A DISCUSSION OF

Assessing Central Bank Communication Through Monetary Policy Statements: Results for Colombia, Chile and Peru
by Marco Vega and Erick Lahura

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BIS-CCA Research Network on "Monetary policy frameworks and Communication"
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Summary of the Paper

- Manual coding of a **novel monetary policy lexicon** (hawkish, dovish, neutral)

- Classify each phrase in the lexicon into **six topics**: activity, credit, foreign, exchange rate, monetary policy, inflation

- Focus on press releases following monetary policy decisions
  - Central Bank of Colombia (BanRep)
  - The Central Bank of Chile (BCCH)
  - Central Bank of Peru (BCRP)

- Count how often the lexicon phrases appear in the press releases, define **tone**

$$tone_{t,c} = \frac{H_{t,c} - D_{t,c}}{H_{t,c} + D_{t,c} + N_{t,c}}$$

Summary of the Paper
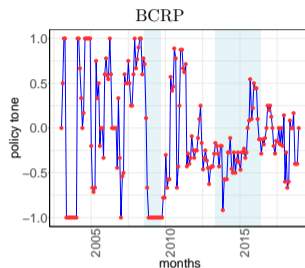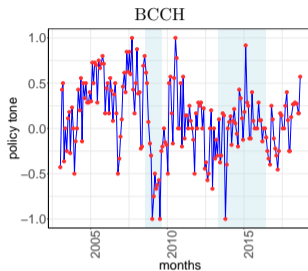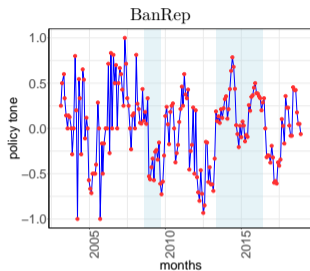
- Aggregate/topics tone indices
- Employ in a monthly **3-variable VAR**:

$$\{\text{GDP\%}, \quad \mathbb{E}_t \pi_{t+1y}, \quad \text{Policy Tone}\}$$

- Impulse response functions (**long-run** and **sign restrictions** identifications)

Comment 1: Man Against Machine

What methodology should we prefer?

Quantifying the tone/sentiment (dovish/hawkish):
- Manual coding dovish/neutral/hawkish
- Bag of Words/Dictionary
- Supervised machine learning/neural net/A.I.

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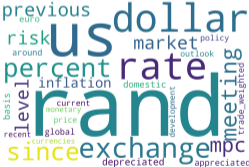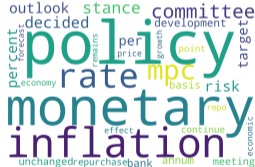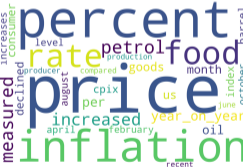What methodology should we prefer?

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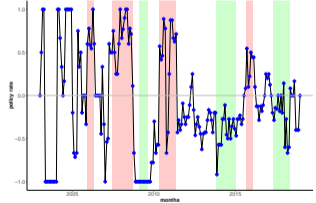- Supervised machine learning/neural net/A.I.
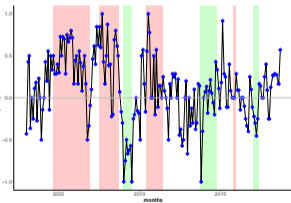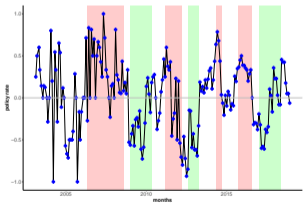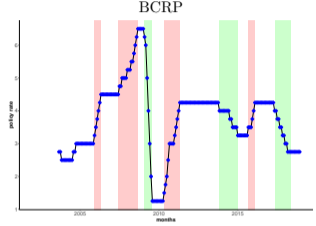
Human sense of context, nuances **vs** machine powerfulness and lack of bias?

