Awkward silence: Is manager hesitation informative?

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Abstract

I study whether managers' hesitation conveys information about market movements as well as analysts' behavior. Hesitation is defined as the response time (RT) between analyst questions and managerial answers, measured using AI-based speaker diarization and transcript alignment over 7,300 earnings calls from S&P 500 firms (2017–2023). I find that longer RT is associated with lower contemporaneous and 1-quarter ahead cumulative abnormal returns. Quartile-split analysis confirms the association is due to abnormally long RTs. Analysts also revise earnings forecasts down and demonstrate increased uncertainty after they are faced with longer RTs. However, RT fails to predict future earning surprises, confirming prompt analysts' response to hesitation information. This paper is the first to show that silence, specifically the managerial response time, can serve as an additional information channel. The findings contribute to the literature on information asymmetry and behavioral finance.

Motivation

- Researchers continually seek novel signals to predict firm prospects.
- Prior earnings-call research has focused on **spoken content** and **vocal tone**.
- The **silent parts** of audio recordings remain largely untapped.
- This study treats **silence** as a new source of market insight.

Research Question

Do non-vocal signals such as silent pauses convey information about managerial hesitation and influence investor or analyst behavior?

- Does **response time** during Q&A signal managerial hesitation?
- Does it predict investor or analyst reactions?

Hypotheses

Hypothesis 1 – Market reaction

H_1: Longer managerial response time is associated with lower cumulative abnormal returns.

Theory: If longer response time reflects hesitation or information withholding, market should price it negatively.

Hypothesis 2 – Analyst reaction 1

H_1: Longer managerial response time is associated with negative forecast revisions.

Theory: If longer response time reflects hesitation or information withholding, analyst should revise their earnings forecasts downward.

Hypothesis 3 – Analyst reaction 2

H_1: Longer managerial response time is associated with positive change in analyst forecast dispersion.

Theory: If longer response time reflects hesitation or information withholding, this should increase the uncertainty among analyst forecasts.

Hypothesis 4 – Future firm performance

H_1: Longer managerial response time is associated with negative unexpected earnings.

Theory: If longer response time reflects hesitation or information withholding, this should indicate firm distress and worse future performance.

Result 1: Market Reaction to Manager Hesitation

Research Question: Do market participants react to managerial hesitation during earnings calls?

Approach: I regress cumulative abnormal returns (CAR) on response time (RT) and firm/market controls:

$$\text{CAR}(0,1) = \beta_0 + \beta_1 \text{RT} + \beta_2 \text{BM} + \beta_3 \text{Size} + \beta_4 \text{UE}_t + \ldots + \varepsilon_i$$

Key Finding:

- 1 SD increase in response time is associated with 0.16% and 0.24% decrease in 2-day and 3-month CARs, respectively.
- No association in longer horizons

Controls: Book-to-market (BM), size, unexpected earnings (UE_t), volatility, momentum, manager/analyst tone.

CAR(i,j)	(1) 0,2	(2) 2,90	(3) 2,180	(4) 2,270	(5) 2,360
RT	-0.313**	-0.482**	-0.542	-0.650	-0.899
	(0.123)	(0.239)	(0.363)	(0.598)	(0.803)
N	6,993	6,993	6,993	6,993	6,993
Adj. R^2	0.081	0.321	0.314	0.218	0.177

Interpretation: Investors react to hesitation signals in the short term, but the effect fades as new information arrives in later quarters.

Result 2: Analyst Response to Manager Hesitation

Research Question: Do analysts revise forecasts more pessimistically following signs of managerial hesitation?

Approach: I regress analyst forecast revisions and chnage in analyst forecast dispersion on response time (RT) and firm/market/text controls:

$$Y = \beta_0 + \beta_1 \text{RT} + \beta_2 \text{CAR(0,1)} + \beta_3 \text{BM} + \ldots + \text{FirmFE} + \varepsilon_i$$

Where $Y \in \{\text{FREV}, \Delta\text{Dispersion}\}$.

Key Findings:

- Longer RT → downward forecast revisions.
- Dispersion increases, suggesting heightened analyst uncertainty.
- No relation between RT and future earnings surprises: market incorporates hesitation efficiently.

Controls: CAR(0,1) Book-to-market (BM), size, unexpected earnings (UE_t), volatility, momentum, manager/analyst tone.

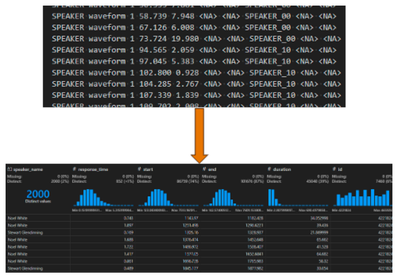
	FREV	ΔDispersion
RT	-0.00183***	0.0562***
	(0.000605)	(0.0215)
N	6919	6779
Adj R^2	0.0349	0.0556

Interpretation: Analysts perceive long pauses as negative signals, revising forecasts downward and disagreeing more—consistent with increased uncertainty.

Challenges and Solutions

Challenge 1: Measuring Manager Hesitation
Managerial hesitation is not directly observable. Traditional textual analysis overlooks silent pauses that may convey information.

Solution: I extract response times from audio recordings by combining speaker diarization and transcript alignment. This process identifies the precise timing between the end of analyst questions and the start of managerial responses, generating an objective hesitation measure.



Challenge 2: Validating the Hesitation Measure
Even with a response time measure, it remains unclear whether this truly reflects hesitation or information withholding.

Solution: I validate the measure using a quartile-split analysis. Abnormal stock returns respond significantly only in the top quartile of response times, suggesting that unusually long delays—rather than routine pauses—contain informative content.

Conclusion

Manager hesitation (response time) during Q&A serves as a robust proxy for real-time managerial doubt.

- **Market Reaction:** Longer pauses are linked to significantly lower 2-day CARs, particularly in high-scrutiny firms. 1-quarter CARs also decline with hesitation; longer-horizon effects appear in low-scrutiny firms.
- **Analyst Behavior:** Forecast revisions trend downward following hesitation across all firms. Forecast dispersion rises only in low-scrutiny settings.
- **No Direct Link to Performance:** Response time does not consistently predict future earnings surprises (unexpected earnings).
- **Broader Implication:** Non-vocal cues such as silence enrich the information environment and offer a less gameable signal in voluntary disclosure.

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