Central Banking

Week 7: Central Bank Communication and Transparency / Data Analysis

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Introduction

- Why did central banks move from secrecy to transparency?
- What is the role of communication in modern monetary policy?
- How does clarity affect financial markets?

Historic Evolution of CB Communication

- Before 1990s: **Opaque** & secretive policy
- 1990s–2008: Rise of **transparency** & inflation targeting
- 2008–now: Communication during **crises & unconventional policy**
- Shift from **mystique** to **message clarity**

Quotes:

> “Never explain, never excuse” – Montagu Norman, BoE (1920s)
> “98% talk and 2% action” – Ben Bernanke

Why Communication Matters

- Anchors **inflation expectations**
- Shapes **market reactions** to policy
- Enhances **credibility** and **accountability**
- Crucial under **forward guidance** & **unconventional policies**

> “Monetary policy is the management of expectations.” – Draghi

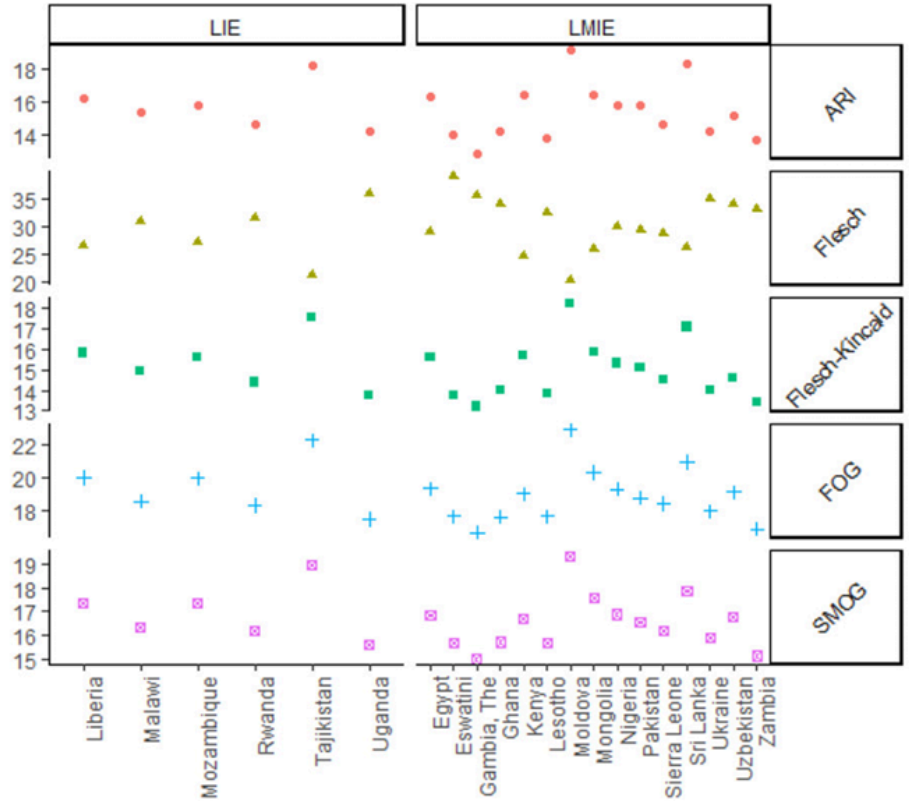
Forms and Channels of Communication

- **Formal tools**: Policy statements, inflation reports, speeches
- **Forward guidance**: Path of future policy
- **Target audience**:
  - Markets
  - Households & firms
  - Media & legislature

Measuring Communication: Readability & Complexity

- Text analysis tools help measure clarity:
  - **Flesch-Kincaid** index (grade-level readability)
  - **Fog Index**, **SMOG**, **ARI**
- Example from Vyshnevskyi et al. (2024):
  - Clearer communication = **lower FX volatility** in EMs

