"Stiff Business Headwinds and Unchartered Economic Waters": The Use of Euphemisms in Earnings Conference Calls

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ABSTRACT

I examines the value relevance of euphemisms in the conference call transcripts. Euphemisms are "indirect words or phrase that people often use to refer to something embarrassing or unpleasant, sometimes to make it seem more acceptable than what it really is" (Hornby 2010). In the context of conference calls, euphemisms are one of the linguistic tools used by managers to soften their explanation of poor company performance. I provide evidence that the extent of euphemisms in conference calls is negatively related to short-window returns beyond earnings surprises and overall sentiment based on Loughran and McDonald dictionary. Additionally, I find that the use of euphemisms to mitigate the severity of company problems misleads investors and results in statistically significant negative effect on subsequent drift returns.

Keywords: *abnormal returns; conference calls; content analysis; euphemisms.*

JEL Classifications: G12, G14, M41.

Data Availability: Data used in this study are available from public sources identified in the study.

1. Introduction

Corporate verbal communication with investors has two purposes: to relay facts about company performance (informational purpose) and to influence the investors' views (promotional purpose or impression management). Promotional aspects of verbal communications may aim to influence news stories, analyst reports and ultimately investors' view of company value. Regulators recognize that these verbal communications may lead to mispricing and have called for a revision of language used by companies to communicate with investors. An example of such regulatory effort is SEC's Plain English Handbook, which contains guidelines on companies' verbal disclosures. The handbook calls for clearer and more informative disclosures by avoiding long sentences, superfluous words, jargon, passive voice, and abstract words (SEC 1998). The regulators' concerns are shared by academic community, as researchers in accounting and finance find evidence that firms may opportunistically use verbal cues to influence investors' reaction to the reported information (Henry (2008), Rutherford (2005), Zhou (2014), Larcker and Zakolyukina (2012), Lee (2016)). This paper extends these studies by exploring how a commonly used type of fixed expressions referred to as euphemisms, is used during earnings conference calls to manage investor perception of company performance.

Hornby 2010 defines euphemisms are indirect words or phrases that people use to refer to something unpleasant to make it sound more acceptable than what it really is (Hornby 2010). For example, when politicians talk about tax increases, they might use a euphemism – "revenue enhancement" (Lutz 1996). Euphemisms reflect a speaker's ideology of positive self-presentation – discourse participant's motivation to protect the interests of social group they belong to (van Dijk 1998, van Dijk 2002). In the context of earnings conference calls, the use of euphemisms in the discourse of the call participants implies two things. First, it should be indicative of some unfavorable news about the company. Second, by using euphemisms, call participants promote a more favorable impression of this news to the investors. Both managers and analysts willingly participate in this impression management by using euphemisms in their discourse: managers talk about "speed bumps", "hiccups", and "headwinds", while analysts mention "a disconnect" between their projections and company reports. Managers' compensation incentives are aligned with the company performance. Analysts need to curry favor with managers to get more access to them and, as a result, to produce more accurate reports.

I focus on the immediate and delayed investors' reaction to the use of euphemisms during conference calls. I hypothesize that the use of euphemisms is perceived as a negative signal by investors and results in the immediate negative market reaction. However, due to the impression management facilitated by both managers and analysts, investors underreact to the signal as they underestimate the severity of the problems faced by the company. This results in a negative delayed reaction to the content of a conference call.

In order to develop a proxy for euphemism usage, I have created my own dictionary of euphemisms and euphemistic expressions. My dictionary is based on two published dictionaries of euphemisms and is extended with expressions that I hand collect by reading through 100 randomly selected conference call transcripts. Using my dictionary and commercially available Visual Information Extraction Platform (VIP) software, I parse 72,600 earnings conference call transcripts for U.S. companies over the time period from March 2002 to December 2013 and calculate the total number of euphemisms in each call. This serves as my main measure for euphemism usage in the conference call transcripts.

I test my prediction that the use of euphemisms is a negative signal to the investors with Fama-MacBeth style regressions controlling for other sources of information around the conference call date, such as earnings surprises and the overall tone of the conference call. I find a negative association between my measure of euphemisms usage and immediate stock market reaction around the conference call date. I also find that firms with more euphemisms during the conference calls continue to experience a negative market reaction over the course of the subsequent quarter. A long-short portfolio that goes long the firms with low euphemism usage and short the ones with the high level of euphemisms earns abnormal returns ranging from 93 basis points (t=2.06) to 114 basis points (t=2.53) per quarter. These finding indicate that firms that try to mitigate the tone of conference call disclosures using euphemisms appear to be hiding bad news, which is ultimately revealed in the future. My findings are robust to firm size and to using levels, changes, and variability of euphemisms as proxies for the euphemism usage.

This paper makes contributions on several fronts. This is the first study to document the use of euphemisms in corporate communication. I have built the first dictionary of euphemisms used in business discourse and show that euphemisms are indeed used in conference calls (on average more than 70% of calls will have at least one euphemism) across various sectors and time periods. Second, I contributes to the emerging literature on the promotional aspect of conference calls by introducing euphemisms as another linguistic tool used by conference call participants to influence investors' perception of company performance. In this regard, I add a measure to the literature that compliments existing proxies for the promotional aspect of corporate communication. Third, while the earnings conference calls remain a voluntary disclosure, they still make a part of bigger corporate communication space that is of interest to regulators. Regulators remain concerned that managers might use linguistic cues to influence investors' reaction to corporate announcements. And this study does provide initial evidence consistent with regulatory concerns that the promotional aspect is indeed a part of corporate communication.

The rest of the paper proceeds as follows: Section 2 defines euphemisms and discusses their properties; Section 3 examines prior research; Section 4 develops the hypotheses; Section 5 describes the source of the

data and the construction of the euphemism measure in detail; Section 6 discusses research design and methods; the main results are discussed in section 7; Section 8 concludes the paper.

2. Euphemisms

Euphemisms are mild, vague, or periphrastic expressions that are used as substitutes for blunt or disagreeable expressions; additionally, euphemisms once meant or still mean something else (Holder 2008). For example, the expression *open a can of worms* is a euphemistic expression that means "to inadvertently create numerous problems while trying to solve one". It comes from the action of fisherman who would buy a can with bait from a bait store only to discover how easy it is to open it but difficult to close. It is a euphemisms because it: 1) refers to something else, 2) talks about something unpleasant, and, 3) is a mild way of saying that someone's actions led to multiple problems.

Humans have always used euphemisms to camouflage harsh realities and to avoid offending the audience (Allen and Burridge 1991). People employ euphemistic terms in the discourse to talk about the phenomena they find embarrassing (e.g., *rest room* is a euphemism for lavatory, even though no one goes there to rest (Holder 2008)), terrifying (e.g., euphemisms for death include *fall asleep, rest, depart, check out, close your eyes* (Holder 2008)), offensive (e.g., in educational circles drop-outs are referred to as *early leavers* and lazy students are renamed *back-rowers* (Rahimi 2006)) or sensitive (e.g., *glass ceiling* means discrimination at work (Holder 2008)). In the context of corporate disclosures, euphemisms are also likely to be used to refer to something embarrassing (e.g., *we hit some speed bumps*, talking about failure to meet financial targets), unpleasant (e.g., *we continue to right-size our business*, talking about personnel layoffs), or difficult to predict and control (e.g. *currency headwinds will remain our main challenge*, talking about unfavorable currency movements).

Language is a social practice that varies over time and across social groups (Fairclough 1995). Since euphemisms are a part of language, they also have this temporal and social variability. Halmary 2011 illustrates how euphemisms change over time by tracing the name for the American Association on Intellectual and Developmental Disabilities back to the previous century. This non-profit professional organization has changed its name four times. When it was founded in 1876, it was named the American Association of Medical Officers of Institutions for Idiotic and Feebleminded Persons. Later on, words "idiotic" and "feebleminded" were deemed offensive, and in 1933 the organization was renamed to a more euphemistic version – the American Association on Mental Deficiency. This title was deemed offensive again in 1987 and the name was changed to the American Association on Mental Retardation. However, with time "mental retardation" also ceased to be considered a euphemism and the name was changed again in 2006 to its current title (Halmary 2011).

In addition to the variability through time, euphemisms also vary with the speaker background. For example, it is reasonable to expect that people who are exposed to sports will more frequently use euphemisms that come from literal expressions in athletics (for example, *behind the eight ball*, "to be in difficulty", or *throw a curve ball*, "to introduce something unexpected"). A speaker might also be accustomed to the use of some specific euphemisms due to his country of origin. For example, a euphemistic expression *rebase dividends*, meaning "to lower dividends" is typical for speakers of British English. Some euphemisms are used differently even within the same country. For example, a euphemism *kiss-off*, meaning "a summary dismissal or demotion", is called a *New York kiss-off* by those living on the west coast, while those in New England call it a *California kiss-off* (Holder 2008). I will consider the social and temporal variability of euphemisms in my test design.

I rely on Critical Discourse Analysis framework ("CDA"), a stream of research in linguistics and sociology, in developing my hypothesis regarding the use of euphemisms in conference calls. CDA suggests that individuals belong to certain power relationships in a society and aim to sustain and secure these relationships. These relationships form individual's ideological prejudices, which are the attitudes a group of people hold about certain issues. Individuals' power relationships and ideologies are created and naturalized via the use of language. The very same event or phenomenon can be presented entirely differently by people belonging to different parties and mental models. In sum, according to CDA, language is the main domain of ideology and struggle for power; it is a tool to manipulate the presentation of reality in a way that is ideologically suitable for the speaker (van Dijk 1998, van Dijk 2002, Rahimi 2006). CDA identifies a number of tools that speakers can use to promote their ideology in text. For example, a speaker can use numbers excessively to sound more credible ('number game'), enhance or exaggerating meaning ('hyperbole'), say something and mean something else ('irony'), or avoid naming unpleasant phenomena directly ('euphemisation') (van Dijk 2002). CDA identifies euphemisms as a type of ideological "power language" that is used in discourse to manipulate unpleasant reality by presenting it in a better, mitigated fashion.

3. Literature Review

Accounting and finance literature clearly indicates that verbal communication by market participants has relevant information that is incremental to the quantitative information about firms. The value of qualitative information has been documented for various channels of investor communication: media news (Tetlock (2007), Tetlock et al. (2008)), analyst reports (Huang et al. (2016), Franco et al. (2015)), and internet message boards (Das and Chen 2007). These findings have been also extended to corporate reporting; researchers show value relevance of verbal cues in the context of earnings press releases (Demers and Vega (2010), Henry (2008), Davis et al. (2012)), Forms 10-Q and 10-K (Feldman et al (2010), Loughran and

McDonald (2011)), chairman's letters (Abrahamson and Amir (1996), Smith and Taffler (2000)), auditor reports (Uang et al. (2006)), and loan agreements (Bozanic 2016). More recently accounting research has focused on the linguistic study of conference call transcripts, which is a more spontaneous form of corporate disclosure and includes verbal cues for both managers and analysts. Consistent with prior studies of the qualitative aspect of business communication, research shows that the verbal content of conference call transcripts conveys important, value-relevant information (for example, Bushee et al (2003), Brockman et al. (2014), Druz et al. (2015), Chen et al. (2016), Price et al. (2012)).

Text portions of investor communication can be used not only to inform investors of corporate events (informational purpose), but also to manage investor impression of company performance (promotional purpose) (Henry 2008). Prior studies explicitly examine the promotional aspect of verbal communication in letters to shareholders (e.g., Hildebrandt and Snyder 1981, Rutherford 2005), chairman's statements (e.g., Clatworthy and Jones, 2006), 10-K reports (e.g., Li 2008, Loughran and McDonald 2011), and shareholder meetings (Li and Yermack 2016). Researchers recognize that conference call disclosures are especially fruitful ground for this stream of research due to their spontaneous nature (Larcker and Zakolyukina 2010).

Earlier work on conference call disclosures uncover various verbal communication techniques used by managers with the goal of promoting a more favorable impression of company performance. For instance, Zhou (2014) shows that executives play a blame game during conference calls by attributing bad performance to external factors, such as weather and economic environment. He finds evidence that this impression management results in investor under reaction to negative information. Lee (2016) studies another linguistic trick used by managers to cover up poor performance during the Q&A session of conference calls. He finds that managers prepare their answers to analyst questions in advance and use scripted answers to analysts' question, in effect, repeating portions of the management discussion section. Larcker and Zakolyukina (2012) find that executives that try to cover up accounting misstatements tend to use more references to general knowledge, fewer non-extreme positive emotional words, and fewer shareholder value references. My paper extends prior studies on the promotional aspect of verbal communication in conference call transcripts by introducing a new linguistic cue used to manage investor perception – euphemisms.

4. Hypotheses

CDA identifies euphemisms as a type of ideological "power language" that is used in discourse to manipulate unpleasant reality by presenting it in a better, mitigated fashion (van Dijk 2002). Therefore, I expect that the use of euphemisms indicates that a speaker is trying to smooth over an unpleasant situation.

In the context of conference calls, I expect that euphemisms are used to talk about poor operating performance or to lower the investors' expectations regarding future guidance or talk about unpleasant matters that a company is dealing with (e.g. lay-offs, litigations, product recalls, etc.). Based on this reasoning, I formulate my first hypothesis:

H1: Use of euphemisms in conference call transcripts is indicative of negative information (bad news) about the company, and leads to negative contemporaneous returns around the conference call date.

