announcements made by industry peers. To my knowledge, there is no prior study in the intraindustry information literature that examines the impact of sequential flow of information on the market response to earnings surprises.

I posit that within an efficient market, the sequential nature of intraindustry information transfers affects the market's assessment of a firm's earnings news because of two factors: (i) confirmatory/contradictory effects made apparent by the sequentiality, and (ii) deviation of the market's true expectations from the analysts' forecasts that are often used to proxy for market expectations.

Turning first to confirmatory/contradictory effects, I hypothesize that the valuation implications of earnings surprises that confirm the beliefs created by intraindustry information transfers from previously announcing industry members (confirmatory earnings) differ from those that contradict such beliefs (contradictory earnings). Earnings news potentially contains information on systematic factors that would affect all members of an industry (industry-wide commonalities), idiosyncratic firm specific factors, and random error. As earnings reports emerge from an industry, market participants begin to form stronger inferences on industry-wide commonalities (i.e. idiosyncratic factors and random error will get cancelled out). As a result, if a firm's earnings news confirms the previously announced news of industry members, the market may perceive such confirmatory earnings as having a lower noise-to-signal ratio with respect to the firm's future prospects, thereby warranting a larger price reaction.[1] I term this assumption *the performance alignment hypothesis* and posit that it will lead to the presence of a "confirmation premium" in the market's response to a firm's earnings news.[2]

[1] In other words, a contradictory earnings surprise could be viewed as an "outlier" with lower information content with respect to future performance.

[2] Throughout this paper, the term "confirmation premium" ("confirmation discount") is used to denote a higher (lower) incremental market response to confirmatory than to contradictory earnings news.

Conversely, it might be argued that contradictory earnings news could be more value relevant because by filtering out common industry factors, it can facilitate a more accurate assessment of a firm's innate strengths and weaknesses. In other words, earnings surprises that contradict those of other industry members would enable a firm to "stand out from the crowd," either in a positive or a negative light. This alternative argument, which I label *the performance differentiation hypothesis*, thus postulates the presence of a "confirmation discount."

The sequential nature of intraindustry transfers can also result in analysts' forecasts being inadequate proxies for the market's true expectations just before the earnings announcement. Although the market updates its expectations continuously as news arrives, analysts' forecasts are discrete, which, to the extent that intraindustry information transfers are nonrandom, can cause them to deviate systematically from true market expectations. Given that analysts' estimates are widely used by researchers to proxy for market expectations of earnings, systematic differences between these estimates and true market expectations are problematic for studies that focus on measuring earnings surprises in short-window announcement period returns (see, e.g., Wilson 1987; Ball and Kothari 1991; Vincent1999). In essence, these differences could cause erroneous inferences about the nature and magnitude of earnings response coefficients. It is therefore imperative for researchers to control for these divergences in making appropriate inferences about the market reaction to earnings news. In this paper, I develop a simple model to address this issue.

Another question raised by the possibility of confirmation premiums or discounts (to the extent that these are not affected by the aforementioned systematic divergence between analyst forecasts and true market expectations) is whether the extent of current earnings' ability to signal future performance does *indeed* differ depending on whether news is confirmatory or

contradictory with respect to prior earnings announcements by industry peers. For instance, if a firm's earnings news is confirmatory and the market response reflects a confirmation premium, does the earnings news have superior ability in predicting future firm performance? To address this aspect, I hypothesize that earnings persistence will differ across confirmatory and contradictory earnings.

Consistent with my first set of hypotheses, I find that the market reaction to a firm's earnings surprise is conditional on whether the surprise confirms or contradicts previous earnings announcements by industry peers. Specifically, I find support for the *performance alignment hypothesis* that the market reaction to a firm's earnings surprise is stronger when the surprise confirms the previously announced earnings news of industry members. This presence of a confirmation premium supports the notion that the market perceives confirmatory earnings surprises as less noisy. The magnitude of this premium is economically meaningful, with a lower bound of 16 percent above the capitalization rate of contradictory earnings surprises. Interestingly, however, this "confirmation premium" is present only when earnings surprises are nonnegative. No evidence of a confirmation premium/discount is found for firms with negative earnings surprises. These results indicate that the market does indeed consider confirmatory earnings to be more value relevant than contradictory earnings—but only when they are nonnegative. These findings hold even when I control for the potential divergence between analysts' forecasts and true earnings expectations of the market, suggesting that the confirmation premium for nonnegative earnings surprises is not an artifact of systematic differences between these two factors.

With respect to the second set of hypotheses, I find strong and consistent evidence that earnings with nonnegative confirmatory surprises are indeed more persistent than those with

contradictory surprises. This greater persistence of confirmatory earnings lasts up to eight subsequent quarters. Hence, the existence of a confirmation premium appears to reflect the market's pricing of the greater persistence of confirmatory earnings. However, the results also indicate that earnings with negative confirmatory surprises are less persistent than those with contradictory surprises. Given that earlier findings failed to provide evidence of the market distinguishing confirmatory from contradictory earnings with respect to negative surprises, this finding points to the possibility that the market may be overreacting to negative earnings news that is confirmatory.

Overall, the findings of this paper show how the sequential nature of earnings announcements within industries and the ensuing intraindustry information transfers enhance the value relevance of a firm's earnings news. Whether this news confirms or contradicts the information conveyed through industry members' prior announcements appears to be an important determinant of market response to the news. Both the confirmatory nature of the earnings surprise and its sign (i.e., nonnegative vs. negative) also appear to markedly affect the ability of current period earnings to signal future firm performance. These findings, because they augment our understanding of the informativeness of earnings signals and how the capital market responds to them, should be of particular interest to both capital markets researchers and market participants.

The remainder of this paper is organized as follows. Section II discusses the motivation and hypotheses development for this study. Section III outlines the sample selection and empirical design, after which Section IV presents the findings. Section V concludes the paper.

II. MOTIVATION AND HYPOTHESIS DEVELOPMENT

Background

The notion that the earnings information of other firms in the industry is value relevant in determining a firm's price, well established in the literature since the early work of Foster (1981), is based on the assumption that intraindustry information transfers stem from two sources. First, a firm's earnings announcement can reveal important information about systematic industry-wide factors that affect other firms in the same industry (industry-wide commonalities), and second, the firm-specific idiosyncratic information contained in earnings announcements, by revealing competitive shifts within the industry, can have valuation implications for industry peers. Therefore, while industry-wide commonalities point toward positive intraindustry information transfers (i.e., good (bad) news for the announcing firm is good (bad) news for non-announcing industry members), the possibility of competitive shifts suggests that intraindustry information transfers can also be negative (i.e.,good (bad) news for the announcing firm is bad (good) news for non-announcing industry members). Even though a firm's given information signal could be seen as positive news for some firms in the industry but negative news for others (Kim et al. 2008), a preponderance of extant empirical evidence suggests that intraindustry information transfers are positive on average (Foster 1981; Clinch and Sinclair 1987; Freeman and Tse 1992a). Moreover, Han et al. (1989) find that intraindustry information transfer effects associated with management earnings forecasts disappear when abnormal returns are industry adjusted. Both these findings suggest that in the aggregate, the effect of industry-wide commonalities tends to override competitive shifts.

The evidence on whether the market is fully rational in incorporating intraindustry information transfers into security prices, however, remains mixed. For example, Ramnath

(2002) argues that both analysts and investors underreact to the intraindustry information content in the first earnings announcement within an industry, leading to predictable returns to later announcers. In contrast, Thomas and Zhang (2008) find a negative correlation between the price reaction to late announcers surrounding earnings reports by early announcers and the subsequent price reaction to late announcers' own earnings reports. This observation implies that the stock market overestimates the implications of intraindustry information. It should be noted, however, that neither of these two studies whose seemingly contradictory findings remain unreconciled[3] takes into account the confirmatory nature of a firm's own earnings news (i.e., whether the late announcers' earnings surprises confirm or contradict earlier announcements). In effect, if the distribution of confirmatory versus contradictory earnings surprises is not balanced and if this attribute is not controlled for in the empirical design, the presence of confirmation premiums or discounts can create an illusion of over- or underreaction.

The value relevance of other firms' earnings (intraindustry information transfers) given the firm's own earnings news is also addressed by Lang and Lundholm (1996), who test whether other firms' earnings continue to be a significant explanatory factor of stock returns. Specifically, by regressing firm returns over the entire industry earnings announcement window on changes in both the firm's own earnings and those of other industry members, they show that intraindustry information transfers are incrementally value relevant over and above a firm's own earnings news.

No prior study, however, investigates whether the value relevance of a firm's earnings is conditional on the sign and nature of other industry members' early earnings announcements. Yet this research question is particularly interesting given that the informativeness of a firm's

[3] Although Thomas and Zhang (2008: 910n1) note a number of differences between their study and that of Ramnath (2002), they also point out that such clarification is not an attempt to reconcile the two contradictory findings.

own financial information can be a function of other information already made available through alternative sources. For example, Amir and Lev (1996) find that for independent cellular companies, financial information, on its own, is largely irrelevant for security valuation but that, when combined with nonfinancial information like population of coverage and market penetration, earnings do contribute to explanation of prices. Likewise, in an analytical paper, Gigler and Hemmer (1998) postulate the "confirmatory role" of mandatory financial reports, arguing that their valuation role need not be limited to that of primary information source but can also extend to an important secondary role of further confirming already available (voluntarily disclosed) information. Kane et al (1984) find that the market takes the corroborative nature of both earnings and dividends information into account when pricing stocks, while Ely and Mande (1996) find that analysts do the same in making earnings forecasts. Freeman and Tse (1989) postulate the existence of multiperiod price reactions where investors reevaluate the given period's earnings news of a firm in the light of subsequent earnings. They find stronger price reactions when current period earnings contradict as opposed to confirm past earnings news. None of these papers, however, investigate intraindustry information transfers and their effect on the market reaction to a firm's earnings news, which is the focus of the current study.

