Confident and optimistic forward-looking statements and the moderating influence of quantitative earnings forecasts

Chee, Vincent Guo Qiang

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**CONFIDENT AND OPTIMISTIC FORWARD-LOOKING STATEMENTS AND THE
MODERATING INFLUENCE OF QUANTITATIVE EARNINGS FORECASTS**

VINCENT CHEE GUO QIANG

Nanyang Business School

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ABSTRACT

In this paper, I examine the impact of confident-plus-optimistic qualitative forward-looking statements on investors' judgments. I find that investors' valuation judgments are less favorable when investors see a confident-plus-optimistic qualitative forward-looking statement in the earnings press release than when they see an optimistic-only qualitative forward-looking statement. I also find that the above-mentioned difference in judgments becomes smaller when managers bundle the earnings press release with a quantitative earnings forecast. Managers presumably use a confident-plus-optimistic qualitative forward-looking statement in order to elicit more favorable investor judgments. Nonetheless, by providing evidence of a less favorable reaction, my results indicate that investors end up reacting in a manner that deviates from how managers would ideally want investors to react. Overall, my results provide insights to managers, investors, regulators, and academic researchers.

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I. INTRODUCTION

Managers frequently provide forward-looking statements in earnings press releases (Bozanic, Roulstone, and Van Buskirk 2015). Such statements can be either quantitative or qualitative depending on whether they contain a numerical forecast. Nonetheless, unlike quantitative forecasts, qualitative forward-looking statements in earnings press releases have largely remained under-researched, despite their prevalence.

In this paper, I examine investors' reactions¹ to a type of qualitative forward-looking statement in which managers only express optimism² (hereafter an optimistic-only statement) and to another in which managers express both confidence and optimism³ (hereafter a confident-plus-optimistic statement). These two types of statement suggest different inferences. According to the Merriam-Webster Online Dictionary, *optimism* refers to an inclination to anticipate the best possible outcome while *confidence* refers to the state of being certain. Therefore, unlike an optimistic-only forward-looking statement, which indicates that the manager is looking forward to a positive outcome but makes no mention of the likelihood of the positive outcome occurring, a confident-plus-optimistic forward-looking statement indicates that the manager is *very sure/certain* of a positive outcome.

Investigating *how* investors react to an earnings press release that contains a confident-plus-optimistic versus an optimistic-only qualitative forward-looking statement is important for the following reason. While qualitative statements in earnings press releases mainly appear in the

¹ In this paper, I focus on non-sophisticated/small investors rather than on institutional or sophisticated investors. For the rest of this paper, unless otherwise stated, the term "investors" refers to non-sophisticated/small investors.

² In an optimistic-only qualitative forward-looking statement, the manager could state, "I look forward to the company doing well next quarter." In this example, the phrase "doing well next quarter" refers to an optimistic outcome in the future.

³ In a confident-plus-optimistic qualitative forward-looking statement, the manager could state, "I am confident that the company will do well next quarter." In this example, the word "confident" refers to the manager's expression of confidence while the phrase "will do well next quarter" refers to an optimistic outcome in the future.

form of optimistic statements (Davis, Piger, and Sedor 2012), a non-trivial number of them are confident-plus-optimistic statements.⁴ By expressing confidence, which has been shown to elicit favorable reactions in more generic settings (Snizek and Van Swol 2001; Price and Stone 2004; Karmarkar and Tormala 2010), in addition to optimism, managers presumably aim to elicit more positive investor evaluations. Nonetheless, investors might not necessarily react in the manner intended by managers. Managers' use of confident-plus-optimistic qualitative forward-looking statements could activate thoughts related to managerial overconfidence or impression management. In light of the above, investors may well react *less*, rather than *more*, favorably when they see such statements.⁵

As a related issue, I also examine *whether* investors' reactions become different when earnings press releases contain a quantitative earnings forecast in addition to qualitative forward-looking statements. Understanding this is important for the following reason. While archival data indicates that it is common for firms to provide qualitative forward-looking statements and quantitative earnings forecasts in the same earnings press release (Bozanic et al. 2015), the impact caused by including the latter in the press release remains unclear. Unlike institutional investors, non-sophisticated investors might only pay attention to whether a particular numerical attribute (e.g., net income) is higher/lower than other numerical benchmarks and might not consider the magnitude of the difference. For example, Malmendier and Shanthikumar (2014) find that small investors tend to neglect the difference between earnings and the analysts'

⁴ Using the search term "confident" in Factiva, I find that, in the year 2014, around 20% of S&P 500 firms' earnings press releases have a qualitative forward-looking statement containing the word "confident" alongside an optimistic outcome. For example, in Yum! Brands, Inc. Q3 2014 Earnings Press Release (Yum! Brands 2014), their Chief Executive Officer (CEO) stated, "*I'm absolutely confident in Yum! Brands' ability to deliver strong, sustainable growth in the years ahead...*" In 3M's Q2 2015 Earnings Press Release (3M 2015), 3M Chairman Inge G. Thulin said, "*I am confident in our team's ability to generate profitable growth and premium returns into the future.*" Refer to Appendix A for more examples of earnings press releases.

⁵ There is some evidence that overconfident managers supposedly attract negative reactions. For instance, Malmendier and Tate (2008) find that the market reaction at a merger announcement is significantly more negative for firms with overconfident CEOs than for firms with non-overconfident CEOs.

consensus forecast (also known as the earnings surprise magnitude). In view of the above, when both the qualitative statement and quantitative forecast present in an earnings press release indicate a similar directional prediction, the latter might not necessarily have any extra influence on investor judgments even though the numerical information contained within the forecast does convey additional information content. That is, including a quantitative forecast in an earnings press release might not alter investors' existing judgments.

Nevertheless, while investors might neglect the earnings surprise magnitude, they might not necessarily ignore the difference between management earnings forecasts and other benchmarks. Because managers are insiders of the firm and should have a better understanding of the firm compared to analysts, investors could perceive that any predictions made by managers are more reliable than the predictions made by financial analysts. As a result, investors may feel more assured utilizing the above-mentioned difference when making judgments. Therefore, instead of having no impact, adding a quantitative earnings forecast could alter investors' existing reactions to an earnings press release containing a confident-plus-optimistic or an optimistic-only qualitative statement.⁶ This, in turn, could also potentially narrow the difference between investors' reactions to the former and investors' reactions to the latter.

In this paper, I conduct an experiment to address my research questions. I employ the use of an experiment approach because, unlike the use of an archival approach, this approach allows me to isolate the effect of confident-plus-optimistic/optimistic-only statements from the effects of other subtle linguistic features and quantitative forecasts, while holding other firm characteristics constant. In addition, the experiment methodology allows me to measure investors'

⁶ Management earnings forecasts tend to appear contemporaneously with earnings announcements in recent years (Rogers and Van Burskirk 2013; Billings, Jennings, and Lev 2015). As a result, it is difficult to determine, using the archival approach, whether non-sophisticated investors react to earnings forecasts. Any reactions to the earnings press release could be driven by investors' reactions to the current period earnings announcements and not the forward-looking earnings forecasts.

perceptions of the manager, thereby enabling me to test the mechanisms underlying my theory. The experiment employs a *two* by *two* between-subjects design and manipulates the type of qualitative forward-looking statement (Confident-plus-optimistic, Optimistic-only) and the availability of a quantitative earnings forecast (No, Yes).⁷ Consistent with my hypotheses, I find that, in the absence of a quantitative earnings forecast, investors' valuation judgments are less favorable in the presence of a confident-plus-optimistic statement than in the presence of an optimistic-only statement. I also find that this less favorable reaction disappears when the firm bundles the earnings press release with a quantitative forecast.⁸

Unlike quantitative forecasts, which are bounded by numerical figures, qualitative statements are open-ended; therefore, reactions elicited might be greater than that elicited by quantitative forecasts. Experiment results support this notion by indicating that investors' valuation judgments did become lower when a quantitative forecast is added to an earnings press release containing an optimistic-only qualitative forward-looking statement. The magnitude of this difference is, however, smaller in the context involving a confident-plus-optimistic statement.

