# DISCUSSION: "POLICY BY COMMITTEE"

Toomas Laarits, Ben Matthies, Kaushik Vasudevan, Will Yang

# Nancy R. Xu

Boston College

(who is stuck in Boston)

University of South Carolina FIFI conference November 7, 2025

- ullet Group o better decisions with independent signals
- Information acquisition and aggregation models
  - Li, Rosen & Suen (2001)
  - Persico (2004)
  - Gerardi & Yariv (2008)
  - Sibert (2006)

- ullet Group o better decisions with independent signals
- Information acquisition and aggregation models
  - Li, Rosen & Suen (2001)
  - Persico (2004)
  - Gerardi & Yariv (2008)
  - Sibert (2006)
- Typical questions in such literature:
  - Who gathers costly information?
  - How to prevent herding? Collusions?
  - Strategic communication and persuasion constraints

- ullet Group o better decisions with independent signals
- Information acquisition and aggregation models
  - Li, Rosen & Suen (2001)
  - Persico (2004)
  - Gerardi & Yariv (2008)
  - Sibert (2006)
- Typical questions in such literature:
  - Who gathers costly information?
  - How to prevent herding? Collusions?
  - Strategic communication and persuasion constraints
- But central bank context is conceptually very different: private signals small; data mostly public.
  - Blinder (2008) "Central Bank Communication and Monetary Policy: A Survey of Theory and Evidence." JEL: "In monetary policy, differential information is limited."

**Traditional perspective:** Committees aggregate private information.

- ullet Group o better decisions with independent signals
- Information acquisition and aggregation models
  - Li, Rosen & Suen (2001)
  - Persico (2004)
  - Gerardi & Yariv (2008)
  - Sibert (2006)
- Typical questions in such literature:
  - Who gathers costly information?
  - How to prevent herding? Collusions?
  - Strategic communication and persuasion constraints
- But central bank context is conceptually very different: private signals small; data mostly public.
  - Blinder (2008) "Central Bank Communication and Monetary Policy: A Survey of Theory and Evidence." JEL: "In monetary policy, differential information is limited."

**Bottom Line:** Committees should make decisions by pooling private information. However, this classical view probably doesn't apply to how FOMC make decisions.

- Persistent "hawk vs. dove" views
  - Malmendier, Nagel & Yan (2021)
  - Bordo & Istrefi (2023)

- Persistent "hawk vs. dove" views
  - Malmendier, Nagel & Yan (2021)
  - Bordo & Istrefi (2023)
- Geographic & institutional heterogeneity in central banking
  - Fos & Xu (2025)
  - Fos, Tamburelli & Xu (2025)
  - Bobrov, Kamdar & Ulate (2025)

- Persistent "hawk vs. dove" views
  - Malmendier, Nagel & Yan (2021)
  - Bordo & Istrefi (2023)
- Geographic & institutional heterogeneity in central banking
  - Fos & Xu (2025)
  - Fos, Tamburelli & Xu (2025)
  - Bobrov, Kamdar & Ulate (2025)
- Text-based measurement of policy beliefs and communication
  - Hansen, McMahon & Prat (2018)
  - Cieslak & Vissing-Jorgensen (2021)
  - Cieslak & McMahon (2023)

- Persistent "hawk vs. dove" views
  - Malmendier, Nagel & Yan (2021)
  - Bordo & Istrefi (2023)
- Geographic & institutional heterogeneity in central banking
  - Fos & Xu (2025)
  - Fos, Tamburelli & Xu (2025)
  - Bobrov, Kamdar & Ulate (2025)
- Text-based measurement of policy beliefs and communication
  - Hansen, McMahon & Prat (2018)
  - Cieslak & Vissing-Jorgensen (2021)
  - Cieslak & McMahon (2023)
- Cognitive / narrative heterogeneity persists even under shared information
  - "Models differ; signals don't."

**Empirical evidence:** Members do not converge to the same beliefs, even with the same data.

- Persistent "hawk vs. dove" views
  - Malmendier, Nagel & Yan (2021)
  - Bordo & Istrefi (2023)
- Geographic & institutional heterogeneity in central banking
  - Fos & Xu (2025)
  - Fos, Tamburelli & Xu (2025)
  - Bobrov, Kamdar & Ulate (2025)
- Text-based measurement of policy beliefs and communication
  - Hansen, McMahon & Prat (2018)
  - Cieslak & Vissing-Jorgensen (2021)
  - Cieslak & McMahon (2023)
- Cognitive / narrative heterogeneity persists even under shared information
  - "Models differ; signals don't."