Intraindustry Information Transfers and the Confirmatory Role of Earnings

Although earnings announcements can signal a firm's future prospects in terms of both firm-specific idiosyncratic factors and industry- and economy-wide factors, as more firms in an industry make earnings announcements, the effects of both idiosyncratic factors and random error likely get canceled out, thereby augmenting market understanding of how industry trends have contributed to firm performance. For example, if a clear majority of firms in an industry report better-than-expected earnings, the market is likely to form a favorable view of the

industry, one likely to be stronger than when earnings signals are mixed. Conversely, a preponderance of negative earnings news from industry members is likely to result in strong negative views of future industry prospects.

Hence, if a given firm announces earnings news that confirms the beliefs already created by previous announcements in the industry, this confirmatory announcement may well be perceived by the market as having a lower noise-to-signal ratio with respect to how industry-wide trends affect firm performance. On the other hand, if the firm's earnings announcement contradicts previously formed beliefs, the market may view such earnings as having a greater degree of noise and/or affected by transitory factors that are less likely to be indicative of future performance. In other words, earnings news that is contradictory is more likely to be discounted as an "outlier." If so, earnings news that contradicts the beliefs created through prior announcements in the industry should evoke smaller market reactions than earnings that are confirmatory. That is, the presence of previous industry announcements should lead to a confirmation premium or contradiction discount in the market's response to subsequent earnings announcement by a firm. This performance alignment hypothesis can be stated in the following alternate form:

> **H1A:** The magnitude of market reaction to a firm's earnings news is greater when this news confirms the earnings news previously announced by other firms in the industry.

On the other hand, it could also be argued that earnings news that contradicts previous announcements in the industry can in fact be more revealing of a firm's innate strengths and weaknesses. For instance, if a firm reports better-than-expected results in a weak environment in which most industry members have failed to meet expectations, it is possible that the firm is

exhibiting robust evidence of its innate strength and ability to excel even in a difficult external environment. Such positive contradictory news may be construed as evidence that the firm is on a stronger competitive footing than its peers, that its managers possess superior managerial ability, and/or that the risk of the firm is lower than that of others in the industry. The opposite would be true for a firm that announces negative earnings news in an environment in which most industry members are beating expectations. If contradictory earnings news is a strong signal of a firm's innate competitiveness, perhaps such announcements should evoke larger market reactions than confirmatory earnings. This *performance differentiation hypothesis* can be formally stated in the following alternate form:

> **H1B:** The magnitude of market reaction to a firm's earnings news is smaller when this news confirms the earnings news previously announced by other firms in the industry.

Intraindustry Information Transfers and Potential Discrepancies between Analysts' Forecasts and True Market Expectations

Although it is standard empirical practice to use analysts' forecasts (either the consensus or the most recent) to proxy market earnings expectation when estimating the surprise component in earnings announcements, it should be noted that the analysts' process of making/revising earnings estimates is discrete, whereas market updating of expectations based on new information is continuous. This phenomenon of discrete analyst estimates versus continuous updating of true market expectations means that analysts' forecasts measure market expectations with error. More importantly, these errors can become systematic if intraindustry information transfers are either systematically positive or negative as this would lead to analyst

estimates being systematically lower or higher than true market expectations.[4] Such systematic differences between analyst estimates and true market expectations can have major implications for research on the informativeness of earnings and the informational efficiency of the stock market. Most particularly, depending on their interaction with a given variable of interest, these differences may cause either overrejection of or erroneous failure to reject the null hypothesis.

The potential for such error in the context of this study is illustrated in Appendix A, which shows numerically how using analysts' forecasts to proxy for market expectations in the presence of intraindustry information transfers and less timely discrete updating of analysts' forecasts can falsely indicate the existence of confirmation premiums or discounts. In testing H1, therefore, it is imperative to control for the differences between analyst forecasts and true market expectations, which here is done using the approach outlined in Section III.

Differential Persistence Effects of Confirmatory versus Contradictory Earnings

Although H1A (performance alignment) posits the existence of a confirmation premium and H1B (performance differentiation) that of a confirmation discount, both imply the following question: Does the market assign different capitalization rates (ERCs) to a firm's earnings news conditional on whether it confirms or contradicts earlier earnings announcements in the industry? In other words, does the ability of current earnings to signal future performance differ depending on whether or not these earnings confirm those previously announced by industry peers? If yes, then given the importance that the literature has placed on the persistence of earnings from a valuation perspective (Easton and Zmijewski 1989; Kormendi and Lipe 1987; Sloan 1996), it is reasonable to posit that earnings persistence should differ depending on whether a firm's earnings news is confirmatory or contradictory.

[4] Analyst optimism is an additional source of systematic differences between analyst estimates and market expectations (Pinello 2008). However, my sample selection criteria, described in Section III, attempt to mitigate this possibility.

Consistent with H1A, if a confirmation premium does indeed exist, the earnings that confirm those previously announced by peers should be more persistent than those that are contradictory. On the other hand, if the confirmation discount postulated in H1B does indeed exist, confirmatory earnings should be less persistent than those that are contradictory. The possibility of differential persistence effects of confirmatory versus contradictory earnings cannot be completely ruled out even when neither H1A nor H1B is statistically supported. This latter outcome would be consistent with the market's inability to unravel the differential valuation implications of confirmatory and contradictory earnings news. The second set of hypotheses can thus be expressed in the following alternate form:

H2A: The persistence of current earnings into future periods is greater when the surprise in these earnings confirms the earnings news previously announced by other firms in the industry.

H2B: The persistence of current earnings into future periods is weaker when the surprise in these earnings confirms the earnings news previously announced by other firms in the industry.

III. SAMPLE SELECTION AND RESEARCH DESIGN

Sample selection

All the data used in this study are from public sources. The data on both actual earnings and analyst estimates of earnings are from the Thompson Reuters First Call database, while the data on stock returns surrounding earnings announcements are from the Eventus database. The primary source for the control variables used in the regressions is the Compustat North America database.

Because prior research indicates that Regulation Fair Disclosure (Reg–FD), which became effective in late 2000, has led to systematic changes in analyst behavior in terms of significantly tempering their overoptimism (Hovakimian and Saenyasiri 2010), this paper focuses on the quarterly earnings announcements of domestic listed firms for the periods between January 2001 and June 2010. Exclusion of preregulation (Reg-FD) data also enhances the external validity of results in the postregulation world.

Data collection, which began with the gathering of quarterly earnings announcements for the sample period, focuses only on firms whose fiscal quarters match calendar quarters, because it is difficult to define the overall direction of the previously announced industry peer's earnings news for firms that do not meet this criterion. Also excluded are loss making firms, because prior research suggests that the shareholder liquidation option leads to a marked difference between the information content of losses and that of profits (Hayn 1995). These actual quarterly earnings are then matched with the most recent analyst estimates (made prior to the announcement of actual earnings) for each firm quarter.[5] As regards the common practice of using either the consensus forecast or the most recent analyst estimate to proxy for expected earnings, this paper employs the latter. This selection is based on empirical evidence that most current forecasts tend to be more accurate than consensus estimates (O'Brien 1988; Brown and Kim 1991), which in turn implies that forecast dates are more relevant than individual error for determining accuracy. The use of the latest forecast also allows me to control (in the later tests) for information transfers occurring after this forecast.

Consistent with prior research on intraindustry information transfers (e.g., Foster 1981; Baginski 1987; Han and Wild 1990; Kim et al. 2008), I use the 4-digit Standard Industry

[5] The use of First Call data eliminates any risk of analysts backdating forecast information, which can occur in the I/B/E/S database because analysts self-report their estimates and can change them retrospectively.

Classification (SIC) code to group firms into industries. I define a firm's earnings announcement as confirmatory if the sign of the earnings surprise, measured as the difference between the actual and latest analyst forecast, is the same as that of at least half the firms in the same industry that have previously reported earnings for the same quarter.[6] For a firm to be included in the final sample in any given quarter, at least one other firm in the same industry must have previously announced earnings for that same quarter. Finally, to ensure that the results are not driven by outliers, I truncate all variables at the 1 and 99 percentile levels of their respective distributions. The final sample for the initial tests of H1 consists of 38,145 observations from 2,906 unique firms. Sample sizes for subsequent tests depend on the additional data requirements.

Table 1 summarizes the distribution of the sample in terms of whether the earnings surprises are confirmatory or contradictory. As the table shows, not only does a large majority (nearly 75 percent) of firms either meet or beat analyst estimates, but over 70 percent of firm earnings surprises are confirmatory. A contrasting picture emerges, however, when nonnegative (meet or beat) earnings surprises are differentiated from negative earnings surprises: nearly 90 percent of the former are confirmatory (25,600/28,472) as opposed to less than 13 percent of the latter (1,229/9,673). These observations seem to indicate that the industry-wide commonalities that link the fortunes of all firms in the industry are greater when the earnings news is positive than when it is negative. Information revelations of negative earnings, in contrast, seem more idiosyncratic.