In my hypothesis development, I theorize that when investors see an earnings press release containing confident-plus-optimistic statements, they could activate thoughts related to manager overconfidence and/or develop lower credibility perceptions due to concerns about impression management. This, in turn, could attract negative judgments. In supplementary analyses, I find that when there is no quantitative forecast, investors' managerial credibility perceptions are lower in the confident-plus-optimistic condition than in the optimistic-only

⁷ I operationalize quantitative earnings forecasts using range forecasts because range forecasts are the most common type of quantitative earnings forecasts issued (Cicconte, Kirk, and Tucker 2014).

⁸ I acknowledge that managers can also express confidence in quantitative statements. Examples would be "I am confident that earnings per share would be \$0.XX" versus "I expect earnings per share to be \$0.XX." Nonetheless, a search on Factiva in the year 2014 finds no evidence of managers expressing confidence in quantitative statements. In light of this, in this paper, I do not examine the impact of "confident" quantitative forward-looking statements.

condition. This provides support for the notion that investors recognize that managers are being strategic in their use of confident-plus-optimistic statements. Nonetheless, I do not find any evidence suggesting that level of manager confidence perceived by investors is closer to overconfidence when they see a confident-plus-optimistic statement. As a result, I am unable to conclude that the manager overconfidence argument is the reason behind investors' less favorable judgments.

I contribute to the literature in the following ways. First, my study complements archival and experimental studies on narrative information processing (Rutherford 2005; Merkl-Davies and Brennan 2007; Li 2008; Henry 2008; Miller 2010; Loughran and McDonald, 2011; Hales, Kuang, and Venkataraman 2011; Rennekamp 2012; Davis et al. 2012; Huang, Teoh, and Zhang 2014; Tan, Wang, and Zhou 2014; Tan, Wang, and Zhou 2015). These studies focus solely on *broad* constructs such as readability, language sentiment or the degree of managerial optimism expressed through qualitative statements and do not investigate the frequently observed scenario where managers express both confidence and optimism simultaneously in the same statement. Managers presumably expect that investors would react more positively when managers express both confidence and optimism than when they express optimism alone. Nonetheless, in my study, I provide theory and evidence that investors actually reacted less positively when managers provide a confident-plus-optimistic qualitative forward-looking statement. These findings inform regulators that investors have the ability to see through managers' seemingly strategic use of language and inform managers that their strategic use of language could backfire. While Tan et al. (2014) indicate that less-sophisticated investors, in general, are susceptible to the use of positive language by managers, my finding of a less positive reaction by non-sophisticated

investors to confident-plus-optimistic statements suggests that this susceptibility does not apply to all forms of positive language.

Second, I supplement the literature on management forecasts (Bamber and Cheon 1998; Hutton, Miller, and Skinner 2003; Baginski, Hassell, and Kimbrough 2004; Hirst, Koonce, and Venkataraman 2008; Han 2013; Rogers and Van Burskirk 2013) by looking at the joint effect of qualitative forward-looking statements and quantitative earnings forecasts. This topic has largely remained under-researched because of limitations inherent in commercial datasets (Chuk, Matsumoto, and Miller 2013). It is also generally unclear whether investors would rely upon any quantitative forecast that accompanies qualitative forward-looking statements. Assuming that managers do not have any strategic intentions, investors ignoring the quantitative forecast or reacting negatively to confident-plus-optimistic statements might lead to sub-optimal investment decisions. To the extent that this is an area of concern, my finding that inferences from qualitative statements have a smaller impact on investors when a quantitative forecast also appears in earnings press releases should reduce this concern.

I organize the remainder of the paper as follows. Section II discusses the related literature and the development of the hypotheses. Section III describes the research design, experiment procedure, and results of the experiment. Section IV concludes.

II. BACKGROUND AND HYPOTHESIS DEVELOPMENT

In earnings press releases, managers can provide a quantitative forward-looking statement (e.g., a numerical earnings forecast) or a qualitative forward-looking statement. In the area of qualitative forward-looking statements, there is variation across firms in how managers write such statements. For instance, managers can provide confident-plus-optimistic statements

in which they express confidence and optimism simultaneously (e.g., the manager could state, “I am *confident* that the company will do well next quarter”). In the example provided, the phrase “do well next quarter” refers to an optimistic outcome in the future while the word “confident” refers to the manager’s expression of confidence. Managers can also provide optimistic-only statements in which they only express optimism (e.g., the manager could state, “I *expect* the company to do well next quarter”).⁹

Confidence Heuristic

According to the psychology literature on the confidence heuristic,¹⁰ people tend to develop positive thoughts when they see a communicator expressing confidence. For instance, Price and Stone (2004) indicate that people view stock analysts to be more knowledgeable when stock analysts express confidence in their predictions. Karmarkar and Tormala (2010) find that people perceive reviewers of a restaurant more favorably when these reviewers express high certainty in their restaurant reviews. In light of the above, it is possible that investors would perceive that a manager is competent, highly knowledgeable and has a good grasp of the operating environment of his/her firm when he/she provides confident-plus-optimistic qualitative forward-looking statements. This in turn could result in investors heightening their existing perceptions of the manager. Relative to optimistic-only qualitative forward-looking statements, confident-plus-optimistic statements could also prompt investors to associate the manager’s predictions with a higher likelihood of occurrence. Following the above discussion, investors should react more favorably when they see confident-plus-optimistic qualitative forward-looking

⁹ While past studies have shown that investors do react to the qualitative forward-looking text in disclosures (Li 2010), there is scant research that examines whether these reactions would differ between a confident-plus-optimistic qualitative forward-looking statement and an optimistic-only qualitative forward-looking statement.

¹⁰ Refer to related literature on the confidence heuristic (Thomas and McFadyen 1995; Snizek and Van Swol 2001; Price and Stone 2004; Karmarkar and Tormala 2010; Sah, Moore, and MacCoun 2013; Aghazadeh and Hoang 2015).

statements than when they see optimistic-only statements. I summarize this prediction in Hypothesis 1a:

H1a: Investors' valuation judgments are more favorable when the earnings press release contains confident-plus-optimistic qualitative forward-looking statements than when it contains optimistic-only qualitative forward-looking statements.

Despite the above, it is possible that investors would not react in accordance with the psychology literature on the confidence heuristic when they view earnings press releases containing confident-plus-optimistic statements. If confidence-related thoughts are not activated when investors observe managers express confidence, then it is unlikely that they would react more favorably as predicted by the confidence heuristic. In the subsequent sections, I present two theories that support a less favorable investor reaction argument.

Investors' Perceptions of Managerial Overconfidence

Confidence and overconfidence are concepts that are closely related (Kennedy, Anderson, and Moore 2013). Upon observing an expression of confidence by a message communicator, people may activate confidence-related thoughts in one situation and overconfidence-related thoughts in another situation. Existing research in psychology finds that the manner in which people evaluate information with multiple interpretations often depends on the particular knowledge structures that are most accessible at the time the information is processed (Srull and Wyer 1980; Yi 1990a; Yi 1990b). The accessibility of a particular knowledge structure in turn depends on whether a person has high levels of prior exposure to the knowledge structure.¹¹

In a survey that I conducted on the Amazon Mechanical Turk crowdsourcing platform, which has a participant pool consisting of people from diverse backgrounds, 44% of the

¹¹ As an example, Yi (1990b) finds that consumers who have prior exposure to safety- (gas consumption-) related issues are more (less) likely to evaluate a car based on how safe it is and less (more) likely to evaluate the car based on how much gas it is likely to use.

respondents held the opinion that the news media tends to characterize Chief Executive Officers (CEOs) as “overconfident.”¹² In view of this, many investors, via their exposure to the news media, could have the general impression that CEOs are overconfident individuals.¹³ When a particular CEO expresses confidence or, more specifically, uses the word “confident” in confident-plus-optimistic qualitative forward-looking statements, investors may be reminded of the prior impression that they have regarding CEOs being overconfident. It is possible that these activated thoughts could subsequently influence investors’ judgments. Because perceptions toward managerial overconfidence are apparently negative in nature (Malmendier and Tate 2008),¹⁴ I predict that investors could end up reacting less favorably, in a manner opposite to that predicted by the confident heuristic theory, when the earnings press release contains a confident-plus-optimistic statement.¹⁵

Investors’ Lower Credibility Perceptions Due to Impression Management Concerns

Other than activating thoughts of managerial overconfidence, investors could also develop lower credibility judgments due to impression management concerns. These lower credibility judgments could then attract less favorable investment-related judgments. Past research suggests that managers tend to engage in impression management and opportunism

¹² I asked participants the following question: “How does the news media describe CEOs in general?” While I originally aimed to recruit 400 participants, 402 participants took part in the survey. Among the 175 participants that indicated “overconfident,” 118 had investment experience.

