Let’s face it: Quantifying the impact of nonverbal communication in FOMC press conferences

Summarized by： Weihao Zhao

12.18.2024

1 Research questions

How does Chairman’s nonverbal(facial) expressions, during FOMC press conferences affect market participants’ expectations and financial markets?

2 Why are the research questions interesting?

• When traditional monetary policy tools are limited, central bank communication becomes important tools.
  - Nonverbal communication, especially facial expressions, plays an important role in human interaction;
  - Facial expressions convey richer information(crucial for understanding how market interprets signals).

• Few studies have focused on the impact of nonverbal communication.
• Market participants may respond to nonverbal signals, which are seen as additional sources of information.

3 What is the paper’s contribution?

***(1)* Literature on FOMC press conferences**

Previous: The textual content of FOMC’s press conference has a significant impact on the market and assets.
This: Introducing nonverbal communication, particularly facial expression analysis, to quantify how facial expressions of the presidents in FOMC press conferences affect market reactions.

***(2)* Literature on Nonverbal communication in finance**

Previous: The importance of nonverbal communication in the financial field was studied at the individual level.
This: Demonstrated the role of nonverbal communication in the transmission of central bank policies, and how these signals affect market expectations and dynamics.

4 What hypotheses are tested in the paper?

H1: Negative emotional expressions displayed by president will affect the expectations of market participants.
H2: These emotional expressions affect market when controlling for verbal communication and other variables.

a) Do these hypotheses follow from and answer the research questions?

• Yes, hypos stem from research question aimed at testing the impact of nonverbal communication on market.

Do these hypotheses follow from theory or are they otherwise adequately developed?

• These assumptions are based on behavioral finance theory, which suggests that nonverbal cues such as facial expressions can convey emotions and influence decision-making.
• The paper supports these hypotheses through logical reasoning and empirical analysis.

5 Sample: comment on the appropriateness of sample selection procedures.

The sample selection is appropriate and can represent the FOMC communication style during the research period.

6 Dependent and independent variables: comment on the appropriateness.

Market response, negative emotion expression. The definition and measurement of these variables are appropriate and can accurately capture the focus of the research.

7 Regression model specification: comment on the appropriateness.

Multiple regression analysis is a standardized model suitable for evaluating the impact of nonverbal communication on market reactions and controlling for other related variables.

8 What difficulties arise in drawing inferences from the empirical work?

Market participants may be particularly sensitive to any negative signals during a press conference, even if these signals make up a small proportion of the entire conference. This' negative bias' may lead to an overreaction of the market to these negative signals.

9 Describe at least one publishable and feasible extension of this research.

One possible research direction is to explore whether there are differences in the reactions of market participants to nonverbal communication by the Federal Reserve Chairman under different cultural backgrounds, which will help understand the universality and cultural specificity of nonverbal communication in global financial markets.