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Topics & Methodology – Pirozhkova, Ricco, Van Schoor, Viegi (in progress...)
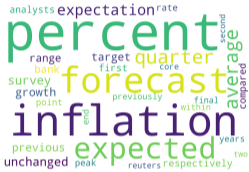
Comment 2: The Information Content
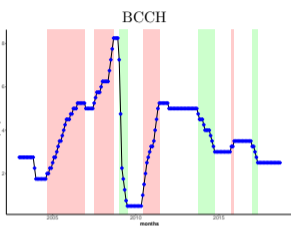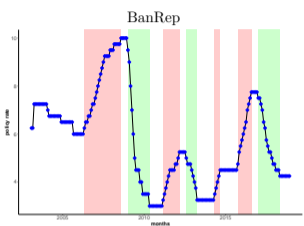
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Policy tones & interest rates correlate: <u>rates are endogenous!</u> $\implies$ <u>tones are endogenous!</u>
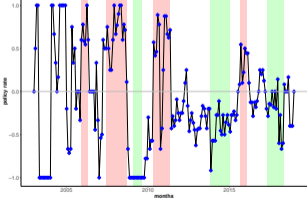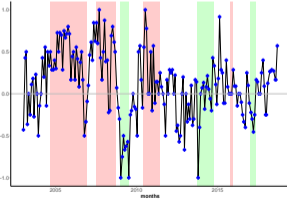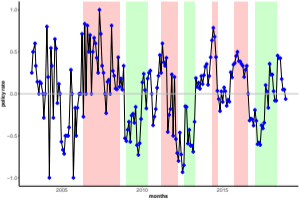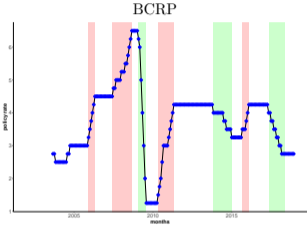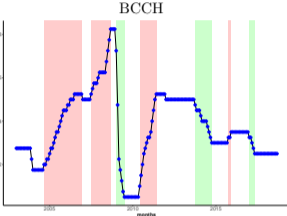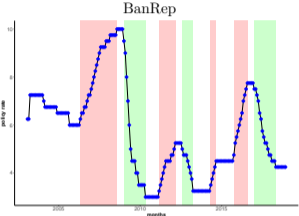
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Tones and Fundamentals

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- Tone/Rates need to be **structurally** decomposed into
  - structural shocks
  - MP shocks & information/forward guidance at different horizons
  - communications shocks, etc...

Comment 3: Changes in Tones and Economic Shocks

Two **Identifications**:

- **Long-run**: a tone shock does not have long-run effects on GDP growth (Blanchard-Quah)

- **Sign restrictions**: a tone shock (hawkish) reduces GDP growth during the first three months, but is agnostic on inflation expectations

Comment 3: Changes in Tones and Economic Shocks

Isolate the major empirical regularities $\neq$ Causal IRFs!

Colombia

Chile

Peru

GDP growth rate   Inflation expectations   Tone   GDP growth rate   Inflation expectations   Tone

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    Many shocks in the economy...
    Many omitted variables: interest rates, exchange rates, stock markets, …

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- How do surprises map in '**structural shocks**':
  - shocks to economic fundamentals (supply, demand, external shocks, ...)
  - policy shocks
  - forward guidance
  - change to policy response function, **long-run**, ...
  - communication **sun-spots** (i.e. random policy shift)
 - ...

- How do 'shocks' map into economic outcomes?

