

Who gets the benefit of the doubt? CEO gender and news about firm performance

Marcela Carvalho¹

August 25, 2025

Introduction

- ▶ *“The third quarter was clearly a disappointing one financially as we reported a net loss of \$517.8 million, with a diluted loss per share of \$4.17.”*



Jane



John

- ▶ I show that male CEOs tend to receive the benefit of the doubt from market participants.

This paper

- ▶ Asymmetry by CEO gender in how market participants react to bad news (but not to good news!) in **three independent settings and databases**.
 1. Analysts' forecasts for the earnings per share.
 2. Stock returns on earnings announcement days.
 3. Disagreement in earnings conference calls.

- ▶ I argue that these patterns have a common origin in a reduced level of skepticism towards male CEOs.

Main findings

1. **Analysts' forecasts:** Analysts update less their forecasts for the earnings per share following bad news from male-led companies relative to female-led peers.
 2. **Earnings announcement days:** stock markets react less negatively to negative earnings surprises from male-led companies relative to their female-led peers.
 3. **Earnings conference calls:** after negative surprises, analysts express less disagreement with the narrative conveyed by male-led companies relative to their female-led peers.
 4. Asymmetry by CEO gender in disagreement is entirely concentrated amongst male analysts.
- ▶ These findings suggest that male market participants give the benefit of the doubt to male CEOs.

Related literature

- ▶ **Under-reaction to news:** previous literature has found evidence of agents' under-reaction to news. (Ball and Brown 1968; Foster, Olsen and Shevlin 1984; Bernard and Thomas 1989; Jegadeesh and Titman 1993; Chan, Jegadeesh and Lakonishok 1996; Hirshleifer, Lim and Teoh 2009; Coibion and Gorodnichenko 2015; Bouchad et al. 2019)
- ▶ I show that the under-reaction to new information depends on CEO gender and on the sign of news.
 - ▶ Under-reaction is concentrated on male-led companies after bad news.
 - ▶ In other words: there is a special subset of companies (female-led ones) for which beliefs appear to be rational.
- ▶ This suggests that how information is interpreted depends on who the provider of that information is.

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Main variables and notation

- ▶ Let t be a given announcement date, a a given analyst, and i a given company.
 - ▶ $X_{i,t+1}$ is the realization of earnings per share for firm i announced at period $t + 1$.
 - ▶ $\hat{E}_{a,t}(X_{i,t+1})$ is analyst a 's forecast for $X_{i,t+1}$ at period t .
- ▶ So the **forecast error** for analyst a and firm i at period $t + 1$ is

$$\text{Forecast Error}_{a,i,t+1} = X_{i,t+1} - \hat{E}_{a,t}(X_{i,t+1})$$

- ▶ and the respective **forecast revision** at t is

$$\text{Revision}_{a,i,t} = \hat{E}_{a,t}(X_{i,t+1}) - \hat{E}_{a,t-1}(X_{i,t+1})$$

The Coibion-Gorodnichenko (CG) regression: reaction to news

- ▶ Consider running the regression...

$$\text{Forecast Error}_{a,i,t+1} = \alpha + \beta \times \text{Revision}_{a,i,t} + u_{a,i,t+1},$$

- ▶ $\beta > 0$ implies that agents **under-react** to news.
 - ▶ Between $t - 1$ and t , agents receive some piece of news and revise expectations accordingly, in the correct direction.
 - ▶ But **systematically** do so by **less** than they should.
- ▶ $\beta < 0$ implies that agents **over-react** to news.
 - ▶ Between $t - 1$ and t , agents receive some piece of news and revise expectations accordingly, in the correct direction.
 - ▶ But **systematically** do so by **more** than they should.

CEO gender correlates with analysts' under-reaction to bad news

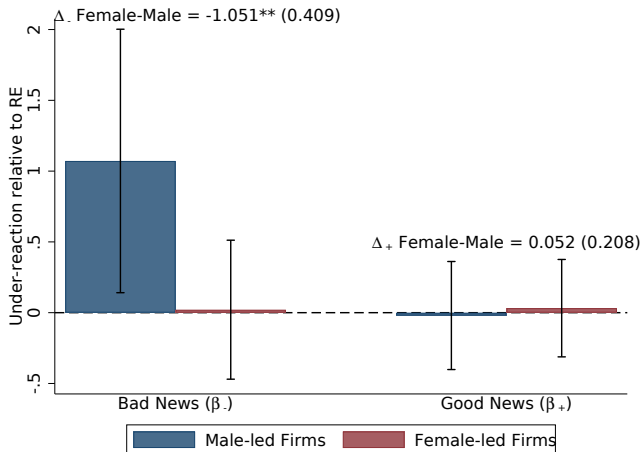


Figure: Deviations from the rational expectations benchmark by CEO gender and sign of news

Notes: This figure shows the coefficients and respective 95% confidence interval of a regression of forecast errors on forecast revisions interacted with CEO gender and with whether revisions are positive (good news) or negative (bad news).

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Market reaction to market surprises

- ▶ To understand if the market reacts asymmetrically to surprises from companies led by male and female CEOs, I run the following regression

$$\begin{aligned} \text{Abnormal Return}_{i,t} = & \alpha + \gamma_{m,+} \times \text{Surprise}_{i,t}^+ + \\ & \delta_+ \times \text{Surprise}_{i,t}^+ \times 1(\text{Female})_{i,t} + \\ & \gamma_{m,-} \times \text{Surprise}_{i,t}^- + \\ & \delta_- \times \text{Surprise}_{i,t}^- \times 1(\text{Female})_{i,t} + \\ & \text{residuals}_{i,t} \end{aligned}$$

for firm i at announcement date t .