¹³ In recent years, many articles also suggest that CEOs are linked with overconfidence (e.g., see Malmendier and Tate (2008); Hirshleifer, Low, and Teoh (2012)).

¹⁴ This is not surprising considering that overconfident individuals, in general, are frequently portrayed in a negative light. For instance, news articles frequently report that overconfident CEOs are bad for businesses (Brooks 2013; Derousseau 2015); academic articles also report that overconfident executives are associated with a greater likelihood of earnings management and financial fraud (Schrund and Zechman 2012).

¹⁵ Given investors’ prior impressions of CEOs being overconfident in general, one could contend that such impressions would influence investors’ judgments regardless of whether confident-plus-optimistic statements are present. That is, there is no need for confident-plus-optimistic statements to activate these overconfidence thoughts; such thoughts should already feature at the forefront of investors’ judgment considerations. Nonetheless, this might be improbable for the following reason. When evaluating an earnings press release, investors are likely to be primarily concerned about the current earnings performance. Because of this, if investors are not cued/prompted to think about their prior impressions of CEOs, it is unlikely that these prior impressions would affect their judgments.

where possible (Merkl-Davies and Brennan 2007). They presumably do so in order to present their companies in a positive light and to elicit more favorable investor evaluations. Nonetheless, in many situations, investors ended up developing lower credibility perceptions (Hutton et al. 2003; Han and Tan 2010). This tends to happen because investors are apparently aware of managers' incentives to bias their judgments and actively make adjustments to guard against managers' actions. Unlike in non-financial settings, in the financial setting, investors could be concerned that managers might be using confident-plus-optimistic qualitative forward-looking statements to manage their impressions. Specifically, investors could perceive that, by providing confident-plus-optimistic statements, the manager is trying to increase the level of their positive evaluations above the level justified by the firm's fundamentals. As a result, this could attract more suspicions about the credibility of the manager and, in turn, could lead to lower managerial credibility judgments. Given that credibility judgments influence investor decisions (Rupar 2017), it is possible that these investors' valuation judgments could be less, rather than more, favorable when they see earnings press releases containing confident-plus-optimistic statements.

Based on the discussion above, it is possible that either concerns about impression management or investors' prior impression of CEOs being overconfident individuals would be activated after investors see a confident-plus-optimistic qualitative forward-looking statement. This, in turn, could then result in negative outcomes. I summarize this prediction below as an alternative to Hypothesis 1a:

H1b: Investors' valuation judgments are less favorable when the earnings press release contains confident-plus-optimistic qualitative forward-looking statements than when it contains optimistic-only qualitative forward-looking statements.

Moderating Effect of Quantitative Earnings Forecasts

The theoretical development in the previous section only looks at cases where managers do not bundle earnings press releases with quantitative earnings forecasts. Nevertheless, many firms provide a mixture of quantitative earnings forecasts and qualitative forward-looking statements in their earnings press releases (Bozanic et al. 2015). Past research indicates that quantitative earnings forecasts allow investors to draw many useful inferences (Beyer, Cohen, Lys, and Walther 2010). For instance, investors can use the numerical figures provided in the forecast to compare against the numerical estimates provided by analysts or compare against prior period's numerical figures. Unlike qualitative statements, which can only indicate directional implications, quantitative forecasts, whose deviations from other benchmarks can be determined numerically, are able to provide additional information about the magnitude of the implications.

When making judgments, small investors apparently do not rely deeply on numerical information.¹⁶ For instance, Malmendier and Shanthikumar (2014) find that while small investors react to whether firms meet or beat the prior period's earnings, they tend to neglect the earnings surprise magnitude.¹⁷ This suggests that while investors pay attention to the directional implications of numerical attributes relative to other benchmarks, they appear to avoid deeper evaluation such as considering the magnitude of the difference between the attribute and the benchmarks. Following this, when both the qualitative statement and quantitative forecast in an earnings press release predict a similar directional outcome, it is possible that the quantitative forecast would not have any extra influence on investor judgments even though the numerical

¹⁶ This is not unique to small investors. Psychology studies report that many ordinary people also do not rely extensively on numbers when making judgments (e.g., Peters et al. 2006).

¹⁷ The earnings surprise magnitude refers to the difference between the firm's earnings and the analysts' consensus earnings forecast.

information contained within the forecast carries additional information content. In view of this, investors' reactions to earnings press releases containing confident-plus-optimistic (optimistic-only) qualitative forward-looking statements should remain the same regardless of whether managers bundle the earnings press releases with quantitative earnings forecasts.

Nonetheless, it is possible that the difference between investors' reactions to earnings press releases containing confident-plus-optimistic statements and that to press releases containing optimistic-only statements could *become smaller* (instead of remaining the same) when managers include quantitative earnings forecasts. One possible reason for the finding that small investors neglect the earnings surprise magnitude is that these investors may have doubts about the validity of the forecasts provided by analysts. Unlike analysts' forecasts, management earnings forecasts originate from managers. Commonly held views that managers know the operating environment of their firm better than anyone else may cause investors to perceive that earnings forecasts made by managers are more trustworthy than that provided by financial analysts. As a result, while investors may avoid utilizing the magnitude of the difference between analyst forecasts and other benchmarks, such avoidance might not occur in the case of management earnings forecasts. Considering the above, I expect that when managers add a quantitative earnings forecast to an earnings press release, investment judgments are more likely to be driven by the forecast than by qualitative forward-looking statements. This, in turn, could lead to investment judgments being different from when the earnings press release does not contain any forecast.

Other than the above, I also predict that the quantitative earnings forecast can influence investment judgments in an indirect manner via credibility mechanisms. Past research indicates that quantitative earnings forecasts provided by managers can elicit credibility (i.e., competence

and trustworthiness) attributions from investors (Mercer 2004, 2005). Earnings forecasts perceived to be overly optimistic (“reasonably optimistic”) relative to other benchmarks can signal low (high) credibility, as they suggest that the manager is trying (not trying) to influence investor judgments strategically. While investors may develop perceptions of confidence (H1a), overconfidence (H1b), or impression management (H1b) after processing confident-plus-optimistic/optimistic-only qualitative forward-looking statements, it is possible that the credibility attributions drawn from earnings forecasts can reduce the influence these perceptions have on investment judgments.¹⁸

In the earlier discussion leading to Hypothesis 1a and 1b, I posited that investors’ valuation judgments are likely to be different when the earnings press release contains confident-plus-optimistic statements than when it contains optimistic-only statements. As stated above, because the presence of quantitative earnings forecast can reduce the influence of inferences drawn from qualitative statements, I expect that the difference described in Hypothesis 1a and 1b would become reduced when managers bundle the earnings press release with a quantitative earnings forecast. I formally state my hypothesis below:

H2: Investors’ reactions to earnings press releases containing confident-plus-optimistic statements are likely to be different from investors’ reactions to earnings press releases containing optimistic-only statements. The magnitude of this difference should become smaller when the earnings press releases also contain a quantitative earnings forecast.

¹⁸ For example, assume that investors perceive the manager to be of low credibility after seeing a confident-plus-optimistic qualitative statement. Adding a “reasonably optimistic” quantitative earnings forecast, which signals relatively high credibility, could cause investors to give managers the benefit of the doubt and to revise their existing credibility judgments.

III. EXPERIMENT

Overview

The experiment employs a *two by two* between-subjects full factorial design. The first manipulated factor is *Qualitative Forward-Looking Statement Type* (Confident-plus-optimistic, Optimistic-only) and the second manipulated factor is *Quantitative Earnings Forecast Availability* (No, Yes).

Participants

My analysis involves 182 responses obtained from the Amazon Mechanical Turk (AMT) crowd-sourcing platform. There are two reasons for using AMT. First, AMT is at least as representative of the United States population as traditional participant pools (Mason and Suri 2012). Second, recent research suggests that it is appropriate to use AMT to examine accounting-related research questions (Rennekamp 2012; Farrell, Grenier, and Leiby 2017).

