

Information or Distraction: Stock Market Reaction to Lengthy Conference Calls

ABSTRACT

We find that lengthy earnings conference calls are followed by negative stock market reaction such as increase in stock return volatility and negative short term abnormal returns. This effect becomes stronger when CEOs make lengthy talks. We conjecture the negative market reaction arises because investors are distracted from the call as it gets longer, consistent to prior research that investors react negatively to hard-to-read earnings disclosure documents. The negative market reaction is not due to negative information conveyed through lengthy calls: the correlation between call length and call tone is positive, and our results are robust to controlling for call tone or earnings surprise. Our results become stronger for firms that are relatively free from information asymmetry, supporting our argument that lengthy calls are not related to information delivery but rather considered as distraction. If investors consider lengthy calls as distracting, then why firms run such lengthy calls? One possibility is a deliberate distraction: firms make lengthy calls when they have something to hide. Consistently, we find that the likelihood of making M&A announcement in near future increases when firms have lengthy calls.

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Traditionally the attention of financial economists on firm's earnings announcement was mainly focused on quantitative results such as earnings per share, earnings surprise, or other profitability measures. Such quantitative information can be directly interpreted as good or bad (compared to the expected level), and hence easily reflected in valuing financial assets. However, recent development in textual analyses extended the research topic to the "qualitative" contents: one example is the tone (or sentiment) of the earnings announcement, which can be defined by the amount of "negative" words or phrases used in a disclosure related material.¹ The subject of textual analysis is not restricted to formal documentation like 10-Ks or analyst reports: vocal records such as the earnings conference calls or CEO news interviews can also be utilized to produce qualitative information. Prior research show that tone of corporate 10-K reports, earnings conference calls, securities analyst reports, and even on-line investor message board are related to valuation of underlying assets. The subject of the textual analysis is mainly associated with the word choices of written documents, which are straightforward to measure. However, other types of qualitative information may also influence the asset value (for example, "readability" of 10-K, "similarity" across different source of information, or emotional state of executives in earnings conference call). Loughran and McDonald (2016) and Kearney and Liu (2014) provide review on textual analysis literature in accounting and finance.

While document tone can be measured straightforward by counting negative and positive words, measuring readability is not simple. Fog index is a commonly used way of measuring document readability, which is based on the number of words per sentence and percentage of complex words. However, Loughran and McDonald (2011) argue that using

¹ If firm A's disclosure material contains more negative words compared to firm B's disclosure, investors may interpret firm A's business prospect is more detrimental, after controlling for other quantitative indicators.

Fog Index in financial disclosures (10-K) is misleading.² Instead, they suggest that 10-K document file size, which reflect the total length of document, is more appropriate measure of document readability. Their results show that 10-K document file size is positively associated with return volatility, earnings forecast errors, and earnings forecast dispersion, suggesting that investors have hard time deciphering lengthy disclosure material and such hindrance is priced. In this paper, we extend the readability implication in written document (10-K) to verbal communication (quarterly earnings conference calls).

Because earnings conference calls are not in written form, readability is ill-defined in this context. We suggest a similar concept called vigilance suits better. In psychology, vigilance is defined as maintaining attention to the task at hand over an extended time period. Given that conference calls are driven by a number of call participants, non-participating investors should concentrate on the polylogue to understand and obtain value-relevant information. Our conjecture is based on psychology and education studies showing that people cannot sustain vigilance during prolonged period (Mackworth, 1948; Teichner, 1974; McKeachie, 1986; Davis, 1993; Wankat, 2002),³ and hence lengthy conversation may be ineffective or even distracting.

By examining 25,385 quarterly earnings conference call transcripts of U.S. listed firms between 2005 and 2015, we find that the length of conference call proxied by the total word count of the call transcript is significantly related to higher abnormal stock return volatility and negative short term abnormal stock returns, and the results become stronger when CEOs make lengthy calls. The negative stock market reaction is consistent with our argument that investors lose vigilance (distracted) due to lengthy calls, and hence cannot correctly process conference call contents. This result is also in line with the prior research on

² Their argument is that in finance context, the number of words per sentence is not a relevant, and identification of complex word should be different from those in linguistics.

