

## **Monetary policy communication and inflation expectations: new evidence about tone and readability**

Gianni Carotta, Miguel Mello and Jorge Ponce\*

Banco Central del Uruguay

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### **Abstract**

We contribute new empirical evidence on monetary policy communication and inflation expectations by firms. First, we construct a new indicator of the *perceived tone* of monetary policy communication that complements traditional indicators of the *effective tone*. Both of them have the expected negative sign and are statistically significant in panel data regressions with firms' inflation expectations as dependent variable, suggesting that communication has an important impact on inflation expectations. Second, we compute readability and perspicuity indicators of the communications. In the sample, readability has improved through time, but there is still room for further improvements on the perspicuity of the messages. Better readability of monetary policy communication reinforces the effect of the tone. The impact is larger when combined with the indicator of effective tone, suggesting that readability is an important component in monetary policy communication.

**Keywords:** Inflation expectations, monetary policy communication, tone, readability.

Hello everyone! It's a pleasure to be here today. Cemla organizers, thank you for the invitation to join this event.

Dear authors Miguel Mello, Jorge Ponce and Gianni Carotta, it was a pleasure to read your paper! This is interesting research, but since it is not in my area of study, I have asked for some support from three different specialists in this thematic to properly discuss your work. This team was composed by one economist, Ph.D. and researcher from a Central Bank in Latin America (LatAm); one economist working in a non-financial firm in the same region; and one Ph.D. candidate focused on public perception. We have discussed your paper and here are the following key outputs which we kindly share (Miguel, I have just shared the file with you through the chat). Please feel free to consider what you believe it is appropriate.

### **Reviewer 1 (ZR):**

The study assumes that people from non-financial firms will read central bank monetary policy communications. Is this likely? Wouldn't they likely obtain information to generate their inflation expectations from people in the financial market, whether by talking to their financial advisor, reading news reports or watching podcasts and other media?

Related to this, in the econometric specification (3), inflation expectations are from non-financial firms, and the Tone and Read measures are from financial market professionals and students. In this case, it is difficult to establish "direct" causality: how does the tone perceived by the financial market reach non-financial firms?

It is probably an indirect channel: financial market professionals will read the communications of the central bank (here the variables used in this paper would be applicable) and generate inflation expectations for financial market professionals and institutions. These financial market professionals will communicate these expectations to non-financial firms through other channels: reports, conversations, podcasts, lives, etc. Then non-financial firms will generate their own inflation expectations based on this last information and on their own experiences.

**The authors could consider the possibility of empirically pick up this indirect channel somehow.** This would require some measure of the inflation expectations of financial market professionals (such as the Focus Report in Brazil). In a first stage, it could be estimated whether those Tone/Read variables affect the expectations of financial market professionals. In a second stage, it could be estimated whether these expectations are transmitted to non-financial firms. Challenge: is this information available? what would the type of econometric estimation look like? The authors could make this discussion.

**Reviewer 2 (CB):**

The paper states that previous research focused *“on the impact on inflation expectations of professionals and analysts”*, while this research *“focus on inflation expectations of firms, a group that may be considered non-professional in terms of inflation forecasting and that is closer to the general public”*. Here, again the causality can be questioned, because causality goes both ways: is the central bank statement based on the actions of firms OR do firms base their actions on the statement of the central bank? Both can happen, so analyzes based on professionals' expectations may simply be easier to do, with relatively good accuracy. It could be interesting to analyze both (expectations of professionals versus expectations of firms) and see which one is closer to effective inflation.

Also, in the survey design, *“In addition to the text to be classified, each question contained relevant information on the economic environment at the time of publication of the statement: the inflation rate in the last 12 months, the current monetary policy rate, the GDP variation rate and the rate of unemployment”*. Can't that create a bias in the responses? If the respondent understands the minimum of monetary policy and sees the interest rate, inflation, GDP and unemployment, the direction of monetary policy becomes more or less obvious, regardless of the sentence they read. So, the sentence can be correctly classified not because of its readability or clarity, but because of the other received information. In other words, the presentation of economic variables in this context makes it difficult to isolate the effect of the Central Bank's communication on inflation expectations.

Next, on the sample size, 49 people answered the survey. Is this a relevant sample within the universe of firms that report their inflation expectations?

In addition, *“the tone indicator ranges from -1 for a fully expansive tone of a statement to 1 for a statement with a strongly contractive tone. As the releases have a quarterly frequency, the monthly series is obtained by repeating the values in the corresponding quarter for which the communications is the last released”*. This assumption could artificially reduce the variance of the series by having more equal values. If the series is big enough, it shouldn't do much damage, but it's a point of attention.

Further, *“In the case under study, the selected instrument was a short-term interest rate until June 2013 and monetary aggregates since them”*. Why? If the article analyzes the 18- and 24-month inflation expectations, why use a short-term interest rate and not an interest rate with an equivalent term?

Finally, in table 4, with the main results, it would be interesting to see a model that compares the inflation coefficient (t-1) when the indices estimated in the text are not included in the regression. This because one of the effects of good communication by a Central Bank is to reduce the disinflationary cost, which can, in part, be captured by the coefficient of inflationary inertia.

**Reviewer 3 (AN):** the authors propose an indicator of the perceived tone of the monetary policy communication. Is the application of the methodology the most appropriate? Example given: if we correctly understood it, the study used only one sentence for the person to assess the tone. Critical question: is this measuring tone or content? Is one sentence enough to measure tone? The authors could evaluate the possibility to better explain this point in the paper.

Additionally, some food for thought: how is monetary policy communication done and perceived in different countries? How does this affect the feasibility of the proposed indicator being used internationally? Also, are there any opportunities for improvement in the tone formula? Are the indicators being interrelated in the most efficient way to analyze the collected data?

Best regards,

Viviane Torinelli