- ▶ Recover coefficients for female-led firms: $\gamma_{f,+} = \beta_{m,+} + \delta_+$ and $\gamma_{f,-} = \beta_{m,-} + \delta_-$.

CEO gender correlates with market reaction to earnings announcements

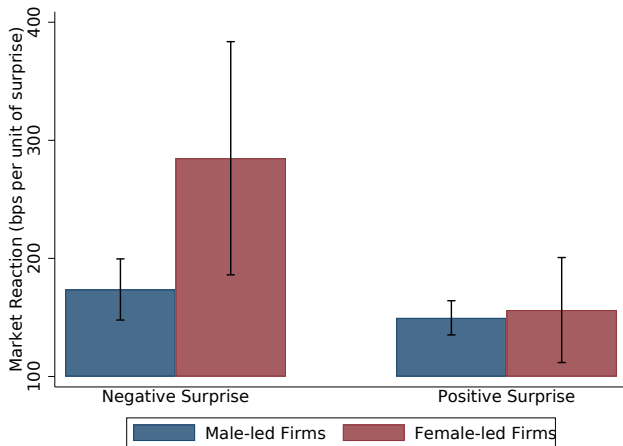


Figure: Stock market reaction to earnings announcements by CEO gender and sign of surprise

Notes: This figure shows the coefficients and respective 95% confidence interval from a regression of the abnormal returns on the earnings surprise (FOM score) interacted with CEO gender and with whether surprises are positive or negative. Equally-weighted observations.

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Earnings conference calls

- ▶ Earnings conference calls are quarterly events held by public companies to go over the past earnings results and give guidance about the future.
 1. Presentation.
 2. Q&A session.
- ▶ This is a convenient setting to explore **analysts' reaction to news about firm performance**, because...
 1. Analysts and executives verbally interact with each other.
 2. These meetings are specifically aimed at discussing firm performance.
- ▶ In this setting, I observe analysts' full name: so I can determine analysts' gender.
 - ▶ On average, male analysts represent more than 85% of the analyst pool in these calls. (Sample from 2002 to 2022)

Disagreement between analysts and the firm's narrative

1. Analysts ask about “negative” topics more often than executives bring them up in their speeches.
 - ▶ *“This week, unions for aircraft controllers, pilots and flight attendants sounded the alarm over the **shutdown**'s effects on the U.S. aviation system and raised questions about safety, that the entire system could, at some point **break**. How **concerned** are you about that right now?”* (EC American Airlines Group, Q4-2018)
2. Analysts use more “negative” language to describe a topic compared to firm executives.
 - ▶ *“I am just trying to reconcile your [previous] statement (...). I just saw a report today (...) showing **defaults** down 10%, from their **distress** side we are seeing a **lack** of flow in terms of **restructurings**, a lot of stuff coming out of **bankruptcy**, how does that fit with your expectation that things wouldn't **slow** down on that side? ”* (EC FTI Consulting, Q2-2003)

After negative surprises, analysts express less disagreement with the narrative for male vs female-led companies

regression

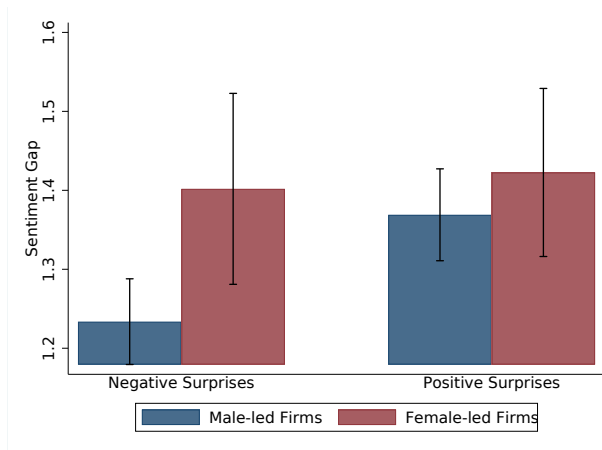


Figure: Sentiment gap by CEO gender and sign of surprise

Notes: This figure shows the coefficients and respective 95% confidence interval from a regression of the sentiment gap on an indicator of CEO gender and whether surprises are positive or negative.

After negative surprises, asymmetry in disagreement by CEO gender is driven by male analysts

positive surprises

regression

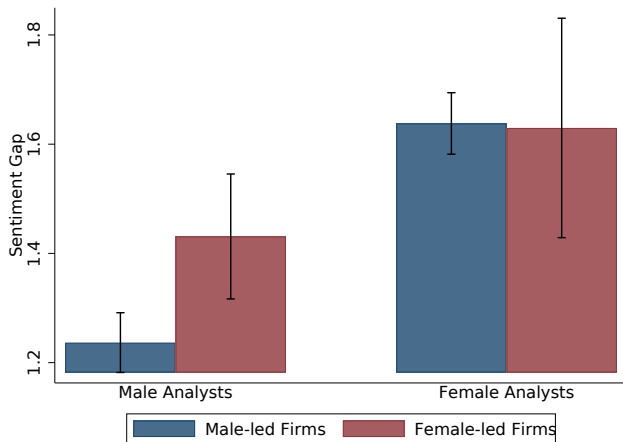


Figure: Sentiment gap by CEO gender and analyst gender, after negative surprises

Notes: This figure shows the coefficients and respective 95% confidence interval from a regression of the sentiment gap on an indicator of CEO gender and whether surprises are positive or negative. I run the regression separately for the sub-sample of female and of male analysts.

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- ▶ Three independent settings and databases: market participants react less to bad news about firm performance from male-led companies relative to their female-led peers.
- ▶ Evidence from earnings conference calls suggests that this asymmetry by CEO gender is entirely concentrated amongst male market participants.
- ▶ I argue that this asymmetry by CEO gender reflects a reduced level of skepticism towards male CEOs.