Analysing monetary policy statements of the Reserve Bank of India

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Central bank communication is important

From "Never explain, never excuse" to "A little more conversation, a little less action"

Central banks should communicate as precisely as possible, because if their signals are not clear enough, the result can be unwanted volatility in the markets (...)

Jens Wedmann, Deutsche Bundesbank & BIS, 2018

Monetary policy communication: The case of India (1/2)













- Long statements (c.60-80 pages)
- Content broad in scope
- Statements & off-schedule circulars
- Schedule of announcements & intervals between meetings not fixed (...)



- Shorter statements (c.5-20 pages)
- Content restricted in scope
- Statements & off-schedule circulars
- Schedule of announcements & intervals between meetings fixed (...)

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1997-2003

Oct 2016-Current

Introduction

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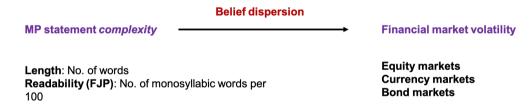
Research questions

To draw some lessons for inflation targeting, we look at:

- 4 How the liguistic complexity of RBI's monetary policy statements has evolved over the last two decades
- Whether there are any effects of RBI's monetary policy statement complexity on financial market volatility
 - Existing work: Geraats, 2002; Ehrmann and Fratzscher, 2007; Blinder et al., 2008; Jansen, 2011; Hernandez-Murillo and Shell, 2014; Smales and Apergis, 2017 (...)

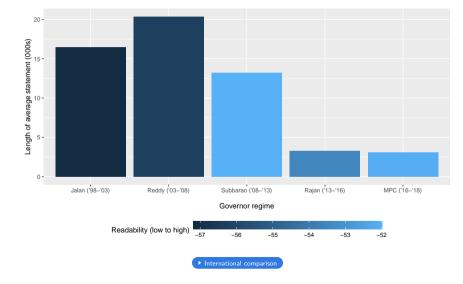
Data and variables of interest

• Data: 72 monetary policy statements by five governors between 1998 – 2018



- Mechanism: Longer statement & lower the clarity of information conveyed → greater scope for market participants to diverge in their beliefs or opinions about the current and future path of policy
- Prior evidence: Atmaz and Basak, 2018; Li, 2008; Loughran & McDonald, 2014

Regime-wise length and readability



Methodology

$$log \ \mathsf{XVOL}_{t:t+7} = \alpha + \begin{subarray}{c} \beta_1 \ log \ \mathsf{words}_t + \beta_2 \ \mathsf{monetary policy surprise}_{t-1,t} + \ \beta_3 \ log \ \mathsf{XVOL}_{t-7:t-1} + \beta_4 \ \mathsf{D.Regime/Qtr/Recession/Day} + \ \beta_5 \ \mathsf{Macro \ controls} + \epsilon_t \ \end{pmatrix}$$

- XVOL $_{t:t+7}$: Volatility in equity, currency, and bond markets from t to t+7 (Alt: t+3,4,5,6...)
- Monetary policy $\mathsf{surprise}_t = \Delta \mathsf{OIS}$
- Always account for past week volatility (log $XVOL_{t-7:t-1}$)
- Regime/Qtr/Recession/Day: Dummies for governor regimes, quarter and week day of announcement, and whether the economy is in recession
- Macro controls: Most recent information on inflation, growth, EPU, VIX (..)
- Additionally add: Dummy for high, medium, or low readability (using hierarchical agglomerative clustering)

Summary of results





- ▶ 0.27-0.37% increase in stock market volatility
- ▶ 0.22-0.28% increase in currency volatility
- No effect in bond market volatility

- Conditional on length, there is no additional effect of readability on financial market volatility Show
 - ▶ Evidence of non-linearities: Zooming into top 1-5% most unreadable statements, there are significant increases equity and currency market volatility
 - Results hold with other popular measures of readability eg. Flesch-Kincaid and the Gunning-Fog Index

Robustness

Results are not sensitive to:

- Controlling for macro conditions, incl. ΔEPU or ΔVIX \bullet Show
- Accounting for improvements in internet connectivity or RBI watchers
- Changes in RBI's communication strategies
- Estimation window
- (...)

Next steps and conclusions

This paper:

- Draws lessons from 20 years of monetary policy communication for a large EM, India, that has recently transitioned to inflation targeting
- Shows that communication *complexity* increases financial market *volatility* because it induces belief dispersion, in line with existing theoretical and empirical literature

Next steps:

• Control for content and tone: Scoring based on manual reading of statements

Thank you! aakriti.mathur@iheid.ch rajeswari.sen@gmail.com