[Insert Table 1 here]

[6] Subsequent inferences remain identical when the observations with *exactly* half the previously announced industry earnings are confirmatory is removed from the sample.

Research Design

Baseline Models for Testing H1

The baseline model (Model 1) for testing the magnitude of the market reaction to a firm's earnings news dependent on its being confirmatory or contradictory is as follows:[7]

$$CAR_{it} = \alpha_0 + \alpha_1 Confirm_{it} + \alpha_2 Surprise_{it} + \alpha_3 Confirm_{it} * Surprise_{it} + \varepsilon_{it} \quad (1)$$

where the dependent variable *CAR* is the size-adjusted two-day abnormal return [0,+1] surrounding the firms' earnings announcement. *Confirm* is an indicator variable that equals 1 if the sign of the earnings surprise, measured as the difference between the actual and the latest analyst forecast, matches at least half the firms in the same industry that have previously reported earnings for the same quarter, and 0 otherwise. *Surprise* is the earnings surprise measured as the difference between the actual and the latest analyst estimate of earnings per share (EPS) scaled by the end-of-quarter share price. The interaction term *Confirm*Surprise* (α_3), which is the variable of interest with respect to H1, captures the incremental market reaction for confirmatory earnings news. A positive and significant α_3 implies a confirmatory premium (H1A) while a negative and significant α_3 implies a confirmatory discount (H1B).

Model (2) then introduces additional control variables that account for the salient factors shown in the literature to be associated with the magnitude of market reaction to earnings news:

$$CAR_{it} = \alpha_0 + \alpha_1 Confirm_{it} + \alpha_2 Surprise_{it} + \alpha_3 Confirm_{it} * Surprise_{it} + \alpha_j X_{it} * Surprise_{it} + \alpha_k X_{it} + \varepsilon_{it} \quad (2)$$

[7] Bartov et al. (2002) use a similar approach in testing for "meet-beat" premiums. They also control for forecast error (the difference between actual earnings and the earliest forecast) because the set of possible expectation paths could differ across cases with positive, zero, or negative forecast errors, which may in turn have implications for meet-beat premiums.

where *X* is a vector of the control variables, including those for growth (Collins and Kothari 1989), risk (Easton and Zmijewski 1989), and earnings persistence (Kormendi and Lipe 1987; Easton and Zmijewski 1989).[8] *Growth* is the firm's market-to-book ratio, and *Beta*—the stock beta reported by Compustat and calculated based on stock and market returns for a 60-month period ending in the current month—is used to control for risk.

Three alternative proxies are used to control for earnings persistence (*Persistence*):[9] the earnings-price ratio, the magnitude of earnings change, and an earnings stability measure. The first follows Ou and Penman (1989) and Ali and Zarowin's (1992) argument that extreme earnings-price ratios represent earnings that are transitory whereas non-extreme earnings-price ratios indicate earnings that are predominantly permanent. They rank firms into ten groups based on earnings-price ratio with firms having positive earnings divided into nine groups of equal size and firms having negative earnings assigned to the tenth group. The earnings of the middle six groups are classified as predominantly permanent and those of the top and bottom two groups as predominantly transitory. This paper follows the same procedure with the exception that only nine groupings are done since the sample does not include loss firms.

As a second measure of earnings persistence, I follow Cheng et al. (1996) who use the magnitude of earnings change scaled by beginning-of-period price to measure the presence of transitory elements in earnings. This measure is based on the notion that transitory elements are more likely to be present when unexpected earnings values are large relative to price (Freeman and Tse 1992b; Ali 1994). The third persistence measure follows Rees and Sivaramakrishnan (2007), who use the five-year earnings stability measure obtained from I/B/E/S as their measure

[8] I do not control for size as the dependent variable is size adjusted returns. The results presented in this paper are not sensitive to the inclusion of a size control. When included, size control remains insignificant.

[9] Controlling for earnings persistence is especially important to ensure that the effects of any observed "confirmation premiums/discounts" are over and above those that are explained and controlled for by extant literature.

of persistence. Lower values of this measure indicate earnings that are more stable. Because the empirical results are not sensitive to the persistence proxy, only the results that are obtained with the first measure are reported. As in Model (1), the interaction coefficient of *Confirm*Surprise* (α_3) remains the variable of interest.

The sample distribution statistics presented in Table 1 indicate that the implications of a potential confirmatory premium or discount may differ depending on whether or not the earnings news is nonnegative. For instance, the probability of earnings being confirmatory conditional on it being nonnegative is greater (25,600/28,472=89.9%) than the unconditional probability (26,828/38,145=70.3%). On the other hand, the probability of earnings being confirmatory conditional on it being negative is markedly lower (1,229/9,673=12.7%). Hence, it is worthwhile investigating whether any confirmation effects uncovered through Models (1) and (2) hold for both nonnegative and negative earnings surprises. I therefore analyze subsamples of nonnegative and negative earnings surprises separately.[10,11] Conducting subsample analysis in this manner also ensures that results are not confounded by the meet/beat premium documented in prior literature (Bartov et al 2002).

Controlling for Changes in Expectations Since the Most Recent Analyst Forecast

As already emphasized, analysts' forecasts may be systematically different from true market expectations because market expectations are continuously updated based on information transfers that occur between the most recent analyst forecast and the earnings announcement. Given that these systematic differences can create the impression of confirmation premiums or

[10] Running the model separately for nonnegative and negative earnings surprise subsamples is a less constrained approach than incorporating a dummy variable within a single equation because it allows the coefficients of all variables to differ across the two groups.

[11] Although 4,956 observations (13 percent) of the sample have zero earnings surprises (i.e., just meet market expectations), their exclusion does not alter any of the inferences.

discounts when none truly exists (see Appendix A), I investigate whether controlling for this possibility alters any of the inferences derived from the earlier tests of H1.

When the market receives new information, its corresponding revision of expectations is accompanied by ensuing changes in share price. It is therefore reasonable to argue that true market expectation of earnings can be modeled as a function of the most recent analyst forecast and the abnormal changes in share price that have taken place since this forecast. Accordingly, I refine Models (1) and (2) to arrive at augmented Models (3) and (4), respectively, which control for a variable that may confound the results of both earlier models— the probable changes in market expectations of a firm's earnings between the most recent analyst forecast and the earnings announcement. The derivation of these models is given in Appendix B.

$$CAR_{it} = \beta_0 + \beta_1 Confirm_{it} + \beta_2 Surprise_{it} + \beta_3 Confirm_{it} * Surprise_{it} + \beta_4 CAR'_{it} + \beta_5 Confirm_{it} * CAR'_{it} + \varepsilon_{it} \quad (3)$$

$$CAR_{it} = \beta_0 + \beta_1 Confirm_{it} + \beta_2 Surprise_{it} + \beta_3 Confirm_{it} * Surprise_{it} + \beta_4 CAR'_{it} + \beta_5 Confirm_{it} * CAR'_{it} + \beta_j X_{it} * Surprise_{it} + \beta_k X_{it} * CAR'_{it} + \beta_l X_{it} + \varepsilon_{it} \quad (4)$$

where *CAR'* is the size-adjusted cumulative abnormal return from the day following the most recent analyst forecast to the day prior to the earnings announcement. In both Models (3) and (4), β_3, which captures the incremental market reaction to confirmatory earnings surprises, is the variable of interest.

Models for Testing H2

To test for differences in persistence between earnings with confirmatory versus contradictory surprises, I follow Sloan (1996):

$$Earnings_{i,t+n} = \rho_0 + \rho_1 Confirm_{it} + \rho_2 Earnings_{it} + \rho_3 Confirm_{it} * Earnings_{it} + \varepsilon_{it} \quad (5)$$

where *Earnings* is operating income scaled by average assets, and the dependent variable is earnings of up to eight quarters into the future (*Earnings*$_{i,t+n}$ and *n=1, 2, 3, ...,8)*, on which eight separate regressions are run. The coefficient of *Earnings*$_t$ (ρ_2) represents the persistence of contradictory earnings, while the interaction coefficient of *Confirm*Earnings* (ρ_3), which is the coefficient of primary interest, captures the incremental persistence of confirmatory earnings. A positive and significant ρ_3 implies that confirmatory earnings are more persistent than contradictory earnings (H2A), whereas a negative and significant ρ_3 implies the opposite (H2B). In linking H1 and H2, a positive and significant ρ_3 is internally consistent with the presence of a confirmation premium (H1A), whereas a negative and significant ρ_3 would be meaningful if H1 uncovered the presence of a confirmation discount (H1B).

In the same spirit as in H1, separate analyses are carried out on the full sample and the subsamples of nonnegative and negative earnings surprises.

IV. RESULTS

Descriptive Statistics

Table 2 provides the descriptive statistics for selected variables of interest. Consistent with the majority of firms' beating analysts' forecasts, both mean and median earnings surprises (*Surprise*), measured as the difference between actual EPS and most recent analyst forecast scaled by the end-of-quarter share price, are positive. In fact, untabulated statistics indicate that they are reliably greater than zero. On average, the signs of earnings surprises and the signs of market reaction to earnings announcements are consistent with each other. The mean and median of size-adjusted abnormal returns surrounding [0,+1] earnings announcements (*CAR*) are positive and reliably greater than zero. According to these statistics, the mean (median) time lag between

the most recent analyst forecast and the earnings announcement is 37 (23) calendar days, and the mean (median) time lag between the end of the reporting period and the earnings announcement is 33 (30) days. Together, they indicate that analysts tend to come up with revised forecasts quite close to the end of the reporting period but are less likely to make subsequent revisions before the earnings announcement.

