Summary of *Let's face it: Quantifying the impact of nonverbal communication in FOMC press conferences*

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Summarized by Li Ziming

1. **What are the research questions?**
   - Do fed chairs' facial expressions impact investor expectations?
   - Why should market participants be impacted by Chairs' facial expressions?

2. **Why are the research questions interesting?**
   - Increasing appreciation of market participants makes FOMC become important mover of markets, both equities and interest rates reacting when communication is released.
   - As one of the most important aspects of nonverbal communication, the impact of facial expressions has not been studied yet.

3. **What is the paper's contribution?**
   - Contribute to literature on signaling channel of monetary policy.
     - Prior literature: implementation post-FOMC skews expectations towards meeting (Boguth et al., 2019); positive correlation between window around statement release and subsequent conference (Gomez Cram and Grotteria, 2022).
     - Extend: market participants react to nonverbal communication signals in real time.
   - Contribute literature that studies the role of facial expressions in finance.
     - Prior literature: CEO's disgust during interviews leads to increased profit (Akansu et al., 2017); positive emotions of traders link purchases and overpricing (Breaban, 2018); visual cues for central bank financial predictions (Mathur et al., 2022).
     - Extend: consider a new context and provide evidence that fed chair's emotions carry meaningful information.

4. **What hypotheses are tested in the paper?**
   - H1: Market participants derive information from nonverbal communication to decipher verbal communication and subsequently form expectations of economy.
   - H2: Market participants observing chair's negative facial expressions during conference may associate similar negative feelings with the discussed topic.

   a) **Do these hypotheses follow from and answer the research questions?**
   - Yes.

   b) **Do these hypotheses follow from theory? Explain logic of the hypotheses.**
   - The aforementioned learning process is based on information supplied by both verbal and nonverbal communication, and shows negativity bias that adults display an asymmetry in the way they process negative versus positive information.

5. **Sample: comment on the appropriateness of the sample selection procedures.**
   - The sample contains press conferences of three fed chairs to serve between 2011 and 2020, including 2518 observations at the minute level from 46 FOMC meetings.

6. **Comment on the appropriateness of variable definition and measurement.**
   - Use Microsoft Azure API to score the images for eight facial emotions.

7. **Comment on the appropriateness of the regress/predict model specification.**

- High frequency data and narrow time windows decreases the likelihood that other information is released around policy announcements which addresses both endogeneity issues and omitted variables bias.

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

- The heterogeneity of emotions: why positive emotions do not have predictivity?

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

- Analyze the body language of publisher or interviewee.