This paper: Fed is a model-aggregation committee, not an information-aggregation committee.

Goal: Quantify individual FOMC members' beliefs (overall stance) and influence over time.

#### Key Units of Observation:

- Member  $i \times \text{meeting } t \times \text{variable } k \text{ (Inflation, Growth, Employment, Credit, Equities)}$
- Stance score  $\gamma_{i,t,k} \in [-3,3]$ : dovish/accommodative (-) to hawkish/restrictive (+)

Goal: Quantify individual FOMC members' beliefs (overall stance) and influence over time.

#### Key Units of Observation:

- Member  $i \times \text{meeting } t \times \text{variable } k$  (Inflation, Growth, Employment, Credit, Equities)
- Stance score  $\gamma_{i,t,k} \in [-3,3]$ : dovish/accommodative (-) to hawkish/restrictive (+)

#### LLM-based methodology:

- Extract speeches from FOMC transcripts (1976–2019)
- Identify policy-relevant sentences
- Parse arguments (texts)
- Score argument

Goal: Quantify individual FOMC members' beliefs (overall stance) and influence over time.

#### Key Units of Observation:

- Member  $i \times \text{meeting } t \times \text{variable } k$  (Inflation, Growth, Employment, Credit, Equities)
- Stance score  $\gamma_{i,t,k} \in [-3,3]$ : dovish/accommodative (-) to hawkish/restrictive (+)

#### LLM-based methodology:

- Extract speeches from FOMC transcripts (1976–2019)
- Identify policy-relevant sentences
- Parse arguments (texts)
- Score argument

#### Validation / Findings:

- Validation: Strong mapping to SEP/MPR forecast dispersion
- Validation: Reproduces dissent patterns, rate preference deviations

Goal: Quantify individual FOMC members' beliefs (overall stance) and influence over time.

#### Key Units of Observation:

- Member  $i \times \text{meeting } t \times \text{variable } k$  (Inflation, Growth, Employment, Credit, Equities)
- Stance score  $\gamma_{i,t,k} \in [-3,3]$ : dovish/accommodative (-) to hawkish/restrictive (+)

#### LLM-based methodology:

- Extract speeches from FOMC transcripts (1976–2019)
- Identify policy-relevant sentences
- Parse arguments (texts)
- Score argument

#### Validation / Findings:

- Validation: Strong mapping to SEP/MPR forecast dispersion
- Validation: Reproduces dissent patterns, rate preference deviations
- Strong member fixed effects.
- $\bullet$  Public- vs private-info distinction:  $\approx 72\%$  public  $\rightarrow$  variation in public information interpretation

# Empirical Framework: (2) Members' Policy Influence

#### **Construct Committee-Level Measures:**

- For each decision, code,
  - Alignment with final policy outcome (-3 to +3)
  - Influence on decision (0 to 3)

#### Model Fit Measure:

$$Fit(D_t|m_i) = \|\gamma_{i,t,k} - Data_{t,k}\|$$

- Distance between member's belief vector and realized macro data
- Expanding-window Z-score standardization for comparability

# Empirical Framework: (2) Members' Policy Influence

#### **Construct Committee-Level Measures:**

- For each decision, code,
  - **Alignment** with final policy outcome (-3 to +3)
  - Influence on decision (0 to 3)

#### Model Fit Measure:

$$Fit(D_t|m_i) = \|\gamma_{i,t,k} - Data_{t,k}\|$$

- Distance between member's belief vector and realized macro data
- Expanding-window Z-score standardization for comparability

#### Core Regression:

$$\textit{Outcome}_{i,t} \in \{\textit{Alignment}, \textit{Influence}, \textit{Dissent}\} = \alpha + \beta \cdot \textit{Fit}(D_t|\textit{m}_i) + \mathsf{FE}_{\textit{member}} + \mathsf{FE}_{\textit{meeting}} + \mathsf{FE}_{\textit{role}}$$

# Empirical Framework: (2) Members' Policy Influence

#### **Construct Committee-Level Measures:**

- For each decision, code,
  - **Alignment** with final policy outcome (-3 to +3)
  - Influence on decision (0 to 3)

#### Model Fit Measure:

$$Fit(D_t|m_i) = \|\gamma_{i,t,k} - Data_{t,k}\|$$

- Distance between member's belief vector and realized macro data
- Expanding-window Z-score standardization for comparability

#### Core Regression:

$$\textit{Outcome}_{i,t} \in \{\textit{Alignment}, \textit{Influence}, \textit{Dissent}\} = \alpha + \beta \cdot \textit{Fit}(D_t | m_i) + \mathsf{FE}_{\textit{member}} + \mathsf{FE}_{\textit{meeting}} + \mathsf{FE}_{\textit{role}}$$

#### Main Empirical Takeaway:

 Members whose models better fit recent data have higher alignment with final policy; greater influence; lower dissent probability

## The paper in four bullet points:

• Uses FOMC transcripts + LLM to infer beliefs, models, and influence.