The mean (median) number of industry members (identified by 4-digit SIC code) that have announced earnings prior to the sample firm is 14 (6). Both the mean and median size-adjusted cumulative abnormal returns between the most recent analyst forecast and earnings announcement (*CAR'*) are positive and reliably greater than zero. Given that earnings surprises tend to be positive on average, a positive mean and median for *CAR'* is consistent with the overall information transfer effects of intraindustry earnings announcements being positive, a finding in line with prior literature (see, e.g., Foster 1981; Clinch and Sinclair 1987; Freeman and Tse 1992a). The mean (median) values for total assets and market-to-book ratio are 1.2 billion dollars (4.7 billion dollars) and 2.7 (2.1), respectively. The mean value for *Beta* is 1.1, while its median is 0.97, indicating that the sample is generally representative of the overall market in terms of systematic risk.

[Insert Table 2 here]

Results for H1

Tests of H1 Using Baseline Models

Table 3, Panel A reports the results of Models (1) and (2) for the full sample. In Model (1), whose outcomes are given in the first two columns, the coefficient on *Surprise* captures the relation between earnings surprise and market reaction for firms whose earnings surprises are contradictory. As expected, this coefficient is positive and significant (α_2 = 2.3446, $p < 0.01$).

More important, the interaction coefficient of *Confirm*Surprise* is also positive and significant (α_3 = 0.3867, p < 0.01). This finding supports the HIA *performance alignment hypothesis*, which posits that the market reaction to earnings surprise will be stronger when this surprise confirms prior earnings news from industry peers. This evidence of a confirmation premium (and conversely, a contradiction discount) in earnings news indicates that the market may perceive confirmatory earnings news as less noisy and therefore more value relevant. The magnitude of the confirmation premium, about 16 percent (0.3867/2.3446) over contradictory earnings surprises, is economically meaningful.

The results for Model (2), reported in the final two columns of Table 3, Panel A, further confirm these findings. As in Model (1), the coefficient of *Surprise* (α_2 = 0.8464, p < 0.01) and the interaction coefficient *Confirm*Surprise* (α_3 = 0.4204, p < 0.01) are positive and significant. In fact, controlling for other determinants of ERC increases the relative magnitude of the confirmation premium, which in Model (2) is nearly 50 percent (0.4204/0.8464). The interaction terms of all the control variables are also positive and significant. As expected, the coefficient on *Growth*Surprise* is positive (α_4 = 0.3747, p < 0.01), indicating that the earnings surprises of growth firms are capitalized at higher multiples, but the sign of *Beta*Surprise* is contrary to expectations (α_5 = 0.3802, p < 0.01). Consistent with the notion that earnings surprises with greater persistence generate stronger market reactions, *Persistence*Surprise* is positive and significant (α_6 = 1.1758, p < 0.01).

[Insert Table 3 here]

Table 3, Panel B reports the results of Models (1) and (2) for the subsample of nonnegative earnings news. These results are very much in line with the full sample results and attest to the presence of a confirmation premium, thereby supporting H1A. In Model (1), the

coefficient on *Surprise* is positive and significant (α_2 = 1.9597, p < 0.01) as is the interaction coefficient of *Confirm*Surprise* (α_3 = 0.5597, p < 0.05), which measures the incremental market reaction for confirmatory earnings surprises. The results for Model (2) are similar.[12] The magnitude of the confirmation premium is greater in the nonnegative earnings surprise subsample than in the full sample; almost 29 percent in Model (1) (0.5597/1.9597) and 65 percent in Model (2) (0.5743/0.8897). This finding raises the possibility that the confirmation premium could be smaller and/or insignificant for negative earnings surprises, a conjecture supported by Table 3, Panel C, which reports the Model (1) and (2) results for the subsample of negative earnings surprises. In both models, the coefficient on *Surprise* is positive and significant (Model (1): α_2 = 0.7032, p < 0.01, Model (2): α_2 = 1.0882, p < 0.01), but the interaction coefficient *Confirm*Surprise* remains statistically insignificant (Model (1): α_3 = 0.2094, p = 0.56, Model (2): α_3 = 0.1330, p = 0.71). In other words, there is no evidence of a confirmation premium for negative confirmatory earnings surprises, so neither H1A nor H1B can be supported for firms with negative earnings surprises.

Overall, the results reported in Table 3 suggest that the market perceives nonnegative confirmatory earnings surprises as less noisy and hence attaches an incremental premium to such earnings. The magnitude of this confirmation premium for nonnegative confirmatory earnings, with a lower bound of 29 percent over the capitalization rate for contradictory earnings surprises, is economically meaningful. On the other hand, no such confirmation premium is apparent for negative earnings surprises, and no evidence emerges that the market distinguishes between negative earnings surprises that are confirmatory and those that are contradictory.

[12] The coefficient on *Surprise* is positive and significant (α_2 = 0.8897, p < 0.01) and so is the interaction coefficient of *Confirm*Surprise* (α_3 = 0.5743, p < 0.05).

Tests of H1 Using Augmented Models

As discussed in previous sections, the discrete nature of analysts' forecasts versus the continuous updating of true market expectations could potentially lead to true market expectations being systematically different from analysts' forecasts. Therefore, as shown in Appendix A, failure to control for these differences can lead to spurious confirmation discounts in the presence of positive intraindustry information transfers and to spurious confirmation premiums in the presence of negative intraindustry information transfers. I thus run an estimation using augmented Models (3) and (4) that incorporates a control for information events that may have taken place since the most recent analyst forecast.

[Insert Table 4 here]

Table 4, Panels A, B, and C report the Model (3) and (4) results for the full sample, the nonnegative earnings surprise subsample, and the negative earnings surprise subsample, respectively. These results are very much in line with those of Models (1) and (2). For the full sample (Table 4, Panel A), the interaction coefficient of *Confirm*Surprise* is positive and significant [Model (3): α_3 = 0.4214, p < 0.01, Model (4): α_3 = 0.4554, p < 0.01], indicating the presence of a confirmation premium and support for H1A. As shown in Table 4, Panel B, this confirmation premium is greater in the subsample of nonnegative earnings surprises [Model (3): α_3 = 0.5746, p < 0.05, Model (4): α_3 = 0.5886, p < 0.05] than in the full sample. In addition, the magnitude and statistical significance of the interaction coefficient *Confirm*Surprise* is marginally greater in Table 4, Panels A and B, than in Table 3.[13] In other words, controlling for

[13] In Table 3, Panel A, the magnitude (p-value) of the interaction coefficient *Confirm*Surprise* is 0.3867 (0.008) and 0.4204 (0.005) for Model (1) and Model (2), respectively. In Table 4, Panel B, the magnitude (p-value) of the corresponding coefficient improves to 0.4214 (0.004) and 0.4554 (0.002), respectively. Similarly, in Table 3, Panel B, the magnitude (p-value) of the interaction coefficient *Confirm*Surprise* is 0.5597 (0.047) and 0.5743 (0.042) for Model (1) and Model (2), respectively, and these figures improve to 0.5746 (0.041) and 0.5886 (0.037), respectively, in Table 4, Panel B.

divergence between the most recent analyst forecast and true market expectation has marginally strengthened the statistical support for H1A. Like Table 3, Panel C, however, Table 4, Panel C reveals no support for a confirmation premium (or discount) for negative earnings surprises [Model (3): α_3 = 0.2163, p = 0.55, Model (4): α_3 = 0.1512, p = 0.68]. Thus, the inferences that emerge from Table 4 are very much in line with those derived from Table 3. There is consistent evidence of the market assigning a confirmation premium for nonnegative confirmatory earnings surprises, but no such premium seems evident for negative earnings surprises.

Results for H2

H2 tests whether confirmatory earnings carry greater or lesser persistence than contradictory earnings: H2A posits greater persistence for confirmatory earnings; H2B argues the opposite. Table 5, Panel A reports the results for Model (5) for the full sample. The results of all eight separate regressions with earnings of up to eight quarters ahead as the dependent variable are strikingly similar: the coefficient of *Earnings* is consistently positive and significant (the magnitude of ρ_2 varies from 0.3829 to 0.6179, p < 0.01). More important, the interaction coefficient of *Confirm*Earnings* is positive and significant across all specifications (the magnitude of ρ_3 varies from 0.0734 to 0.1839, p < 0.01), indicating that confirmatory earnings are more persistent on average than contradictory earnings (H2A). This finding is internally consistent with the earlier finding of a confirmation premium in the market's response to earnings news, which in turn implies that confirmatory earnings are indeed less noisy signals of future performance.

[Insert Table 5 here]

In terms of the presence of a confirmation premium conditional on whether the earnings surprise is nonnegative or negative, I found significant evidence of a premium only for

confirmatory nonnegative earnings surprises. This finding implies that incremental information content (or inversely, the "noise" component), as well as earnings persistence, could differ depending on whether the earnings surprise is nonnegative or negative. Table 5, Panels B and C report the results of Model (5) for the nonnegative and negative earnings surprise subsamples respectively.