According to CDA, euphemisms are a linguistic tool that allows people to promote the ideology of their group; in the context of conference calls participants we have two groups – managers of the company and analysts that dial in to ask questions. When managers talk about operating performance of the company during the call, they are motivated to promote a more favorable image of company performance (Chen et al. 2016). This positive self-representation can be driven by managers' opportunistic motives (compensation or job retention) or their belief that negative performance is temporary. I expect that this motivation will be reflected in their choice of words. For example, if a company is reporting weak results, the executives can choose how to explain their performance. They can either explain it directly (for example, "we lost a large client and the revenues decreased by 5% because of that") or they can use a round-about way of explaining it by using euphemisms (for example, "we are experiencing some *lumpiness* in our sales, as we faced some economic *headwinds* in the last quarter"). Managers might choose a second, more mild way of explain performance to soften the negative tone of the discussion. Even though a message with the use of euphemisms might be less helpful to the investors compared to the more direct discussion of performance, it helps executives promote a more positive image of the company during bad times and in turn results in more stable employment and compensation prospects for managers.

Analysts will also have reasons to use euphemisms in their questions during conference call Q&A section. For analysts, access to management can provide distinct informational advantage over other analysts covering the firm. During conference calls, some analysts are given priority over the rest of the call participants based on how favorably the analysts view the firm (Mayew (2008), Cohen et al (2014)). Prior research shows that analysts that ask questions during the call issue a more timely and accurate forecast after the call (Mayew et al 2011). Since managers have discretion over analysts' access to management during conference calls and since it depends on how favorably analysts view the firm, analysts have motivation to soften "tough" questions during the call. An analyst can choose to ask about some issue in a direct way, without beating around the bush. This might lead to the analyst falling out of favor with management, and, as a result, he might be passed over in the question queue in the future calls. Or an analyst might choose to soften message with euphemisms and make it sound that the issue is not as negative/ urgent/ unpleasant as it really is. For example, an analyst might say "I think I am *missing* something here" instead

of saying "your disclosures do not look right to me". Or he might say "*not to beat a dead horse*, but can you please give us more flavor regarding sales volumes" instead of saying "other analysts asked you about sales volume before me, but you are not giving much information about it". Asking questions in a softer manner might promote a more favorable view of the analyst by managers and help him get more access to ask questions in the future conference calls.

Both managers and analysts have motivation to use euphemisms during conference calls and both groups do it to promote a more positive image of the company. This embellished discussion of operating results might result in investors underestimating the extent of bad news and underreacting to the information content of the call. As such, I state my second hypothesis as follows:

H2: Use of euphemisms during conference calls leads to the negative drift in subsequent returns.

While I expect that investors are underreacting to the use of euphemisms, I understand that investors might also be able to see through the linguistic tricks used by the call participants. After all, euphemisms are fixed, idiomatic expressions that are easily understood by speakers of language. Therefore, it is possible that investors will correctly price in the information content of euphemisms during the call.

5. Sample selection and proxy for euphemism usage

5.1 Sample selection

My sample is constructed using a comprehensive set of conference call transcripts provided by Thomson Reuters Street Events database. The database covers 203,861 full-text conference call transcripts from 7,007 US and international firms during 2002-2013. The database maintains a history of transcripts for various corporate meetings: earnings conference call, shareholder meetings, sales updates, analyst meetings, and guidance conference calls. It includes date, unique company identifiers, and verbatim transcript of the meeting.

To construct my sample for the study, I exclude international companies (40,540) and missing names (16,844). For the purpose of this study I focus on the earnings conference calls, so I exclude transcripts of all other events from my sample (44,615). I further restrict my sample to earnings conference calls that occur within one day or on the same day as the earnings release; this eliminates another group of transcripts from my sample (22,263). Finally, I match firms in Thomson Reuters database with identifiers in CRSP and Compustat to obtain financial information. My final sample includes 72,600 earnings conference calls for 3,183 unique US firms during 2002-2013. Figure 1 shows that my sample is increasing over the years: it includes about 1,200 firm-years in 2002 and grows to over 2,500 in 2011-2013. This increase is due to

the data provider expanding its coverage and due to more firms choosing to hold conference calls after Regulation FD (Mayew 2008).

5.2 Proxy for euphemism usage

My main proxy for euphemism usage is the sum of euphemisms used in a conference call transcript. In order to calculate it, I compiled a dictionary of euphemisms and euphemistic phrases, constructed a set of rules in Python that identified these words and phrases in the corpus of transcripts, and, finally, used the VIP software package to calculate the euphemism scores for each transcript.

I based the initial list of euphemistic words and phrases on two published dictionaries of euphemisms: Oxford Dictionary of Euphemisms by R.W. Holder and Dictionary of Euphemisms and Other Doubletalk by Hugh Rawson. Additionally, I examined 100 random conference call transcripts and created a list of euphemisms and euphemistic expressions used in the conference calls that are omitted from the published dictionaries. In order to address the concern that a hand-collected word list can be confounded by researcher's subjectivity, I presented the list to a group of twelve investment professionals who read financial disclosures, such as earning releases, conference call transcripts, 10-Ks, and 10-Qs, as part of their work duties. Only euphemisms approved by the group were included in the list used for testing. Finally, I cross-checked my list of euphemisms against the Loughran and McDonald dictionary (http://www3.nd.edu/~mcdonald/Word_Lists.html). If euphemisms were already included in the Loughran and McDonald dictionary (for example, euphemism *challenging* is already a part of their list), I excluded them from my list of euphemisms.

After I finalized my list of euphemisms, I used VIP software to create rules in Python that would extract instances of euphemisms from the conference call transcripts. VIP allows has several features that allow users to create rules that capture compound words and phrases in text. In Appendix 1 I show VIP features that I used to create my rules. The first example shows that VIP rules recognize a grammatical relationship in the sentence. In this case *tight* is a euphemism that is used to describe profit margins that are decreasing and the VIP rule ensures that the software will capture exactly this relationship: the word *margin* defined by a verb *be* and a predicate *tight*. The second example shows that VIP rules will capture euphemistic phrases that have negation and keep track of them as a separate group of euphemisms (this feature is called *polarity* in VIP). For example, if a manager says that they *didn't fall out of bed*, VIP software will count this phrase as an instance of a euphemistic phrase with negation. This feature allows me to calculate the euphemism score more precisely by subtracting these negations from the overall euphemism score. For example, if an analyst asks if managers *fell out of bed*, and managers answer by saying that they *didn't fall out of bed*, the resulting euphemism score for this interaction will be zero. Another useful feature is VIP's

capacity to create semantic rows, a list of words that can be used in a euphemistic phrase. This feature helps me capture only phrases, in which a word works as a euphemism. For example, if I take a word *soft*, it would be a euphemism if the call participants talk about *soft sales* or a *soft quarter*. However, if a word *soft* is followed by a word *pretzel*, it is not a euphemism and it should not be captured in the euphemism measure. The semantic row feature in VIP software allows to add all possible variations of euphemistic phrases in a rule. Some additional feature of VIP include punctuation and tagging capacity and are illustrated in Appendix 1.

Next, using my set of rules, I parse the conference call corpus using VIP batch process, which calculates how many times each euphemism occurs in each transcripts. To provide readers with a sense for most frequently encountered euphemisms, Figure 4 shows examples of most frequent euphemisms per given transcript (Figure A) and which euphemisms are most likely to be repeated in a transcript (Figure B). Euphemisms *have an issue* and *headwind* are most likely to occur in a transcript: 3.3% of all transcripts mention *having an issue* and 2.7% having *headwinds* at least once. Most frequently repeated euphemisms within a transcript are *headwinds* (repeated on average 11 times per transcript) and *price pressure* (repeated 8 times on average). After capturing the euphemism instances in the body of a transcript, the program then identifies the polarity of euphemisms. By definition euphemisms refer to bad news, so in VIP rules, euphemisms are assigned a negative polarity by default. VIP software will change euphemism polarity to a positive one if a euphemism is used in a negative sentence or if there is a word/phrase that flips the meaning of the sentence.

To better understand euphemisms that are captured using VIP technology and how polarity is assigned, I have selected some extracts captured by VIP in Appendix 2. In all examples the euphemism captured by VIP software are underlined and in bold. In the first example, VIP assigns negative polarity to euphemism *headwinds* because it is not surrounded by negation. However, in the second example, the polarity is switched to a positive one because euphemism *price pressure* appears after a negative particle *not*. In addition to capturing direct negation with *not* or *no*, VIP has a list of verbs that imply negation. For example, in the third example the presence of a verb *offset* changes the polarity of euphemism *price pressure*.

Finally, VIP program outputs the following information: the count of euphemisms with negative polarity and the count of euphemisms with positive polarity for each of the conference call transcripts. Using this output, I calculate the measure of euphemism usage (*Euph*) for each conference call as the total number of euphemisms with negative polarity less the total number of euphemisms with positive polarity. I use this measure to proxy for two things: the extent of negative news discussed on the conference call and the extent of the promotional aspect of a conference call (to what extent conference call participants manipulate the perception of company performance).

6. Research design and variable definitions

6.1 Euphemisms as indicators of bad news

First, I test whether my proxy for euphemism usage is negatively related to the company performance and stock returns at the date of the conference call (H1). If a higher euphemism measure means that a company is communicating bad news to the investors, then a higher use of euphemism should be negatively associated with earnings news and immediate abnormal returns. I use both univariate and regression analysis to test this prediction.

As part of my univariate testing, I examine short-window abnormal returns and earnings surprises on portfolios constructed according to the measure of euphemism usage. I calculate abnormal return, using the Daniel et al. (1997) methodology. In this approach, abnormal return is the buy and hold return on a security minus the capitalization-weighted average buy and hold return on a portfolio of firms with similar size (3 groups), B/M (3 groups) and 11-month momentum (3 groups). I estimate cumulative abnormal return (*XretPrelim*) for each observation over the interval [-1, +1], where day 0 is the preliminary earnings announcement date. I also examine a normalized the measures of earning surprises (*rSUE*) across the ranked sentiment quartiles. I calculate my measure of earnings surprises (*SUE*) as the adjusted fully-diluted preliminary EPS (before extraordinary items) in the current quarter minus expected EPS for the quarter, scaled by the standard deviation of EPS surprises in the prior 8 quarters. Expected EPS is the adjusted fully-diluted EPS in the same quarter of the prior year plus a constant growth term equivalent to the average EPS surprise in the prior 8 quarters. I derive the normalized measure of earning surprises by ranking *SUE* into the deciles (0 to 9), dividing the rank by 9, and subtracting 0.5, so that each observation is scaled between -0.5 and 0.5.

For my univariate testing, I construct portfolios by sorting all firms into four groups each quarter in reverse order based on their euphemism count (*iEuph*). The reverse ranking means that stocks with fewer euphemisms are ranked higher, and vice versa. In the cross-tabulation analysis, I control for the overall tone of the conference call and earnings surprises to ensure that *Euph* is incremental to these other determinants of stock returns. I use two proxies for the tone of a transcript: a measure of tone based on Loughran and McDonald dictionary (http://www3.nd.edu/~mcdonald/Word_Lists.html) *(L&M)* and a measure of tone based on the dictionary developed by VIP. I calculate my measure of tone for each conference call transcript, as the count of positive words minus the count of negative words, divided by the sum of positive and negative word counts. For the purpose of cross-tabulation analysis and similar to the ranking applied to *Euph*, I rank my measures of tone (*L&M* and *VIP*) and earnings surprises (*SUE*) quarterly into four groups

so that stocks with more positive sentiment (higher *L&M* and *VIP*) and more positive earnings surprises (higher *SUE*) are ranked higher (*iL&M*, *iVIP*, and *iSUE*).

In addition to the univariate analysis, I test my prediction using Fama-MacBeth style regressions (Fama and MacBeth, 1973) where the dependent variable is 3-day cumulative abnormal return (*XretPrelim*). I rely on prior literature (Feldman et al. (2010), Price et al. (2012)) and include controls for unexpected earnings surprises and the overall sentiment of the conference call transcript.

$$XretPrelim[-1,+1]_{i,t} = \propto +\beta_1 Euph_{it} + \beta_2 SUE_{it} + \beta_3 Sentiment_{it} + \epsilon_{it} \quad (1)$$

I normalize all independent variables by ranking them into the deciles (0 to 9) by quarter, dividing them by 9 and subtracting 0.5. Thus, the coefficients on the signals represent the returns on the hedged portfolio that is long the highest decile and short the bottom one (Feldman et al (2010)). Following my univariate approach, I rank stocks based on *Euph* measure in reverse order (stocks with fewer euphemisms are ranked higher), while earnings surprises (*SUE*) and sentiment measurements (*VIP* and *L&M*) are ranked directly, with higher variables corresponding to higher rankings. Finally, in order in order to control for the intertemporal variation of euphemisms and given that conference calls happen on quarterly basis, I group all conference calls made in one quarter as a cross-section.

The main variable of interest in this regression is my measure of euphemism usage (*Euph*); I expect it to have a positive coefficient consistent with my hypothesis that investors prefer conference calls with fewer euphemisms. As for control variables, I expect that, consistent with prior literature, short-window returns will be positively related to earnings surprises and both measures of call sentiment.

6.2 Do euphemisms mislead investors?

In order to test whether the use of euphemisms is associated with delayed reaction to the unfavorable information, I examine the relationship between my euphemism measure and future returns. If the use of euphemism captures the tendency of companies to soften the delivery of bad news and to manipulate investor perception of company performance during the conference call, market participants might be underreacting to bad news. As a result, the company stock might experience negative performance after the earnings announcement. Similar to the test of immediate returns, I test this hypothesis in univariate and multivariate settings.