## The paper in four bullet points:

- Uses FOMC transcripts + LLM to infer beliefs, models, and influence.
- Central claim: committees aggregate heterogeneous models, not private signals.

#### The paper in four bullet points:

- Uses FOMC transcripts + LLM to infer beliefs, models, and influence.
- Central claim: committees aggregate heterogeneous models, not private signals.
- Empirics: "better-fitting models" get more influence in policy outcomes.

## The paper in four bullet points:

- Uses FOMC transcripts + LLM to infer beliefs, models, and influence.
- Central claim: committees aggregate heterogeneous models, not private signals.
- Empirics: "better-fitting models" get more influence in policy outcomes.
- Theory: "committee learning" through reweighting.

## The paper in four bullet points:

- Uses FOMC transcripts + LLM to infer beliefs, models, and influence.
- Central claim: committees aggregate heterogeneous models, not private signals.
- Empirics: "better-fitting models" get more influence in policy outcomes.
- Theory: "committee learning" through reweighting.

## My comments:

- Identification
- Interpretation

The paper measures "model fit" by asking:

 How close are a member's predicted macro variables (inflation, growth, etc.) to the realized data in the most recent period?

## Comment 1: Endogeneity of Policy and Outcomes

#### The paper measures "model fit" by asking:

 How close are a member's predicted macro variables (inflation, growth, etc.) to the realized data in the most recent period?

#### Then it shows:

 Members whose models fit the data better are more influential and aligned with the committee's decisions.

The paper measures "model fit" by asking:

 How close are a member's predicted macro variables (inflation, growth, etc.) to the realized data in the most recent period?

Then it shows:

 Members whose models fit the data better are more influential and aligned with the committee's decisions.

The empirical framework treats interest rates and macro outcomes as given data. Yet, the FOMC sets interest rates precisely to influence these outcomes.

The paper measures "model fit" by asking:

 How close are a member's predicted macro variables (inflation, growth, etc.) to the realized data in the most recent period?

Then it shows:

 Members whose models fit the data better are more influential and aligned with the committee's decisions.

The empirical framework treats interest rates and macro outcomes as given data. Yet, the FOMC sets interest rates precisely to influence these outcomes.

**Conceptual Reverse Causality (Policy ↔ Outcomes) :** 

The paper measures "model fit" by asking:

 How close are a member's predicted macro variables (inflation, growth, etc.) to the realized data in the most recent period?

Then it shows:

 Members whose models fit the data better are more influential and aligned with the committee's decisions.

The empirical framework treats interest rates and macro outcomes as given data. Yet, the FOMC sets interest rates precisely to influence these outcomes.

## Conceptual Reverse Causality (Policy ↔ Outcomes) :

- Member influence ⇒ policy ⇒ outcomes ⇒ higher measured "fit"
- Creates mechanical correlation between influence and fit.

The paper measures "model fit" by asking:

 How close are a member's predicted macro variables (inflation, growth, etc.) to the realized data in the most recent period?

Then it shows:

 Members whose models fit the data better are more influential and aligned with the committee's decisions.

The empirical framework treats interest rates and macro outcomes as given data. Yet, the FOMC sets interest rates precisely to influence these outcomes.

## Conceptual Reverse Causality (Policy ↔ Outcomes) :

- Member influence ⇒ policy ⇒ outcomes ⇒ higher measured "fit"
- Creates mechanical correlation between influence and fit.

## Identification Challenge:

- This comment goes to the heart of identification: Are we learning about which models predict better, or which models get implemented?
- The regression

$$Alignment_{i,t} = \alpha + \beta \operatorname{Fit}(D_t|m_i) + \operatorname{FE}_{member,meeting,role}$$

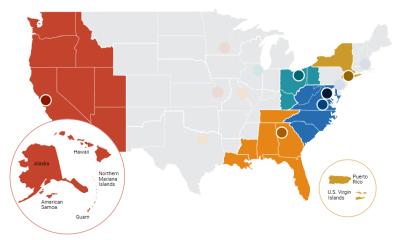
does not exactly separate forecasting skill from policy feedback.

