Reading between the lines - Using text analysis to estimate the loss function of the ECB

M.Palovitta, M.Haavio, P.Jalasjoki, J.Kilponen and I.Vänni

Discussion by Sylvérie Herbert
Banque de France

ESCB Research Cluster
Eltville, October 22-23, 2020

ECB's loss function

Question: How are the ECB's preferences conveyed in the qualitative information it publishes?

Methodology:

- ▶ Construct a measure of tone from the introductory statements of the press conferences and use as a proxy for the central bank's loss
- ▶ Regress the tone on the ECB/ESCB short-run macroeconomic projections

Main findings:

- ▶ Either the de facto target has been below 2% (1.6-1.8%)
- ▶ Or fixing the target at 2%, there has been some asymmetry in the ECB's preferences

Central bank's strategic motives (1)

Paper assumes a linear correspondence between the tone and the loss function of the form: $N_t = \alpha + \delta|\tilde{\pi}_t| + \epsilon_t$

- ▶ Statements and their qualitative information are also used to steer the private sector's beliefs upwards on top of providing monetary and economic analysis

- ▶ Strategic motives could be a source of disconnect between the tone and "true" policy preferences

- ▶ E.g.: policy makers communication during financial crisis, 9/11,...
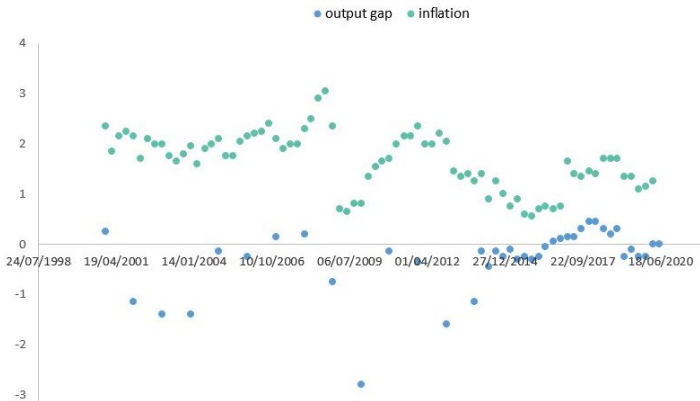
Central bank's strategic motives (2)

▶ Looking at quantitative information: distribution of unemployment rate forecast errors (FOMC)
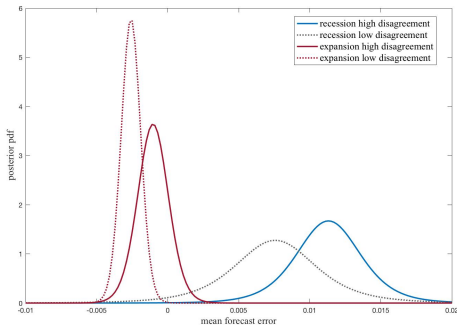
▶ E.Granzieri, P. Jalasjoki and M. Paloviita: ECB tends to overpredict (underpredict) inflation when inflation is below (above) target
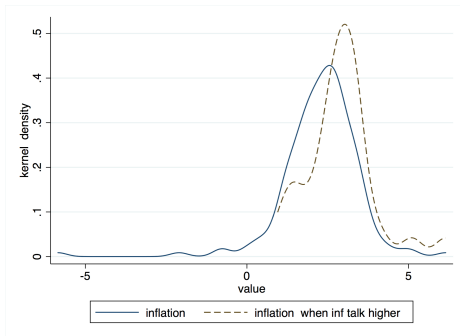
General tone measure (1)

▶ Difference in results between inflation and general tone measure

▶ Sizeable evolution of topics' proportion (financial stability concerns, inflation, ...) topics

General tone measure (2)

▶ Proportion of topics in combination with general tone? Deviation compared to usual?

▶ Doh, Song, Yang (2020): measure hawkishness, dovishness by comparing the released statement with alternative statements to measure the tone and the novelty between current and previous statement
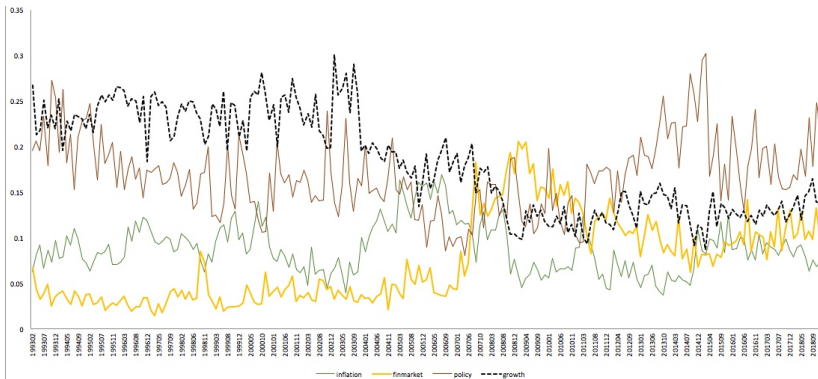
ECB's preferences perceived by the public

- If we are measuring the ECB's preferences for predictability and better decision making, should we measure how the public *perceives* the preferences?

- Financial markets do compare each statement word by word, but what about general public?

- E.g.: similar exercise with preferences as portrayed in the media

Conclusion

- Excellent paper, highly policy relevant!

- How to disentangle communication about preferences from strategic communication: Universal Sentence Encoding

- General tone masks some composition effect, both in terms of topics and members of Governing Council

Evolution of topics