Communicating Financial Stability Sentiment*

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*The views in this presentation are the responsibility of the author and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or of any other person associated with the Federal Reserve System.
Analysis presented is based on

- Correa, Garud, Londono, and Mislang, 2017. "Sentiment in central banks’ financial stability reports"
- Claessens, Correa, Londono, and Mislang, 2017. "Financial stability governance and central banks’ communications"
Communication of monetary policy has been widely studied.

Central banks’ communication of financial stability developments not new, but it hasn’t garnered as much attention.

This is changing as some central banks have been mandated with developing cyclical macroprudential frameworks (e.g., CCyB, LTVs).

Given the novelty and heterogeneity of these communications, it is still unclear how they are transmitted to the public.
Financial stability communication chain

- Financial Stability Reports
- Speeches
- Macroprudential policy announcements
Financial stability communication chain

- Financial Stability Reports
- Speeches
- Macroprudential policy announcements
What we do

- We use financial stability reports (FSRs) to create a text analysis dictionary tailored to the financial stability context.
- We construct a financial stability sentiment (FSS) index using the FSRs.
- We analyze the relation between the financial cycle and the FSS index.
- We explore how financial stability announcements are covered in the news.
1. Understanding financial stability reports

Main characteristics

- Main goal is to identify risks and vulnerabilities in the financial system, and to increase transparency.

- Vary in length and format, both in terms of time and cross-section.

- 62 countries with reports available in English, as well as the Eurozone and IMF.

- 35 countries with *sufficient coverage*: at least 1 report available every year before, during, and after the GFC; at least 10 reports overall.
2. The FSS index

Technical details

- We clean the FSR textual information and filter out sections of reports that are irrelevant.

- For each cleaned report, the FSS index is calculated as:

\[
FSS_{\text{country}, \text{period}} = \frac{\#\text{Negative words} - \#\text{Positive words}}{\#\text{Total words}}
\]

- Positive and negative words are defined by the financial stability dictionary.
2. The FSS index

Why a dictionary tailored to financial stability?

- Words might have different connotations in a financial stability context.

- **Confined** is a negative word in previous dictionaries but usually conveys positive sentiment in a financial stability context.

  “…this deterioration is expected to be confined to a few sectors…”

- **Crisis** is a negative word but refers to past events and does not drive the sentiment in a financial stability context.

- Technical terms:

  - **Default** (negative) mostly used for “Credit Default Spreads”

- Contrasted with finance dictionaries, such as Loughran and McDonald, we find that 121 words are unique to the financial stability context.

*More details*
3. Central bank communication and the FSS index

Time series: global aggregate
3. Central bank communication and the FSS index

Topic drivers: comparative word cloud
3. Central bank communication and the FSS index

Topic or sector drivers

- We construct sector-specific FSS indices to explore two related questions:
  
  ⇒ How are sector-specific indicators (e.g., debt service ratio for households) summarized by the sectoral FSS indices?
  ⇒ Which topics or sectors drive the time variation of the overall FSS index?

- We identify a set of words characterizing each topic: banking, asset valuations, real estate, households, corporate, external, sovereign.

- We find that most topic-specific indices incorporate information from commonly used measures used to track the vulnerabilities of those sectors.

- The banking sector is the main driver of the overall FSS index.
3. Central bank communication and the FSS index

UK FSS index and the financial cycle

FSS Index vs. CGDP Gap for United Kingdom

Credit-to-GDP Gap

FSS Index

Monthly Date

2000m1 2005m1 2010m1 2015m1
3. Central bank communication and the FSS index

Overall FSS index and the financial cycle

- We ask two questions:
  - Do central banks incorporate and predict developments in the financial cycle through FSRs?
  - Are central banks able to communicate turning points in the financial cycle?

- Our findings:
  - Sentiment captured by the FSS index translates into changes in credit indicators, asset prices, and systemic risk indicators.
  - Central banks are able to communicate turning points in the cycle (i.e., banking crises), but weakly and at very short horizons.
4. Central bank communications and news reports
UK FSRs and news coverage

- Conduct searches in Factiva for the name of the FSR and the country.
4. Central bank communications and news reports

FSRs and news coverage in different languages

![Graph showing news references to Bank of Spain's FSR in Spanish and English]

**Language of Report**
- Spanish
- English
4. Central bank communications and news reports
News coverage and FSR sentiment

- Is news coverage correlated with the sentiment communicated in FSRs?
4. Central bank communications and news reports

News coverage and FSR sentiment (only FSRs that are covered)
5. Conclusions

- We create a dictionary tailored to the financial stability context and construct a financial stability sentiment (FSS) index.

- We explore the topics driving FSS.
  - FSS topic subindices summarize information from topic-specific characteristics.
  - The banking sector is the main driver of the FSS index.

- We find that a deterioration in the FSS index is followed by a deterioration in financial cycle indicators and it might be a useful predictor of banking crises.

- News coverage depends on the language of the original report (country) and the sentiment conveyed by the FSR.
2. The FSS index

How is our dictionary created?

1. Select top 98% of words in cleaned reports (by frequency): 7,388 words.

2. Clean out obviously non-financial-stability words: 1,484 words left.

3. Scoring process:
   a. Randomly sample 25 sentences for each word.
   b. Each word classified by two researchers.
   c. Solve initial conflicts (disagreement in connotation).
   d. Two additional researchers help to solve additional conflicts.

Our dictionary contains 96 positive and 295 negative words.