

US Rates Strategy

Joseph Abate
joseph.abate@smbcnikko-si.com
1 212 893-1592

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Deciphering Fedspeak

We apply LLM techniques to analyze Federal Reserve commentary through a scoring mechanism. We then examine the sentiment evolution of the FOMC since last Fall as well as over the shorter interval of Chair Warsh's post-FOMC press conferences.

- Using LLM techniques we analyze Fed speeches and FOMC statements and minutes since 2009. Commentary is scored on a scale of -1 (dovish) to +1 (hawkish).
- We also built a 200 word and key phrase dictionary related to six broad policy themes including inflation, growth, and the Fed's balance sheet. **Unsurprisingly given the Fed's dual mandate, inflation and growth are the most frequently discussed topics.** Inflation frequency exceeds labor market references.
- **Sentiment tone in Fedspeak varies with the contemporaneous drift of policy.** Based on their most recent speeches, FOMC members' current sentiment scores are generally above 0.5 and lean hawkish.
- But interpreting Fedspeak is difficult as some members speak less than others or focus mainly on banking and regulation. This reduces the significance of averaging scores to classify the speaker as a hawk or dove.
- **Chair Warsh's July and September FOMC press conferences were hawkish overall – but less so than his opening remarks.** In answering questions, his hawkish message seems to get tamped down.
- But this likely reflects the policy relevance the questions he's being asked and his word hedging to avoid forward guidance. **Chair Warsh's quest for a "quieter" Fed could dampen the signal value of LLM techniques.**

Scoring Fedspeak

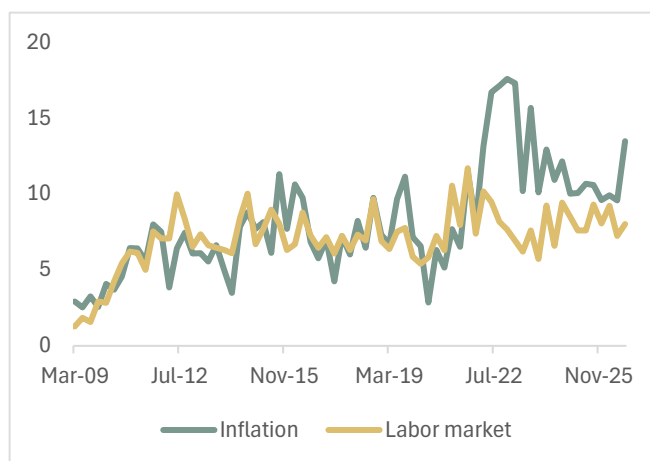
LLMs may have several advantages over economists in analyzing Fedspeak. The models are replicable, consistent and, in theory, unbiased. They can digest large volumes of Fedspeak faster than economists. And because they can apply the same model across different speeches and speakers over time, they can be guided to look for subtle shifts in sentiment. That said, these are "black box" models; it is difficult to see how they arrive at score.

We use the technology to create a scoring system that is applied to all Fedspeak – from speeches to FOMC statements and minutes – since 2009. The scores are meant to reflect how the speaker will vote at the next FOMC meeting. Optimizing the model requires some judgement; we needed to make

decisions about how to interpret the language without being overly proscriptive. Over time, we expect to continue tweaking the prompts.¹

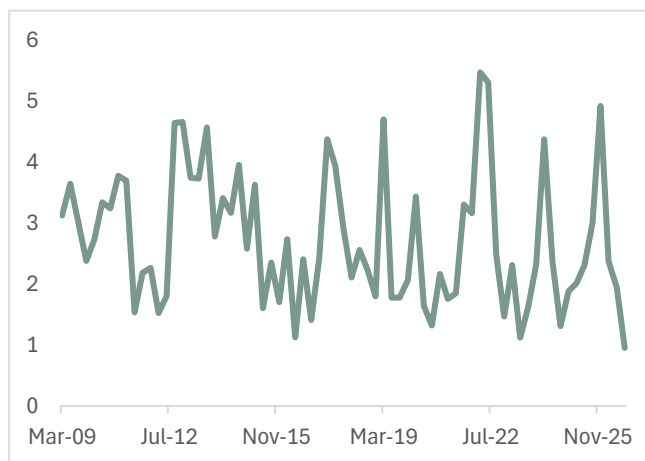
First, we train the model not to interpret or score descriptions of current conditions. It is meant to score phrases and language that is forward-looking, or that reflects conclusions, judgements or prescriptions. The model reads the text holistically. We ask it to create a “relevance” measure geared toward the speech’s content. Relevance reflects how much of the scored text discusses the funds rate, rate changes, or the speakers vote intent. The model reads the text holistically, so while it reviews non-monetary policy topics like discount window modernization, it will score them as neutral (0.0) with low relevance. Separately, a speech in which the speaker endorses the current stance of policy is also scored as neutral.

