Subjective Interest Rate Uncertainty and the Macroeconomy: A cross-country analysis

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In this paper
- We provide a subjective measure of interest rate uncertainty:
  - reflects uncertainty perceived by market participants;
  - forecasts of short (3M) and long-term (10Y) interest rates, CE surveys;
- Investigate its causal effect on the economy:
  - a structural VAR approach;
  - casualty from uncertainty to the economy defended via the survey design;
  - identification restrictions in line with the data.

Contribution & Importance
- Deal with two on-going challenges in the literature:
  - how to measure uncertainty;
  - how to identify causal effects of uncertainty on the economy.
- Important because interest rates relate to:
  - uncertainty about monetary policy & its transmission;
  - financial uncertainty (likely cause & propagator of recessions);
  - fundamentals (through the Taylor Rule).

Measuring interest rate uncertainty
- Survey-based measure, based on Lahiri and Sheng (2010).
- Two components: idiosyncratic and common uncertainty
  - idiosyncratic: $\delta_{i,t}^{u}$, disagreement among professional forecasters
  - common: $\delta_{t}^{c}$, perceived variability of aggregate shocks
- $\delta_{i,t}^{u}$ estimated with a stochastic volatility model.
  $$\ln\sigma_{i,t}^{2} = \gamma_{1}\ln\sigma_{i,t-1}^{2} + \eta_{t}$$

Interest rate- vs. other uncertainty: U.S.

SVAR Identification
Interest rate uncertainty responds contemporaneously only to its own innovations.
- CE survey timing is crucial - forecast made within 10 first days of the month;
- Forecasts’ information set includes only past realizations of industrial production, inflation and unemployment rate;
- A recursive scheme where uncertainty contemporaneously reacts only to its own innovations is justified.

Interest rate uncertainty and macroeconomic fluctuations
Shocks to interest rate uncertainty have large, negative and persistent effects on real activity.
- Effects vary across countries and maturity of interest rate;
- Magnitudes are considerable:
  - drop in production varying from 0.5 to 3%, within a year;
  - unemployment increases by 0.2 to 1pp;
  - prices display an acyclic behavior;
- Effects are persistent; recovery taking 3 to 5 years.

Interest rate uncertainty shocks: U.S.

Conclusion
- We provide a subjective measure of interest rate uncertainty;
- Show that it has large, negative and persistent effects on the economy;
- A lot of heterogeneity across countries.
- Further investigation: What channels in play?