The results for nonnegative earnings surprise subsample (Table 5, Panel B) are broadly similar to those of the full sample. The coefficient of *Earnings* is positive and significant across all eight specifications (the magnitude of ρ_2 varies from 0.2111 to 0.6362, $p < 0.01$). The interaction coefficient of *Confirm*Earnings* is positive and significant as well (the magnitude of ρ_3 varies from 0.1070 to 0.4541, $p < 0.01$), indicating that when it comes to earnings with nonnegative surprises, confirmatory earnings are more persistent than contradictory earnings (H2A). In a rational market, this discovery of greater persistence for earnings with nonnegative confirmatory surprises is consistent with the earlier finding of a confirmation premium for such surprises. It is also worth noting that the magnitude of the coefficient of *Confirm*Earnings* is substantially larger in nonnegative earnings surprise subsample than the full sample. Average coefficient size of ρ_3 across the eight specifications is 0.2118 for the nonnegative earnings surprise subsample and only 0.1030 for the full sample (not tabulated), indicating that the greater persistence of confirmatory earnings is more pronounced for earnings with nonnegative surprises.

Model (5) results for the negative earnings surprise subsample are reported in Table 5, Panel C. Similar to the full sample and the nonnegative earnings surprise subsample, the coefficient of *Earnings* is positive and significant across all eight specifications (the magnitude of ρ_2 varies from 0.4022 to 0.6099, $p < 0.01$). However, in contrast, the interaction coefficient

*Confirm*Earnings* is negative and significant (the magnitude of ρ_3 varies from -0.3178 to -0.1541, $p < 0.01$), indicating that earnings with negative confirmatory surprises are in fact less persistent than those with contradictory surprises. In other words, I find strong support for H2B in the subsample of firms with negative earnings surprises, an interesting finding given the H1 results for the negative earnings surprise subsample (Tables 3 and 4, Panel C), which failed to support either a confirmation premium or a discount. That is, whereas H1 finding implies no market discrimination between confirmatory and contradictory negative earnings surprises, the H2B finding that earnings with confirmatory negative surprises are less persistent than those with contradictory negative surprises (ρ_4 is negative and significant) raises the question of whether the market is overreacting (i.e., not assigning a confirmation discount) to such earnings news.

Overall, I find that earnings with confirmatory positive surprises are more persistent than those with contradictory surprises, which provides a rational explanation for the presence of a confirmation premium for such firms as postulated by H1A. On the other hand, earnings with confirmatory negative surprises appear less persistent than those with contradictory surprises. As there was no evidence of differential ERCs when it comes to negative earnings surprises, this suggests that the market may be overreacting to negative earnings surprises that are confirmatory.

V. CONCLUSIONS

The informativeness of a firm's financial reports in the presence of other information is a question of considerable academic and policy interest. Whereas other timelier information sources can potentially diminish the value relevance of a firm's financial statements, a large

body of literature suggests that financial statements have clearly retained value relevance over time. Whether and how the informativeness of news content in a firm's financial statements is affected by the presence of other information sources, however, has to date been an inadequately explored issue. This paper addresses this problem empirically by examining whether the market response to a firm's earnings surprise is a function of the firm's earnings news confirming or contradicting the previous earnings announcements of other industry members.

The empirical results show that the market attaches a confirmation premium to nonnegative earnings with confirmatory surprises, which subsequent tests suggest is a rational response to these earnings' higher persistence. Earnings with negative confirmatory surprises, however, seem less persistent than those with contradictory surprises, but the market does not seem to be responding to negative surprises based on whether or not they are confirmatory. The findings of this study enhance our understanding of how the market impounds a firm's earnings information into its stock prices in the presence of information from other sources that may confirm or contradict it.

The findings also point to valuable avenues for further research. For example, because intraindustry information transfers are not the only information source that may condition the market reaction to a firm's earnings, future investigation might extend this current study to consider other information sources. It would also be interesting to assess whether and how the market adjusts the stock prices of early announcers when the earnings news of late announcers confirms or contradicts these prior announcements (i.e., the reverse of the effect studied here). Likewise, the finding that earnings with nonnegative confirmatory surprises are more persistent and negative confirmatory surprises less persistent than earnings with contradictory surprises could be extended by identifying the reasons for such asymmetric behavior. One possibility is

that the accounting conservatism that makes bad news less persistent (Basu 1997) manifests itself to a greater degree in recognition of industry-wide unfavorable events than of firm-specific events, thereby reducing the persistence of confirmatory earnings with negative surprises relative to contradictory earnings.

APPENDIX A

INFORMATION TRANSFER-INDUCED DISCREPANCIES BETWEEN ANALYST ESTIMATES AND MARKET EXPECTATIONS AND THE FALSE APPEARANCE OF CONFIRMATION PREMIUMS/DISCOUNTS

The scenario outlined in Table A1, corresponds to a case in which intraindustry information transfers are positive on average (the industry-wide commonalities effect) and the information content of firm B's EPS announcement confirms that of firm A (i.e., B also reports a positive earnings surprise). It is based on the following assumptions:

Given two firms, A and B, in one industry, A announces earnings first ($1.20) followed by B. Prior to A's earnings announcement, analysts forecast that both A and B will make $1 in EPS for the period. Since the earnings announcements occur in close proximity, analysts do not revise B's forecast following A's announcement, and the magnitude of the market reaction to B's own earnings news does not differ systematically depending on the nature of previously announced earnings news in the industry (A's). Hence, a well-specified model should fail to reject H1.

B's earnings surprise is capitalized into the share price at a multiple of 10 (i.e., the "true" ERC for B is 10). For convenience, I assume that when A announces earnings of $1.20 (a $0.20 positive surprise), the market's expectation of B's earnings will rise by $0.10 to $1.10 and B's own EPS will be $1.15.

TABLE A1
Case 1

	Firm A		Firm B
Analysts' EPS estimate	$1.00		$1.00
A's actual EPS	$1.20		
Revised market expectation for B			$1.10
B's actual EPS			$1.15
'True" news of B's EPS		= $1.15 - $1.10	= $0.05
'True" ERC (by assumption)			= 10
Price change to B because of earnings announcement		= $0.05 x 10	= $0.50
Observed "news" of B's earning when the analyst forecast proxies market		= $1.15 - $1.00	= $0.15
Observed ERC		= $0.50 / $0.15	= 3.33

As is apparent from the table, the estimated ERC of 3.33 is understated in comparison to the true ERC of 10. In other words, in this scenario of positive information transfer effects and firm earnings that confirm those previously announced by industry members, the disparity between analyst estimates and true market expectations could lead the researcher to erroneously conclude the presence of a confirmation discount. Conversely, when information transfer effects are positive and a firm's own earnings news contradicts that previously announced by industry members, it could create the erroneous appearance of a contradiction premium. Likewise, when information transfer effects are systematically negative, it could create either a false confirmation premium or a contradiction discount. Hence, model specifications that fail to address the potential systematic disparities between analyst estimates and true market expectations can lead to erroneous rejection of H1A and B.

APPENDIX B

EXTENDED MODELS TO CONTROL FOR CHANGES IN MARKET EXPECTATIONS BETWEEN THE MOST RECENT ANALYST FORECAST AND THE EARNINGS ANNOUNCEMENT

Model (a) is identical to Model (2) presented in Section III:

$$CAR_{it} = \alpha_0 + \alpha_1 Confirm_{it} + \alpha_2 Surprise_{it} + \alpha_3 Confirm_{it} * Surprise_{it} + \alpha_j X_{it} * Surprise_{it} + \alpha_k X_{it} + \varepsilon_{it} \quad \text{(a)}$$

where $Surprise = A - F^{ana}$, A represents actual earnings per share, and F^{ana} represents the most recent analyst forecast. F^{ana}, however, also measures the true market expectation with error if information transfers that alter expectations occur between this forecast date and the date of the earnings announcement. Therefore, a conceptual representation of true earnings surprise would be

$$Surprise^{true} = A - F^{rev},$$

where F^{rev} is the market's true expectation of earnings after revising for the information events described above. Hence, a more accurate specification of Model (a) would be

$$CAR_{it} = \chi_0 + \chi_1 Confirm_{it} + \chi_2 \left(A_{it} - F_{it}^{rev}\right) + \chi_3 Confirm_{it} * \left(A_{it} - F_{it}^{rev}\right) + \chi_j X_{it} * \left(A_{it} - F_{it}^{rev}\right) + \chi_k X_{it} + \varepsilon_{it} \quad \text{(b)}$$

Although F^{rev} is unobservable, if the revised market expectation is assumed to be a linear function of the most recent analyst forecast and the cumulative abnormal return of the stock since this forecast but prior to the earnings announcement, then

$$F_{it}^{rev} = F_{it}^{ana} + \theta CAR'_{it} \quad \text{(c)}$$

where, *CAR'* is the size-adjusted cumulative abnormal return from the day after the most recent analyst forecast to the day before the earnings announcement.

Now, Model (b) can be rewritten as

$$CAR_{it} = \chi_0 + \chi_1 Confirm_{it} + \chi_2\left(A_{it} - F_{it}^{ana} - \theta CAR'_{it}\right) + \chi_3 Confirm_{it} * \left(A_{it} - F_{it}^{ana} - \theta CAR'_{it}\right) + \chi_j X_{it} * \left(A_{it} - F_{it}^{ana} - \theta CAR'_{it}\right) + \chi_k X_{it} + \varepsilon_{it} \quad \text{(d)}$$

where χ_3 is the coefficient of primary interest.