In addition to the above, another 20 responses were collected but are excluded from the analysis for the following reasons. Consistent with past research (Rennekamp 2012), I required participants to be native English speakers and to be located in the United States of America. Seven responses did not meet this requirement. Two responses originated from the same IP address, two originated from the same physical location (i.e., same latitude and longitude) and another two were completed in a similar pattern. These three sets of responses are excluded because the responses within each set could have originated from the same person. Four participants apparently skipped the earnings press release and possibly provided random answers to questions. Another dropped out halfway. Two participants answered incorrectly when asked

whether the manager expressed confidence and whether the manager provided earnings guidance in the earnings press release.¹⁹ Thus, responses from these participants are also excluded.

Demographic Information

Among the 182 participants, 55.5% (44.5%) are males (females). The average (median) working experience of participants is 16.96 (15) years and the average (median) age is 37.82 (35) years old. The highest education qualification held by 23.6% (55.5%) (20.9%) of participants is a high school (college) (postgraduate) qualification. In terms of investment experience, 50.6% have invested directly in a company's stock, 23.6% have invested through a pension account, and 25.8% have never invested before. The average (median) participant has 6.44 (4) years of experience investing in shares. With regard to courses taken, the mean (median) number of accounting courses taken is 1.88 (1) while the mean (median) number of finance courses taken is 1.66 (1). When evaluating a company's stock as a potential investment, 15.9% (12.6%) of participants indicated that they never (always) examine financial statements. Refer to Table 1 for more information on the sample demographics.

<Insert Table 1>

Procedure

In the experiment, participants assumed the role of an investor and I randomly assigned them to one of four experimental conditions. Participants began the experiment by first reading the background and financial information of a fictitious listed company (ABC). They then provided an initial valuation judgment of the firm. Next, all participants in the experiment viewed an earnings press release (reporting Q1 2017 results). This earnings press release contains my experimental manipulations. The first two paragraphs reports Q1 2017 performance

¹⁹ The two participants also provided outlier change in valuation judgments. The respective judgment is around 1.5 (2) standard deviations less (more) than the mean of the Optimistic-only/No QF (Confident-plus-optimistic/No QF) condition.

versus Q1 2016 performance. The next two paragraphs contain the CEO's assessment of the current quarter performance and list the reasons behind the improved performance in Q1 2017. Next, another paragraph describes the challenging economic conditions in the past year (i.e., the period between Q1 2016 and Q1 2017) and states that the firm has managed to overcome these challenges to perform better in Q1 2017 when compared to Q1 2016. Lastly, the press release ends off with a section titled "Outlook for Q2 2017." This section describes the plans the firm has going forward. I present the respective experimental manipulations at the bottom of this section. Refer to Appendix B for more information.

After participants finished reviewing the earnings press release, I asked participants to make another valuation judgment and answer supplementary questions.²⁰ Throughout the experiment, participants did not have the option to change their answers on previous parts of the procedure after they have proceeded to the subsequent stages. For all manipulations, I kept the tone of the earnings announcement constant at a positive level.²¹ The length of the earnings press releases in the experimental manipulations is about the same and hence this controls for any readability effects (Li 2008; Rennekamp 2012).²²

Manipulation of Independent Variables

For the confident-plus-optimistic qualitative statement manipulation, I provided participants with the following statement at the end of the earnings press release: "I am *confident*

²⁰ At the start and at the end of the experiment, I also asked participants various demographic questions. Refer to Table 1 for more details.

²¹ To test this, I asked participants the following question on an 11-point scale ranging from -5 (Not Positive) to 5 (Very Positive): "Rate the tone of the management's communication." An ANOVA conducted shows that there is no evidence of a difference ($p > 0.20$). The tone of the press releases is also highly positive (Mean=3.03).

²² To test this, I asked participants the following question on an 11-point scale ranging from -5 (Not Difficult) to 5 (Very Difficult): "How difficult was the message to read?" An ANOVA conducted shows that there is no evidence of a difference ($p > 0.20$). The press releases is also relatively readable (Mean= -1.93 and significantly different from zero; $p < 0.0001$).

that ABC would do well and attain better results in Q2 2017.” In the manipulation, the phrase “do well and attain better results” refers to an optimistic outcome in the future while the word “confident” indicates the manager’s expression of confidence. For the optimistic-only qualitative statement manipulation, I provided participants with the following statement at the end of the earnings press release: “I expect that ABC would do well and attain better results in Q2 2017.” In this manipulation, there is an optimistic outcome (“do well and attain better results”). There is, however, no expression of confidence by the manager.

For the quantitative earnings forecast manipulation, I provided participants with the following earnings forecast: “Earnings per share are estimated to range from \$0.29-\$0.33.”²³ The width of four cents is similar to the width used in Han and Tan (2007). The lower end of the range forecast is also higher than the previous quarter EPS. This allows me to maintain a consistent positive outlook. There is no quantitative earnings forecast in the no quantitative earnings forecast manipulation. I summarize my manipulations in Appendix B.

Dependent Variable

My dependent variable is the change in valuation judgment (Rennekamp 2012). I asked participants to make a valuation judgment both before and after viewing the earnings press release containing the manipulations. The difference between these two valuation judgments forms my dependent variable (change in valuation judgment). I elicited valuation judgments by

²³ I acknowledge that managers can also express confidence in quantitative statements. Examples would be “I am confident that earnings per share (EPS) would be between \$0.XX to \$0.YY”. However, I do not find instances where managers use confident words in the same sentence that they disclose EPS. Instead, I find examples where they disclose the EPS range as per my manipulation, and separately add other qualitative forward-looking sentences containing confident words in a different paragraph. Take for instance Yum! Brands 2014 3rd Quarter Earnings Press Release (Yum! 2014). In one paragraph in the earnings press release, the CEO stated, “I’m absolutely confident in Yum! Brands’ ability to deliver strong, sustainable growth in the years ahead...” In another paragraph, he stated, “we now estimate 2014 EPS growth to be between 6% and 10% versus prior year...”

asking participants the following question: Assuming the stock's valuation lies between 0 and 100, please indicate your estimate of the stock's valuation.

Experiment Results

There are four conditions in total: a) Confident-plus-optimistic/No Quantitative Earnings Forecast (QF) condition, b) Optimistic/No QF condition, c) Confident-plus-optimistic/QF condition, and d) Optimistic/QF condition. I present descriptive results, Analysis of Variance (ANOVA) results, and simple effects involving the dependent variable change in valuation judgment in Table 2.²⁴ Figure 1 graphs the results.

<Insert Table 2>

<Insert Figure 1>

Test of Hypothesis 1a, 1b

Hypothesis 1a (1b) states that investors' valuation judgments are more (less) favorable when the earnings press release contains confident-plus-optimistic qualitative forward-looking statements than when it contains optimistic-only qualitative forward-looking statements.

A simple effects test in Table 2 Panel D indicates that participants in the Confident-plus-optimistic/No QF condition provided significantly lower valuation judgments than participants in the Optimistic /No QF condition (5.83 versus 11.64, $p=0.059$). Specifically, this suggests that a confident-plus-optimistic qualitative forward-looking statement leads to a less positive valuation judgment than an optimistic-only statement. This provides support for Hypothesis 1b and is inconsistent with Hypothesis 1a.

²⁴ All p-values are two-tailed unless otherwise specified.

Test of Hypothesis 2

Hypothesis 2 states that the difference between investors' judgments toward an earnings press release containing confident-plus-optimistic statements and that toward a press release containing optimistic-only statements would become smaller when the manager also includes a quantitative earnings forecast.