³ Prior researches suggest that the attention level tends to wane after approximately 15 minutes.

readability. One potential concern is that our result arises due to firm complexity: complex firms need to make lengthy conference calls to explain their business, and stock market reacts negatively to such complexity. Our result is obtained after controlling for the complexity of firm's operational environment proxied by number of business segments, alleviating such concern.⁴ An alternative explanation on the result can be that lengthy calls accompany negative information.⁵ If negative information is disclosed through lengthy calls, stock market will react to such negative news, not to call length. We argue this is less likely because the result is obtained after controlling for call tone or earnings surprise, and the correlation between call length and call tone is positive (suggesting that lengthy calls tend to accompany positive news, not negative). Further buttressing our argument, we find that our results become stronger for firms that are relatively free from information asymmetry: if call length is related to information, such effect should become stronger under higher information asymmetry where extra piece of information becomes more important.

the generally negative effect of lengthy call on stock market reaction, why would firms run such long conference calls? One possibility is a deliberate distraction: firms may want to hide something regardless of the stock market reaction. We examine whether lengthy calls are related with future negative performance, but do not find significant relationship. However, we do find that the likelihood of making M&A announcement in near future increases when CEOs make lengthy calls, and such relationship is found only in firms under higher information asymmetry. The result suggests that firms may deliberately hide secrets by making lengthy calls when the information environment allows such manipulation.

⁴ We also incorporate firm fixed effect in our regression, which absorbs firm-specific influence including complexity.

⁵ Loughran and McDonald (2014) report similar behavior in written mandatory disclosure where firms try to bury awkward information in longer documents.

1. DATA AND VARIABLES

The sample comprises the quarterly earnings conference call transcripts of public U.S. firms from Seeking Alpha's earnings transcripts for the years 2005–2015. We append firm financial and stock market information from Compustat and CRSP, and earnings forecast information from I/B/E/S. When we have more than one earnings transcript for a firm-quarter, we use the earlier one. To measure earnings conference call length, we count the number of words spoken in the transcript (*NumWord*).⁶ Prior researches show that the effect of textual tone may differ depending on the context.⁷ To investigate whether who makes call matters, we construct two additional call length measures: the number of words CEO speaks (*NumCEOWord*), and the number of words CFO speaks (*NumCFOWord*) during the call. We use two measures of stock market reaction: abnormal stock return volatility (*AbVolatility*) and cumulative abnormal stock return (*CAR*) during the three-day window after the conference call (from $t-0$ to $t+2$). *AbVolatility* and *CAR* are estimated using market model. Following the literature, we include the following variables as control: tone of the conference call, *Tone*; earnings surprise of the quarter, *Surprise*; number of business segment, *NumBusSeg*; number of analysts that follow the company's stock, *NumAnalyst*; firm size proxied by the natural log of firm sales, *Log(Sales)*, firm performance measures including *Tobin's Q* and *ROA*; firm financial condition measured by leverage, *Leverage*. *Tone* controls for the information contents in the conference call, and helps cleanly identifying the effect of call length. *Surprise* works similarly to control for information-related stock market reaction. *NumBusSeg* and *NumAnalyst* are to control for firm's information environment. Other

⁶ Ideally the call length may be measured by the amount of time the call took. However, Seeking Alpha does not provide such information. Firm- and participant-related information in the transcript are excluded from word counting because they are not spoken during the call.

⁷ Matsumoto, Pronk, and Roelofsen (2011) show that the discussion sessions in the conference call is more important than the presentation session, and Price et al. (2012) suggest to investigate whether tone of earnings conference call has different effect across different speakers (e.g., CEO vs. CFO).

variables are to control for firm size, financial condition, and performance. Variable definitions are in the Appendix. Observations with missing values in any of the above variables are excluded from the sample. There are total 25,385 firm-quarter observations with all required information.