I estimate post-announcement long-term abnormal return from 2 days after the preliminary earnings announcement date through 1 day after the subsequent quarter's preliminary earnings announcement (*XretDrift*). My univariate tests consist of examining portfolios that are formed according to the ranked euphemism measure (iEuph), controlling for the overall sentiment and earnings surprises (*iL&M*, *iVIP*,

iSUE). Additionally, I test my prediction using regression analysis; I estimate the following Fama-MacBeth style regressions, specified as follows:

$$XretDrift\ [2,60]_{i,t} = \propto + \beta_1 Euph_{it} + \beta_2 SUE_{it} + \beta_3 Sentiment_{it} + \beta_4 XretPrelim_{it} + \epsilon_{it} \qquad (2)$$

Similar to Model 1, I normalize all independent variables by ranking them into the deciles (0 to 9) by fiscal quarter, dividing them by 9 and subtracting 0.5. The main variable of interest in this regression is *Euph*; a positive coefficient on this variable would indicate that a lower/higher level of euphemisms results in higher/lower subsequent drift abnormal returns. This would be consistent with my prediction that the use euphemisms during the earnings calls might mislead investors and result in a delayed market reaction. Consistent with prior studies, I expect that all control variables are positively and significantly related with drift returns.

6.3 Changes in euphemism usage over time and market reaction

I examine the role of euphemism usage on immediate and delayed market reactions by focusing on the levels of euphemisms in each conference call. However, prior studies of non-quantitative disclosures find that the changes of those disclosures from the recent past and not the levels might be a more relevant variable to examine (Demers and Vega (2007), Feldman et al (2010), Davis et al. (2012)). Researchers argue that non-financial disclosures do not vary significantly from period to period, as managers tend to modify them slightly, and that a word choice for a particular company can depend on the industry or a specific company. When it comes to the conference calls, one can, similarly, argue that the habits of call participants of a particular company might bias the level of some words during a conference call. For example, if a call participant tends to repeat some words in his speech and if these words happen to be a part of researcher's dictionary, this would bias the count of these words for that specific conference call. Also, when it comes to euphemisms, the frequency of these words in speech depends on the social background of a speaker. For example, prior studies of euphemisms show people with certain professional backgrounds, such as politics and law, are more likely to use euphemisms in their speech (Lutz 1996). Additionally, if a call participant is not a native English speaker, he or she might use fewer euphemisms all together. Prior studies find that non-native English speakers might not be fully aware of euphemisms and their cultural meaning (Plancic 2009, Damen 1984).

In order to mitigate the concern that company-specific use of euphemisms might bias my cross-sectional comparison of tone levels, I conduct an additional analysis using the change of euphemism level as a proxy for euphemism measure. I expect the results of euphemism tone change analysis to be stronger, as it should uncover increased or decreased pessimism of the speakers and eliminate the effects of their social background. Following Feldman et al (2010), I calculate the change in euphemism measure (*Ch_Euph*) as

the difference between euphemism measure in the current quarter and the average euphemism measure in the previous four quarters. For the purpose of regression analysis, *Ch_Euph* is ranked by assigning a value of +1 for all negative changes and a value if -1 for all positive ones; the resulting rank is then scaled by dividing the rank by two.

To test whether the change in the euphemism measure is negatively related to the immediate and delayed market reaction, I estimate Fama-MacBeth style regressions specified as follows:

$$XretPrelim[-1,+1]_{i,t} = \propto +\beta_1 Ch\_Euph_{it} + \beta_2 SUE_{it} + \beta_3 Ch\_Sentiment_{it} + \epsilon_{it} \quad (3)$$

$$XretDrift\ [2,60]_{i,t} = \propto +\beta_1 Ch\_Euph_{it} + \beta_2 SUE_{it} + \beta_3 Ch\_Sentiment_{it} + \beta_4 XretPrelim_{it} + \epsilon_{it} \quad (4)$$

Similar to Models 1 and 2, all dependent variables are normalized between -0.5 and 0.5 and I include controls for earnings surprises (*SUE*) and immediate market reaction (*XretPrelim*) for Model 4. Following Feldman et al (2010), I also control for the change in the overall tone of a conference call (*Ch_Sentiment*). The change in tone is calculated as the difference between the tone sentiment signal in a company's conference call and the mean sentiment signal in the company's conference calls held within the preceding 370 calendar days. Similar to the tests of levels, I calculate the change in tone for two measures of call sentiment – *L&M* and *VIP*.

A positive coefficient *Ch_Euph*, my main variable of interest, would indicate that firms with a decreased level of euphemism usage have higher immediate and subsequent returns. Consistent with prior literature, I expect higher scores on the *SUE*, *XretPrelim*, and *Ch_Sentiment* signals to have higher immediate and subsequent returns than those with low scores.

7 Results

7.1 Summary Statistics

Table 1 reports summary statistics. My sample consists of firms with a large distribution of sizes: the mean (median) market value is $5.7 billion ($1 billion), with firms in lower quartile with the market value below $329 million. The median value for earnings surprises is roughly zero, indicating that my earnings model is reasonably good for a median firm.

On average, euphemisms are encountered twice in a conference call transcripts: the mean for *Euph* is 1.99. An examination of *Euph* distribution suggests that its frequencies exhibit substantial skewness caused by outliers. Only top quartile of conference calls have more than three euphemisms during the call, but within this group there are some calls with substantial amount of euphemisms (euphemism count can reach up to thirty euphemisms per conference call). The scarcity of euphemisms in most conference calls is consistent

with prior findings that managers choose to hold a conference call in times when a company is performing well (Frankel et al. 1999), and those calls are not likely to have too many euphemisms.

Conference calls in my sample have mostly positive sentiment both for the tone measure based on Loughran and McDonald dictionary as well as the one based on VIP dictionary. For *L&M* tone, only in the lower quartile the number of negative words start to exceed the number of positive words (Q1 is around zero), while *VIP* sentiment is even more positive: conference calls in the lowest quartile have 42% more positive words than negative words. Again, this overall positive tone of conference call is consistent with prior findings that firms with good news are more likely to hold conference calls than firms with bad news.

Panel B reports a correlation matrix between the excess returns in the 3-day window centered on the preliminary earning announcement (*XretPrelim*), the subsequent drift (*XretDrift*), the control variables, namely, earning surprises (*SUE*) and tone measures (*L&M* and *VIP*), the proxy for euphemism usage (*Euph*) and the tone change measures (*Ch_L&M*, *Ch_VIP*, and *Ch_Euph*). Consistent with the idea that high use of euphemisms is indicative of bad news, higher *Euph* is negatively and significantly correlated with the immediate excess stock returns (-0.06), SUE (-0.06), and the overall tone of the call based both on Loughran and McDonald dictionary (-0.03) and VIP dictionary (-0.13). Consistent with the prior studies, SUE is positively and significantly correlated with immediate excess stock returns (0.15) and the subsequent drift (0.03), while the tone signal based on the Loughran and McDonald dictionary exhibits significant positive correlation with the short-window excess returns (0.16), the drift (0.04), and *SUE* (0.14).

A similar relationship can be observed if we look at the tone change signals. Firms with increased euphemism usage (*Ch_Euph*) have lower earnings surprises (-0.03) and lower immediate and drift excess returns (-0.07 and -0.01, respectively). Consistent with the prior literature, tone change signal based on the Loughran and McDonald dictionary is strongly positively correlated with the short-window and drift returns (0.18 and 0.04) as well as *SUE* (0.19). The correlation patterns for the tone change signal based on VIP dictionary are the same directionally. I also notice a negative significant correlation between the increased euphemism usage and the change in *L&M* and *VIP* signals (-0.12 and -0.17). This indicates that call participants, on average, use more euphemisms when a call has more negative tone, which is consistent with my prediction that euphemisms are words that are used to cover up something unpleasant or bad. Overall, the correlation patterns indicate the need to control for *SUE* and tone measures in my returns tests.

In order to learn more about the properties of the euphemism measure I examine how it varies across sectors. Specifically, I calculate the average percentage of calls with at least one euphemisms across all companies in each sector by year. Figure 3 presents the results for some years in the sample for illustrative purposes. Companies that belong to more cyclical types of sectors (Materials, Industrials, and Consumer Products)

use euphemisms more frequently. In contrast, companies that belong to less volatile sectors, such as Utilities and Telecommunication, tend to use fewer euphemisms. This observation is consistent with my hypothesis that euphemisms are used to soften the delivery of negative news, a verbal skill that can be helpful to managers of highly cyclical sectors.

I also explore the time series variability of the euphemism measure to examine how it is correlated with the stock market fluctuations over the years. I plot the average *Euph* measure and the contemporaneous stock market returns on Russell 3000 index for each year (refer to Figure 2). The plot indicates that stock market performance is negatively associated with the euphemism measure across time for my sample. The use of euphemisms increases in the period of economic downturns, as is clearly visible during the period of around 2007-2009. This observation provides some support to my hypothesis that executives will resort to the use of euphemisms at times when the operating performance of the firms is weaker.

7.2 Univariate evidence

Panel A of Table 2 shows how the mean excess returns and earnings surprises vary across four subgroups formed using the *Euph* signal. In order to align the rankings with other measures of sentiment, I rank the *Euph* signal in reverse. This way firms with higher *Euph* score are ranked lower. I expect them to have similar directional relationship with excess returns as firms with lower sentiment scores (*L&M* and *VIP*).

Consistent with my expectations about short-window reaction around the earnings announcement, firms with lower level of euphemisms during the call earn, on average, higher excess returns. *XretPrelim* is monotonically increasing across the four groups with the mean excess returns of +0.9% in the fourth group and -0.6% in the first group. I observe a similar pattern for the drift returns: stocks with higher euphemism usage during conference calls continue to experience lower subsequent returns for three months after the conference call date. *XretDrift* is +0.5% for the lowest group (highest euphemism usage during a call) and monotonically increases to 1.4% for the highest group (calls with the lowest euphemism usage). The interesting observation in this table pertains to the distribution of the average earnings surprises across *iEuph* quartiles. I find that companies with higher level of euphemisms have more negative earnings surprises: firms with the highest euphemism usage have a negative earnings surprise (-0.027), while the ones with the lowest number of euphemisms have a positive earnings surprise of +0.023. The result provides some evidence that a higher euphemism usage is pointing to poor operating performance. All in all, the evidence from Table 2 implies that the *Euph* factor works at identifying stocks with lower immediate and subsequent returns and poor financial performance. I also re-perform similar analysis for my two measures of tone (*L&M* and *VIP*). The results are consistent with prior literature for *L&M* and my expectations for *VIP*. Both factors are positively associated with contemporaneous and forward looking returns as well as earnings surprises.

Panel B of Table 2 presents average excess returns (both immediate (*XretPrelim*) and drift (*XretDrift*)) after sorting observation by both the measure of euphemism usage (*Euph*) and the overall tone measure based on Loughran and McDonald dictionary (*L&M*). Specifically, the rows correspond to quartiles based on the *L&M* tone measure, while the columns correspond to the euphemism usage quartiles. The table consists of sixteen portfolios each reporting the average excess return for observations that are similar both in the extent of euphemism usage and the overall sentiment. The bottom row represents average excess returns by the euphemism usage quartile and the far-right column shows average excess returns by the sentiment quartile. As the table shows, if I hold the overall tone of the call constant, the mean excess returns monotonically increase for companies with fewer euphemisms during their conference calls. For example, if we look at the calls with the most negative tone (*iL&M1*), theses calls earn, on average, an immediate negative excess return of -1.4%. However, my measure of euphemisms usage allows to further differentiate within this group. Calls with the lowest level of euphemisms (*iEuph4*) have an average immediate excess return of -0.7%, and as the level of euphemisms increases, the excess returns start to drop to -1.1% for *iEup3*, -1.8% for *iEuph2*, and -2.4% for *iEuph1*. This observation holds for both immediate and drifts returns and works across all quartiles formed on the sentiment measure. Figure 5 visualizes this observation in two bar charts: one for *XretPrelim* (Figure 5A) and another for *XretDrift* (Figure 5B).

Panel C of Table 2 is the counterpart of Panel B: it uses *SUE* signal instead of *L&M* sentiment in the portfolio construction. The table shows that my measure of euphemism usage works across all groups of earnings surprises. Holding the earnings surprises constant, the mean excess returns for the quartile with the lowest number of euphemisms during a conference call are greater than those with the highest quartile across all portfolios. I plot the mean excess returns for sixteen portfolios in Figure 6A for the immediate excess returns and Figure 6B for the drift returns.

These findings, together with the correlation results from the prior section, suggest that my measure of euphemism usage is negatively related to immediate and drift excess returns. Further, the information content of this signal is incremental to earnings news and the overall tone of the conference call.

7.3 Regression Results: Level of Euphemisms and Abnormal Stock Returns

Next, I turn to regression analysis to support my univariate findings. First, I test whether the level of euphemisms during conference call is signaling negative news about the company and, therefore, results in negative short-window returns around the date of the call. Table 3 presents the results of my Fama-MacBeth type regressions for returns around the earnings announcement date regressed on SUE and my two measurements of tone signal. Each specification records the intercept and slope for the regression of immediate excess returns on different combinations of these signals. The slope coefficients can be

interpreted as a return on a hedged portfolio that is long in the top decile and is short in the bottom decile for a specific signal.

As can be seen from the results of the first specification, the coefficient on *Euph* (0.00155) is positive and statistically significant ($p<0.01$). Since *Euph* is a reverse measure of euphemisms usage, the positive coefficient means that conference calls with the lower number of euphemisms earn higher abnormal returns around the conference call date beyond earnings surprises. This lends support to my hypothesis that euphemisms are indicative of poor performance. The coefficient on the control for earnings surprises (0.0399) loads positively, which is consistent with prior studies.

