

# Discussion of: “Policymakers’ Uncertainty”

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# Overview

Does policymakers uncertainty matter for monetary policy decisions?

- **Theory:**
  - Policy design mostly in a linear-quadratic set up
  - Role of uncertainty on policy design: all over the place
- **View from the trenches:**
  - 'Balance of Risk' approach to policy advice
  - Extensive use of scenarios
- **This (awesome) paper:**
  - Transcripts-based measures of FOMC uncertainty and policy actions
  - Show policy actions respond strongly to inflation uncertainty
  - Uncertainty interpreted as 'tail risk': credibility of nominal anchor

# My Discussion

Measuring **tail risk** and **credibility**

- Tail risk from forecasters uncertainty (and the policy response)
  
- Tail risk from a model of expectations' anchoring

# IQR: Inflation-At-Risk (Andrade, Ghysels and Idier, 2015)

Tail risk from survey forecasts

⇒ Individual forecast distributions of GDP deflator for current year:

- Uncertainty using left and right tail probabilities with **quantiles**

- Overall uncertainty:

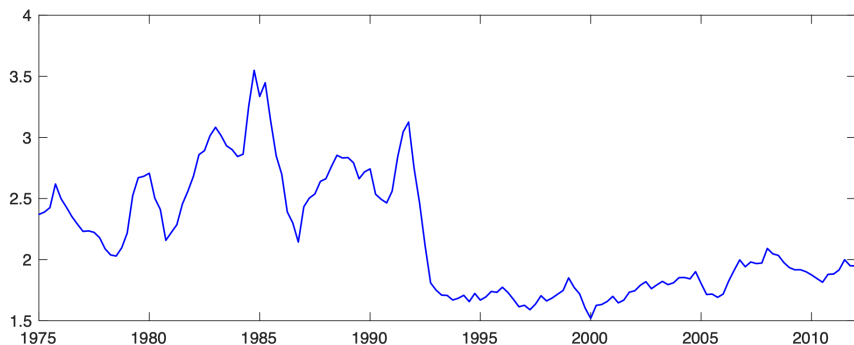
$$IQR_t = E_i [q_{it}(.95) - q_{it}(.05)]$$

- Distributional asymmetry:

$$ASY_t = E_i [(q_{it}(.95) - q_{it}(.50)) - (q_{it}(.50) - q_{it}(.05))]$$

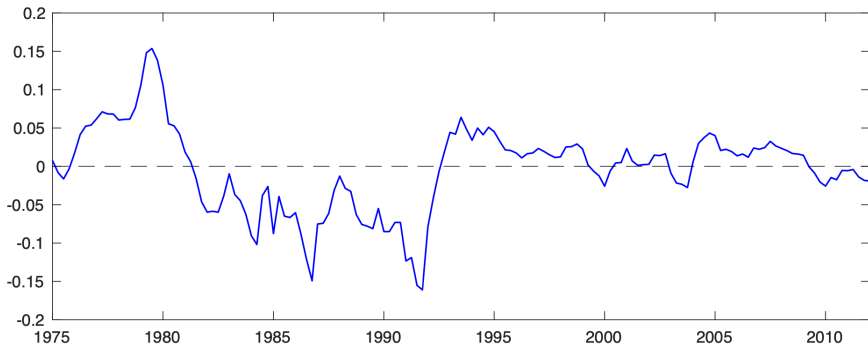
- Source: SPF, quarterly data over the period 1969-2012.

## Tail Risk From Surveys: IQR



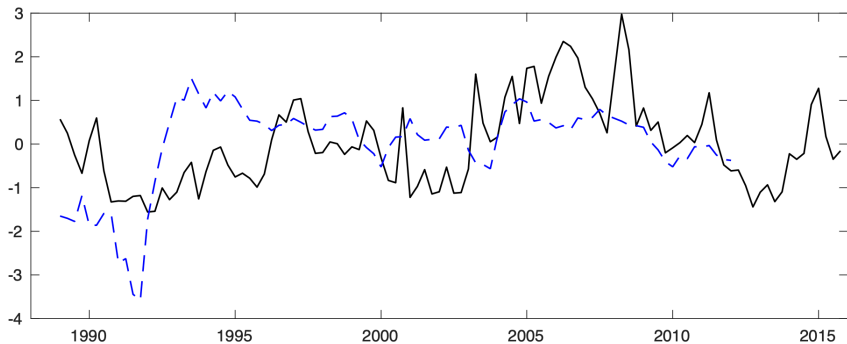
- Overall uncertainty high until mid-1990s
- Slowly increasing in the 2000