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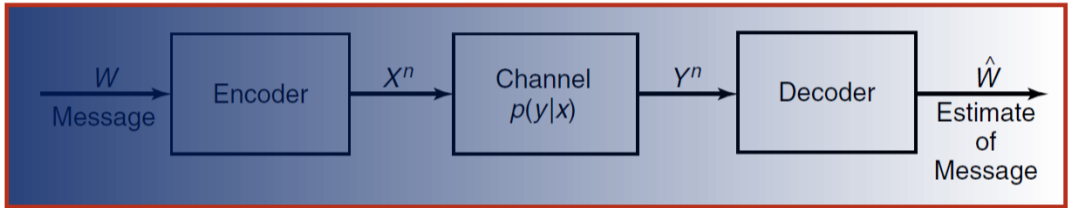 - ...
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  communication $\implies$ news $\implies$ surprises $\implies$ structural shocks $\implies$ outcomes
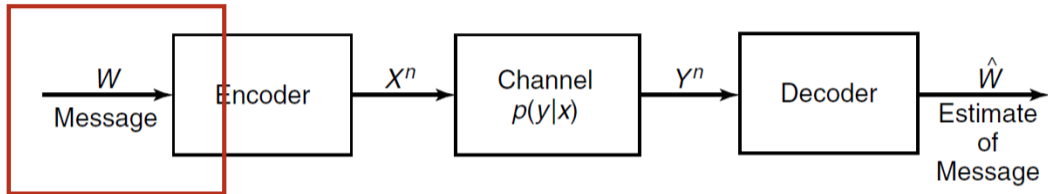
Comment 4: Chinese Whispers (Ways Ahead)
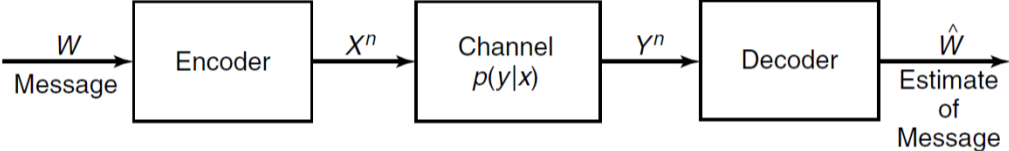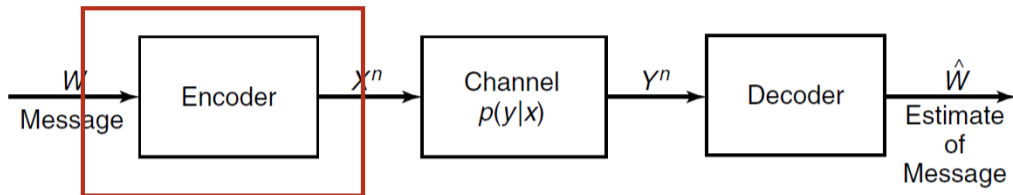
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- It is also a representation of any ex-post 'linguistic analysis' of policy texts
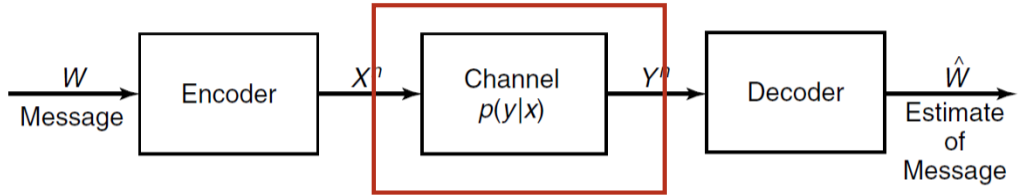
Comment 4: Chinese Whispers (Ways Ahead)

- What do CBs talk about?
- How frequently do topics changes?
- ...

Comment 4: Chinese Whispers (Ways Ahead)

- What is the 'coding'/language of the message?
- Is the coding stable? Chair/president specific?
- Do major changes in the 'coding' corresponds to regime shifts?
- Is the coding CB-specific?
- …

Comment 4: Chinese Whispers (Ways Ahead)

- How noisy/blurry is the 'channel'
- Endogenous attention allocation?
- Do media provide a distort/biased channel?
- ...

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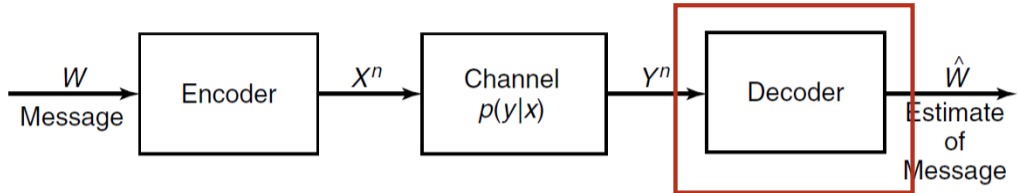
- What do agent understand?
- What are 'surprises' w.r.t. their information set?
- Are agents different – consumers, professional forecasters, market participants?
- Dynamics in disagreement due to more prices/less precise signals?
- …

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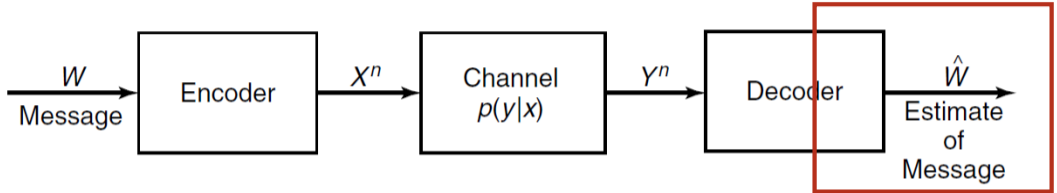
- How does CB's communication map into agents' surprises?
- How do agents act upon them?
- Aggregate outcomes?
- …