Because Hypothesis 2 predicts an ordinal interaction, I conduct a contrast-coded ANOVA to test it (Buckless and Ravenscroft 1990). I assign a contrast weight of -1 in the Confident-plus-optimistic/No QF condition, +3 in the Optimistic/No QF condition, -1 in the Confident-plus-optimistic/QF condition, and -1 in the Optimistic/QF condition. These contrast weights are based on H1b, H2 and the following two reasons. Because the qualitative statement, which is open-ended in nature, provides investors with greater leeway to forecast greater performance in the future, it is reasonable to expect investors' judgments to be lower when the earnings press release contains both a quantitative forecast and a qualitative statement than when it only contains a qualitative statement. Because investors' judgments in the Confident-plus-optimistic/No QF condition are likely to be lower than that in the Optimistic/No QF condition (see H1b finding), it is reasonable to expect that investors in the Confident-plus-optimistic/QF condition would not see the need to lower valuation judgments as much as the amount reduced by investors in the Optimistic/QF condition. Results as presented in Table 2 Panel C provide evidence that this ordinal contrast is significant ($p=0.021$) and this provides preliminary support for Hypothesis 2.²⁵

²⁵ I also conduct a test of an alternative contrast of -2 in the Confident-plus-optimistic/No QF condition, +4 in the Optimistic/No QF condition, -1 in the Confident-plus-optimistic/QF condition, and -1 in the Optimistic/QF condition. Results are consistent with H2 ($p=0.024$). Another test of an alternative contrast of -1 in the Confident-plus-optimistic/No QF condition, +5 in the Optimistic/No QF condition, -2 in the Confident-plus-optimistic/QF condition, and -2 in the Optimistic/QF condition also reflects significant results ($p=0.022$).

Table 2 Panel D also indicates that valuation judgments in the Confident-plus-optimistic/QF condition are not significantly different from valuation judgments in the Optimistic/QF condition (6.20 versus 5.75, $p=0.873$). Specifically, the valuation judgments elicited by an earnings press release that contains a confident-plus-optimistic statement and a quantitative earnings forecast are similar to the valuation judgments elicited by an earnings press release that contains an optimistic-only statement and a quantitative earnings forecast. Taken together with the finding associated with H1b, this suggests that investors' valuation judgments are less favorable when the earnings press release contains a confident-plus-optimistic qualitative forward-looking statement and that the magnitude of the above-mentioned difference becomes smaller when the earnings press release also contains a quantitative earnings forecast. These results support Hypothesis 2.²⁶ As a further analysis, I also obtain similar results if I use final valuation judgments as the dependent variable and initial valuation judgments as the covariate in an Analysis of Covariance (ANCOVA) model. See Table 2 for the ANCOVA results.

Quantitative Earnings Forecast Reducing the Existing Judgments Elicited by Qualitative Forward-Looking Statement

In the contrast analysis earlier, I predicted that investors' judgments would be lower when the earnings press release contains both quantitative forecasts and qualitative statements than when it only contains qualitative statements. This judgment-reducing effect is likely to be smaller in the Confident-plus-optimistic/QF condition than in the Optimistic/ QF condition as participants in the former would not see the need to lower valuation judgments as much as the

²⁶ Pairwise comparisons of initial valuation judgments indicate no evidence of any difference in initial valuation judgments between conditions (all $p>0.10$). In addition to valuation judgments, I also elicited short-term earnings judgments (Tan et al. 2015) by asking participants to indicate on an 11-point scale ranging from -5 (Strongly Disagree) to 5 (Strongly Agree): To what extent do you agree that ABC's earnings performance will be strong in the near future? I find no evidence of any difference in earnings judgments between the Confident-plus-optimistic/No QF condition and the Optimistic/No QF condition ($p>0.10$). One reason could be that the 11-point scale is limited in the number of options available. For instance, in these two conditions, while 24 participants' responses reported no change in earnings judgments, only seven participants' responses reported no change in valuation judgments.

amount reduced by participants in the latter. Results in Table 2 Panel D support this by indicating that investors' judgments did become smaller when a quantitative forecast is added to an earnings press release containing an optimistic-only qualitative statement (11.64 versus 5.75, $p=0.044$). I also note that investors' judgments did not become smaller in the case of an earnings press release containing a confident-plus-optimistic qualitative statement ($p=0.901$). Taken together, this suggests that the judgment-reducing effect of adding a quantitative earnings forecast in an earnings press release is contingent on whether the earnings press release contains a confident-plus-optimistic or an optimistic-only qualitative forward-looking statement.

Effect of Perceptions of Manager Overconfidence on Investors' Judgments

In my hypothesis development, I theorized that investors would activate perceptions of managerial overconfidence when they see confident-plus-optimistic qualitative forward-looking statements. As a result, this could lead to investors' valuation judgments being less favorable. To test the validity of my theory, I collected supplementary data on participants' perceptions of manager overconfidence. To analyze perceived overconfidence, I asked the following question using an 11-point scale consisting of "not confident" anchored at the left end, "confident" anchored at the middle, and "overconfident" anchored at the right end: "Rate the type of confidence exhibited by the manager." 177 participants (97.3%) provided ratings that fall between the "confident" to the "overconfident" anchors and an ANOVA conducted shows that there is no evidence of a difference in average ratings among the four groups ($p=0.457$).²⁷ Pairwise comparisons are also insignificant (all $p>0.10$). This set of results does not allow me to

²⁷ The remaining participants gave ratings that fall between the "overconfident" to the "confident" anchors. Nonetheless, there remains no evidence of a difference if these participants were included. Valuation judgments results are inferentially similar if these responses were excluded from the valuation judgments analysis.

conclude that the manager overconfidence theory is the reason behind investors' less favorable judgments.

Credibility Influences on Investors' Judgments

In my hypothesis development, I also theorized that, because of impression management concerns, investors' credibility judgments could become lower when they see an earnings press release containing a confident-plus-optimistic statement. To obtain insights on investors' credibility judgments, I asked investors the following questions using an 11-point scale ranging from -5 (strongly disagree) to 5 (strongly agree): "Overall, based on the information given, I think that the CEO is credible/trustworthy/competent." Responses to the three questions are highly correlated (Cronbach's $\alpha=0.904$), so I use the average of these three measures as my measure of "credibility perceptions." An ANOVA conducted using the four groups shows that participants in the Confident-plus-optimistic/No QF condition provided significantly lower judgments than participants in the Optimistic /No QF condition (2.25 versus 2.76, $F=3.30$, $p=0.071$). There is no evidence that judgments in the Confident-plus-optimistic/QF condition are significantly different from that in the Optimistic/QF condition (2.43 versus 2.46, $F=0.01$, $p=0.922$).²⁸

I also conducted a mediation analysis to determine if the lower credibility perceptions mediate the effect of confident-plus-optimistic statement on investor judgments. According to Kenny, Kashy, and Bolger (1998), to establish mediation, the independent variable needs to be associated with the mediator and the mediator needs to be associated with the dependent

²⁸ One participant gave a rating of 2 to the credibility question and ratings of -3 and -2 to the trustworthiness and competence questions. This suggests that this participant do not view credibility to be similar to trustworthiness and competence. Thus, I excluded this participant from my analysis. Ratings from four other participants appeared at the extreme left end of the scale. These are outliers and are also excluded. Results are inferentially similar (i.e., one tailed p-values associated with directional predictions are < 0.10) if I included them. Valuation judgments results are inferentially similar if these responses were excluded from the valuation judgments analysis.

variables after controlling for the independent variable. As presented above, I find that participants in the Confident-plus-optimistic/No QF condition provided significantly lower “credibility perceptions” judgments than participants in the Optimistic /No QF condition ($p=0.071$). In un-tabulated analysis, I find that the mediator “credibility perceptions” is associated with the dependent variable valuation judgment after controlling for the independent variable ($p=0.044$). Taken together, this provides evidence of a mediating effect.

In sum, the above suggests that participants’ lower valuation judgments in the confident-plus-optimistic condition do appear to be driven by lower credibility perceptions. This is consistent with my theory.

Additional Analyses

In the experiment, for the Confident-plus-optimistic/No QF condition and the Optimistic /No QF condition, the qualitative forward-looking statements contain the phrase “better results in the future.” There remains the possibility that different people might interpret the phrase “better results” differently. For instance, if participants in the Confident-plus-optimistic/No QF condition interpret “better results” as 35 cents while participants in the Optimistic /No QF condition interpret “better results” as 40 cents, then any difference in the valuation judgments between these two conditions might not necessarily be due to the presence or absence of an expression of confidence by the CEO. To investigate this, I asked participants the following question: The CEO did not give an EPS forecast for Q2 2017 in the press release. If he were to give an EPS (Earnings per share) forecast, what value do you think the CEO would have given? There is no evidence of a significant difference in means between the Confident-plus-optimistic /No QF and the Optimistic /No QF conditions ($p=0.968$). In sum, it appears that, on average,

participants in the Confident-plus-optimistic /No QF and the Optimistic/No QF conditions interpreted the phrase “better results in the future” similarly.