## Tail Risk From Surveys: ASY



- Positive during the Great Inflation and since mid-1990s; negative during Volker
- Time-varying: dips in early 2000 and during the Financial Crisis
- Include uncertainty about policy

## Tail Risk From Surveys: ASY vs. FOMC



- ASY less cyclical than FOMC

# Tail Risk And Monetary Policy

- Andrade, Ghysels and Idier, 2015:

$$\Delta i_t = \alpha + \beta \text{IQR}_t + \gamma \text{ASY}_t + \Gamma * X_t + u_t$$

- Different specs.: control for mean expectations; Greenbook forecasts; endogeneity....

## Key Takeways

- 1  $\text{ASY}_t$  positively related to interest rate changes [ $\approx 13 - 25$  bps.]
- 2 Policy regimes: reaction to tail risk only after Volker
  - Similar response in both 1981-2012 and 1990-2012 samples



# Tail Risk And The Nominal Anchor

- Central bank credibility is tied to **long-run** inflation expectations
- Use Carvalho, Eusepi, Monech and Preston (2023) to measure tail risk

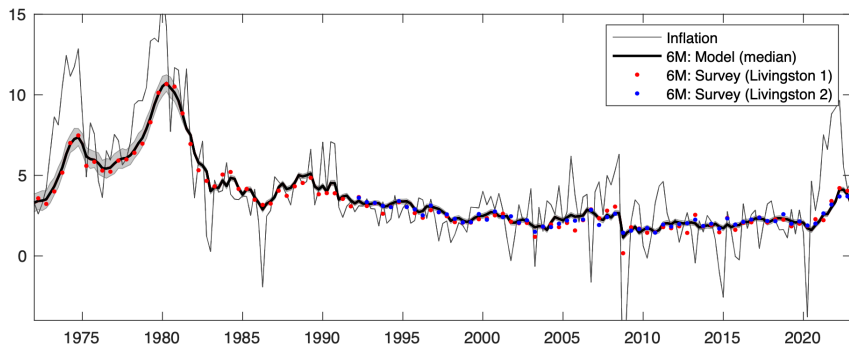
## The model: learning about long run inflation mean

- **Anchoring** → degree of stability of LR expectations:

$$\Delta \bar{\pi}_t^{\text{LR}} = g_t \times \underbrace{\text{short-term forecast errors}}_{\text{shocks} + \text{policy response}}$$

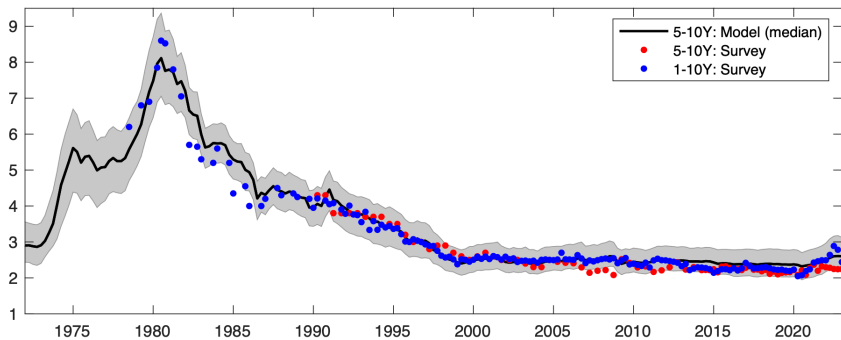
- 1 Time-varying: decreasing (anchored) or constant (unanchored)
- 2 State dependent: past forecast errors