Table 1 presents descriptive statistics of the variables used in this study. On average CEO-talk comprises about half (3,163 words) of the earnings conference call, and CFOs about a quarter (1,924 words) among the entire call (7,453). Other participants including lower-level company executives and analysts account for the remaining talk. Given that earnings conference calls are the channel companies explain their performance to the investors, it looks reasonable that CEOs and CFOs make the most of talk. Table 2 shows pairwise correlation between major variable of interest. The positive correlation between *AbVolatility* and *Tone/Surprise* are insignificant, but correlation between *CAR* and *Tone/Surprise* are positive and statistically significant. This is in line with prior research that positive tone and earnings surprise is well-respected in the stock market. The insignificant relation on *AbVolatility* suggests that definite information does not lead to market uncertainty. In contrast, the correlation between *AbVolatility* and all three call length measures (*NumWord*, *NumCEOWord*, and *NumCFOWord*) are all positive and significant, suggesting that call length is related to market uncertainty. The correlation between *CAR* and call length measures are negative, but the statistical significance is weak. These results imply that call length may not be considered as direct information input to the stock market, but rather considered as increasing uncertainty. The correlation between call length measures and call tone is positive and significant, suggesting that lengthy calls tend to accompany good news.

[Table 1 to be placed here]

[Table 2 to be placed here]

2. EMPIRICAL EXAMINATION

To examine the impact of earnings conference call length on stock market, we use the following specification:

$$Y_{it} = \alpha_0 + \alpha_i + \alpha_t + \beta_1 \cdot Calengt_{it} + \beta_2 \cdot Control_{it} + \mu_t \quad (1)$$

where Y_{it} is firm i 's stock performance, i indexes firms, and t indexes year. All regressions control for firm and year fixed effects, α_i and α_t , respectively. While our sample is constructed at quarterly frequency, we choose to control for year-fixed effect because some of our control variables are defined at yearly level. Standard errors are clustered at the firm level. For easier interpretation, all independent variables are scaled by their own sample standard deviation so that the standard deviation becomes 1.⁸

Table 3 Panel A reports the estimation results using the three-day abnormal return volatility as the dependent variable, and Panel B using three-day *CAR*. We provide regression results using major independent variable $\log(NumWord)$ alone, and with $\log(NumCEOWord)$ and $\log(NumCFOWord)$.⁹

In Panel A Columns (1-2), we find that $\log(NumWord)$ shows positive and significant coefficient, suggesting that lengthy calls lead to increased stock market uncertainty. When $\log(NumCEOWord)$ and $\log(NumCFOWord)$ are included as extra independent variables, $\log(NumWord)$ keeps the significant influence albeit the coefficient size becomes smaller. Among the two extra independent variables, only $\log(NumCEOWord)$ show positive and significant coefficient, suggesting that the talk by CEOs may matter more. The coefficient of the conference call tone, *Tone*, is negative and significant, suggesting that

⁸ This makes the interpretation of coefficients as the changes in the dependent variable as the respective independent changes one standard deviation.

⁹ Natural log of call length variables are used as independent variable to account for nonlinearity of wordcount measures.

when positive news is revealed through the tone, the stock market uncertainty becomes smaller. While the correlation between call length measures and call tone are positive and significant, they show different sign on the coefficients on stock return volatility, suggesting that call length and call tone play different role. Coefficients on other control variables are generally insignificant.

In Panel B where we investigate the impact of call length on *CAR*, the results are somewhat different. The coefficients of *Log(NumWord)* on *CAR* is negative and significant, suggesting that stock market reacts negatively to lengthy calls. Including *Log(NumCEOWord)* and *Log(NumCFOWord)* does not change results. However, unlike Panel A, coefficient of *Log(NumCEOWord)* turns insignificant. The coefficients on call tone and earnings surprise are both positive and significant, which is expected: better performance lead to higher stock return. Together with Panel A result, our findings support our argument that lengthy conference calls make investors distracted, and stock market reacts accordingly: increased stock return volatility and negative stock return.

[Table 3 to be placed here]

One potential concern on our interpretation is that lengthy calls may be a proxy for negative information, which can explain the observed positive effect on return volatility and negative effect on stock return. However, contrary to this possibility, the positive correlation between call length and call tone in Table 2 suggests that lengthy calls are likely to accompany positive news. In unreported robustness test, we also examine whether the observed relationship becomes stronger depending on firm's information environment. If the observed results are driven by information contents, then we expect to find stronger effect under weak information environment where extra piece of information counts more. In

subsample analyses where subsamples are divided by the severity in information asymmetry (proxied by previous-year stock return volatility and stock market illiquidity a la Amihud (2002)), we find that the observed effects become stronger under benign information environment (weak information asymmetry). Contrary to the concern, this result implies that the call length effects are not based on information contents.