Figure 1: Concept frequency (ref/1000w)



Source: SMBC Nikko

Figure 2: Balance sheet frequency (ref/1000w)



Source: SMBC Nikko

Second, the model is instructed to prioritize phrases and language that are forward-looking, or that reflect conclusions or prescriptions. To avoid score compression and anchoring effects we specifically instruct it to include extreme scores. After all, the Fed speakers occasionally use unequivocally direct language such as during COVID or in 2023 when the Fed was rapidly raising interest rates. That said, Fedspeak is normally hedged and regularly includes contingent language. As a result, the model needs to separate boilerplate text from a signal. The model is told that hedging is not evidence of neutrality and the Fed officials “hedge by default”.

Third, the model is guided to score policy dissents based on what the speaker wanted to do and not where they compare to the majority. Likewise favoring a 25bp hike rather than a 50bp one is not considered dovish – just less hawkish in our scoring framework. Finally, we ask the model to provide 3-8 direct quotes to support its judgement. We also ask it to look for “countervailing” evidence and to provide any supporting quotes.

¹ Thanks to Jared Ginsberg on our XVA and Financial Resource Management Team for developing the model.

More complicated and expensive models use sequential agents to analyze Fed communications.² These models effectively create “teachers” that instruct other agents to look for explicit signals, guidance and threshold conditions.³ Other versions “learn” monetary policy transmission mechanics and instruct other agents to decipher FedSpeak.⁴

Topic frequency

We also develop a dictionary model to examine the frequency of regularly discussed topics over the same period as our LLM. We divide the discussion topics into six key areas: inflation, labor markets, real activity, financial stability, financial developments, and the Fed’s balance sheet. Our platform looks over 200 words and key phrases associated with each of these topics and to count their frequency in Fed speeches.⁵ The topics are the same as those used by Dunn et al although their focus is on the context of how these topics appear in FOMC meeting discussions.⁶ The relative prominence of topics is an indication of FOMC priorities. Consistent with the Fed’s mandate, references to inflation and the labor market are the most frequent. **Since Warsh became Fed Chair, inflation references in Fed speeches have increased** (Figure 1).

Discussions about other subjects are more topical; references to financial stability peak after the financial crisis in 2012 as policymakers were reviewing bank and market regulations and again in 2023 after the failure of SVB. Mentions of the Fed’s balance sheet are somewhat infrequent (Figure 2). Interestingly, these discussions have declined this year perhaps as Fed officials await the task force’s results.

Results

We use our model to score the most recent speeches from current FOMC members. All their commentary since July has generally been hawkish – scoring above 0.5 (Figure 3). We also calculate the average score over their last three speeches.⁷

There is more variation in three-month scores as some members are infrequent speakers. Indeed, Powell’s last speech was in 2025. This raises some questions about the validity of scoring FOMC commentary in such a framework regardless of whether AI is used. **Most FOMC members are not consistent hawks or doves.** Instead, they change their feathers as economic conditions shift. We see this in the **evolution of their scores and their correlation to contemporaneous conditions.** FOMC members lean dovish as the economy softens and turn hawkish as inflation picks up. For example, Fed Governor Waller’s speeches shifted from very dovish last fall (-0.9 on November 17) to slightly hawkish

² See, “LLM on a Budget: Active Knowledge Distillation for Efficient Classification of Large Text Corpora”, V. Luccioli, R. Iyengar, R. Panley, F. Haberkorn, X. Ge, L. Crane, N. Sinha, and S. Jung Lee, Federal Reserve Board, 2025

³ See, for example, “Monetary Policy Shocks: A New Hope Large Language Models and Central Bank Communication”, R. Fernandez-Fuertes, Bocconi University, October 2025.

⁴ See, “Interpreting FedSpeak with Confidence: A LLM-Based Uncertainty-Aware Framework Guided by Monetary Policy Transmission Paths”, R. Yao, J. Yao, S. Li, J. Chen, Q. Zhang, and H. Wang, Hong Kong University, Shanghai Jiaotong University, and Xi’an Jiaotong University, August 12, 2025

⁵ We expect to expand the dictionary and potentially derive topic sentiment scores by examining nearby sentences.