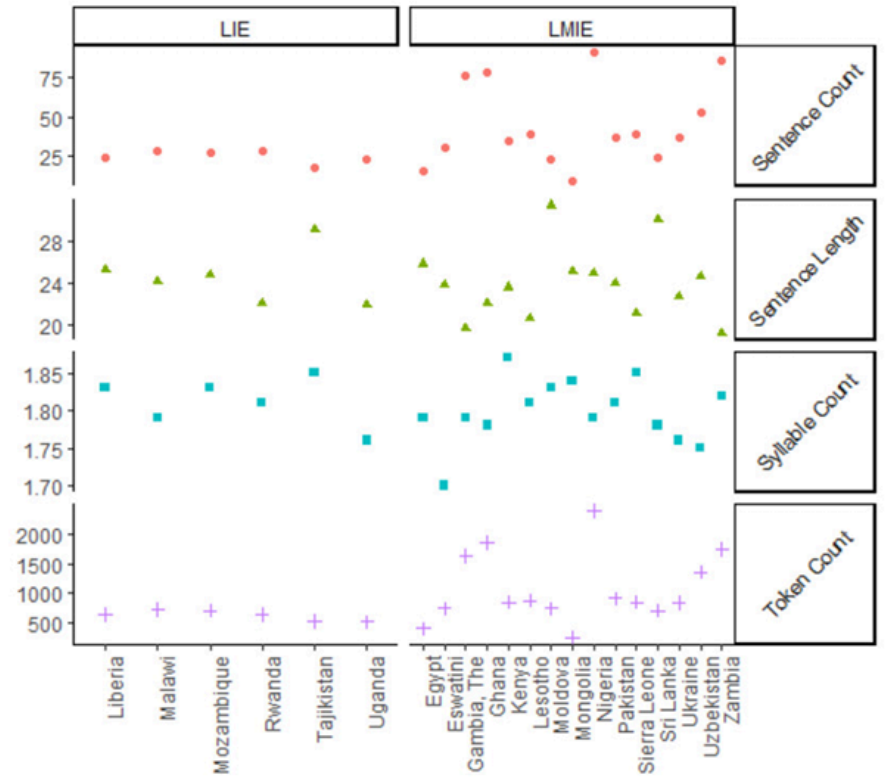
Readability measures across countries



A) Averages of each readability measure for each country

Notes. FK, Flesch–Kincaid readability score; Flesch, Flesch reading ease score; ARI, Automated Readability Index; FOG, Gunning Fog index; SMOG, Simple Measure of Gobbledygook. LIE: Low-income economies; LMIE - Lower-middle-income economies. The color scale legend in Panel B indicates that the correlation goes from 0 to 1, as reflected by the spectrum from mild red to very dark red, and from 0 to +1, as reflected by the spectrum from mild blue to very dark blue.

Complexity measures across countries



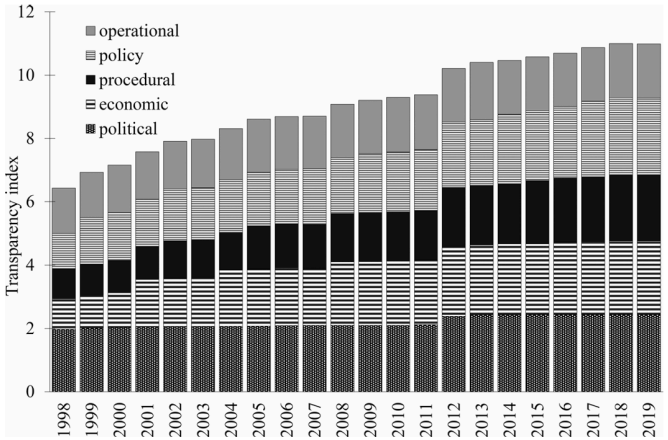
A. Averages of each complexity measure for each country

Notes. Sentence count is the average number of sentences per statement for a given country; sentence length is the average sentence length per statement for a given country; syllable count is the average syllable number per word in a statement for a given country; and token count is the average number of tokens per statement for a given country. LIE: Low-income economies; LMIE: Lower-middle-income economies.

Global Trends in Transparency

- Dincer et al. (2022): Transparency index improved globally
- Driven by:
  - Inflation targeting
  - Policy rule-based frameworks
  - Demand for accountability

Figure 4. Average Transparency Trends, Separate Dimensions (weighted average)



Source: See text.
Note: The transparency index for the world economy is constructed as the weighted average of the index across all central banks, using as weights their 2006 GDP shares in aggregate GDP in our sample, where GDP is in U.S. dollars and taken from the World Development Indicators of the World Bank. Due to unavailability of GDP for Curaçao, it is excluded from the sample.