To further investigate whether lengthy calls are interpreted as information rather than distraction, we run the baseline regression using long-term firm performance measures as the dependent variable. If the lengthy call is considered as distraction, such distraction will be resolved as time goes on, and there will be no longer term effect. However, if lengthy calls actually deliver valuable information, the effect of call length may be reflected even after some passage of time. Considering our observations are at quarterly frequency, we use next-quarter Tobin's Q and ROA as the dependent variable and rerun our analyses.

Table 4 Panel A shows estimation results using next quarter Tobin's Q, and Panel B using next quarter ROA as the dependent variable. In all specifications, call length measures show statistically insignificant coefficients, while the coefficients of call tone are positive and significant. Both call length and call tone are from earnings conference call, yet call length does not show any long-term effect. This result suggests that call length may not have information, but only considered as distraction to investors.

[Table 4 to be placed here]

Given the generally negative effects of call length on stock market, why firms run conference calls such long? Depending on the operational environment, firms may have to run lengthy conference calls if there are much to be explained during the call. However, such information-driven arguments are not supported in our analyses. One possible explanation is

that firms may hide some information by making the call longer and participating investors distracted (or at least not allowing call participants to investigate deeper by talking more). Among many potential motives, we consider two possibilities: hiding negative performance-related news, or news that require security (e.g., M&A announcement). Albeit the negative information story may sound plausible, we consider it less likely: first, Table 4 results using long term performance as dependent variable are not consistent with the negative news story. Second, firms are required to disclose performance-related information in timely manner, and hiding negative information at will can be subject to punishment. We investigate the second possibility, hiding news for security reason, by running regression using the likelihood of announcing M&A in near future (within a quarter).

Table 5 Panel A shows logit regression results using the indicator variable of the firm making at least one M&A announcement within 90 days after the earnings conference call as the dependent variable. We include year dummies in the regression but do not use firm-fixed effect because implementing fixed effects in nonlinear regression is difficult. All the control variables used in previous analyses are included, and industry-adjusted stock return during the previous year is added to account for the impact of past stock performance on M&A. Unlike the previous results, $\text{Log}(\text{NumWord})$ does not show any significant relationship to the M&A likelihood. However, the number of words spoken by CEO during the call, $\text{Log}(\text{NumCEOWord})$, shows positive and significant coefficients. This result suggests that CEOs may talk more than usual to mask for future M&A announcement. Coefficients on the control variables are in line with previous research: firms with strong performance (proxied by ROA and industry-adjusted stock return) tend to make M&As. Positive and significant coefficients on *NumBusSeg* and *NumAnalyst* also make sense: large firms with multiple business segments are more likely to make M&A. Table 5 Panel B shows Tobit regression results using the total M&A deal size a firm makes within 90 days from the earnings

conference call. This regression complements Panel A result where the deal size or number of deals are not considered. Consistent with Panel A results, the coefficient of $\text{Log}(\text{NumCEOWord})$ stays positive albeit statistically insignificant. When we run Table 5 analyses in subsamples divided by firm's information environment, we find statistically significant effects only in malign information environment (severe information asymmetry), for both logit and Tobit regressions. Maybe hiding future M&A announcement becomes feasible only when the information environment allows the firm to do so.

[Table 5 to be placed here]

Overall, these results suggest that investors get distracted from lengthy conference calls, probably because vigilance level wanes as the call gets longer. Distracted investors may have difficulties to eschew the conference call contents (or at least feel like so), and hence the uncertainty level increases (reflected as the increased stock return volatility and negative CAR).

3. CONCLUSION

We investigate whether lengthy conference calls work as distraction to investors by reducing their vigilance level. We find that lengthy calls are associated with increased stock return volatility and negative CAR , suggesting that investors are actually distracted from lengthy calls. If investors perceive lengthy calls as extra source of (negative) information rather than distraction, we should find long-term effect of call length similar to the effect of call tone, or stronger effect when additional information is important. However, our findings are the opposite. If investors consider lengthy calls as distracting, then why firms run such lengthy calls? One possibility is a deliberate distraction: firms make lengthy calls when they

have something to hide. Consistently, we find that the likelihood of making M&A announcement in near future increases when firms have lengthy calls.