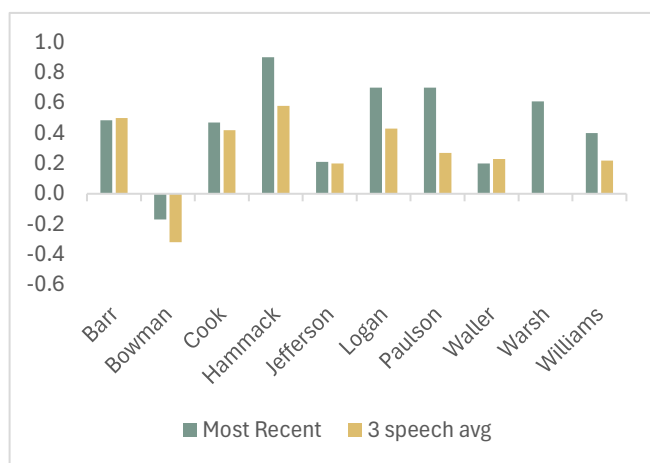
⁶ See, “Using Generative AI Models to Understand FOMC Monetary Policy Discussions”, W. Dunn, E. Meade, N. Ranjan Sinha, and R. Kabir, Federal Reserve Board, December 6, 2024.

⁷ We have not included Kashkari in the analysis as his speeches are usually videos which need to be transcribed first before analysis. Powell is also excluded as he has not spoken on policy outside the FOMC press conferences since last year.

(+0.2 on September 3) this summer. This shift is also apparent for Williams, Barr, and Bowman.⁸ Others (Cook, Jefferson, Logan and Powell) were more “neutrally-minded” last fall.⁹ As a result, depending on the frequency of their speeches *average sentiment scores* may mis-identify the speaker’s policy leaning.

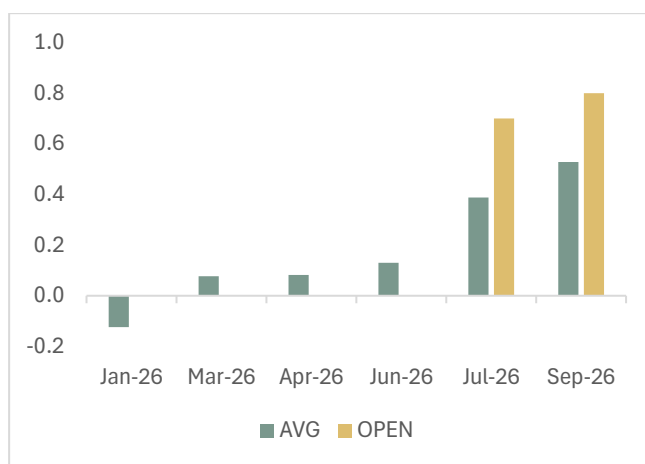
Rather than scoring an individual FOMC member as a “hawk” or “dove” it may make more sense to score only their latest commentary *without* any prior context. Indeed, we instruct our model to ignore all information not contained in the speech being examined. This is consistent with the structure of some AI accuracy tests. A stronger test would be to select anonymized random sentences from FOMC members over the 2009-2026 period and grade them independently – by humans and AI. Studies of this sort, find that ChatGPT is consistent with human judgements.¹⁰

Figure 3: Sentiment scores



Note: Dovish (-1) and hawkish (+1). Source: SMBC Nikko

Figure 4: FOMC press conference scores



Note: Dovish (-1) to hawkish (+1). Source: SMBC Nikko

FOMC press conferences

We analyzed the Fed Chair’s press conferences after the FOMC decision. The software is asked to score both the Chair’s opening remarks as well as the answers to his questions. The average score reflects the grading across both. Powell’s remarks through April are close to zero and there is little difference between the average and opening scores (Figure 4).¹¹ Neutral scores reflect satisfaction with the current state of policy. On the surface, this suggests that as reporters probe him to clarify his remarks, his more complete responses score less hawkishly. However, our sense is not that Warsh is inherently more dovish than his prepared remarks suggest. **Instead, we suspect the model is picking up the word-hedging the new Chair is using to avoid providing any forward guidance.** In addition, some of the scoring reflects questions unrelated to the rate decision. At the September press conference, Chair

⁸ Although Bowman rarely discusses monetary policy and there are long intervals between her policy speeches.

⁹ Among the FOMC members, only Cleveland Fed President Hammack’s speech on November 20, 2025 scored hawkishly.

¹⁰ See, “Can ChatGPT Decipher Fedspeak?”, A. Lundegaard Hansen and S. Kazinnik, Federal Reserve Bank of Richmond, April 2023

¹¹ The average score across Powell’s opening remarks and his Q/A was zero for each of the January, March, and April FOMC meetings.

Warsh was asked about long-term bond yields, AI, and the rate decisions of other central banks. Answers to these questions all scored 0 with low relevance scores. **We think word hedging to avoid forward guidance could reduce the helpfulness of using these models to analyze the Chair's commentary.**

Separately, we tried to map Warsh's answers to movements in the TU 2y futures in expectation that his more hawkish answers would correspond with selling pressure. However, we saw no sign that TU futures reacted to the tone Warsh's answers even though the market sold off within minutes of his opening remarks. Similarly, we did not see much market reaction to his answers at the July press conference.

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