In specification 2 and 3, I add my proxies for the overall tone of the conference call. Both *L&M* and *VIP* are positively related to abnormal contemporaneous returns and are statistically significant, which is consistent with prior studies. It is worth noting that the return on the hedged portfolio constructed using the VIP dictionary (4.07%) is higher than the hedged return on the signal constructed using Loughran and McDonald dictionary (3.51%). This indicates that a signal constructed using VIP dictionary might be more informative to market participants when evaluating the overall tone of a conference call. Including the proxies for the overall tone reduces the coefficient on *Euph* slightly, but it still remains significant with the hedged return of 1.08% at the 99% level. This further supports my prior findings that a higher number of euphemisms in a conference call is negatively related to the immediate stock reaction and is incremental to the overall tone of the call.

After validating that my measure of euphemism usage is reflected in the short-window excess stock returns, I test whether it is also associated with the drift returns. Specifications 4-6 in Table 3 report the results for the test of delayed market reaction using Model 2. The dependent variable is 3-month drift returns (*XretDrift*). I find that companies that had conference calls with more euphemisms continue to experience negative returns during the subsequent quarter: the coefficient on *Euph* is positive and significant at the 5% level. This result holds as I add controls for the overall sentiment of the call: *L&M* (in Specification 5) and *VIP* (in Specification 6). In terms of economic magnitude, the euphemism measure can generate return predictability comparable to SUE and Loughran and McDonald measure of tone: the coefficient on *Euph* is 0.011 while the one of *SUE* is at 0.013 and L&M at 0.010. The VIP measure of sentiment outperforms L&M as a predictor of the drift returns. It is statistically more significant and is almost double the magnitude: the coefficient for *VIP* is 0.0203 at 1% percent significance vs. 0.0117 at 10% significance for *L&M*.

To summarize, the results in Table 3 show that a higher usage of euphemisms in conference calls is negatively related to the immediate and drift excess returns and that these market reactions are incremental to the widely used signals based on earnings surprises and the sentiment of a call.

7.4 Regression Results: Change in Euphemism Level and Abnormal Stock Returns

After validating that the level of euphemisms in conference calls is negatively related to immediate and drift abnormal returns, I test whether the increase in euphemism usage is also associated with a negative stock reaction. Table 4 presents the results of Fama-MacBeth type regressions for returns around the preliminary earnings announcements (*XretPrelim*) – specifications 1-3, and the drift returns (*XretDrift*) – specifications 4-6. My main variable of interest is *EuphChange*, which is ranked as +1 for a decreased usage of euphemisms and -1 for an increased usage. I expect the coefficient to be positive, meaning that lower usage of euphemisms on the call compared to the prior four quarters leads to more positive returns and vice versa. I also expect the results to be more significant, as using the change should control for speaker's social and cultural background. The control variables include *SUE*, the changes in the call sentiment (*L&MChange* and *VIPChange*), and immediate market reaction for the test of subsequent drift (*XretPrelim*).

In all three specifications that test the relationship between the change in the euphemism level and contemporaneous excess returns the coefficient on *EuphChange* is consistently positive: the hedged portfolio returns on *EuphChange* ranges between 0.9% and 0.6% per quarter. The first specification shows that a decrease in euphemism level is positively and significantly related to the contemporaneous short-window returns controlling for earnings surprises. The magnitude of the effect is diminished by the inclusion of a well-documented measure of tone change (*L&MChange*): the coefficient on *EuphChange* decreases from 0.009 to 0.007, but the relationship remains statistically significant at 99% level. Substituting Loughran and McDonald measure of tone with the one based on the VIP dictionary yields similar results: the hedge portfolio returns on the coefficients on *EuphChange* are positive and significant. The coefficients on control variables are consistent with prior literature and my expectations: they are all positive and significant. In terms of magnitude, the tone measures seems to be more economically significant than SUE: *VIPChange* produces a hedge return of about 4.8% and *L&MChange* – 4.3%, while the one for *SUE* is 3.4%.

In Specifications 4-6, the dependent variable is the drift excess returns (*XretDrift*) from 2 days after the SEC filing through 1 day after the subsequent earnings announcement. The *EuphChange* signal is significantly and positively associated with drift returns adding around 0.6% to the quarterly return. The result is statistically stronger than the one observed for the association between the euphemism level signal and the drift: 99% level of significance for the signal based on change vs. 95% for the signal based on the level. Both differential tone variables (*L&MChange* and *VIPChange*) and *SUE* are significantly and

positively associated with drift returns. Consistent with prior findings (Feldman et al (2010)), the differential tone variables produce stronger results compared to the variables based on the levels both in terms of economic magnitude and statistical significance.

In summary, Fama-Macbeth regressions provide evidence that change of euphemism usage (*EuphChange*) contributes incrementally to associations with short-window returns around the preliminary earnings announcements and also to drift in returns through the subsequent quarter.

7.5 Robustness Tests

To alleviate the concern that my results are driven by a well-documented size anomaly (Fama and French 1993, 2014), I perform my tests on the sub-sample of conference calls that exclude small-cap firms. I define small-cap companies as companies with market capitalization less than $500 million. Table 5 reports the results for the association between my measure of euphemism usage and stock returns for a subsample that excludes small-cap firms.

The association between the level of euphemisms and short-window excess stock returns (Panel A) remains at the same level of statistical significance (1% level) and magnitude (0.009) as the results reported for the full sample in Table 3 (0.015). The results of the regression testing the association between the level of euphemisms and 90-day drift returns are statistically weaker, but remain significant at 10% level for two out of three specifications (Panel B). Also, I explore the robustness of my results using a euphemism change as a proxy for euphemism usage. As can be seen from Panel C, the statistical and economic significance of the association between my measurement of euphemism change and contemporaneous returns remains unaffected by the exclusion of small-cap stocks (Panel C). When it comes to using drift returns as a dependent variable, the association weakens, but remains significant at 10% (Panel D). All in all, the main takeaway from Table 5 is that my results on the association between my measure of euphemism usage and excess stock returns are robust to the size anomaly.

My results might also be driven by the choice of the main explanatory variable. I use the total count of euphemisms to capture the extent of euphemism usage during a conference call. Using the sum to capture the effect of euphemism usage might capture a repetition of the same popular euphemisms by different call participants and confound the effect of euphemism variability during a conference call. To ensure that my results are not driven by my choice of explanatory variable, I perform the tests using an alternative measure of euphemism usage that captures the variability of these words on the call. I count the number of distinct euphemisms in each conference call; this way if euphemisms is repeated more than once, it is counted as one euphemism occurrence. Next, I rank this measure (*EuphVar*) in reverse order into three groups to

(higher ranking means fewer distinct euphemisms during a call) and scale it by dividing the rank by 2, and subtracting 0.5, so that each observation is scaled between -0.5 and 0.5.

Table 6 reports the results. Panel A and B show the results of my baseline regression, using the level of euphemism variability. The coefficient on *EuphVar* is positive and significant at the 99% level in the regression specifications with immediate market returns (*XretPrelim*) as a dependent variable and controlling for the earnings surprises and the two measures of tone (*L&M* and *VIP*). The effect of *EuphVar* is also meaningful for the three-month drift returns, controlling for *SUE, XretPrelim* and *L&M*. This supports my earlier conclusion that a less (more) extensive use of euphemisms during a conference call leads to higher (lower) immediate and drift abnormal returns. Panel C and D test the effect of change in the euphemism variability during a given call versus the previous four-quarter average (*EuphVarChange*). The results continue to support my earlier conclusion that the increased level of euphemism usage is associated with lower immediate and drift excess returns. The coefficients remain positive and statistically significant in most specifications.

8. Conclusion

This study uses the earnings conference call setting to test the role of euphemisms in corporate communication. I develop a dictionary of euphemisms and create a measure of euphemism usage based on the count of euphemisms in a conference call transcript. I use both univariate and multivariate tests to examine the effect that levels and changes in euphemism usage have on the immediate and drift excess returns.

First, I show that my measurement is negatively associated with the previously identified sources of excess returns. I find that firms that have more euphemisms in their conference calls tend have lower earnings surprises and more negative overall tone, based on the Loughran and McDonald dictionary. Next, I show that my measure of euphemism usage is negatively associated with short-window returns around the date of the conference call and with the subsequent 90-day drift returns. My results are robust to controlling for the earnings surprises, the overall tone of the conference call, the size of the firm, and two alternative measurements of euphemism usage – the change in the euphemism level and the variability of euphemisms.

Collectively, these results suggest that the overall use of euphemism in the conference call setting is indicative of negative information about the company performance. However, due to the strong promotional aspect of euphemistic words, the negative news is only gradually absorbed by market participants. In essence, investors are pacified with euphemistic terms and, as a result, underestimate the extent of bad news that a company is reporting.

My results contribute to the growing stream of accounting literature that examines the promotional aspect of corporate communication, and provide evidence on a specific type of linguistic tricks scrutinized by the regulators. Even though, the results suggest that euphemism usage in conference calls poses a material detrimental effect to market participants, it remains unclear whether managers and analysts use euphemisms intentionally to mislead investors. The impact of managerial compensation as well as analyst' career success on their linguistic habits represents a promising area for future research on euphemisms.

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Appendix 1: Examples of VIP Rules

This table exhibits some examples of VIP rules that I wrote to capture instances of euphemisms in the corpus of conference call transcripts. The rules shows some features of VIP software that helped me create rules that can capture euphemisms and euphemistic phrases, accounting for punctuation, semantic rows, and grammatical structure of sentences.

VIP Features	VIP Rule	Conference Call Extract Captured by the Rule
Identifies phrases by recognizing grammatical relationships	(0: Lemma=tight PRD->1) + (1: Lemma=be A1<-2) + (2: Lemma=margin) => {AddProp(1.SENTIMENT=NEG); AddProp(1.NOMERGE=true); AddProp(1.EVENT=Euph_margintight); AddLink(1.SentWord->0); AddLink(1.SentWord->2);}	*PHH Corporation, November 11, 2005, Terence W. Edwards, CEO*: **Margins are** very, very **tight** by historical standards. And I would tell you now that we're -- into the month of October they're tighter still.
Identifies negations	(0: Lemma=bed pobj->1) + (1: Lemma=of prep->2) + (2: Lemma=out DIR->3) + (3: Lemma=fall) => {AddProp (3.SENTIMENT=NEG); AddProp(3.EVENT=Euph_falloutofbed); AddLink(3.SentWord->0); AddLink(3.SentWord->1); AddLink(3.SentWord->2);}	*Walgreen, June 22, 2010, Greg Wasson, CEO:* When we removed Duane Reade and in light of the 5.9% new store growth, our SG&A trend is pretty consistent with where we've been over the last two or three years. We certainly **didn't fall out of bed**. We certainly know that there's opportunity, we're going to keep pushing. The goal I have, I've given this team is make sure that that two year stack yea
Has tagging capacity	(0: Lemma=ball pobj->1 det<-2 nummod<-3) + (1: Lemma=behind) + (2: Lemma=the) + (3: NERTag=CARDINAL) => {AddProp(1.SENTIMENT=NEG); AddProp(1.NOMERGE=true); AddProp(1.EVENT=Euphemism_behindball); AddLink(1.SentWord->0); AddLink(1.SentWord->2); AddLink(1.SentWord->3);}	*United States Steel Corp, June 26, 2011, John Surma, CEO*: In the first quarter we had a disruption at our industrial gas supplier at our Great Lakes Works and that got us sort of **behind the eight ball** on inventory coverage. So we didn't have as many tons available in the spot market in the second quarter as we might have liked.
Allows creation of semantic rows	(0: Lemma=soft amod->1) + (1: Lemma=(market | April | August | December | demand | environment | February | January | July | June | March | May | month | November | October | orders | Q1 | Q2 | Q3 | Q4 | quarter | sales | September | year)) => {AddProp(1.SENTIMENT=NEG); AddProp(1.NOMERGE=true); AddProp(1.EVENT=Euphemism_softmarket); AddLink(1.SentWord->0);}	*Carlisle Companies, July 19, 2005, Richmond McKinnish, CEO*: What was really disappointing to us was the earnings. We had several significant actions, which reduced our earnings in the quarter. The first was a layoff at our Pennsylvania tire plant, where we recognized the **soft demand** in lawn and garden.
Accounts for punctuation, compound word	(0: Lemma=_ punct->1) + (1: Lemma=up det<-2 compound<-3) + (2: Lemma=the) + (3: Lemma=hang) => {AddProp(1.SENTIMENT=NEG); AddProp(1.NOMERGE=true); AddProp(1.EVENT=Euphemism_hangup); AddLink(1.SentWord->0); AddLink(1.SentWord->2); AddLink(1.SentWord->3);}	*St. Jude Medical, July 19, 2006, Bruce Nudell, Sanford Bernstein, Analyst*: Good morning, Dan. Two questions. One is, we did a little survey work, and it was certainly inadequate to sample the waterfront. But it suggested that the issue in referral may be even below the cardiologist's level, affecting better preserved patients who are seemingly doing well, you know, not routinely managed by cardiologists. Just your thought about where **the hang-up** in the referral chain might be.

Appendix 2: Examples of Sentences with Euphemisms

This table exhibits extracts with some most frequently used euphemisms from the conference call transcripts. VIP software captures these instances and assigns polarity to each case. By definition, euphemisms will have negative sentiment because they are used to present unpleasant reality in a more positive light. Therefore, I assign negative sentiment to all euphemism rules in VIP. However, VIP software will identify negation in the sentence structure and might change the polarity for some cases from negative to positive. Most examples below have negative polarity. The second example shows how euphemisms can be classified as having positive polarity, while third example shows examples of euphemisms both with positive and negative polarity within a conference call paragraph.