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Table 1. Summary Statistics

This table reports summary statistics of the major variables. The sample consists of 27,292 quarterly earnings conference call transcripts in 2005-2014. Variable definitions and data sources are provided in the Appendix.

Variable	Obs. (1)	Mean (2)	Median (3)	Min (4)	Max (5)	Std. Dev. (6)
<i>Dependent Variables</i>						
CAR(0, +2)	25,385	-0.015	-0.031	-0.642	1.247	0.075
AbVolatility (0, +2)	25,385	2.118	1.75	0	21.331	1.731
<i>Variables of Interest</i>						
NumWord	25,385	7,453	7,516	337	36,000	2,395
NumCEOWord	25,385	3,163	3,040	0	13,000	1,689
NumCFOWord	25,385	1,924	1,754	0	12,000	1,244
<i>Firm Characteristics</i>						
Tone	25,385	-0.011	-0.01	-0.07	0.032	0.011
Surprise	25,385	0.001	0	-3.479	6.909	0.077
NumBusSeg	25,385	2.607	1	1	21	2.103
NumAnalyst	25,385	10.701	9	1	54	7.7
Log(Sales)	25,385	5.831	5.872	-6.908	11.633	1.914
Tobin's Q	25,385	2.042	1.575	0.388	47.561	1.555
ROA	25,385	0.028	0.029	-1.796	0.627	0.044
Leverage	25,385	0.234	0.199	0	3.867	0.227
IndAdjRet	24,558	-0.022	-0.045	-0.958	24.045	0.403
<i>Information Environment</i>						
Volatility (-252, -6)	25,385	0.021	0.018	0.005	0.195	0.012
Illiquidity	25,294	0.029	0.001	0	79.365	0.72

Table 2. Correlation between Major Variables of Interest

This table reports piecewise Pearson correlation between major variables of interest. The sample period covers years 2005-2014. Coefficients marked with *, **, and *** are significant at 10%, 5%, and 1%, respectively.

Variable	AbVolatility (0,+2) (1)	CAR (0,+2) (2)	AbVolume (-1,+1) (3)	NumWord (4)	NumCEFOWord (5)	NumCEOWord (6)	NumCFOWord (7)	Tone (8)
CAR (0, +2)	-0.133***							
AbVolume (-1, +1)	0.223***	-0.042***						
NumWord	0.039***	0.006	0.073***					
NumCEOCFOWord	0.059***	-0.001	0.082***	0.778***				
NumCEOWord	0.057***	-0.010*	0.072***	0.590***	0.790***			
NumCFOWord	0.021***	0.012*	0.036***	0.463***	0.550***	-0.070***		
Tone	0.009	0.103***	0.044***	0.229***	0.216***	0.188***	0.096***	
Surprise	-0.001	0.027***	0.003	-0.014**	-0.013**	-0.008	-0.011*	0.013**

Table 3. Short-Term Effect of Talk Length on Volatility, CAR, and Trading Volume

This table estimates the relation between the number of words conference call attendees speak during the earnings conference call and the abnormal stock return volatility, cumulative abnormal return, and abnormal trading volume. Abnormal stock return volatility is the ratio between stock return volatility over 3 trading days spanning from 0 to 2 days after the conference call date and stock return volatility over 247 trading days spanning from 252 to 6 days prior to the conference call date. The stock return volatility is the root mean squared error of daily stock return. Cumulative abnormal return is estimated over 3 trading days spanning from 0 to 2 days after the conference call date. Daily expected stock return and error is estimated using the market model. Market model parameters are estimated over 247 trading days spanning from 252 to 6 days prior to the conference call date. Abnormal trading volume is the ratio between the average daily stock trading volume over 3 trading days spanning from 1 day prior to and 1 day after the conference call date and the average daily stock trading volume over 251 days spanning from 252 to 2 days prior to the conference call date. Variable definitions are provided in the Appendix. The sample period covers years 2005-2014. Regressions control for firm- and year-fixed effects. Robust standard errors clustered at the firm level are reported in parentheses. Coefficients marked with *, **, and *** are significant at 10%, 5%, and 1%, respectively.