Rearranging the terms, Model (d) can be given as

$$CAR_{it} = \chi_0 + \chi_1 Confirm_{it} + \chi_2\left(A_{it} - F_{it}^{ana}\right) + \chi_3 Confirm_{it} * \left(A_{it} - F_{it}^{ana}\right) - \chi_2\theta CAR'_{it} - \chi_3\theta Confirm_{it} * CAR'_{it} + \chi_j X_{k,it} * \left(A_{it} - F_{it}^{ana}\right) - \chi_j\theta X_{it} * CAR'_{it} + \chi_k X_{it} + \varepsilon_{it} \quad \text{(e)}$$

It is then possible to formulate an extended Model (1) that controls for changes in market expectations since the most recent analyst forecast:

$$CAR_{it} = \beta_0 + \beta_1 Confirm_{it} + \beta_2 Surprise_{it} + \beta_3 Confirm_{it} * Surprise_{it} + \beta_4 CAR'_{it} + \beta_5 Confirm_{it} * CAR'_{it} + \beta_j X_{it} * Surprise_{it} + \beta_k X_{it} * CAR'_{it} + \beta_l X_{it} + \varepsilon_{it} \quad \text{(f)}$$

References

Ali, A. 1994. The incremental information content of earnings, working capital from operations, and cash flows. *Journal of Accounting Research* 32(1): 61.

_____, and P. Zarowin. 1992. The role of earnings levels in annual earnings-returns studies. *Journal of Accounting Research* 30(2): 286.

Amir, E., and B. Lev. 1996. Value-relevance of nonfinancial information: the wireless communications industry. *Journal of Accounting and Economics* 22, 3–30.

Baginski, S. P. 1987. Intraindustry Information Transfers Associated with Management Forecasts of Earnings. *Journal of Accounting Research 25*(2): 196.

Ball, R., and S. Kothari. 1991. Security returns around earnings announcements. *The Accounting Review* 66, 718–738.

Bartov, E., D. Givoly, and C. Hayn. 2002. The rewards to meeting or beating earnings expectations. *Journal of Accounting & Economics* 33(2): 173-204.

Basu, S. 1997. The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics* 24(1): 3-37.

Brown, L. D., and K. J. Kim. 1991. Timely aggregate analysts' forecasts as better proxies for market earnings expectations. *Journal of Accounting Research* 29 (2): 382-385.

Cheng, C. S. A., C. Liu, and T. F. Schaefer. 1996. Earnings permanence and the incremental information content of cash flows from operations. *Journal of Accounting Research* 34(1): 173.

Clinch, G. J., and N. A. Sinclair. 1987. Intra-Industry Information Releases: A Recursive Systems Approach. *Journal of Accounting and Economics* 9(1): 89.

Collins, D. W., and S. P. Kothari. 1989. An Analysis of Intertemporal and Cross-Sectional Determinants of Earnings Response Coefficients. *Journal of Accounting and Economics* 11(2,3): 143.

Easton, P. D., and M. E. Zmijewski. 1989. Cross-Sectional Variation in the Stock Market Response to Accounting Earnings Announcements. *Journal of Accounting and Economics* 11(2,3): 117.

Ely, K. M., and V. Mande. 1996. The interdependent use of earnings and dividends in financial analysts' earnings forecasts. *Contemporary Accounting Research* 13(2): 435.

Fitzpatrick, D. 2011. J.P. Morgan Results Put Spotlight On Rivals. *Wall Street Journal* (July 15): C.1.

Foster, G. 1981. Intra-industry information transfers associated with earnings releases. *Journal of Accounting and Economics 3:* 201.

Freeman, R., and S. Tse. 1989. The Multiperiod Information Content of Accounting Earnings: Confirmations and Contradictions of Previous Earnings Reports. *Journal of Accounting Research* 27: 49.

_____, and _____. 1992a. An Earnings Prediction Approach to Examining Intercompany Information Transfers. *Journal of Accounting and Economics* 15(4): 509.

_____, and _____. 1992b. A nonlinear model of security price responses to unexpected earnings. *Journal of Accounting Research* 30(2): 185.

Gigler, F. and T. Hemmer. 1998. On the frequency, quality, and informational role of mandatory financial reports. *Journal of Accounting Research: Studies on Enhancing the Financial Reporting Model* 36: 117-147.

Han, J. C. Y., and J. J. Wild. 1990. Unexpected Earnings and Intraindustry Information Transfers: Further Evidence. *Journal of Accounting Research 28*(1): 211.

Han, J. C. Y., J. J. Wild, and K. Ramesh. 1989. Managers' Earnings Forecasts and Intra-Industry Information Transfers. *Journal of Accounting and Economics* 11(1): 3.

Hayn, C. 1995. The information content of losses. *Journal of Accounting and Economics* 20(2): 125.

Hovakimian, A., and E. Saenyasiri. 2010. Conflicts of Interest and Analyst Behavior: Evidence from Recent Changes in Regulation. *Financial Analysts Journal 66*(4): 96-107.

Kane, A., Y. K. Lee, and A. Marcus. 1984. Earnings and Dividend Announcements: Is There a Corroboration Effect? *The Journal of Finance* 39(4): 1091.

Kim, Y., M. Lacina, and M. Park. 2008. Positive and Negative Information Transfers from Management Forecasts. *Journal of Accounting Research 46*(4): 885-908.

Kormendi, R., and R. Lipe. 1987. Earnings Innovations, Earnings Persistence, and Stock Returns. *The Journal of Business* 60(3): 323.

Lang, M., and R. Lundholm. 1996. The relation between security returns, firm earnings, and industry earnings. *Contemporary Accounting Research* 13(2): 607.

O'Brien, P. C. 1988. Analysts' Forecasts as Earnings Expectations. *Journal of Accounting and Economics 10*(1): 53.

Ou, J. A., and S. H. Penman. 1989. Accounting Measurement, Price-Earnings Ratio, and the Information Content of Security Prices. *Journal of Accounting Research (Supplement)* 27: 111.

Pinello, A.S. 2008. Investors' Differential Reaction to Positive versus Negative Earnings Surprises. *Contemporary Accounting Research* 25(3): 891-920.

Ramnath, S. 2002. Investor and analyst reactions to earnings announcements of related firms: An empirical analysis. *Journal of Accounting Research* 40(5): 1351-1376.

Rees, L., and K. Sivaramakrishnan. 2007. The Effect of Meeting or Beating Revenue Forecasts on the Association between Quarterly Returns and Earnings Forecast Errors. *Contemporary Accounting Research* 24(1): 8.

Sloan, R. G. 1996. Do stock prices fully reflect information in accruals and cash flows about future earnings? *The Accounting Review* 71(3): 289.

Thomas, J., and F. Zhang. 2008. Overreaction to Intra-industry Information Transfers? *Journal of Accounting Research* 46(4): 909-940.

Vincent, L. 1999. The information content of funds from operations (FFO) for real estate investment trusts (REITs). *Journal of Accounting and Economics* 26, 69–104.

Wilson, P. 1987. The incremental information content of the accrual and funds components of earnings after controlling for earnings. *The Accounting Review* 62, 293–322.

TABLE 1

Sample Distribution of Confirmatory and Contradictory Earnings News

	Nonnegative	Negative	Total
Confirmatory	25,600	1,229	26,828
	(67.1%)	(3.2%)	(70.3%)
Contradictory	2,872	8,444	11,317
	(7.5%)	(22.1%)	(29.7%)
Total	28,472	9,673	38,145
	(74.6%)	(25.4%)	(100.0%)

(1) The columns indicate whether the earnings surprise confirms or contradicts with earnings news of previously announced industry members. The rows indicate whether the earnings surprise is nonnegative or negative.
(2) Each cell reports the total number of observations belonging to it. The number of observations as a percentage of the total sample is reported within parenthesis.

TABLE 2

Descriptive Statistics

	Number of observations = 38,145				
	Mean	25th Percentile	Median	75th Percentile	Std. Deviation
Earnings surprise (*Surprise*)	0.0012	-0.0002	0.0006	0.0022	0.0053
Size adjusted CAR surrounding earnings announcement (*CAR*)	0.0044	-0.0309	0.0028	0.0404	0.0704
Days from Latest Analyst Estimate to Actual	37.2259	9.0000	23.0000	64.0000	33.6517
Days from Qtr. End to Actual	32.6259	25.000	30.0000	37.0000	11.1789
No. of Previously Announced Industry Members	13.5038	2.0000	6.0000	15.0000	19.2132
CAR from Latest Analyst Estimate to Earnings Announcement (*CAR'*)	0.0094	-0.0395	0.0020	0.0463	0.1184
Total Assets	4670.932	403.060	1193.774	3936.65	9371.083
Market-to-Book Ratio	2.6750	1.4318	2.0846	3.2071	2.0479
Beta	1.1064	0.5594	0.9675	1.5069	0.7610

(1) This Table reports Descriptive statistics for selected variables of interest.
(2) The sample consists of 38,145 quarterly earnings announcements from first quarter of 2001 to second quarter of 2010.
(3) All variable definitions are self-explanatory.