Company/ Call Date	Examples	Polarity
TriQuint Semiconductor Inc. July 27, 2011	*Ralph Quinsey, CEO*: With cloudier near-term visibility and **some headwinds**, we are forecasting flat revenue in Q3, but I anticipate returning to strong sequential growth in Q4.	NEG
Micron Technology December 22, 2005	*Tim Luke, Lehman Brothers, Analyst*: That makes sense. Any color just with respect to pricing and how that may play out in terms of gross margin outlook? *Steve Appleton, Micron Technology, CEO*: Very difficult to project what's going to happen with respect to pricing. If you paid attention to some of the news that's been out in the public on spot market pricing in the DRAM area just in the past week or so, it appears to have stabilized at a level that's much lower than we would have hoped for. But it appears to have stabilized. Our contract renegotiations that occurred midmonth with our big OEMs resulted in flat pricing. So it appears that we're through the storm, anyway, on the strong price reductions that we have seen in the DRAM area. And on the NAND Flash area, there's really **not much price pressure** at all. Prices are relatively stable. In the CMOS image sensor area, we are kind of in a sole-source situation with virtually all of our customers. So there's **not a lot of commodity-type price pressure** there, either.	POS
Lennox International April 26, 2011	*Bob Hau, CFO*: We now **expect commodity headwind** of $45 million to $50 million for the full year, weighted more to the first half of the year. We also expect to fully **offset this commodity headwind** on a full year basis through pricing actions we've taken.	NEG/ POS
Brooks Automation February 1, 2005	*Bob Woodbury, CFO*: Our inventories are still somewhat stalled. We have an 18, $19 million amount sitting in deferred. I would like to get that more than half of that value reduced the course of this year. We did have as I alluded to on the call, **we had some timing issues** just because of the literally the holidays, where we had almost $5 million in cash land January 3 in our lock boxes; again all held by holidays. DSO's we're still trying to drive back into a 60-day normalized value. Again, take 10 off of the inventories. Again we ate into payables a little bit this quarter, but the focus on balance sheet with operating profitability is somewhat of a daily mantra here.	NEG
Polo Ralph Lauren February 4, 2009	*Roger Farah, COO*: The proactive measures we've taken to scale back inventory levels across channels to manage our expenses, and to execute our day to day operations with a high level of precision and agility have helped to mitigate the dramatic **pullback** in consumer spending that occurred during the quarter.	NEG
Halliburton Company February 20, 2003	*Douglas Foshee, CFO*: Now I want to give you a little more detail by segment on our operating results. In the Energy Services Group, quarterly revenues were $1.7 billion, a 10% decrease year-over-year and a 2% increase sequentially. The year-over-year revenue decrease is attributable to the decline in U.S. activity, **pricing pressures**, and importantly, our contribution of Halliburton subsidy assets to SubSea 7.	NEG
Union Pacific Corp July 21, 2011	*Scott Group, Wolfe Trahan Co, Analyst*: And just the last question is on intermodal, I understand that the contract loss, but if I look at your volumes, they are **flattish**. Your western competitor's up 10. I'm guessing there's more than just a contract loss driving that spread and any additional color you can	NEG

	give would be great on why you're seeing kind of **flattish** intermodal volumes, particularly on the domestic side given the strength we're seeing from JP Hunt and Hub.	
Syntel, Inc. November 7, 2009	*David Mackey, SVP Finance*: As we have been pretty consistent in saying over the last year we certainly expected a lot of these headwinds to come back on the cost side of our business when the demand environment started to improve. So things like wage increases, utilization levels, and as you mentioned before, the currency, these will all create headwinds. In terms of the magnitude, we are going to have **to wait and see** exactly what that means.	NEG
Dentsply International July 27, 2005	*Bill Jellison, CFO*: However, these positives were offset in the quarter by lower precious metal sales and the unleveraged start-up costs of our new anesthetic facility. Rates are expected to only improve slightly the by the end of 2005 due to the negative impact of the precious metal product mix, primarily the result of the **soft** German dental **market** and the higher unleveraged start-up costs for the anesthetic facility.	NEG
CNA Financial Corp July 28, 2005	*Scott Frost, HSBC, Analyst*: Yes, I think I may have **missed something here**, and I apologize if I have. But you're saying the Corporate and other Non-Core, the results were largely driven by the tax settlement. Excluding those results you would've shown a fairly significant deterioration. And I'm not sure I understand -- and again, I apologize if **I've missed it here** -- what drove that deterioration. Is that the right way to look at that? *Stephen W. Lilienthal, CEO*: No, I don't think it is. You -- there are two things in the Corporate results. One is the tax settlement, which is a 115 good guy. And the other is the commutation of the reinsurance, which is a $36 million the other way. So, if you take those two things out, you'll see relatively, you know, consistent numbers. *Scott Frost:* So, 115 less 35, that's around what, I mean--. *Stephen W. Lilienthal:* 79. *Scott Frost*: OK. So, excluding that, your net income would have been 2 versus 58 in 2004, right? *Stephen W. Lilienthal* Yes. And there were a lot of investment gains in 2004, which accounts for the majority of the difference. - *Scott Frost*: OK. All right. So that's the main driver is lower investment gains. OK. Thank you.	NEG
PCTEL April 29, 2005	*Marty Singer, CEO*: The **lumpiness** in 2004 with RFS (*type of product*) was largely due to an error that I made, and that was being unrealistically bullish about our opportunities in the third quarter for government sales, and secondly, we had **lumpiness** because after we introduced Clarify, we had an algorithm glitch in the first quarter of 2004 that led to some significant delays in rolling out that product in a -- in a strong way. And so there was a real **hiccup** in the Clarify rollout.	NEG
LMI Aerospace November 8, 2010	*Ed Dickinson, CFO*: Good morning everybody and thanks for joining the call today. As Ron said, the third quarter was a bit of a **transitional quarter** in both segments, and as we prepare ourselves for expected growth with new work and both -- and production rates as well. I will go through the financial results and try to explain a few of the unusual items during the quarter. **Sales** for the quarter **were light**, as we generated $52.3 million in the quarter, down from $58.7 million the prior year and down sequentially from $55.6 million.	NEG
Marriott International October 6, 2005	*Bill Crow, Raymond James, Analyst*: Right. Finally on the syn fuel, **not to beat a dead horse**, but is there any way that it could be dilutive to the $3 to $3.10 range next year, or you think you can manage it so that you're not surprised by the end of year fuel price spike or something that would eliminate your profits to date?	NEG

Figure 1 Sample Size

Figure 1 plots the number of firms over the sample period (*N*). The sample consists of all US firms in Thompson Reuter's conference calls database for the years 2002-2013 that hold earnings conference calls within one day or on the same day as the earnings release.

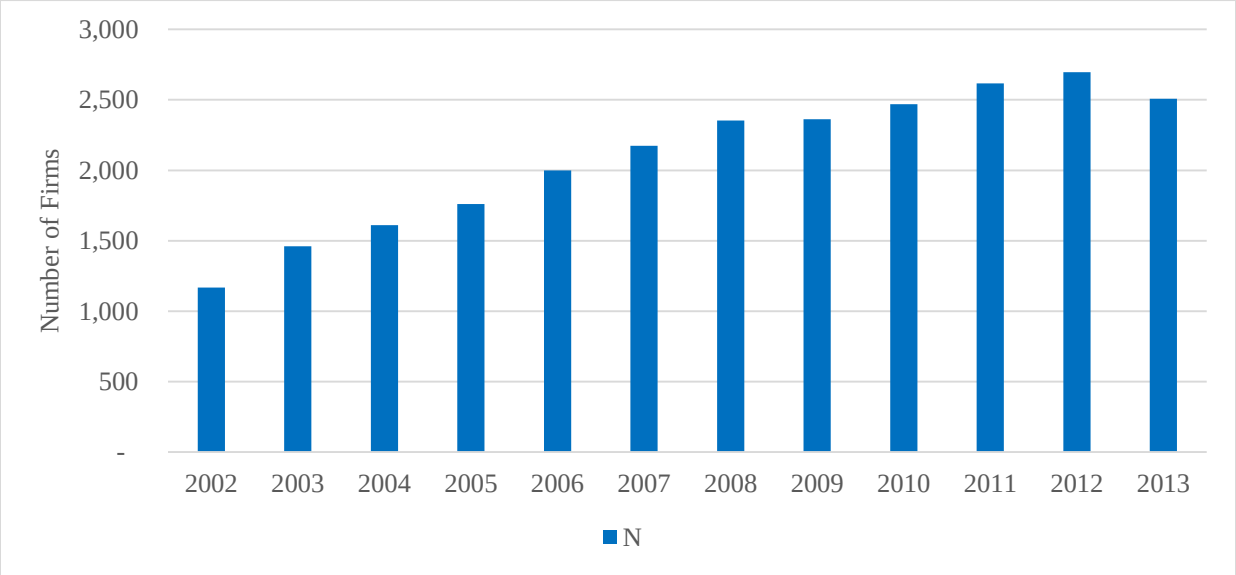


Figure 2 Russell 3000 Returns and Proportion of Calls with Euphemisms

Figure 2 plots Russell 3000 returns for the period covered by the sample of conference calls and the proportion of conference calls that have euphemisms (*Euph %*).

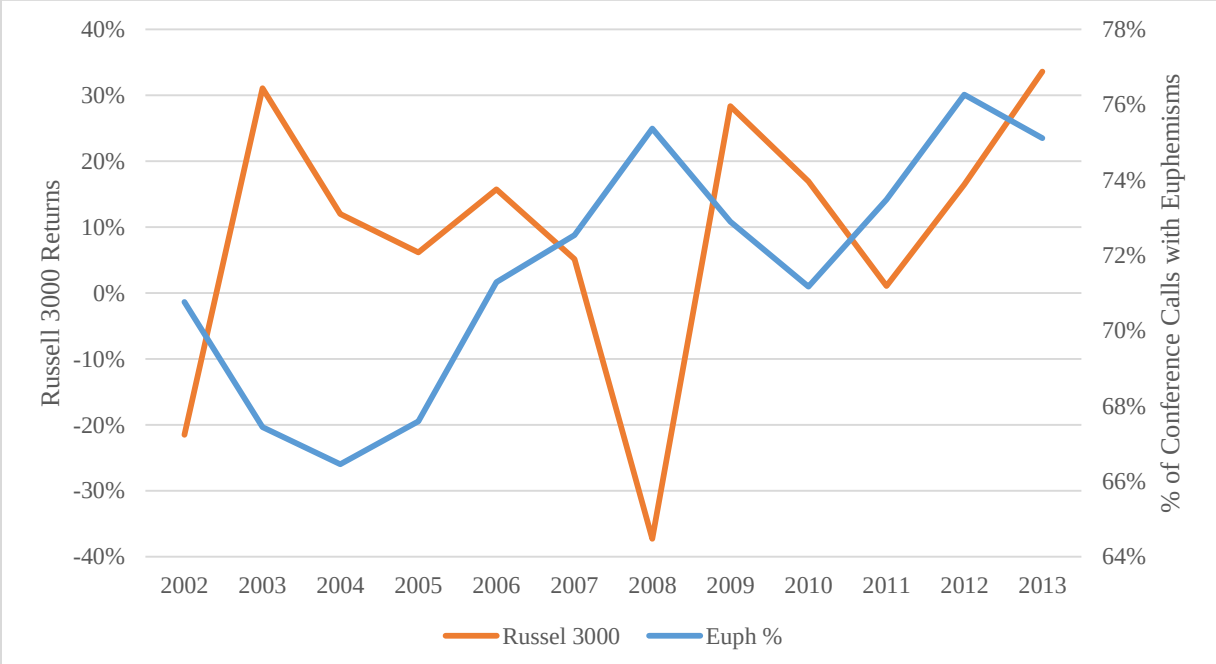


Figure 3 Use of Euphemisms by Sector

Figure 2 plots the proportion of conference calls that have euphemisms by sector for some years in the sample.