<i>Panel A: AbVolatility (0,+2) as the dependent variable</i>					
Variable	(1)	(2)	(3)	(4)	(5)
Log(NumWords)	0.093*** (0.018)		0.072*** (0.019)		0.077*** (0.019)
Log(NumCEFOWords)		0.062*** (0.012)	0.038*** (0.013)		
Log(NumCEOWords)				0.050*** (0.015)	0.032** (0.015)
Log(NumCFOWords)				0.032** (0.014)	0.020 (0.014)
Tone	-0.082*** (0.017)	-0.079*** (0.017)	-0.082*** (0.017)	-0.078*** (0.017)	-0.082*** (0.017)
Surprise	0.005 (0.010)	0.005 (0.010)	0.005 (0.010)	0.005 (0.010)	0.005 (0.010)
NumBusSeg	-0.017 (0.042)	-0.016 (0.042)	-0.016 (0.042)	-0.018 (0.042)	-0.018 (0.042)
NumAnalyst	0.010 (0.037)	0.041 (0.036)	0.013 (0.037)	0.045 (0.036)	0.013 (0.037)
Log(Sales)	0.293*** (0.076)	0.314*** (0.076)	0.299*** (0.076)	0.313*** (0.076)	0.298*** (0.076)
Tobin's Q	0.050** (0.024)	0.053** (0.024)	0.050** (0.024)	0.054** (0.024)	0.050** (0.024)
ROA	0.010 (0.015)	0.010 (0.015)	0.010 (0.015)	0.010 (0.015)	0.010 (0.015)
Leverage	-0.026 (0.035)	-0.025 (0.035)	-0.027 (0.035)	-0.023 (0.035)	-0.026 (0.035)
Firm/Year FE	Y	Y	Y	Y	Y
Observations	25,385	25,385	25,385	25,385	25,385
Adjusted R ²	0.337	0.337	0.337	0.337	0.337

Table 3. Short-Term Effect of Talk Length on Volatility, CAR, and Trading Volume (Cont'd)*Panel B: CAR (0,+2) as the dependent variable*

Variable	(1)	(2)	(3)	(4)	(5)
Log(NumWords)	-0.005*** (0.001)		-0.005*** (0.001)		-0.005*** (0.001)
Log(NumCEFOWords)		-0.002*** (0.001)	0.000 (0.001)		
Log(NumCEOWords)				-0.000 (0.001)	0.001 (0.001)
Log(NumCFOWords)				-0.000 (0.001)	0.001 (0.001)
Tone	0.014*** (0.001)	0.013*** (0.001)	0.014*** (0.001)	0.013*** (0.001)	0.014*** (0.001)
Surprise	0.003* (0.001)	0.003* (0.001)	0.003* (0.001)	0.003* (0.001)	0.003* (0.001)
NumBusSeg	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
NumAnalyst	-0.007*** (0.002)	-0.009*** (0.002)	-0.007*** (0.002)	-0.010*** (0.002)	-0.007*** (0.002)
Log(Sales)	0.008 (0.005)	0.007 (0.005)	0.008 (0.005)	0.007 (0.005)	0.009* (0.005)
Tobin's Q	-0.011*** (0.002)	-0.012*** (0.002)	-0.011*** (0.002)	-0.012*** (0.002)	-0.011*** (0.002)
ROA	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)	0.007*** (0.001)
Leverage	0.003* (0.002)	0.003* (0.002)	0.003* (0.002)	0.003 (0.002)	0.003* (0.002)
Firm/Year FE	Y	Y	Y	Y	Y
Observations	25,385	25,385	25,385	25,385	25,385
Adjusted R ²	0.152	0.151	0.152	0.150	0.152

Table 4. Long-Term Effect of Talk Length on Tobin's Q and ROA

This table estimates the relation between the number of words conference call attendees speak during the earnings conference call and the firm performance of the following quarter. Firm performance is measured as the quarterly Tobin's Q or ROA. Variable definitions are provided in the Appendix. The sample period covers years 2005-2014. Regressions control for firm- and year-fixed effects. Robust standard errors clustered at the firm level are reported in parentheses. Coefficients marked with *, **, and *** are significant at 10%, 5%, and 1%, respectively.