I also seek to explore if investors are consciously aware of the differences between sentences with the word “confident” and sentences without the word “confident.” In particular, I asked participants to rate the similarity in meanings between the two following sentences [I am confident of better results] and [I expect better results] on an 11-point scale ranging from -5 (not similar) to 0 (somewhat similar) to +5 (exactly the same). Un-tabulated results indicate an average rating of -0.79, which is significantly different from zero, and a median rating of -1. This suggests that these two phrases are not exactly similar in the eyes of participants. This is in line with Wesson and Pulford (2009), which suggests that the word “confident” is not exactly similar to other words that relate to looking ahead to the future because of the level of high certainty embedded in it.

IV. CONCLUSION

Forward-looking statements frequently appear in earnings press releases. These statements can be either qualitative or quantitative (e.g., earnings forecasts in earnings press releases). In addition, managers can also provide either confident-plus-optimistic statements (e.g., the manager states, “I am *confident* of better results...”) or optimistic-only statements (e.g., the manager states, “I *expect* better results...”).

In this paper, I conduct an experiment to investigate my research question. Results from the experiment indicate that investors’ valuation judgments are less favorable when the earnings press release contains a confident-plus-optimistic qualitative forward-looking statement than when it contains an optimistic-only qualitative forward-looking statement. Follow-up analyses suggest that this less favorable reaction is driven by investors’ lower credibility judgments when

investors see a confident-plus-optimistic qualitative statement. In addition, I also find that when the earnings press release contains a quantitative forecast, investors' reactions are similar regardless of the type of qualitative forward-looking statement present in the press release.

Overall, my results provide the following insights. First, I add to the academic literature on managers' language choices (Davis et al. 2012; Huang et al. 2014; Tan et al. 2014; Libby and Emett 2014) by providing evidence that investors might not necessarily react in ways intended by managers when managers use confident-plus-optimistic qualitative forward-looking statements. Second, the existing literature on management forecasts (Hutton et al. 2003; Baginski et al. 2004; Hirst et al. 2008; Han 2013) has largely focused on quantitative forward-looking statements such as earnings forecasts. I supplement this stream of literature by examining qualitative forward-looking statements. I also contribute to the extant psychology literature on the confidence heuristic involving verbal expressions of certainty (Snizek and Van Swol 2001; Price and Stone 2004; Karmarkar and Tormala 2010; Sah et al. 2013). This stream of literature suggests that people tend to react positively when a communicator expresses confidence. I show that, in a financial reporting (earnings press release) context, confident-plus-optimistic qualitative forward-looking statements do not necessarily elicit positive evaluations.

My results are also subject to several limitations. First, I did not provide details on the stock price trend to participants. It is possible that investors would pay less attention to details in the earnings press release when the firms' stock price is on a recent upward trend (i.e., investors might engage in trend trading). In such cases, investors might not notice that the manager provided a confident-plus-optimistic qualitative forward-looking statement instead of an optimistic-only qualitative forward-looking statement. Second, the readability, length, and format of some of the earnings press releases that investors encounter in real life might be

different from the one they saw in the experiment. As a result, investors could react differently in different circumstances.

FIGURE 1
Plot of Judgments Observed in the Experiment

TABLE 1
Sample Demographics (N=182)

	Frequency (%)
Gender	
Male	101 (55.5%)
Female	81 (44.5%)
Investment History	
Invested <i>directly</i> in an individual company's stock	92 (50.6%)
Invested through a pension account	43 (23.6%)
No	47 (25.8%)
Examination of Financial Statements	
Never	29 (15.9%)
Rarely	39 (21.4%)
Sometimes	54 (29.7%)
Most of the time	37 (20.3%)
Always	23 (12.6%)
Highest Education Completed	
High School	43 (23.6%)
College	101 (55.5%)
Postgraduate	38 (20.9%)
	Years
Age	
Mean	37.82
Median	35
Working Experience	
Mean	16.96
Median	15
Investment Experience	
Mean	6.44
Median	4
	N
Accounting Courses Taken	
Mean	1.88
Median	1
Finance Courses Taken	
Mean	1.66
Median	1

TABLE 2
Experiment Results: Investors' Valuation Judgments

Panel A: Descriptive Statistics: Mean and (*Standard Error*)

Condition	Qualitative Forward-Looking Statement Type	Quantitative Earnings Forecast (QF) Availability	Change in Valuation	Final Valuation after adjusting for Initial Valuation
1	Confident-plus-optimistic	NO	5.83 (2.00) n=41	61.85 (2.09) n=41
2	Optimistic-only	NO	11.64 (2.43) n=42	67.14 (2.06) n=42
3	Confident-plus-optimistic	YES	6.20 (1.70) n=48	62.01 (1.93) n=48
4	Optimistic-only	YES	5.75 (2.10) n=51	61.07 (1.87) n=51

Panel B:

ANOVA Results: Dependent Variable: Change in Valuation Judgment

Source of Variation	SS	df	MS	F-Stat	p-value
Qualitative Forward-Looking Statement	324.13	1	324.13	1.67	0.198
Quantitative Earnings Forecast Availability	343.48	1	343.48	1.77	0.185
Interaction	441.41	1	441.41	2.27	0.067 ^a
Residual	34551.46	178	194.11		

ANCOVA Results: Dependent Variable: Final Valuation Judgment; Covariate: Initial Valuation Judgment

Source of Variation	SS	df	MS	F-Stat	p-value
Qualitative Forward-Looking Statement	212.79	1	212.79	1.19	0.277
Quantitative Earnings Forecast Availability	393.99	1	393.99	2.20	0.139
Interaction	439.56	1	439.56	2.46	0.059 ^a
Initial Valuation Judgment	70873.94	1	70873.94	396.65	0.000
Residual	31626.65	177	178.68		

^a One-tailed p-value

Panel C: Contrast testing for H2

ANOVA	F statistic	P-value
-1 [Condition 1], +3 [Condition 2], -1 [Condition 3], -1 [Condition 4]	5.42	0.021

ANCOVA	F statistic	P-value
-1 [Condition 1], +3 [Condition 2], -1 [Condition 3], -1 [Condition 4]	5.46	0.021

Panel D: Planned Comparisons

ANOVA	F statistic	P-value
Mean of the Confident-plus-optimistic + No QF = Mean of the Optimistic-only + No QF Condition	3.61	0.059
Mean of the Confident-plus-optimistic + QF Condition = Mean of the Optimistic-only + QF Condition	0.03	0.873
Mean of the Confident-plus-optimistic + No QF = Mean of the Confident-plus-optimistic + QF Condition	0.02	0.901
Mean of the Optimistic-only + No QF Condition = Mean of the Optimistic-only + QF Condition	4.11	0.044

ANCOVA	F statistic	P-value
Mean of the Confident-plus-optimistic + No QF = Mean of the Optimistic-only + No QF Condition	3.25	0.073
Mean of the Confident-plus-optimistic + QF Condition = Mean of the Optimistic-only + QF Condition	0.12	0.726
Mean of the Confident-plus-optimistic + No QF = Mean of the Confident-plus-optimistic + QF Condition	0.00	0.954
Mean of the Optimistic-only + No QF Condition = Mean of the Optimistic-only + QF Condition	4.76	0.031

I asked participants to make a valuation judgment both before and after viewing the earnings press release containing the manipulations (Rennekamp 2012). I elicited valuation judgments by asking participants the following question: Assuming the stock's valuation lies between 0 and 100, please indicate your estimate of the stock's valuation. For the ANOVA, my dependent variable is the change in valuation judgment (i.e., the difference between the final and the initial valuation judgments). For the ANCOVA, my dependent variable is the final valuation judgment and the covariate is the initial valuation judgment. The adjusted final valuation judgments reported in Panel A was estimated using the ANCOVA model.

APPENDIX A

Examples of Real Earnings Press Releases

*Family Dollar Stores Earnings Press Release (Abridged Version)*²⁹

Family Dollar Reports First Quarter 2014 Financial Results

01/09/2014

[Download this Press Release \(PDF 205 KB\)](#)

Net Sales Increased 3.2% and Comparable Store Sales Decreased 2.8%

Earnings Per Diluted Share of \$0.68

Company Announces Departure of President

Management Provides Updated Guidance for FY14

"While a difficult operating environment will likely challenge earnings growth in the near-term, I am confident that these investments will improve our competitiveness, strengthen customer loyalty, increase our market share and position us to deliver stronger earnings growth in early fiscal 2015."