TABLE 3

Tests of Hypothesis 1 – Baseline Models

Model (1):

$$CAR_{it} = \alpha_0 + \alpha_1 Confirm_{it} + \alpha_2 Surprise_{it} + \alpha_3 Confirm_{it} * Surprise_{it} + \varepsilon_{it}$$

Model (2):

$$CAR_{it} = \alpha_0 + \alpha_1 Confirm_{it} + \alpha_2 Surprise_{it} + \alpha_3 Confirm_{it} * Surprise_{it} + \alpha_4 Growth_{it} * Surprise_{it} + \alpha_5 Beta_{it} * Surprise_{it} + \alpha_6 Persistence_{it} * Surprise_{it} + \alpha_7 Growth_{it} + \alpha_8 Beta_{it} + \alpha_9 Persistence_{it} + \varepsilon_{it}$$

Panel A: Full Sample

		Model (1)		Model (2)	
		Coefficient Estimate	p-value	Coefficient Estimate	p-value
Intercept	α_0	-0.0108	<0.001	-0.0078	<0.001
Confirm	α_1	0.0166	<0.001	0.0155	<0.001
Surprise	α_2	2.3446	<0.001	0.8464	<0.001
Confirm*Surprise	α_3	**0.3867**	**0.008**	**0.4204**	**0.005**
	$\alpha_2 + \alpha_3$	2.7313	<0.001	1.2668	<0.001
<u>*Control Variables*</u>					
*Growth*Surprise*	α_4			0.3747	<0.001
*Beta*Surprise*	α_5			0.3802	<0.001
*Persistence*Surprise*	α_6			1.1758	<0.001
Main effects of control variables?		No		Yes	
Controls for changes in expectations?		No		No	
No. of Observations		38145		38145	
F-Value		881.62	<0.001	316.05	<0.001
Adj. R-Sq.		0.0648		0.0692	

Panel B: Nonnegative Earnings Surprises

		Model (1)		Model (2)	
		Coefficient Estimate	p-value	Coefficient Estimate	p-value
Intercept	α_0	0.0104	<0.001	0.0090	<0.001
Confirm	α_1	-0.0028	0.068	-0.0030	0.054
Surprise	α_2	1.9597	<0.001	0.8897	0.005
Confirm*Surprise	α_3	**0.5597**	**0.047**	**0.5743**	**0.042**
	$\alpha_2 + \alpha_3$	2.5194	<0.001	1.4640	<0.001
Control Variables					
*Growth*Surprise*	α_4			0.1953	<0.001
*Beta*Surprise*	α_5			0.2964	0.005
*Persistence*Surprise*	α_6			1.1894	<0.001
Main effects of control variables?		No		Yes	
Controls for changes in expectations?		No		No	
No. of Observations		28472		28472	
F-Value		254.78	<0.001	95.26	<0.001
Adj. R-Sq.		0.0260		0.0289	

Panel C: Negative Earnings Surprises

		Model (1)		Model (2)	
		Coefficient Estimate	p-value	Coefficient Estimate	p-value
Intercept	α_0	-0.0229	<0.001	-0.0048	0.026
Confirm	α_1	-0.0012	0.629	-0.0022	0.360
Surprise	α_2	0.7032	<0.001	1.0882	0.002
Confirm*Surprise	α_3	**0.2094**	**0.560**	**0.1330**	**0.712**
	$\alpha_2 + \alpha_3$	0.9125	0.005	1.2211	0.004
Control Variables					
*Growth*Surprise*	α_4			0.1097	0.270
*Beta*Surprise*	α_5			-0.2856	0.112
*Persistence*Surprise*	α_6			-0.2077	0.463
Main effects of control variables?		No		Yes	
Controls for changes in expectations?		No		No	
No. of Observations		9673		9673	
F-Value		10.41	<0.001	19.01	<0.001
Adj. R-Sq.		0.0029		0.0165	

(1) The sample consists of observations from first quarter of 2001 to second quarter of 2010.
(2) All p-values are based on two-tailed t-tests.
(3) **Variable Definitions**: *CAR* = size adjusted two-day abnormal return [0,+1] surrounding the firms' earnings announcement. *Confirm* = an indicator variable taking the value of 1 if the sign of earnings surprise, measured as the difference between actual and latest analyst forecast, is same as that of at least half the firms of the same industry that has reported earnings for the same quarter previously, and 0 otherwise. *Surprise* = earnings surprise measured as the difference between actual and latest analyst estimate of earnings per share (EPS) scaled by the end of quarter share price. *Growth* = firm's market to book ratio at the end of the quarter. *Beta* = stock beta as reported by Compustat, which is calculated with stock and market returns for a 60 month time period, ending in current month. *Persistence* = an indicator variable taking the value of 1 if earnings are likely predominantly permanent, and 0 otherwise. This variable is constructed following Ou and Penman (1989) and Ali and Zarowin (1992).

TABLE 4

Tests of Hypothesis 1 – Augmented Models

Model (3):

$$CAR_{it} = \beta_0 + \beta_1 Confirm_{it} + \beta_2 Surprise_{it} + \beta_3 Confirm_{it} * Surprise_{it} + \beta_4 CAR'_{it} + \beta_5 Confirm_{it} * CAR'_{it} + \varepsilon_{it}$$

Model (4):

$$CAR_{it} = \beta_0 + \beta_1 Confirm_{it} + \beta_2 Surprise_{it} + \beta_3 Confirm_{it} * Surprise_{it} + \beta_4 CAR'_{it} + \beta_5 Confirm_{it} * CAR'_{it} + \beta_6 Growth_{it} * Surprise_{it} + \beta_7 Beta_{it} * Surprise_{it} + \beta_8 Persistence_{it} * Surprise_{it} + \beta_9 Growth_{it} * CAR'_{it} + \beta_{10} Beta_{it} * CAR'_{it} + \beta_{11} Persistence_{it} * CAR'_{it} + \beta_{12} Growth_{it} + \beta_{13} Beta_{it} + \beta_{14} Persistence_{it} + \varepsilon_{it}$$

Panel A: Full Sample

		Model (3)		Model (4)	
		Coefficient Estimate	p-value	Coefficient Estimate	p-value
Intercept	β_0	-0.0107	<0.001	-0.0078	<0.001
Confirm	β_1	0.0168	<0.001	0.0156	<0.001
Surprise	β_2	2.3420	<0.001	0.8478	<0.001
Confirm*Surprise	β_3	**0.4214**	**0.004**	**0.4554**	**0.002**
CAR'	β_4	-0.0047	0.410	-0.0159	0.066
*Confirm*CAR'*	β_5	-0.0132	0.046	-0.0157	0.018
	$\beta_2 + \beta_3$	2.7633	<0.001	1.3032	<0.001
<u>*Control Variables*</u>					
*Growth*Surprise*	β_6			0.3722	<0.001
*Beta*Surprise*	β_7			0.3826	<0.001
*Persistence*Surprise*	β_8			1.1735	<0.001
Main effects of control variables?		No		Yes	
Controls for changes in expectations?		Yes		Yes	
No. of Observations		38125		38125	
F-Value		533.67	<0.001	205.23	<0.001
Adj. R-Sq.		0.0653		0.0698	

Panel B: Nonnegative Earnings Surprises

		Model (3)		Model (4)	
		Coefficient Estimate	p-value	Coefficient Estimate	p-value
Intercept	β_0	0.0106	<0.001	0.0092	<0.001
Confirm	β_1	-0.0029	0.066	-0.0030	0.054
Surprise	β_2	1.9778	<0.001	0.8956	0.005
Confirm*Surprise	β_3	**0.5746**	**0.041**	**0.5886**	**0.037**
CAR'	β_4	-0.0225	0.030	0.0035	0.032
*Confirm*CAR'*	β_5	0.0027	0.805	0.0002	0.982
	$\beta_2 + \beta_3$	2.5522	<0.001	1.4842	<0.001
Control Variables					
*Growth*Surprise*	β_6			0.1910	<0.001
*Beta*Surprise*	β_7			0.3114	0.003
*Persistence*Surprise*	β_8			1.1896	<0.001
Main effects of control variables?		No		Yes	
Controls for changes in expectations?		Yes		Yes	
No. of Observations		28457		28457	
F-Value		160.35	<0.001	64.43	<0.001
Adj. R-Sq.		0.072		0.0303	

Panel C: Negative Earnings Surprises

		Model (1)		Model (2)	
		Coefficient Estimate	p-value	Coefficient Estimate	p-value
Intercept	β_0	-0.0229	<0.001	-0.0049	0.023
Confirm	β_1	-0.0012	0.628	-0.0022	0.362
Surprise	β_2	0.6950	<0.001	1.0854	0.002
Confirm*Surprise	β_3	**0.2163**	**0.547**	**0.1512**	**0.675**
CAR'	β_4	-0.0029	0.660	-0.0102	0.516
*Confirm*CAR'*	β_5	0.0038	0.825	0.0031	0.858
	$\beta_2 + \beta_3$	0.9113	0.005	1.2366	0.004
Control Variables					
*Growth*Surprise*	β_6			0.1086	0.275
*Beta*Surprise*	β_7			-0.2912	0.106
*Persistence*Surprise*	β_8			-0.2016	0.476
Main effects of control variables?		No		Yes	
Controls for changes in expectations?		Yes		Yes	
No. of Observations		9668		9668	
F-Value		6.18	<0.001	12.20	<0.001
Adj. R-Sq.		0.0027		0.0174	

(1) The sample consists of observations from first quarter of 2001 to second quarter of 2010.
(2) All p-values are based on two-tailed t-tests.
(3) **Variable Definitions**: *CAR* = size adjusted two-day abnormal return [0,+1] surrounding the firms' earnings announcement. *Confirm* = an indicator variable taking the value of 1 if the sign of earnings surprise, measured as the difference between actual and latest analyst forecast, is same as that of at least half the firms of the same industry that has reported earnings for the same quarter previously, and 0 otherwise. *Surprise* = earnings surprise measured as the difference between actual and latest analyst estimate of earnings per share (EPS) scaled by the end of quarter share price. *CAR'* = size adjusted cumulative abnormal return from the day following the most recent analyst forecast to the day prior to earnings announcement. *Growth* = firm's market to book ratio at the end of the quarter. *Beta* = stock beta as reported by Compustat, which is calculated with stock and market returns for a 60 month time period, ending in current month. *Persistence* = an indicator variable taking the value of 1 if earnings are likely predominantly permanent, and 0 otherwise. This variable is constructed following Ou and Penman (1989) and Ali and Zarowin (1992).