<i>Panel A: Tobin's Q of the following quarter as the dependent variable</i>					
Variable	(1)	(2)	(3)	(4)	(5)
Log(NumWords)	0.005 (0.008)		0.009 (0.010)		0.007 (0.009)
Log(NumCEFOWords)		-0.005 (0.006)	-0.008 (0.007)		
Log(NumCEOWords)				0.002 (0.005)	0.000 (0.005)
Log(NumCFOWords)				-0.007 (0.006)	-0.008 (0.006)
Tone	0.053*** (0.006)	0.053*** (0.006)	0.053*** (0.006)	0.053*** (0.006)	0.053*** (0.006)
Surprise	-0.003 (0.006)	-0.003 (0.006)	-0.003 (0.006)	-0.003 (0.006)	-0.003 (0.006)
NumBusSeg	-0.023*** (0.008)	-0.023*** (0.008)	-0.023*** (0.008)	-0.023*** (0.008)	-0.023*** (0.008)
NumAnalyst	-0.011 (0.017)	-0.008 (0.017)	-0.011 (0.017)	-0.008 (0.017)	-0.011 (0.017)
Log(Sales)	-0.054 (0.095)	-0.053 (0.095)	-0.055 (0.095)	-0.053 (0.095)	-0.055 (0.095)
Tobin's Q	1.105*** (0.056)	1.105*** (0.056)	1.105*** (0.056)	1.105*** (0.056)	1.105*** (0.056)
ROA	0.070*** (0.026)	0.070*** (0.026)	0.070*** (0.026)	0.070*** (0.026)	0.070*** (0.026)
Leverage	-0.060* (0.031)	-0.060* (0.031)	-0.060* (0.031)	-0.060* (0.031)	-0.060* (0.031)
Firm/Year FE	Y	Y	Y	Y	Y
Observations	25,329	25,329	25,329	25,329	25,329
Adjusted R ²	0.893	0.893	0.893	0.893	0.893

Table 4. Long-Term Effect of Talk Length on Tobin's Q and ROA (Cont'd)*Panel B: ROA of the following quarter as the dependent variable*

Variable	(1)	(2)	(3)	(4)	(5)
Log(NumWords)	-0.001 (0.001)		-0.001 (0.001)		-0.001 (0.001)
Log(NumCEFOWords)		-0.000 (0.001)	0.000 (0.001)		
Log(NumCEOWords)				-0.000 (0.000)	0.000 (0.000)
Log(NumCFOWords)				-0.000 (0.000)	-0.000 (0.000)
Tone	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)
Surprise	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
NumBusSeg	-0.001* (0.000)	-0.001* (0.000)	-0.001 (0.000)	-0.001 (0.000)	-0.001 (0.000)
NumAnalyst	-0.000 (0.001)	-0.000 (0.001)	0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Log(Sales)	0.007 (0.005)	0.007 (0.005)	0.007 (0.005)	0.007 (0.005)	0.007 (0.005)
Tobin's Q	0.008*** (0.002)	0.008*** (0.002)	0.008*** (0.002)	0.008*** (0.002)	0.008*** (0.002)
ROA	0.007** (0.003)	0.007** (0.003)	0.007** (0.003)	0.007** (0.003)	0.007** (0.003)
Leverage	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Firm/Year FE	Y	Y	Y	Y	Y
Observations	25,251	25,251	25,251	25,251	25,251
Adjusted R ²	0.616	0.616	0.616	0.616	0.616

Table 5. Effect of Talk Length on Likelihood of M&A Announcement

This table estimates the relation between the number of words conference call attendees speak during the earnings conference call and the likelihood of announcing M&A deal(s) after the conference call date. The dependent variable is an indicator variable that is equal to one if the firm makes at least one M&A announcement within 90 days after the conference call date, and zero otherwise. Announcements that satisfy the following conditions are counted as M&A deals: (i) the transaction is identified by SDC as a merger, acquisition of majority interest, or tender offer; (ii) transaction value exceeds U.S. \$1 million; (iii) the bidder owns less than 50% of the target's share before the transaction and greater than 50% afterward, or seeks to own greater than 50% of the target's share through the deal. Panel A reports results estimated using logit regression with year dummies, and Panel B using conditional logit regression with year dummies, and Panel C using OLS with firm and year fixed effects. Panel D reports estimation results using Tobit regression with year dummies, where the dependent variable is the total transaction value of the M&A deals the firm announces within 90 days after the conference call date. Variable definitions are provided in the Appendix. The sample period covers years 2005-2014. Robust standard errors clustered at the firm level are reported in parentheses. Coefficients marked with *, **, and *** are significant at 10%, 5%, and 1%, respectively.