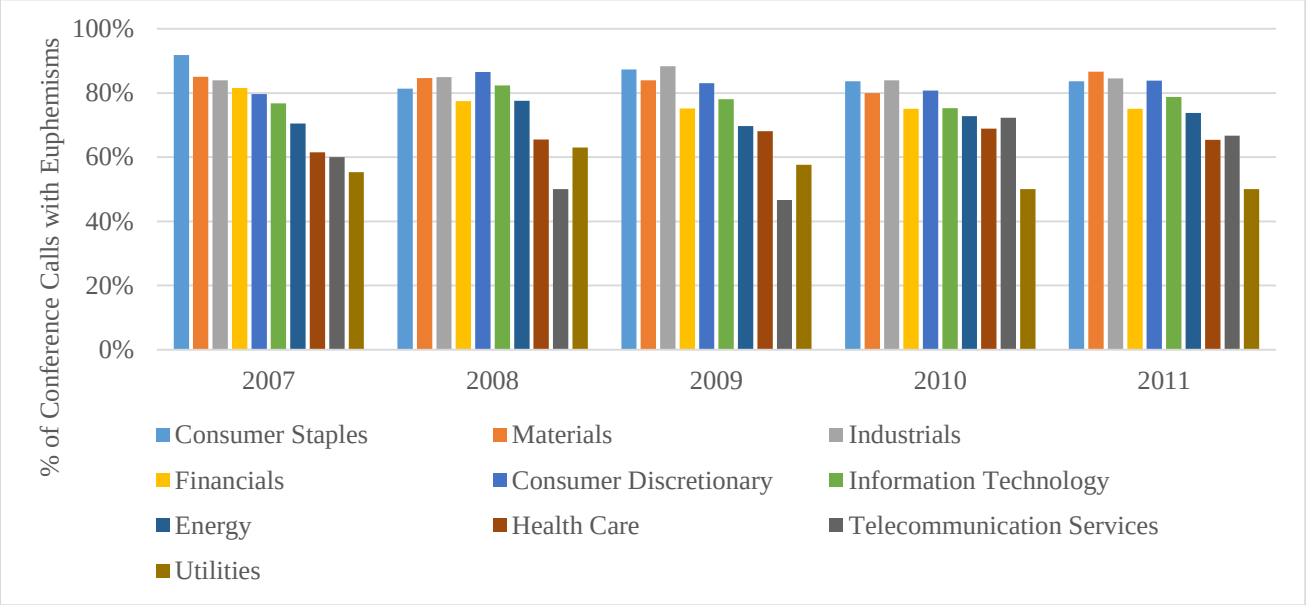
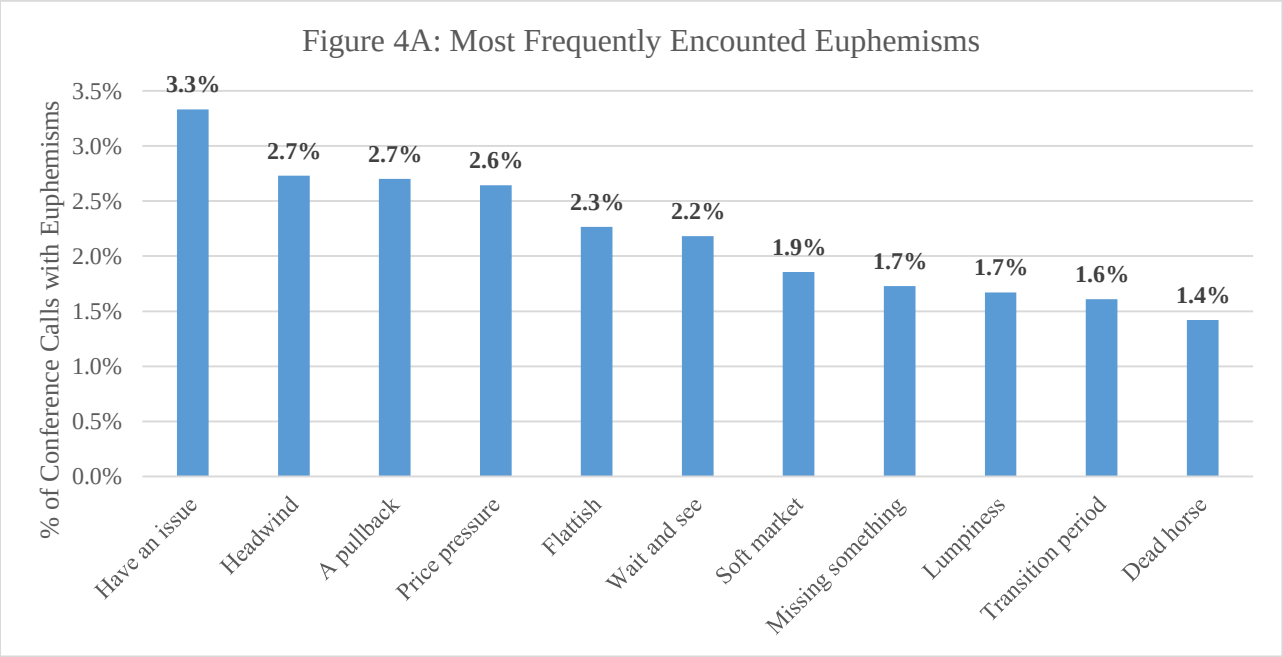


Figure 4 Most Frequently Used Euphemisms

Figure 3 shows mostly frequently used euphemisms. Figure A shows euphemisms that are most likely to be used at least once in a transcript. Figure B shows how often these most frequent euphemisms are repeated on average per transcript.



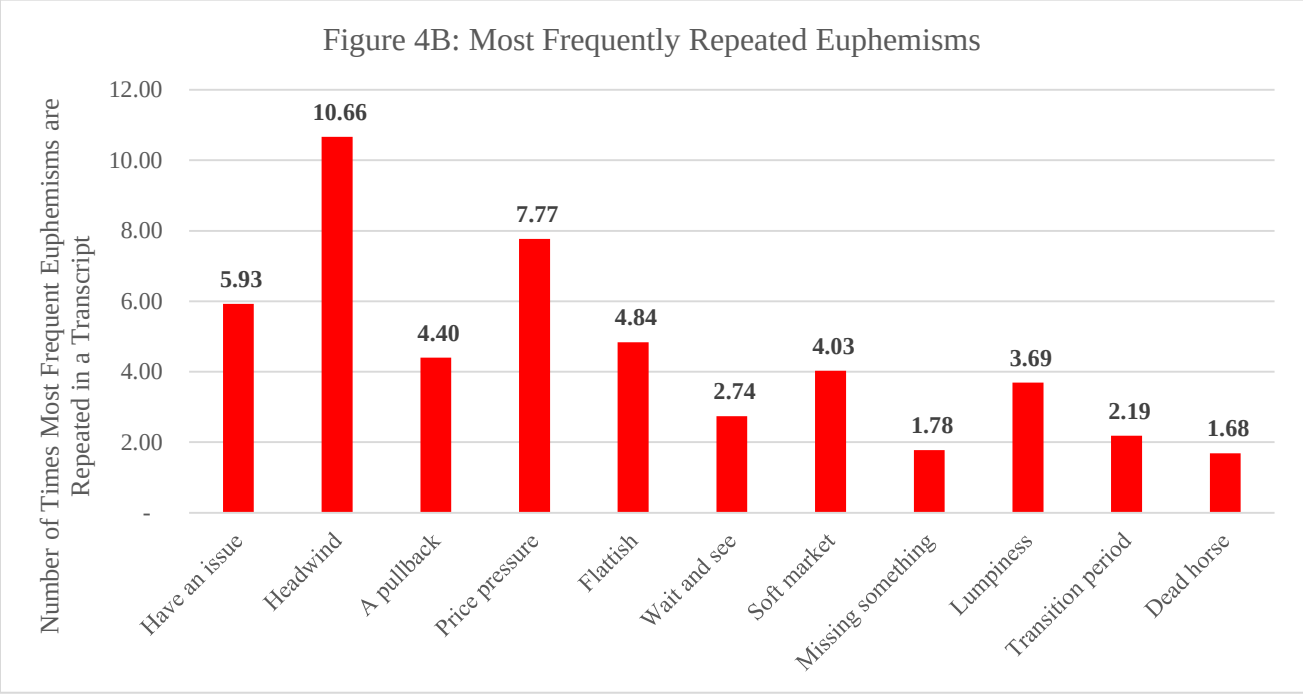
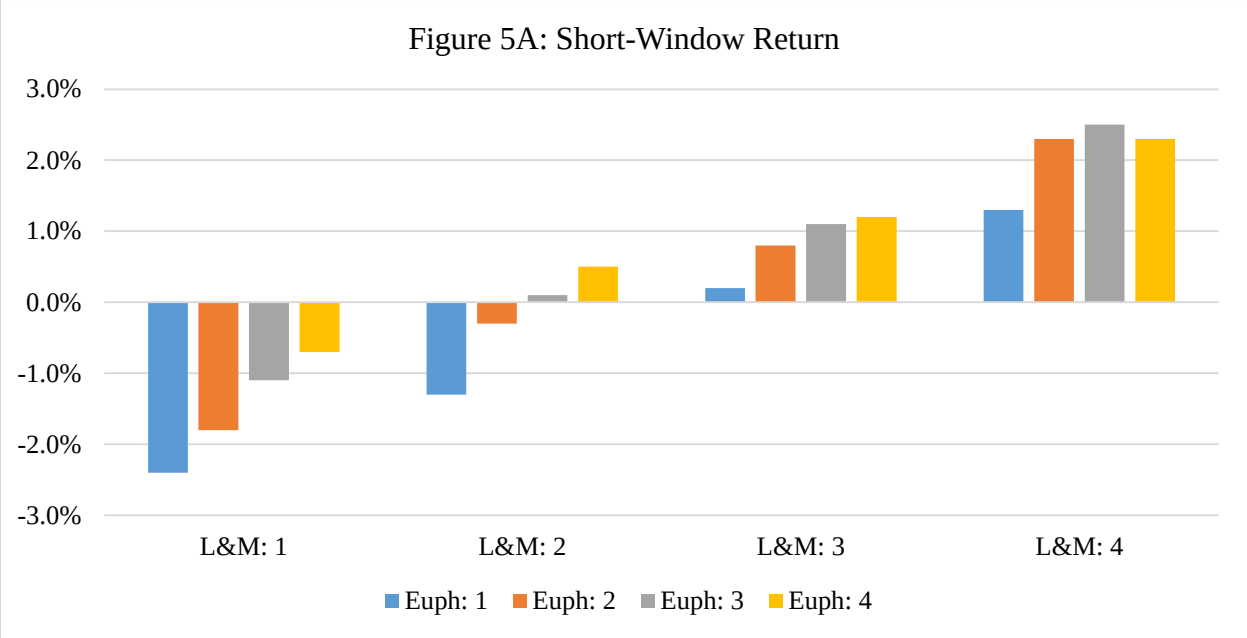


Figure 5 Mean Excess Returns for Portfolios based on L&M and Euphemism Score

Figure 5 plots mean excess returns around the date of the conference call for portfolios of companies based on double sorts (this is graphic representation of Table 2 Panel B). Specifically, I independently assign stocks into four portfolios based on *L&M* and *Euph* measures. *Euph* is the euphemism sentiment score calculated as the number of euphemisms in a conference call. *L&M* is a sentiment signal based on the number of positive minus the number of negative words in a conference call, scaled by the sum of the positive and the negative words; the list of positive and negative words is based on the Loughran and McDonald dictionary. Figure 5A plots short-window excess returns in the interval [-1, +1], where day 0 is the preliminary earnings announcement date. Figure 5B plots three-month drift excess returns for the interval from 2 days after the preliminary earnings announcement date through 1 day after the subsequent quarter's preliminary earnings announcement.



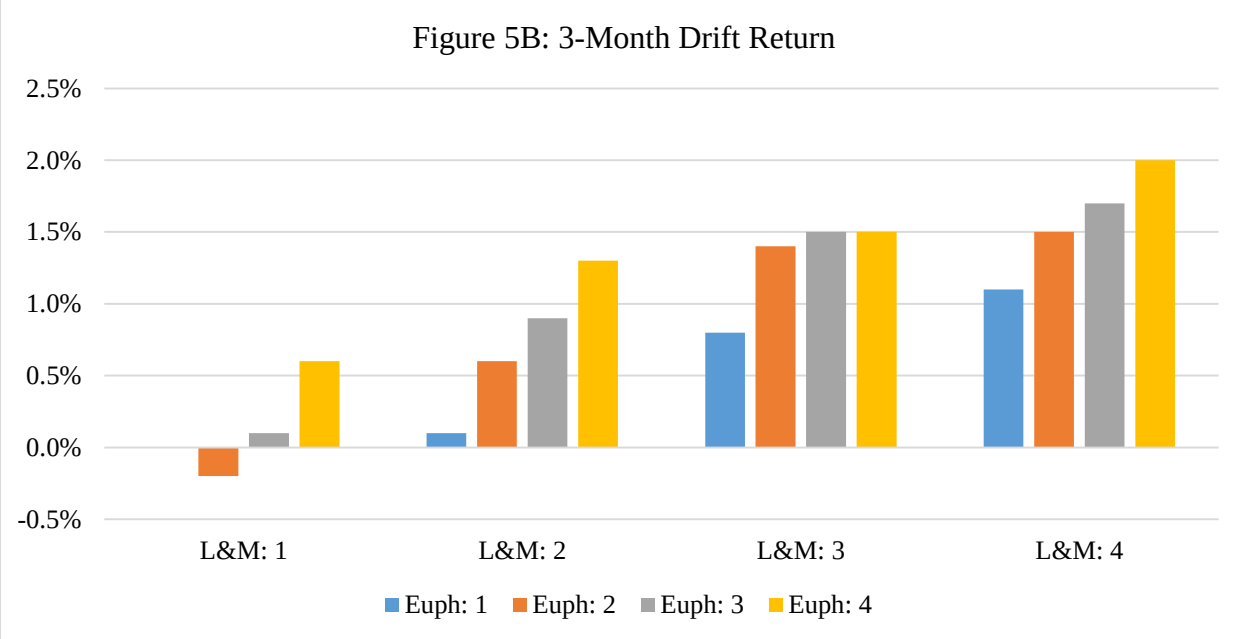
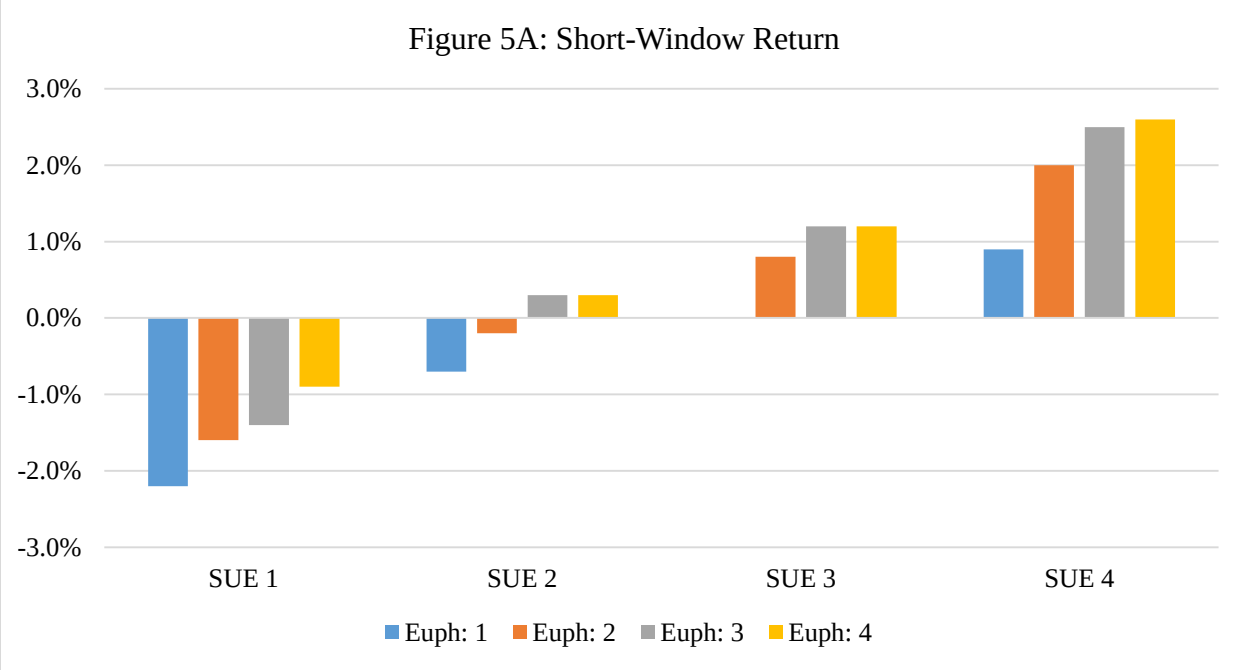