## Comment 1: Suggestions

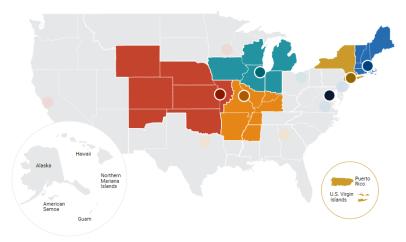
Exploit Institutional Variation (Voting Rotation): The FOMC has a rotating structure:

- Only a subset of regional presidents vote in any given year.
- Which district is on rotation is exogenous to the macro cycle.

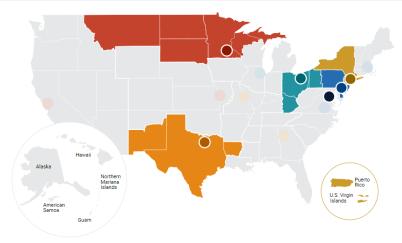
(Used in identification: Hack, Istrefi, and Meier; Fos and Xu; Fos, Tamburelli, and Xu)



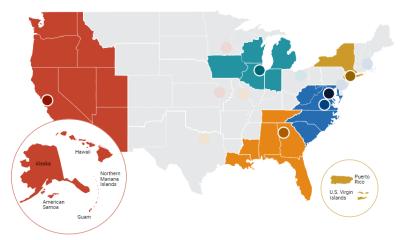
Richmond, Cleveland, Atlanta, San Francisco



Boston, Chicago, St Louis, Kansas City



Philadelphia, Cleveland, Dallas, Minneapolis



Richmond, Chicago, Atlanta, San Francisco

## Comment 1: Suggestions

## Exploit Institutional Variation (Voting Rotation): The FOMC has a rotating structure:

- Only a subset of regional presidents vote in any given year.
- Which district is on rotation is **exogenous** to the macro cycle.

#### We can use this to compare:

How does the same person's "model fit" matter when they can vote (high influence state)
 vs. when they cannot vote (lower influence state)?

# Comment 1: Suggestions

# Exploit Institutional Variation (Voting Rotation): The FOMC has a rotating structure:

- Only a subset of regional presidents vote in any given year.
- Which district is on rotation is exogenous to the macro cycle.

### We can use this to compare:

- How does the same person's "model fit" matter when they can vote (high influence state)
   vs. when they cannot vote (lower influence state)?
- It breaks the link between influence (which requires voting power) and outcomes (which the policy affects).

# Comment 1: Suggestions

## Exploit Institutional Variation (Voting Rotation): The FOMC has a rotating structure:

- Only a subset of regional presidents vote in any given year.
- Which district is on rotation is exogenous to the macro cycle.

### We can use this to compare:

- How does the same person's "model fit" matter when they can vote (high influence state)
   vs. when they cannot vote (lower influence state)?
- It breaks the link between influence (which requires voting power) and outcomes (which the policy affects).
- <u>Prediction</u>: If reverse causality is not a concern, we should not see that voting vs. non-voting status changes a member's model fit evaluation.

# Comment 1: Suggestions

## **Exploit Institutional Variation (Voting Rotation):** The FOMC has a rotating structure:

- Only a subset of regional presidents vote in any given year.
- Which district is on rotation is exogenous to the macro cycle.

## We can use this to compare:

- How does the same person's "model fit" matter when they can vote (high influence state)
   vs. when they cannot vote (lower influence state)?
- It breaks the link between influence (which requires voting power) and outcomes (which the policy affects).
- <u>Prediction</u>: If reverse causality is not a concern, we should not see that voting vs. non-voting status changes a member's model fit evaluation.

#### **Bottom Line:**

To test if "better models" are influencing the meeting more, we need variation in recent macro data  $(D_t)$  not driven by the FOMC's own hand.

#### Observation:

- The paper treats each FOMC member as holding an independent model  $m_i$ .
- In practice, policy discussions begin from a staff baseline model (Tealbook / FRB / US).
- Members' statements are conditional deviations from that institutional prior.

#### Observation:

- The paper treats each FOMC member as holding an independent model  $m_i$ .
- In practice, policy discussions begin from a staff baseline model (Tealbook / FRB / US).
- Members' statements are conditional deviations from that institutional prior.

### Implication:

- The measured "model heterogeneity" may reflect differing reactions to staff forecasts, not independent models.
- "Fit" could proxy for proximity to the staff view, which is itself aligned with the Chair.

