Assessing Central bank communication through monetary policy statements
Results for Colombia, Chile and Peru

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What do we do in the paper?

Building the dictionary

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Next steps
What do we do in the paper?

1. Build a tone indicator

- Manually build a dictionary of monetary policy phrases (like Picault & Renault (2017))
- Based on monetary policy press releases in Colombia, Chile and Peru
- We classify each phrase into topics: Inflation, activity, mop, exchange rate, external
- We label each phrase with a tone signal: hawkish, dovish, neutral
- We can even qualify the intensity of a phrase
- All of the above ⇒ monetary policy tone indicator
What do we do in the paper?

1. Build a tone indicator

   - Big drawback: Yes, it is subjective, but we can compare the textual tone indicator with other less subjective tone measures

   1. Take uncontroversial benchmark hawkish and dovish press releases and calculate cosine similarity with all the remaining statements

   2. Apply the Joint Sentiment Topic Model of Li & He (2009) and Lin, He, Everson & Ruger (2012) to generate the tone
What do we do in the paper?

2. Measure the effects of communication?

► Run plausible small SVARs with \((\pi^e, \Delta y, \text{tone})\) to study the effect of communication shocks.
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Object of study: press releases

- For Chile: September 1999 to September 2018 (226 releases)
- For Peru: February 2001 to December 2018 (215 releases) into account.
- Since 2018, the Colombian and Chilean central banks switched from 12 to 8 monetary policy meetings per year.
Press release sizes

BanRep

BCCH

BCRP
## Number of phrases / sentences in lexicon

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Phrases by category in the monetary policy lexicon

BanRep - dovish

BanRep - hawkish
Phrases by category in the monetary policy lexicon

BCCH - dovish

BCCH - hawkish
Phrases by category in the monetary policy lexicon

BCRP - dovish

BCRP - hawkish
Phrases by category in the monetary policy statements

BanRep - dovish

BanRep - hawkish
Phrases by category in the monetary policy statements

BCCH - dovish

BCCH - hawkish
Phrases by category in the monetary policy statements

BCRP - dovish

BCRP - hawkish
Tone indices

Colombia

Policy rate

Tone
Tone indices
Chile

Policy rate

Tone
Tone indices

Peru

Policy rate

Tone
Tone decomposition in BanRep
Tone decomposition in BCCH
Tone decomposition in BCRP
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Two types of SVAR identification

1. Blanchard & Quah:
   - A tone shock does not have long run effects on GDP growth
   - An inflation expectation shock does not have long run effects on GDP growth

2. Sign restriction: **A hawkish tone shock reduces GDP growth**. We are agnostic about inflation expectation effects. Follow Rubio-Ramirez, Waggoner & Zha (2010)
IRF to one s.d shock in tone - BQ

Colombia

$\Delta GDP$

$\pi^e$

Tone
IRF to one s.d shock in tone - BQ

Chile

$\Delta GDP$

$\pi^e$

Tone
IRF to one s.d shock in tone - BQ

Peru

\[ \Delta GDP \]

\[ \pi^e \]

Tone
IRF to one s.d shock in tone - RWZ

Colombia

$\Delta GDP$

$\pi^e$

Tone
IRF to one s.d shock in tone - RWZ

Chile

$\Delta GDP$  

$\pi^e$  

Tone
IRF to one s.d shock in tone - RWZ

Peru

$\Delta GDP$

$\pi^e$

Tone
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Next steps

1. Robustness: Textual tone indicator replaced by other less subjective measures

2. Incorporate relevant variables in VAR model on top of the three variables considered

3. ... or use the tone indicators to build external instruments in proxy VAR.
...next steps
Comparing textual tone with similarity tones for Peru

Correlation is 0.6