For the second quarter of fiscal 2014, the Company expects that comparable store sales will decline in the low-single-digit range and that earnings per diluted share will be between \$0.85 and \$0.95 per share compared with \$1.21 per share in the second quarter of fiscal 2013. Consistent with the National Retail Federation calendar, the second quarter of fiscal 2013 included 14 weeks, and the Company estimates this extra week contributed approximately \$189 million in sales and \$0.07 of earnings per diluted share.

For the 52-week year ending August 30, 2014, the Company expects that earnings per diluted share will be between \$3.25 and \$3.55, compared with \$3.83 in fiscal 2013, which was a 53-week year.

²⁹ Retrieved from <http://investor.familydollar.com/investors-relations/news-releases/Press-Release-Details/2014/Family-Dollar-Reports-First-Quarter-2014-Financial-Results/default.aspx>

26.9 Million iPhones Sold; Record Fourth Quarter Revenue and Profit

Board Declares Quarterly Dividend of \$2.65 per Common Share

CUPERTINO, California—October 25, 2012—Apple® today announced financial results for its fiscal 2012 fourth quarter ended September 29, 2012. The Company posted quarterly revenue of \$36.0 billion and quarterly net profit of \$8.2 billion, or \$8.67 per diluted share. These results compare to revenue of \$28.3 billion and net profit of \$6.6 billion, or \$7.05 per diluted share, in the year-ago quarter. Gross margin was 40.0 percent compared to 40.3 percent in the year-ago quarter. International sales accounted for 60 percent of the quarter's revenue.

The Company sold 26.9 million iPhones in the quarter, representing 58 percent unit growth over the year-ago quarter. Apple sold 14.0 million iPads during the quarter, a 26 percent unit increase over the year-ago quarter. The Company sold 4.9 million Macs during the quarter, a 1 percent unit increase over the year-ago quarter. Apple sold 5.3 million iPods, a 19 percent unit decline from the year-ago quarter.

Apple's Board of Directors has declared a cash dividend of \$2.65 per share of the Company's common stock. The dividend is payable on November 15, 2012, to shareholders of record as of the close of business on November 12, 2012.

"We're very proud to end a fantastic fiscal year with record September quarter results," said Tim Cook, Apple's CEO. "We're entering this holiday season with the best iPhone, iPad, Mac and iPod products ever, and we remain very confident in our new product pipeline."

"We're pleased to have generated over \$41 billion in net income and over \$50 billion in operating cash flow in fiscal 2012," said Peter Oppenheimer, Apple's CFO. "Looking ahead to the first fiscal quarter of 2013, we expect revenue of about \$52 billion and diluted earnings per share of about \$11.75."

³⁰ Retrieved from <https://www.apple.com/pr/library/2012/10/25Apple-Reports-Fourth-Quarter-Results.html>

APPENDIX B

Experimental Manipulations

Earnings Announcement Press Release for Q1 2017

ABC reported strong first quarter results that achieved the company's overall expectations. On a consolidated basis, net income increased from \$68.9 million to \$84.1 million. ABC's Earnings per Share (EPS) for this quarter reached \$0.28.

The table below summarizes revenue and earnings performance for the quarter ended 31 March 2017, compared with the quarter ended 31 March 2016.

	Quarter ended 31 March 2017	Quarter ended 31 March 2016	Change
Net Sales	1.71 billion	1.46 billion	+ 250 million
Net Income	84.1 million	68.9 million	+ 15.2 million

"My team is pleased with the first quarter results," said Chief Executive Officer John Henry. "I am impressed with ABC's ability to achieve such results in the current weak and volatile economic conditions."

"I am happy that the cash position remained relatively stable. We made the right strategic choice to focus on our main operations. Operating income has increased, and would continue to increase greatly. There are two reasons for this. First, our team puts in lots of effort into working with suppliers and distributors to obtain profit improvement through cost reduction. Second, our team has been actively initiating new and innovative marketing campaigns to boost sales."

"In many of our markets, the external environment continued to be very difficult in 2016. In the past year, we have faced unprecedented geopolitical challenges, currency volatility and suppressed consumer confidence. Despite these macroeconomic factors, our proven strategy and highly engaged employees allowed us to maintain and reinforce our strong position across our markets. In short, the progress we made in 2016 and our unique portfolio of leading products position us well for the future."

Outlook for Q2 2017

Chief Executive Officer John Henry stated, "Our business strategy for the next quarter includes increasing sales by expanding the distribution of our products in new and developing markets." Specifically, ABC plans to focus on:

- Expanding into new markets and increasing market share in existing markets
- Building good relationships with suppliers and distributors
- Developing new groundbreaking products

Condition 1: Confident-plus-optimistic + No QF

I am **confident** that ABC would do well and attain better results in Q2 2017.

Condition 2: Optimistic-only + No QF

I **expect** that ABC would do well and attain better results in Q2 2017.

Condition 3: Confident-plus-optimistic + QF

I am **confident** that ABC would do well and attain better results in Q2 2017.

Earnings Guidance for Q2 2017

Compared to earnings per share of \$0.28 in the previous quarter, earnings per share are estimated to range from ***\$0.29-\$0.33***.

Condition 4: Optimistic-only + QF

I **expect** that ABC would do well and attain better results in Q2 2017.

Earnings Guidance for Q2 2017

Compared to earnings per share of \$0.28 in the previous quarter, earnings per share are estimated to range from ***\$0.29-\$0.33***.

APPENDIX C

Experiment Instrument

The task will take approximately 10 to 15 minutes. While completing the case materials, please assume you are an investor evaluating a hypothetical firm named “ABC.” You will now be provided with information regarding the hypothetical firm. You will be asked to provide judgments pertaining to ABC and its management team. The information provided in the case may be considerably less than what you normally would have. Nevertheless, it would be great if you could answer the questions as you would when evaluating a firm in your daily life. Please read the case information carefully and respond to the questions that follow.

Section 1

Background

You are thinking of investing in a company called ABC Inc and are in the midst of reviewing the company's annual report. Background information and financial data about ABC in the annual report are listed below for your perusal. The current date is 31st March 2017.

Company Description

ABC, Inc. (hereafter, "the company") is a publicly traded company in the mobile communications industry. It produces mobile devices for sale to both consumers and businesses. The company develops several types of mobile devices to cater to a wide range of consumers. Models produced ranged from variants of the Flagship model (HP A), a mid-range model (HP B) and a low-end model (HP C).

The company sells its mobile devices directly through its website and indirectly through retailers around the world.

2014-2016 Selected Financial Data (Fiscal Year end is December 31)

The table below summarizes the company's historical earnings performance.

Annual Financial Data Summary

(in USD thousands, except per share amounts and financial ratios)

Number of shares outstanding: 300 million

Operations	FY2016	FY2015	FY2014
Net Sales	6,289,546	6,112,425	6,045,485
Operating Income	978,258	926,478	904,695
Net Income	294,845	275,484	252,253
Earnings Per Share	0.98	0.92	0.84
Financial Position			
Total Assets	7,886,582	7,597,477	7,572,552
Total Liabilities	1,767,654	1,552,733	1,532,875
Shareholders' Equity	6,118,928	6,044,744	6,039,677

Quarterly Financial Data Summary

(in USD thousands, except per share amounts and financial ratios).

Number of shares outstanding: 300 million

	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Net Sales	1,460,561	1,535,677	1,630,042	1,663,266
Operating Income	236,923	237,565	239,461	264,309
Net Income	68,921	69,225	74,766	81,933
Earnings Per Share	0.23	0.23	0.25	0.27

GIVEN THE INFORMATION ABOVE, PLEASE ANSWER THE FOLLOWING QUESTIONS. YOU MAY REFER TO THE ABOVE INFORMATION WHEN YOU ARE COMPLETING THIS SECTION.

(1) Assuming the stock's valuation lies between 0 and 100, please indicate your estimate of the stock's valuation.

(2) To what extent do you agree that ABC's earnings performance will be strong in the near future?

-5	-4	-3	-2	-1	0	1	2	3	4	5
Strongly Disagree					Neutral					Strongly Agree

You have completed this section. Please proceed to Section 2.