Figure 6 Mean Excess Returns for Portfolios based on Earnings Surprises and Euphemism Score

Figure 6 plots mean excess returns around the date of the conference call for portfolios of companies based on double sorts (Table 2 Panel C). Specifically, I independently assign stocks into four portfolios based on *SUE* and *Euph* measures. *Euph* is the euphemism sentiment score calculated as the number of euphemisms in a conference call. *SUE* is a measure of earnings surprise calculated as the adjusted fully-diluted preliminary EPS (before extraordinary items) in the current quarter minus expected EPS for the quarter, scaled by the standard deviation of EPS surprises in the prior 8 quarters. Expected EPS is the adjusted fully-diluted EPS in the same quarter of the prior year plus a constant growth term equivalent to the average EPS surprise in the prior 8 quarters. Figure 6A plots short-window excess returns in the interval [-1, +1], where day 0 is the preliminary earnings announcement date. Figure 6B plots three-month drift excess returns for the interval from 2 days after the preliminary earnings announcement date through 1 day after the subsequent quarter's preliminary earnings announcement.



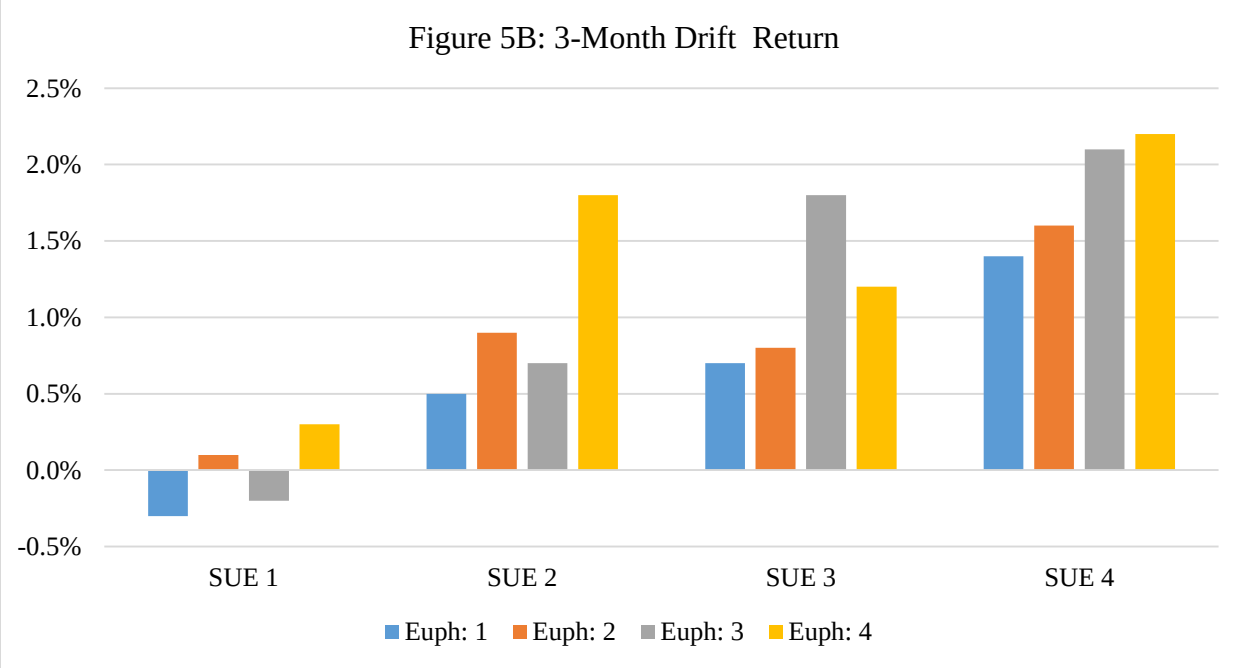


Table 1: Summary Statistics and Correlations

This table reports summary statistics for variables used in the paper. Panel A reports the summary statistics for the variables used in the analysis. Panel B reports the Spearman correlation between the variables. The sample consists of all US firms in *Thompson Reuter's* conference calls database for the years 2002-2013. The conference call information is from *Thompson Reuters*, financial information is from Compustat, and market information is from the CRSP database. *Euph* is the euphemism sentiment score calculated as the number of euphemisms in a conference call. *L&M* is a sentiment signal based on the number of positive minus the number of negative words in a conference call, scaled by the sum of the positive and the negative words; the list of positive and negative words is based on the Loughran and McDonald dictionary (http://www3.nd.edu/~mcdonald/Word_Lists.html). *VIP* is a sentiment signal based on the difference between the positive sentiment score and the negative sentiment score, scaled by the sum of the positive and the negative sentiment score; the positive and negative sentiment score is calculated with VIP software package (refer to Appendix B for a description of VIP software). *Ch_Euph* is the difference between the euphemism signal in a company's conference call and the mean euphemism signal in the company's conference calls held within the preceding 370 calendar days. *Ch_L&M* is the difference between the L&M sentiment signal in a company's conference call and the mean L&M sentiment signal in the company's conference calls held within the preceding 370 calendar days. *Ch_VIP* is the difference between the VIP sentiment signal in a company's conference call and the mean VIP sentiment signal in the company's conference calls held within the preceding 370 calendar days. *SUE* is a measure of earnings surprise calculated as the adjusted fully-diluted preliminary EPS (before extraordinary items) in the current quarter minus expected EPS for the quarter, scaled by the standard deviation of EPS surprises in the prior 8 quarters. Expected EPS is the adjusted fully-diluted EPS in the same quarter of the prior year plus a constant growth term equivalent to the average EPS surprise in the prior 8 quarters. *XretPrelim* is the buy-and-hold return on a stock minus the average return on a matched size-B/ M-momentum portfolio in the interval [-1, +1], where day 0 is the preliminary earnings announcement date. *XretDrift* is the buy-and-hold return on a stock minus the average return on a matched size-B/ M-momentum portfolio from 2 days after the preliminary earnings announcement date through 1 day after the subsequent quarter's preliminary earnings announcement. *Market cap* is the market value of equity. ***, **,* denote significance at 1%, 5% and 10% level.

Panel A: Summary Statistics

Variable	N	Mean	Median	Std Dev	Min	Q1	Q3	Max
Euph	72,600	1.99	1.00	2.45	-3.00	0.00	3.00	30.00
L&M	72,600	0.16	0.16	0.21	-1.00	0.01	0.30	1.00
VIP	72,084	0.53	0.56	0.19	-1.00	0.42	0.67	1.00
Ch_Euph	67,296	0.06	0.00	2.31	-21.00	-1.00	1.00	29.00
CH_L&M	67,234	0.01	0.01	0.16	-1.38	-0.10	0.11	1.33
CH_VIP	66,707	0.00	0.01	0.15	-1.54	-0.09	0.10	2.00
XretPrelim	72,600	0.00	0.00	0.09	-0.76	-0.04	0.04	1.82
XretDrift	72,600	0.01	0.00	0.23	-3.00	-0.10	0.10	3.00
SUE	70,171	-0.38	-0.06	2.13	-7.70	-0.83	0.62	4.10
Market cap	72,600	5,710	1,018	20,213	10	329	3,363	559,002

Panel B: Spearman Correlations Among Regression Variables

	Euph	L&M	VIP	SUE	XretPrelim	XretDrift	Ch_Euph	Ch_L&M
L&M	-0.03***							
VIP	-0.13***	0.74***						
SUE	-0.06***	0.14***	0.16***					
XretPrelim	-0.06***	0.16***	0.18***	0.15***				
XretDrift	0.00	0.04***	0.04***	0.03***	0.04***			
Ch_Euph	0.62***	-0.07***	-0.04***	-0.03***	-0.07***	-0.01***		
Ch_L&M	-0.09***	0.36***	0.52***	0.19***	0.18***	0.04***	-0.12***	
Ch_VIP	-0.13***	0.53***	0.35***	0.20***	0.20***	0.05***	-0.17***	0.66***

Table 2: Abnormal Returns and Earning Surprises for the Sentiment Signals

This table reports mean excess returns and earning surprise around conference call for portfolios of firms based on the sentiment signals, ranked into quartiles. Panel A tabulates mean excess returns for the three measures of sentiment: *Euph, L&M, and VIP*. Panel B shows the mean excess returns for portfolios of firms based on the double sorts of *L&M* and *Euph*. Panel C shows the mean excess returns for portfolios of firms based on the double sorts of *Euph* and *SUE*. *iEuph* represents the reverse-ranked euphemism score; *Euph* is calculated as the number of euphemisms in a conference call. *iL&M* is a ranked sentiment signal; *L&M* is based on the number of positive minus the number of negative words in a conference call, scaled by the sum of the positive and the negative words; the list of positive and negative words is based on the Loughran and McDonald dictionary. *iVIP* is a ranked sentiment signal; *VIP* is based on the difference between the positive sentiment score and the negative sentiment score, scaled by the sum of the positive and the negative sentiment score; the positive and negative sentiment score is calculated with VIP software package (refer to Appendix B for a description of VIP software). *rSUE* is a measure of earnings surprise ranked into quintiles and scaled between -0.5 and 0.5; *iSUE* is a ranked measure of earning surprise; *SUE* is calculated as the adjusted fully-diluted preliminary EPS (before extraordinary items) in the current quarter minus expected EPS for the quarter, scaled by the standard deviation of EPS surprises in the prior 8 quarters. Expected EPS is the adjusted fully-diluted EPS in the same quarter of the prior year plus a constant growth term equivalent to the average EPS surprise in the prior 8 quarters. *XretPrelim* is the buy-and-hold return on a stock minus the average return on a matched size-B/ M-momentum portfolio in the interval [-1, +1], where day 0 is the preliminary earnings announcement date. *XretDrift* is the buy-and-hold return on a stock minus the average return on a matched size-B/ M-momentum portfolio from 2 days after the SEC filing date through 1 day after the subsequent quarter's preliminary earnings announcement. The table is based on all available observations. *N* is the number of observations in each group for each signal.

Panel A: Mean Excess Return and Earnings Surprises around the Date of the Conference Calls

		XretPrelim	N	XretDrift	N	rSUE	N
	1	-0.6%	18,214	0.5%	18,214	-0.027	17,770
iEuph	2	0.2%	15,419	0.9%	15,419	0.002	14,933
	3	0.7%	16,005	1.1%	16,005	0.013	15,491
	4	0.9%	22,962	1.4%	22,962	0.023	21,977
	All	0.3%	72,600	1.0%	72,600	0.004	70,171
	1	-1.4%	18,119	0.2%	18,119	-0.056	17,478
iL&M	2	-0.3%	18,167	0.7%	18,167	-0.009	17,487
	3	0.8%	18,165	1.3%	18,165	0.021	17,514
	4	2.1%	18,149	1.6%	18,149	0.059	17,623
	All	0.3%	72,600	1.0%	72,600	0.004	70,102
	1	-1.7%	18,001	-0.1%	18,001	-0.065	17,431
iVIP	2	-0.2%	18,020	0.6%	18,020	-0.012	17,410
	3	0.9%	18,053	1.4%	18,053	0.03	17,432
	4	2.4%	18,010	2.0%	18,010	0.063	17,335
	All	0.3%	72,084	1.0%	72,084	0.004	69,608

Panel B: Cross Tabulation of Mean Excess Return on the Ranked *Euph* and *L&M* sentiment signals

	XretPrelim					N				
iL&M	iEuph1	iEuph2	iEuph3	iEuph4	All	iEuph1	iEuph2	iEuph3	iEuph4	All
1	-2.4%	-1.8%	-1.1%	-0.7%	-1.4%	4,552	3,864	3,954	5,749	18,119
2	-1.3%	-0.3%	0.1%	0.5%	-0.3%	5,021	3,867	3,936	5,343	18,167
3	0.2%	0.8%	1.1%	1.2%	0.8%	4,624	3,987	4,035	5,519	18,165
4	1.3%	2.3%	2.5%	2.3%	2.1%	4,035	3,719	4,098	6,297	18,149
All	-0.6%	0.2%	0.7%	0.9%	0.3%	18,232	15,437	16,023	22,908	72,600

