Project in economics, sociology and data science - Research proposal

Lisa Chardon–Denizot, Lyna El Kamel and Sofiene Taamouti

January 2025

1 Research question

Central banks have invested a lot during the past 25 years to simplify their communication and make it accessible to a broad audience, whereas the practice in the late 1980 was secrecy and opacity. The reason for such a shift lies in the increasing Central Bank independance since the 1990s, which came with a call for accountability, a need to explain how actions serve objectives Central Banks are entrusted with. Moreover, soaring inflation rates in the 1970s called for management of inflation expectations, and the introduction of unconventional monetary policy and communication as a primary tool as part of the so-called "forward guidance" gave rise to a need for more communication to the broadest audience. Now, all main Central Banks communicate on their target, hold press conferences after each decision (this is the case of the European Central Bank since 1999, of the Federal Reserve quarterly since 2011 and after each FOMC meeting since 2019), and publish a monetary policy statement explaining their decisions, the state of the economy, and provide information about future policy (the Fed since 1994, the ECB since 1999). This was amplified as Central Banks were in the forelight with the Great Financial Crisis and the inflation surge following the Covid-19 pandemics, the increased complexity of unconventional monetary policy and the controversy around these news tools. Therefore, they started to use more and more social media and listening events to communicate on their monetary policy. Some Centrak Banks supplement the publication of their policy statements with summaries and a simpler language, as part of the "multi-layered communication", initiated by the Bank of England in 2017, and followed by the ECB after its 2021 strategy review, with the idea of explaining also in simple terms to the citizens why decisions are taken and what it means for their lives.

For example, the "Monetary policy statements at a glance" of the European Central Bank (published after each meeting of the governing council) are designed to be understandable by any person with eight years of education, which corresponds to middle-school pupils, whereas the "Monetary policy statements" require fifteen years of education to be understood. The Bank of England also has since November 2017 three layers of communications of its monetary policy decisions : a first layer explaining interest rate decision in an abbreviated format with icons ; a second layer "in a nutshell", a visual summary of the monetary policy report, brief analysis with the main factors behind the interest rate decision ; and a third layer: the Monetary Policy Report, an in-depth analysis with a technical language. The Federal Reserve board publishes after every FOMC meeting a 10-seconds video extract of the opening remark of the Federal Reserve FOMC press conference by the Federal Reserve chair stating the monetary policy decision. The simplest communication is published every quarter on social media accounts of these Central Banks, which makes them easily accessible for all the persons who will be impacted by these monetary policy decisions.

However, these posts have very low audience (they got on average over the past year 950 "likes" on Instagram for the ECB Monetary Policy Statement at a glance, 442 for the Bank of England publications, 6318 for the Federal Reserve press conference 10 seconds-extracts) as compared to the population it could target (the users of social media in these monetary zones), indicating that this communication does not directly reaches the population it is supposed inform, even though an increasing share of the population is seeking for information on the social media (62% of the French population is using social medias to get information, according to Guénaëlle Gault, David Medioni, Enquête in "Les Français et la fatigue informationnelle", Fondation Jean-Jaurès, 2022). This might be either because the information does not reach the targeted audience or because this audience is not interested. Hence, we are willing to investigate the audience targeted by the different layers of Central Banks' communication in the case of the European Central Bank, the Bank of England and the Federal Reserve from 1987 (as Greenspan was stating *"Since becoming a central banker, I have learned to*

mumble with great incoherence. If I seem unduly clear to you, you must have misunderstood what I said") to 2023 (when the communication of monetary policy decision on social media became fully standard, as the three Central Bank in our scope had started using Instagram, LinkedIn and Tiktok to communicate on their monetary policy decisions). The goal is to assess to which audience is each layer of the communication of these Central Banks is actually targeted.

2   Literature review

3   Data

The data we will be using is a corpus of centrak banker speeches collected for Campiglio, Deyris, Romelli, and Scalisi (*European Economic Review*, 2025). The dataset features 35,487 unique speeches from 131 central banks, for the period January 1986 (date of the first online speech by a central bank) to December 2023. It contains 10,544 speeches from officials of the Federal Reserve, the Bank of England and the European Central Bank, all of them feature the terms " monetary policy" and "rates" at least one time. We use the data from 1987 to 2023. These speeches are presumably thought to be directed to an audience of "aware non-specialists"

Our dataset also contains the text of the Monetary Policy Reports submitted by the Fed to the Congress biannually, the Monetary Policy Reports of the Bank of England (over the period 1987-2023) and the Monetary Policy Statements of the European Central Bank (from 1999 to 2023). This layer of the Central Bank's communication is targeted to specialists.

We also include the texts of these Central Bank's social media statements since their first availability, as this is the part of their communication targeted as the broadest audience.

4   Methodology

The goal of our study is to assign to each text of the corpus one group with possibly interpretable features (for instance, age, gender, level of education). Another possibility is unsupervised (K-means, hierarchical clustering of similarity matrix via sentence transformers). We designed four groups : people from 18 to 55 with more than 12 years of education, people from 18 to 55 with less than 12 years education, people older than 56 with more than 12 years of education and people older than 56 with less than 12 years of education. The age threshold is set to separate people who were at least 18 when the Central Banks started to communicate online from people who turned 18 when Central Banks had already started to communicate online. The education threshold corresponds to the completion of high-school education. We created a file with 20 keywords that might be associated with each group of age and level of education for the supervised method (based on presumable interests of these groups).