

## Quantitative Research

## Fed's monetary policy: We expect a 25bps hike in September's meeting

- Despite today's 25bps hike, and the reference rate's upper range at 5.5%, our NLP model continued to rank the semantics of today's statement with the central topic congruent with a terminal rate of 5.25%
- However, our model only considers the semantic within the FOMC statements and it does not take account the economic projections.
- Given that the Fed's written communication today was not consistent with the rate hike, we can conclude that the congruence between the language used in previous monetary policy announcements and the current tightening cycle has been lost
- We continue to believe that the Fed will raise its target rate by 25bps at the next monetary policy meeting (September 20)

**Fed's topics classification using NLP and ML techniques.** In July 2022 we published a research note where we described a model using natural language processing (NLP) techniques that classify and interpret the FOMC statements. In addition, it also **provides a methodology to confirm whether the communication made by the Central Bank is consistent with the monetary policy implemented** (refer to: [Welcome to the Machine \(Learning\): An NLP framework for analyzing the Fed's monetary policy statements](#)).

The relationship between the Fed funds rate and the semantic classification obtained was also analyzed. In this regard, the most important finding in our research note was the degree of strength in the relationship between the Fed funds rate and the semantic classification obtained, given that the latter can explain 9 out of 10 rate movements. The model also defines the range of variation of the terminal reference rate (refer to Chart 1).

**The Fed's semantics allude to a terminal rate of 5.25%.** Following today's 25bps hike, the model ranked the semantics of the statement with the central topic congruent with a terminal rate of 5.25% (upper range; Topic 8 in Chart 2). It is worth noting that this topic has been the dominant one since the Fed began its hiking cycle in March 2022. In this context, the semantics of today's statement were identical to those of June and May, so the model continues to exhibit strength in the classification of statements.

Given the discordance between the Fed's written communication within the statements and the 25bps hike implemented today, we can conclude that the congruence between the language used in the monetary policy announcements and the current tightening cycle has been lost.

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Winners of the 2023 award for best Mexico economic forecasters, granted by *Focus Economics*

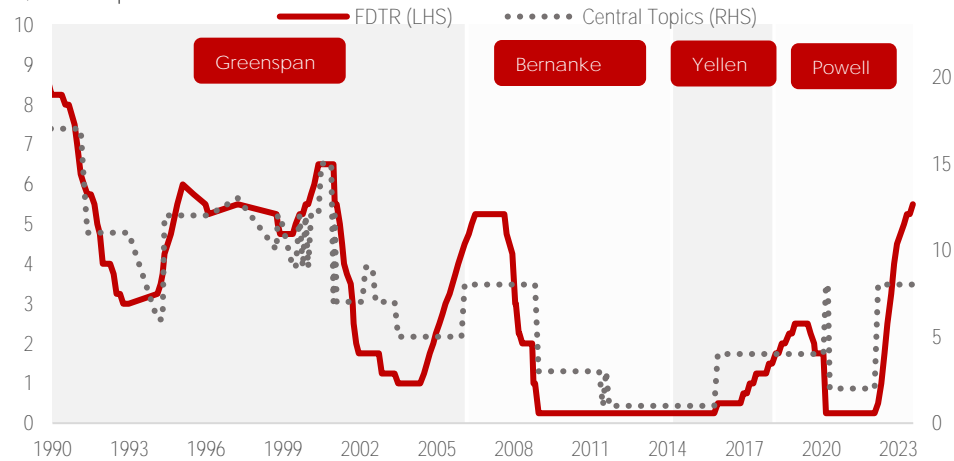


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**We expect a 25bps increase in the Fed's reference rate at September's meeting.** Although our model correctly anticipated the Fed's previous rate hikes, Powell's conference call suggest that the Fed will continue to hike in September. Moreover, the dot-plot published in June is a strong indicator that suggests that most FOMC members consider an additional 25bps hike. Therefore, we believe that the Fed will increase the target range by 25bps at the next meeting (September 20).

Chart 1: Banorte's Fed Topic Index vs Fed Funds Rate (upper range)

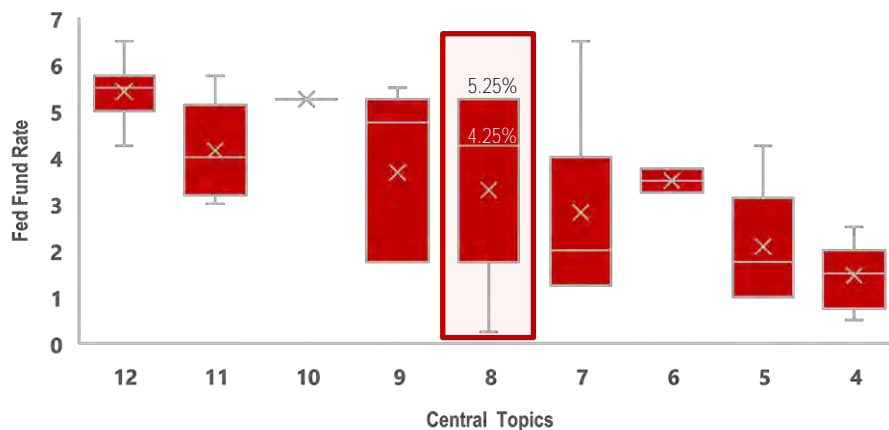
%: Central Topics



Source: Banorte, Federal Reserve

Chart 2: Range of Fed Funds Rate by Topic

Central Topics



Source: Banorte, Federal Reserve

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We, Alejandro Padilla Santana, Juan Carlos Alderete Macal, Alejandro Cervantes Llamas, Manuel Jiménez Zaldívar, Marissa Garza Ostos, Katia Celina Goya Ostos, Francisco José Flores Serrano, José Luis García Casales, Víctor Hugo Cortes Castro, José Itzamna Espitia Hernández, Carlos Hernández García, Leslie Thalia Orozco Vélez, Hugo Armando Gómez Solís, Yazmin Selene Pérez Enríquez, Cintia Gisela Nava Roa, Miguel Alejandro Calvo Domínguez, José De Jesús Ramírez Martínez, Gerardo Daniel Valle Trujillo, Luis Leopoldo López Salinas, Isaías Rodríguez Sobrino, Juan Carlos Mercado Garduño, Daniel Sebastián Sosa Aguilar, Jazmin Daniela Cuautencos Mora and Andrea Muñoz Sánchez, certify that the points of view expressed in this document are a faithful reflection of our personal opinion on the company (s) or firm (s) within this report, along with its affiliates and/or securities issued. Moreover, we also state that we have not received, nor receive, or will receive compensation other than that of Grupo Financiero Banorte S.A.B. of C.V. for the provision of our services.

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