Demographic Questions

1. Have you ever invested in an individual company's stock?

-Yes, Directly

-Yes through a pension account

-No

2. How frequently do you invest in shares?

-5	-4	-3	-2	-1	0	1	2	3	4	5
Not frequently			Neutral				Very Frequently			

3. How many years of working experience (including part-time) do you have?

- () years

4. State your Gender.

5. State your age.

6. What is your last held employment position? _____.

7. Indicate the number of courses you have taken (including both undergraduate and graduate courses) in accounting ()

8. Indicate the number of courses you have taken (including both undergraduate and graduate courses) in finance ()

9. Indicate the number of courses you have taken (including both undergraduate and graduate courses) in marketing ()

Section 2

A few days have passed and the current date is now 15th April 2017. On this day, ABC released an earnings announcement press release detailing its results for Q1 2017. Please read the earnings announcement press release.

Excerpt from the Earnings Announcement Press Release (15th April 2017) will be shown in the next few pages

Experiment Manipulations

Earnings Announcement Press Release for Q1 2017

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Net Income	84.1 million	68.9 million	+ 15.2 million

"My team is pleased with the first quarter results," said Chief Executive Officer John Henry. "I am impressed with ABC's ability to achieve such results in the current weak and volatile economic conditions."

"I am happy that the cash position remained relatively stable. We made the right strategic choice to focus on our main operations. Operating income has increased, and would continue to increase greatly. There are two reasons for this. First, our team puts in lots of effort into working with suppliers and distributors to obtain profit improvement through cost reduction. Second, our team has been actively initiating new and innovative marketing campaigns to boost sales."

"In many of our markets, the external environment continued to be very difficult in 2016. In the past year, we have faced unprecedented geopolitical challenges, currency volatility and suppressed consumer confidence. Despite these macroeconomic factors, our proven strategy and highly engaged employees allowed us to maintain and reinforce our strong position across our markets. In short, the progress we made in 2016 and our unique portfolio of leading products position us well for the future."

Outlook for Q2 2017

Chief Executive Officer John Henry stated, "Our business strategy for the next quarter includes increasing sales by expanding the distribution of our products in new and developing markets." Specifically, ABC plans to focus on:

- Expanding into new markets and increasing market share in existing markets
- Building good relationships with suppliers and distributors
- Developing new groundbreaking products

Condition 1: Confident-plus-optimistic + No QF

I am **confident** that ABC would do well and attain better results in Q2 2017.

Condition 2: Optimistic-only + No QF

I **expect** that ABC would do well and attain better results in Q2 2017.

Condition 3: Confident-plus-optimistic + QF

I am **confident** that ABC would do well and attain better results in Q2 2017.

Earnings Guidance for Q2 2017

Compared to earnings per share of \$0.28 in the previous quarter, earnings per share are estimated to range from ***\$0.29-\$0.33***.

Condition 4: Optimistic-only + QF

I **expect** that ABC would do well and attain better results in Q2 2017.

Earnings Guidance for Q2 2017

Compared to earnings per share of \$0.28 in the previous quarter, earnings per share are estimated to range from ***\$0.29-\$0.33***.

As a potential investor of ABC, you need to decide whether ABC is worth investing based on the information.

GIVEN THE INFORMATION ABOVE, PLEASE ANSWER THE FOLLOWING QUESTIONS.

(1) Assuming the stock's valuation lies between 0 and 100, please indicate your estimate of the stock's valuation.

(2) To what extent do you agree that ABC's earnings performance will be strong in the near future?

-5	-4	-3	-2	-1	0	1	2	3	4	5
Strongly Disagree					Neutral					Strongly Agree

You have completed this section. Please move on to Section 3.

Section 3

PLEASE ANSWER FOLLOWING QUESTIONS. DO NOT REFER TO MATERIALS IN SECTION 2.

Did the CEO use the word “confident” in the Outlook for Q2 2017 section?

- Yes
- No
- There was no Outlook for Q2 2017 section.

What type of earnings guidance did the CEO provide in the Earnings Guidance for Q2 2017 section?

- Range guidance (e.g., Earnings are estimated to range from \$XX to \$YY)
- Point guidance (e.g., Earnings are estimated to be \$XX)
- There was no Earnings Guidance for Q2 2017 section.

What was your impression of the CEO after reading the earnings press release?

- Not confident
- Confident
- Overconfident
- None of the above

Rate the type of confidence exhibited by the manager

I feel like I can rely on information in the earnings press release when making investment decisions.

Overall, based on the information given, I think that the CEO is credible.

-5	-4	-3	-2	-1	0	1	2	3	4	5
Strongly Disagree					Neutral					Strongly Agree

Overall, based on the information given, I think that the CEO is trustworthy.

-5	-4	-3	-2	-1	0	1	2	3	4	5
Strongly Disagree					Neutral					Strongly Agree

Overall, based on the information given, I think that the CEO is competent.

-5	-4	-3	-2	-1	0	1	2	3	4	5
Strongly Disagree					Neutral					Strongly Agree

Rate the tone of the management's communication.

-5	-4	-3	-2	-1	0	1	2	3	4	5
Not Positive					Neutral					Very Positive

When reading the disclosures, I am _____ that the information in the earnings guidance and earnings outlook section are persuasion attempts.

-5	-4	-3	-2	-1	0	1	2	3	4	5
Not concerned					Neutral					Concerned

How difficult was the message to read?

-5	-4	-3	-2	-1	0	1	2	3	4	5
Not Difficult			Neutral				Very Difficult			

After reading the press release, what is your forecasted Earnings per Share (EPS) number for the next quarter? _____

After reading the press release, if the manager did not give an EPS forecast, what value do you think the manager would give? _____

List down what went through your mind while reading the earnings press release. (Do not worry about forming proper sentences or grammatical errors). Examples are earnings, manager competence, impression management, very positive, stock price etc.

To what extent do you agree that information released by the CEO is part of a promotional technique to influence your thinking in a certain direction.

-5	-4	-3	-2	-1	0	1	2	3	4	5
Not at all			To a small extent				To a large extent			

Overall, with reference to any past earnings release that you have read, do you find anything surprising about this earnings press release? Please list down the surprising part if possible.

-5	-4	-3	-2	-1	0	1	2	3	4	5
No			Neutral				Yes			

Please list down what comes to your mind when people say they are confident. Examples are high competence, high knowledgeability, whatever the person is saying is likely to be true or going to come true etc.

Rate the similarity in the meanings of the two phrases: [I am confident of better results], [I expect better results]

-5	-4	-3	-2	-1	0	1	2	3	4	5
Not the same					Somewhat similar					Exactly the same

What do you think of CEOs in general?

-Not confident

-Confident

-Overconfident

-None of the above. Please state:

Compared to the average person, do you think CEOs are more likely to be overconfident individuals?

-5	-4	-3	-2	-1	0	1	2	3	4	5
No					Neutral					Yes

You have completed Section 3. Please move on to Section 4.

Section 4

Please rate your degree of knowledge/ability, relative to other investors.

1. Financial accounting - knowledge about relationship between business activities and financial statements.

-5	-4	-3	-2	-1	0	1	2	3	4	5
Very Low					Neutral					Very High

2. Financial statement analysis - knowledge needed to analyze and interpret information contained in financial statements.

-5	-4	-3	-2	-1	0	1	2	3	4	5
Very Low					Neutral					Very High

3. Industry used in this case study – knowledge about the specific industry the hypothetical firm in the case study operates in.

-5	-4	-3	-2	-1	0	1	2	3	4	5
Very Low					Neutral					Very High

PLEASE PROVIDE FOLLOWING INFORMATION

1. How many years of working experience (including part-time) do you have?
2. How many years of investment experience do you have?
3. Is English your native language? YES / NO
4. When evaluating a company's stock as a potential investment, how often do you examine a company's financial statements (for example, annual report or SEC filings) as part of your evaluation?
 - Never
 - Rarely
 - Sometimes
 - Most of the time
 - Always
5. When was the last time you invested in a stock?
 - Never
 - Within the last 6 months
 - 6-12 months ago
 - More than a year ago
 - More than 5 years ago
 - More than 10 years ago
 - More than 20 years ago.
6. How many times have you invested in the stock market (i.e. buying of shares)?
7. What is your highest education you have completed?
 - High School
 - College
 - Postgraduate

You have completed this study.

Thank you for your participation.

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