	XretDrift					N				
iL&M	iEuph1	iEuph2	iEuph3	iEuph4	All	iEuph1	iEuph2	iEuph3	iEuph4	All
1	0.0%	-0.2%	0.1%	0.6%	0.2%	4,552	3,864	3,954	5,749	18,119
2	0.1%	0.6%	0.9%	1.3%	0.7%	5,021	3,867	3,936	5,343	18,167
3	0.8%	1.4%	1.5%	1.5%	1.3%	4,624	3,987	4,035	5,519	18,165
4	1.1%	1.5%	1.7%	2.0%	1.6%	4,035	3,719	4,098	6,297	18,149
All	0.5%	0.9%	1.1%	1.4%	1.0%	18,232	15,437	16,023	22,908	72,600

Panel C: Cross Tabulation of Mean Excess Return on the Ranked *Euph* and *SUE* signals

	XretPrelim					N				
iSUE	iEuph1	iEuph2	iEuph3	iEuph4	All	iEuph1	iEuph2	iEuph3	iEuph4	All
1	-2.2%	-1.6%	-1.4%	-0.9%	-1.5%	5,021	3,735	3,739	5,028	17,523
2	-0.7%	-0.2%	0.3%	0.3%	-0.1%	4,603	3,719	3,817	5,409	17,548
3	0.0%	0.8%	1.2%	1.2%	0.8%	4,254	3,738	3,882	5,688	17,562
4	0.9%	2.0%	2.5%	2.6%	2.1%	3,892	3,741	4,053	5,852	17,538
All	-0.6%	0.2%	0.7%	0.9%	0.3%	17,770	14,933	15,491	21,977	70,171

	XretDrift					N				
iSUE	iEuph1	iEuph2	iEuph3	iEuph4	All	iEuph1	iEuph2	iEuph3	iEuph4	All
1	-0.3%	0.1%	-0.2%	0.3%	0.0%	5,021	3,735	3,739	5,028	17,523
2	0.5%	0.9%	0.7%	1.8%	1.0%	4,603	3,719	3,817	5,409	17,548
3	0.7%	0.8%	1.8%	1.2%	1.1%	4,254	3,738	3,882	5,688	17,562
4	1.4%	1.6%	2.1%	2.2%	1.9%	3,892	3,741	4,053	5,852	17,538
All	0.5%	0.9%	1.1%	1.4%	1.0%	17,770	14,933	15,491	21,977	70,171

Table 3: Fama-MacBeth Regressions of Excess Returns on the Level of Sentiment Signals

The table presents mean coefficients from the quarterly regressions of the excess buy-and-hold return (*XretPrelim*) around the conference call dates on scaled signal ranks. *Euph* is calculated as the number of euphemisms in a conference call. *L&M* is based on the number of positive minus the number of negative words in a conference call, scaled by the sum of the positive and the negative words; the list of positive and negative words is based on the Loughran and McDonald dictionary. *VIP* is based on the difference between the positive sentiment score and the negative sentiment score, scaled by the sum of the positive and the negative sentiment score; the positive and negative sentiment score is calculated with VIP software package (refer to Appendix B for a description of VIP software). *SUE* is calculated as the adjusted fully-diluted preliminary EPS (before extraordinary items) in the current quarter minus expected EPS for the quarter, scaled by the standard deviation of EPS surprises in the prior 8 quarters. Expected EPS is the adjusted fully-diluted EPS in the same quarter of the prior year plus a constant growth term equivalent to the average EPS surprise in the prior 8 quarters. *XretPrelim* is the buy-and-hold return on a stock minus the average return on a matched size-B/ M-momentum portfolio in the interval [-1, +1], where day 0 is the preliminary earnings announcement date. *XretDrift* is the buy-and-hold return on a stock minus the average return on a matched size-B/ M-momentum portfolio from 2 days after the preliminary earnings announcement date through 1 day after the subsequent quarter's preliminary earnings announcement. Dependent variables *Euph*, *L&M*, *VIP*, *SUE*, and *XretPrelim* are scaled as follows: each variable is assigned to its decile rank, divided by 9, and 0.5 is subtracted to obtain the scaled rank. The table reports average coefficients from 44 quarterly cross-sectional regressions. The averages are time-series means with t-statistics computed using the standard error of the mean; statistically significant terms are bolded. N denotes the average number of cross-sectional observations. Significance levels are based on the standard error of the coefficient across the 44 quarterly regressions in a manner of Fama and MacBeth (1973). ***, **,* denote significance at 1%, 5% and 10% level.

	Dependent Variable = *XretPrelim*			Dependent Variable = *XretDrift*		
	1	2	3	4	5	6
Intercept	0.0034***	0.0034***	0.0034***	0.0101**	0.0100**	0.0101**
	4.37	**4.35**	**4.42**	**2.39**	**2.38**	**2.39**
Euph (scaled)	0.0155***	0.0144***	0.0108***	0.0114**	0.0114**	0.0093**
	10.70	**10.26**	**7.74**	**2.53**	**2.49**	**2.06**
L&M (scaled)		0.0366***			0.0103*	
		21.89			**1.87**	
VIP (scaled)			0.0407***			0.0203***
			27.99			**3.41**
SUE (scaled)	0.0399***	0.0351***	0.0339***	0.0132**	0.0117**	0.0107**
	18.45	**17.09**	**16.83**	**2.76**	**2.49**	**2.31**
XretPrelim (scaled)				0.0223***	0.0209***	0.0190***
				4.26	**4.11**	**3.80**
Average R-square (%)	2.9%	4.8%	5.2%	0.9%	1.1%	1.2%
	12.81	**16.15**	**17.37**	**5.86**	**6.49**	**7.39**
N	1,625	1,625	1,625	1,625	1,625	1,625

Table 4: Fama-MacBeth Regressions of Excess Returns on the Changes of Sentiment Signals

The table presents mean coefficients from the quarterly regressions of the excess buy-and-hold return (*XretPrelim*) around the conference call dates on scaled change in the sentiment signals. For all three sentiment signals (*Euph, L&M,* and *VIP*), the change in signal is calculated by subtracting the average signal in all periodic conference calls held in the prior 370 days. *EuphChange* is ranked by assigning a value of +1 for all negative changes and a value if -1 for all positive ones. The rank for the change in *Euph* is then scaled by dividing the rank by two. *Euph* is calculated as the number of euphemisms in a conference call. L&MChange, VIPChange, SUE and XretPrelim (when used as a dependent variable in the Panel B regressions) are scaled as follows: each variable is assigned to its decile rank, divided by 9, and 0.5 is subtracted to obtain the scaled rank. *L&M* is based on the number of positive minus the number of negative words in a conference call, scaled by the sum of the positive and the negative words; the list of positive and negative words is based on the Loughran and McDonald dictionary. *VIP* is based on the difference between the positive sentiment score and the negative sentiment score, scaled by the sum of the positive and the negative sentiment score; the positive and negative sentiment score is calculated with VIP software package (refer to Appendix B for a description of VIP software). *SUE* is calculated as the adjusted fully-diluted preliminary EPS (before extraordinary items) in the current quarter minus expected EPS for the quarter, scaled by the standard deviation of EPS surprises in the prior 8 quarters. Expected EPS is the adjusted fully-diluted EPS in the same quarter of the prior year plus a constant growth term equivalent to the average EPS surprise in the prior 8 quarters. *XretPrelim* is the buy-and-hold return on a stock minus the average return on a matched size-B/ M-momentum portfolio in the interval [-1, +1], where day 0 is the preliminary earnings announcement date. *XretDrift* is the buy-and-hold return on a stock minus the average return on a matched size-B/ M-momentum portfolio from 2 days after the preliminary earnings announcement date through 1 day after the subsequent quarter's preliminary earnings announcement. The table reports average coefficients from 42 quarterly cross-sectional regressions. The averages are time-series means with t-statistics computed using the standard error of the mean; statistically significant terms are bolded. N denotes the average number of cross-sectional observations. Significance levels are based on the standard error of the coefficient across the 42 quarterly regressions in a manner of Fama and MacBeth (1973). ***, **,* denote significance at 1%, 5% and 10% level.

	Dependent Variable = *XretPrelim*			Dependent Variable = *XretDrift*		
	1	2	3	4	5	6
Intercept	0.0033***	0.0033***	0.0032***	0.0106**	0.0106**	0.0106**
	4.74	**4.73**	**4.65**	**2.47**	**2.48**	**2.46**
EuphChange (scaled)	0.0091***	0.0069***	0.0055***	0.0066***	0.0058***	0.0049***
	9.43	**7.23**	**5.87**	**3.82**	**3.31**	**2.71**
L&MChange (scaled)		0.0427***			0.0187***	
		18.98			**4.41**	
VIPChange (scaled)			0.0484***			0.0252***
			23.47			**4.97**
SUE (scaled)	0.0417***	0.0347***	0.0332***	0.0160***	0.0133**	0.0121**
	19.31	**18.39**	**17.98**	**2.96**	**2.4**	**2.16**
XretPrelim (scaled)				0.0234***	0.0209***	0.0188***
				5.44	**5.17**	**4.55**
Average R-square (%)	3.0%	5.6%	6.1%	0.7%	0.9%	1.1%
	12.9	**15.11**	**19.37**	**5.73**	**7.28**	**5.65**
N	1,578	1,578	1,578	1,578	1,578	1,578

Table 5: Robustness Tests for Firms with Market Cap> $500M

The table reports Fama-MacBeth regression results of for the sample, excluding small-cap firms: firms with market capitalization less than $500 M. Panel A and B re-perform the regressions in Table 3, while Panel C and D those in Table 4. In the interest of conciseness, we report only the results on the key independent variables. All variables are as defined in Tables 3 (for Panel A and B) and Table 4 (for Panel C and D). The T-statistics are in parentheses and statistically significant terms are bolded. ***, **,* denote significance at 1%, 5% and 10% level.

Panel A: Levels of Sentiment Scores and Short-Window Excess Returns

	Dependent Variable = *XretPrelim*		
	1	2	3
Euph (scaled)	0.0098***	0.0091***	0.0064***
	7.03	**6.61**	**4.91**
L&M (scaled)		0.0335***	
		20.72	
VIP (scaled)			0.0383***
			27.36
N	1,082	1,082	1,082

Panel B: Levels of Sentiment Scores and 90-Day Excess Drift Returns

	Dependent Variable = *XretDrift*		
	1	2	3
Euph (scaled)	0.0074*	0.0075*	0.0063
	1.78	**1.78**	1.51
L&M (scaled)		0.0058	
		1.14	
VIP (scaled)			0.0106**
			2.04
N	1,082	1,082	1,082

Panel C: Changes of Sentiment Scores and Short-Window Excess Returns

	Dependent Variable = *XretPrelim*		
	1	2	3
EuphChange (scaled)	0.0099***	0.0078***	0.0065***
	9.94	**8.24**	**6.81**
L&MChange (scaled)		0.0379***	
		16.54	
VIPChange (scaled)			0.0431***
			19.3
N	1,062	1,062	1,062

Panel D: Changes of Sentiment Scores and 90-Day Excess Drift Returns

	Dependent Variable = *XretDrift*		
	1	2	3
EuphChange (scaled)	0.0038**	0.0037*	0.0033*
	2.06	**1.95**	**1.78**
L&MChange (scaled)		0.0065	
		1.60	
VIPChange (scaled)			0.0094**
			2.44
N	1,062	1,062	1,062

Table 6: Alternative Measure of Euphemism Usage

The table reports Fama-MacBeth regression results of for the sample, using variability of euphemism usage (*EuphVar*) as an alternative measure of euphemism usage in a conference call. *EuphVar* is the sum of distinct euphemisms in a transcript ranked in reverse order into 3 groups and scaled between -0.5 and +0.5. *EuphVarChange* is calculated by subtracting the average signal in all periodic conference calls held in the prior 370 days, ranking it as +1 for all negative changes and -1 for all positive ones, and scaling it by dividing the rank by two. Panel A and B re-perform the regressions in Table 3, while Panel C and D those in Table 4. In the interest of conciseness, we report only the results on the key independent variables. All control variables are as defined in Tables 3 (for Panel A and B) and Table 4 (for Panel C and D). The T-statistics are in parentheses and statistically significant terms are bolded. ***, **,* denote significance at 1%, 5% and 10% level.

Panel A: Levels of Sentiment Scores and Short-Window Excess Returns

	Dependent Variable = *XretPrelim*		
	1	2	3
EuphVar (scaled)	0.0093***	0.0087***	0.0061***
	7.78	**7.35**	**5.37**
L&M (scaled)		0.0367***	
		21.72	
VIP (scaled)			0.0411***
			28.13
N	1,574	1,574	1,574

Panel B: Levels of Sentiment Scores and 90-Day Excess Drift Returns

	Dependent Variable = *XretDrift*		
	1	2	3
EuphVar (scaled)	0.0072**	0.0072**	0.0058
	2.08	**2.04**	1.62
L&M (scaled)		0.0106*	
		1.94	
VIP (scaled)			0.0207***
			3.45
N	1,574	1,574	1,574

Panel C: Changes of Sentiment Scores and Short-Window Excess Returns

	Dependent Variable = *XretPrelim*		
	1	2	3
EuphVarChange (scaled)	0.0093***	0.0069***	0.0060***
	10.63	**9.09**	**7.34**
L&MChange (scaled)		0.0426***	
		19.83	
VIPChange (scaled)			0.0485***
			24.72
N	1,538	1,538	1,538

Panel D: Changes of Sentiment Scores and 90-Day Excess Drift Returns

	Dependent Variable = *XretDrift*		
	1	2	3
EuphVarChange (scaled)	0.0044**	0.0034	0.0026
	2.11	1.60	1.26
L&MChange (scaled)		0.0189***	
		4.45	
VIPChange (scaled)			0.0267***
			5.09
N	1,538	1,538	1,538