# Inflation Forecast Errors



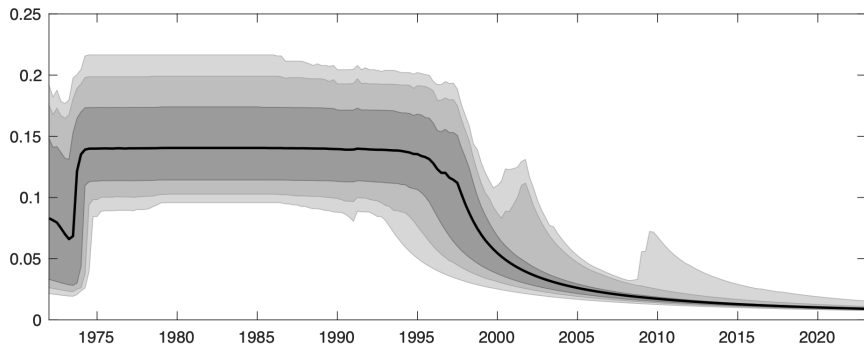
- Persistent patterns of forecast errors across time

# Long Run Inflation Expectations



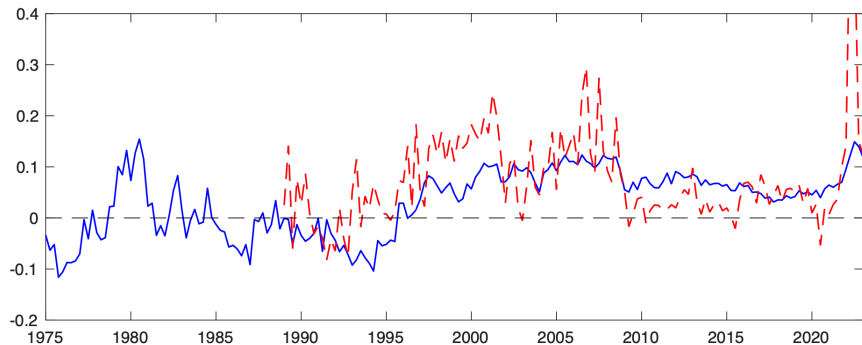
- Predicts survey forecasts [professionals, households, US and foreign]
- Expectations long-run expectations remain anchored post-2000...
- ... but tail risk to nominal anchor changes over time

## Anchoring: $g_t$



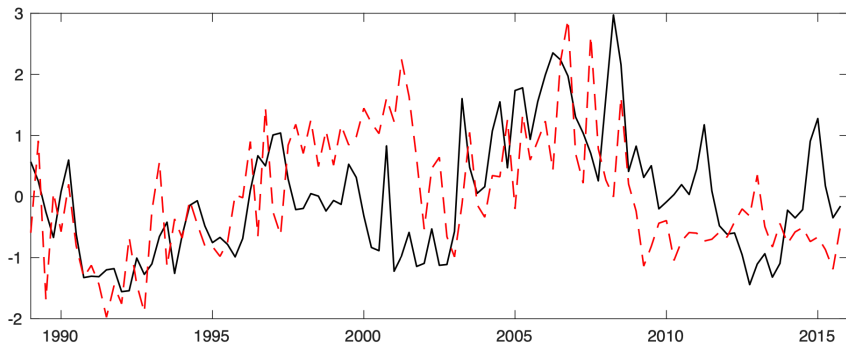
- Expectations become anchored in the late 1990s
- Some tail risk in the past 20 years
- Better assessment if we use a 'real time' measure

## Long Run ASY: Tail Risk to Nominal Anchor



- Blue: conditional on full sample of forecast errors
- Red: 'real time'

## Long Run ASY: Compare with FOMC



- Black: FOMC
- Red: 'real time' tail risk to nominal anchor

# Tail Risk and Scenarios

- Large inflation tail risk in the aftermath of the pandemic: How did the Fed react?
- Response to inflation tail risk likely to be **time-varying**
- Focus on the source of uncertainty: alternative scenarios
- Risks to the **joint** process of inflation and economic activity from probability distribution over scenarios
  - high  $u^*$  vs financial crisis
  - 'Supply' vs. 'Demand shocks'