TABLE 5

Tests of Hypothesis 2

Model (5):

$$Earnings_{i,t+n} = \rho_0 + \rho_1 Confirm_{it} + \rho_2 Earnings_{it} + \rho_3 Confirm_{it} * Earnings_{it} + \varepsilon_{it}$$

Panel A: Full Sample

Dependent Variable	*Intercept*	*Confirm*	*Earnings*	***Confirm* Earnings***		No. of Obs.	Adj. R-Sq.
	ρ_0	ρ_1	ρ_2	ρ_3	$\rho_2 + \rho_3$		
$Earnings_{t+1}$	0.0079	-0.0018	0.6179	**0.0944**	0.7123	37402	0.4019
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+2}$	0.0119	-0.0039	0.4311	**0.1839**	0.6151	36930	0.2534
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+3}$	0.0107	-0.0025	0.4920	**0.1038**	0.5959	36440	0.2609
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+4}$	0.0085	-0.0014	0.5694	**0.0758**	0.6452	34761	0.2954
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+5}$	0.0107	-0.0012	0.4456	**0.0734**	0.5190	33163	0.1853
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+6}$	0.0117	-0.0013	0.3898	**0.0796**	0.4695	31623	0.1540
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+7}$	0.0119	-0.0019	0.3829	**0.0970**	0.4799	30140	0.1483
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+8}$	0.0102	-0.0014	0.4261	**0.1157**	0.5418	28754	0.1897
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		

Panel B: Nonnegative Earnings Surprises

Dependent Variable	*Intercept* ρ_0	*Confirm* ρ_1	*Earnings* ρ_2	***Confirm* Earnings*** ρ_3	$\rho_2 + \rho_3$	No. of Obs.	Adj. R-Sq.
$Earnings_{t+1}$	0.0075	-0.0023	0.6362	**0.1070**	0.7432	27935	0.4476
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+2}$	0.0177	-0.0111	0.2111	**0.4541**	0.6651	27603	0.2945
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+3}$	0.0125	-0.0056	0.4187	**0.2210**	0.6397	27246	0.2950
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+4}$	0.0092	-0.0035	0.5686	**0.1271**	0.6958	26026	0.3368
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+5}$	0.0125	-0.0045	0.4221	**0.1476**	0.5697	24867	0.2145
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+6}$	0.0137	-0.0047	0.3542	**0.1625**	0.5166	23723	0.1781
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+7}$	0.0151	-0.0064	0.3011	**0.2250**	0.5262	22596	0.1823
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		
$Earnings_{t+8}$	0.0124	-0.0051	0.3460	**0.2503**	0.5963	21559	0.2130
	(<0.001)	(<0.001)	(<0.001)	**(<0.001)**	(<0.001)		

Panel C: Negative Earnings Surprises

Dependent Variable	*Intercept* ρ_0	*Confirm* ρ_1	*Earnings* ρ_2	***Confirm* Earnings*** ρ_3	$\rho_2 + \rho_3$	No. of Obs.	Adj. R-Sq.
$Earnings_{t+1}$	0.0080 (<0.001)	0.0031 (<0.001)	0.6099 (<0.001)	**-0.1541 (<0.001)**	0.4558 (<0.001)	9467	0.2830
$Earnings_{t+2}$	0.0098 (<0.001)	0.0068 (<0.001)	0.5226 (<0.001)	**-0.3178 (<0.001)**	0.2048 (<0.001)	9327	0.1804
$Earnings_{t+3}$	0.0100 (<0.001)	0.0070 (<0.001)	0.5229 (<0.001)	**-0.2744 (<0.001)**	0.2485 (<0.001)	9194	0.1889
$Earnings_{t+4}$	0.0083 (<0.001)	0.0082 (<0.001)	0.5680 (<0.001)	**-0.3164 (<0.001)**	0.2516 (<0.001)	8735	0.2040
$Earnings_{t+5}$	0.0102 (<0.001)	0.0092 (<0.001)	0.4523 (<0.001)	**-0.3151 (<0.001)**	0.5697 (<0.001)	8296	0.1270
$Earnings_{t+6}$	0.0111 (<0.001)	0.0072 (<0.001)	0.4022 (<0.001)	**-0.2751 (<0.001)**	0.1271 (<0.001)	7900	0.1052
$Earnings_{t+7}$	0.0108 (<0.001)	0.0072 (<0.001)	0.4163 (<0.001)	**-0.2555 (<0.001)**	0.1608 (<0.001)	7544	0.0877
$Earnings_{t+8}$	0.0095 (<0.001)	0.0086 (<0.001)	0.4572 (<0.001)	**-0.2820 (<0.001)**	0.1752 (<0.001)	7195	0.1434

(1) The sample consists of observations from first quarter of 2001 to second quarter of 2010.
(2) The first number each cell reports the coefficient value. P-values are reported in parenthesis.
(3) All p-values are based on two-tailed t-tests.
(4) **Variable Definitions**: *Earnings* = operating income scaled by average total assets. *Confirm* = an indicator variable taking the value of 1 if the sign of earnings surprise, measured as the difference between actual and latest analyst forecast, is same as that of at least half the firms of the same industry that has reported earnings for the same quarter previously, and 0 otherwise.

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Education and Professional Accreditations

- 2012: (Expected) PhD in Accounting with minor in Finance, C. T. Bauer College of Business, University of Houston
- 2006: Completed CFA examinations, The CFA Institute, Charlottesville, VA
- 2003: Post Graduate Diploma in Marketing (DipM ACIM), The Chartered Institute of Marketing (CIM), London, UK
- 2000: Completed The Chartered Management Accountants' examinations (ACMA), The Chartered Institute of Management Accountants (CIMA), London, UK

Academic Research

Dissertation

- "Intraindustry Information Transfers: An Analysis of Confirmatory and Contradictory Earnings News"

Working Papers

- "The Impact of SFAS 133 on Income Smoothing by Banks through Loan Loss Provisions", with E. Kilic, G. Lobo, and K. Sivaramakrishnan – Currently under 3rd round review at *The Accounting Review*
- "Executive Compensation and Regulation Imposed Governance: Evidence from the California Non-Profit Integrity Act (2005)", with S. Dhole, S. Khumawala, and S. Mishra - Currently being revised for a 2nd round submission to *The Accounting Review*
- "Regulating Analysts: NASD Rule 2711's Impact on Market Reaction and Liquidity Changes Surrounding Coverage Initiations", with A. Shroff, and K. Sivaramakrishnan – To be submitted shortly

Work in Progress

- "The Use of Derivatives by US Cities and Counties – Extent, Rationale and the Impact of GASB Statement No. 53", with S. Khumawala
- "Investment Efficiency, Derivatives, and Information Role of Financial Analysts", with L. Yi

Teaching Experience

- Fall 2009: Accounting Principles II (Managerial) – Teaching evaluation: 4.2/5.0
- Fall 2010: Accounting Principles I (Financial) – Teaching evaluation: 4.2/5.0
- 2001-2005: Finance Strategy (CIMA Final Level) – CIMA Sri Lanka Division

Conference Presentations

- AAA Annual Meeting. San Francisco, CA. August 2010. "Earnings Management and Value Relevance Consequences of SFAS 133: Evidence from Bank Holding Companies" – Concurrent session presentation
- Oklahoma State University Accounting Research Conference, Still Water, OK. March 2011. "The impact of SFAS133 on income smoothing by banks through loan loss provisions" – Invited presentation (by a co-author)
- 40th Annual Conference of the Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), Toronto, Canada. November 2011 "Executive Compensation and Regulation Imposed Governance: Evidence from the California Non-Profit Integrity Act (2005)" – Concurrent session presentation
- Journal of Contemporary Accounting and Economics (JCAE) Joint Symposium 2012, Kuala Lumpur, Malaysia. January 2012. "Regulating Analysts: NASD Rule 2711's Impact on Market Reaction and Liquidity Changes Surrounding Coverage Initiations" - Accepted for a concurrent session presentation

Professional Experience

- 2001-2004: Management Accountant, MAS Holdings Ltd., Colombo, Sri Lanka
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Honors and Awards

- 2011: AAA Doctoral Consortium Fellow, Lake Tahoe, CA
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