Panel A: Logit regression with year dummies

Variable	(1)	(2)	(3)	(4)	(5)
Log(NumWords)	0.074 (0.052)		0.053 (0.057)		0.053 (0.055)
Log(NumCEFOWords)		0.063 (0.048)	0.038 (0.045)		
Log(NumCEOWords)				0.097** (0.044)	0.085** (0.043)
Log(NumCFOWords)				-0.023 (0.034)	-0.031 (0.034)
Tone	0.053 (0.037)	0.055 (0.036)	0.051 (0.037)	0.053 (0.036)	0.049 (0.037)
Surprise	-0.007 (0.028)	-0.007 (0.028)	-0.007 (0.028)	-0.007 (0.027)	-0.007 (0.028)
NumBusSeg	0.167*** (0.040)	0.165*** (0.040)	0.165*** (0.040)	0.165*** (0.040)	0.165*** (0.040)
NumAnalyst	0.229*** (0.058)	0.252*** (0.053)	0.232*** (0.057)	0.252*** (0.052)	0.230*** (0.057)
Log(Sales)	-0.091 (0.058)	-0.079 (0.057)	-0.088 (0.059)	-0.059 (0.057)	-0.070 (0.059)
Tobin's Q	-0.131*** (0.042)	-0.127*** (0.041)	-0.130*** (0.042)	-0.123*** (0.041)	-0.127*** (0.042)
ROA	0.126*** (0.036)	0.122*** (0.035)	0.125*** (0.036)	0.120*** (0.035)	0.124*** (0.036)
Leverage	0.026 (0.045)	0.026 (0.045)	0.026 (0.045)	0.026 (0.045)	0.026 (0.045)
YearlyReturn_SIC3	0.097*** (0.036)	0.097*** (0.036)	0.096*** (0.036)	0.096*** (0.036)	0.095*** (0.036)
Firm/Year FE	Y	Y	Y	Y	Y
Observations	24,326	24,326	24,326	24,326	24,326
Pseudo-R ²	0.026	0.026	0.026	0.027	0.027

Table 5. Effect of Talk Length on Likelihood of M&A Announcement (Cont'd)*Panel B: Tobit regression with year dummies; deal transaction value as the dependent variable*

Variable	(1)	(2)	(3)	(4)	(5)
Log(NumWords)	65.031 (70.753)		26.015 (80.295)		45.538 (77.730)
Log(NumCEFOWords)		80.638 (61.572)	69.881 (68.035)		
Log(NumCEOWords)				95.045 (69.525)	84.899 (73.118)
Log(NumCFOWords)				-33.658 (49.905)	-40.741 (50.907)
Tone	120.569** (60.953)	119.859** (59.982)	118.016* (60.675)	119.352* (61.520)	115.388* (61.626)
Surprise	-12.003 (46.661)	-11.547 (46.067)	-11.585 (46.380)	-11.603 (44.971)	-11.594 (45.518)
NumBusSeg	278.766*** (66.310)	276.069*** (66.023)	276.213*** (65.967)	278.214*** (66.446)	277.937*** (66.450)
NumAnalyst	445.168*** (97.244)	460.887*** (90.299)	451.090*** (98.471)	463.890*** (92.533)	445.154*** (97.218)
Log(Sales)	32.211 (78.864)	44.253 (77.694)	39.872 (79.938)	66.671 (77.351)	57.650 (79.813)
Tobin's Q	-192.564*** (68.525)	-189.874*** (68.412)	-190.943*** (68.393)	-185.901*** (68.618)	-188.395*** (69.129)
ROA	156.384*** (58.936)	153.282*** (58.673)	154.662*** (58.939)	151.659*** (58.421)	154.590*** (59.132)
Leverage	55.998 (49.736)	55.902 (49.708)	55.673 (49.709)	55.997 (49.800)	55.502 (49.810)
YearlyReturn_SIC3	183.901*** (53.466)	183.998*** (53.467)	183.777*** (53.483)	183.355*** (53.546)	183.005*** (53.483)
Firm/Year FE	Y	Y	Y	Y	Y
Observations	24,558	24,558	24,558	24,558	24,558
Pseudo-R ²	0.011	0.011	0.011	0.011	0.011