Research Highlights: Sohn & Vyshnevskyi (2023)

- Identified **strategic shifts** in CB communication
- Moved beyond markets to **broader audiences**
- CBs now employ multiple channels:
  - Infographics, social media, websites

> “Silence no longer guarantees independence.”

Communication & Financial Markets

- Clear communication reduces uncertainty:
  - Lower **FX rate volatility**
  - Better **bond market reactions**
- Forward guidance shapes **yield curve**
- Empirical support from: BoE, ECB, Fed, RBNZ

Case Study: Readability & FX Volatility

- Vyshnevskyi et al. (2024):
  - Sample: 21 developing countries, 2010–2021
  - Found **negative link** between clarity and FX volatility

Table 4
Panel fixed effects regression results for FX rate volatility.

	3 days		5 days		10 days	
	(1)	(2)	(1)	(2)	(1)	(2)
Sentence length	1.110		1.112		1.780*	
	(0.625)		(0.714)		(0.875)	
FL		−1.130***		−0.983**		−0.952**
		(0.355)		(0.449)		(0.408)
MP stance change	0.517	0.510	0.550**	0.553**	0.522*	0.537*
	(0.296)	(0.296)	(0.232)	(0.231)	(0.261)	(0.249)
Economic situation	−1.197	−1.092	−1.366	−1.344	−1.247	−1.177
	(0.861)	(0.844)	(1.099)	(1.169)	(1.018)	(1.016)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Period FE	Yes	Yes	Yes	Yes	Yes	Yes
Seasonality	Yes	Yes	Yes	Yes	Yes	Yes
Observations	588.000	586.000	588.000	586.000	588.000	586.000
Countries	13.000	13.000	13.000	13.000	13.000	13.000
R2	0.476	0.484	0.500	0.509	0.472	0.477

Notes. The dependent variables are the log of the annualized foreign exchange rate volatility on days 3, 5, and 10, calculated based on IHS Markit data; sentence length is the log of average sentence length based on our calculations; FL is the log of the Flesch reading ease score based on our calculations; MP stance change is a dummy variable indicating a change in monetary policy stance; and economic situation is the economic situation index from our the authors'estimation. Controls include the log of international reserves, log of the consumer price index, log of risk for inflation, log of risk for budget balance, log of risk for per capita GDP, log of risk of war, log of risk for international liquidity, and log of the M1 money supply). All models are based on panel estimations, account for country fixed effects, and control for periodic fixed effects. A constant is not reported but is included in all specifications. Robust standard errors clustered by country are indicated in parentheses. Robust standard errors clustered by country are indicated in parentheses. *, **, and *** denote significance at 10%, 5%, and 1%, respectively.

Limits of Communication

- **Interpretation bias** across audiences
- High complexity → **less understanding**
- Overcommunication → **noise** or **confusion**
- Clarity does not guarantee **credibility**

Emerging Tools: NLP & Data Science

- Text mining in central banking:
  - Topic modeling
  - Sentiment analysis
  - Clarity metrics
- Research frontier: **AI-powered transparency tools**

Discussion Questions

1. Should central banks target simplicity over precision?
2. Can communication replace action in uncertain times?
3. What are the risks of 'too much' transparency?
4. How should CBs communicate with **non-expert** audiences?

Wrap-Up

- Communication is now a **core policy tool**
- Transparency builds **trust**, anchors **expectations**
- Modern central banking ≠ only actions → also **words**
- Clarity matters — especially in **developing economies**

References

- Dincer, N. N., & Eichengreen, B. (2022). Central Bank Transparency: A Global Perspective. Journal of International Money and Finance, 121, 102537.
- Sohn, W., & Vyshnevskyi, I. (2023). The Evolution of Central Bank Communication: From Secrecy to Transparency. Journal of Financial Stability, 60, 100-120.
- Vyshnevskyi, I., & Sohn, W. (2024). The Impact of Central Bank Communication on Financial Markets: Evidence from Emerging Economies. Journal of International Money and Finance, 120, 102-120.

2. In-class Group Activity

Any QUESTIONS?

Thank You!

Next Class

-(April 23) Midterm Exam (15:02-17:15)

- Please review slides for conceptual based questions.
- Please review in-class activities for practical/case based questions.