#### Observation:

- The paper treats each FOMC member as holding an independent model  $m_i$ .
- In practice, policy discussions begin from a staff baseline model (Tealbook / FRB / US).
- Members' statements are conditional deviations from that institutional prior.

## Implication:

- The measured "model heterogeneity" may reflect differing reactions to staff forecasts, not independent models.
- "Fit" could proxy for proximity to the staff view, which is itself aligned with the Chair.

## **Empirical Suggestions:**

- Include distance between members' stance and Tealbook projections (inflation, output).
- Compare influence of members aligned with staff vs. those deviating from it.
- Use changes in staff leadership (e.g., Greenspan→Bernanke transition) as institutional shocks.

#### Observation:

- The paper treats each FOMC member as holding an independent model  $m_i$ .
- In practice, policy discussions begin from a staff baseline model (Tealbook / FRB / US).
- Members' statements are conditional deviations from that institutional prior.

## Implication:

- The measured "model heterogeneity" may reflect differing reactions to staff forecasts, not independent models.
- "Fit" could proxy for proximity to the staff view, which is itself aligned with the Chair.

## **Empirical Suggestions:**

- Include distance between members' stance and Tealbook projections (inflation, output).
- Compare influence of members aligned with staff vs. those deviating from it.
- Use changes in staff leadership (e.g., Greenspan→Bernanke transition) as institutional shocks.

Bottom Line: I still have to think more carefully, but understanding the staff-committee interaction is essential to interpreting "model aggregation."

# COMMENT 3: STATIC VS. DYNAMIC LEARNING AMONG MEMBERS

## Framework in the Paper:

- Member heterogeneity captured through fixed effects.
- "Persistent" belief differences interpreted as structural.

## Comment 3: Static vs. Dynamic Learning Among Members

## Framework in the Paper:

- Member heterogeneity captured through fixed effects.
- "Persistent" belief differences interpreted as structural.

## Interpretation:

Persistent heterogeneity may partly reflect slow learning, not deep ideological difference.
 (For instance, FOMC members update through repeated interaction, tenure / stages within her career cycle, and exposure to the Chair and staff.)

# COMMENT 3: STATIC VS. DYNAMIC LEARNING AMONG MEMBERS

## Framework in the Paper:

- Member heterogeneity captured through fixed effects.
- "Persistent" belief differences interpreted as structural.

### Interpretation:

- Persistent heterogeneity may partly reflect slow learning, not deep ideological difference.
   (For instance, FOMC members update through repeated interaction, tenure / stages within her career cycle, and exposure to the Chair and staff.)
- Ignoring within-person learning may bias persistence estimates upward. Committees evolve endogenously as beliefs converge or reset.

# COMMENT 3: STATIC VS. DYNAMIC LEARNING AMONG MEMBERS

### Framework in the Paper:

- Member heterogeneity captured through fixed effects.
- "Persistent" belief differences interpreted as structural.

### Interpretation:

- Persistent heterogeneity may partly reflect slow learning, not deep ideological difference.
   (For instance, FOMC members update through repeated interaction, tenure / stages within her career cycle, and exposure to the Chair and staff.)
- Ignoring within-person learning may bias persistence estimates upward. Committees
  evolve endogenously as beliefs converge or reset.

### **Empirical Extensions:**

- Examine belief convergence over tenure:
  - New vs. senior members.
  - Incoming vs. outgoing Chairs.

# OVERALL, SUPER EXCITING AGENDA!

#### I learned a lot!

## Main message for the authors:

- Address reverse causality (policy and economic outcomes)
- Interpretation challenges (role of staff/institution; separating learning from belief)

# OVERALL, SUPER EXCITING AGENDA!

#### I learned a lot!

## Main message for the authors:

- Address reverse causality (policy and economic outcomes)
- Interpretation challenges (role of staff/institution; separating learning from belief)

Have to emphasize: A lot of my concerns also apply to papers in this exciting & burgeoning field; and we have to start from somewhere; overall, I am very sympathetic to authors' approach.

# OVERALL, SUPER EXCITING AGENDA!

#### I learned a lot!

## Main message for the authors:

- Address reverse causality (policy and economic outcomes)
- Interpretation challenges (role of staff/institution; separating learning from belief)

Have to emphasize: A lot of my concerns also apply to papers in this exciting & burgeoning field; and we have to start from somewhere; overall, I am very sympathetic to authors' approach.

# Thanks!

(...and hope everyone has an uneventful trip home!)