Inflation Expectation Uncertainty, Inflation and the Output Gap – Discussion

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Short Summary

- What is the effect of inflation expectation uncertainty (IEU) on the level of output gap and inflation?
- put differently: Should there be a IEU term in the New Keynesian Phillips Curve (NKPC)?
- use a VAR-GARCH to address the question
- find significant positive effect of IEU on inflation and negative one on the output gap

Strengths of the Paper

- detailed literature review
- precise description of the methodology used
- methodology seems apt to address the research question
- the topic is important and timely (also for EA!)

Things that Could be Added

- robustness checks
  - lag length in VAR (1 lag might not be enough to capture dynamics in bivariate VAR)
    if not feasible: at least run tests on residuals to establish their whiteness!
  - survey expectation horizon (12 is large compared to VAR-GARCH dynamics)
  - disagreement measure (variance besides interquartile range)
- impulse responses to illustrate dynamics
- policy prescriptions: Is uncertainty desirable when faced with disinflationary pressures?
  - "tie your hands" as in forward guidance
  - Should central bank communication become more opaque during low-inflation episodes?
  - relation to "de-anchoring" of inflation expectations

One Thing that Should Be Changed

- use one-sided HP filter (Stock and Watson, 1999) for output gap: The non-causal standard HP filter (which incorporates future unfiltered variables x_{t+j} for filtered variable x_t) contradicts the backward-looking nature of the VAR!

Possible Extensions
Relation to NK DSGE literature (1/3)

- take the standard 3-equation model from Galí (2008)

$$\pi_t = \beta E_t\{\pi_{t-1}\} + \kappa\tilde{y}_t$$
$$\tilde{y}_t = -\frac{1}{\sigma}(i_t - \pi_{t+1}) + \tilde{y}_{t+1}$$
$$i_t = \phi_\pi \pi_t + \phi_y \tilde{y}_t$$

- add a "disagreement term" d_t to NKPC (observationally equivalent to cost-push shock!)

$$\pi_t = \beta(E_t\{\pi_{t-1}\} + d_t) + \kappa\tilde{y}_t$$
$$d_t = 0.75 d_{t-1} + 0.1\epsilon_t^d$$

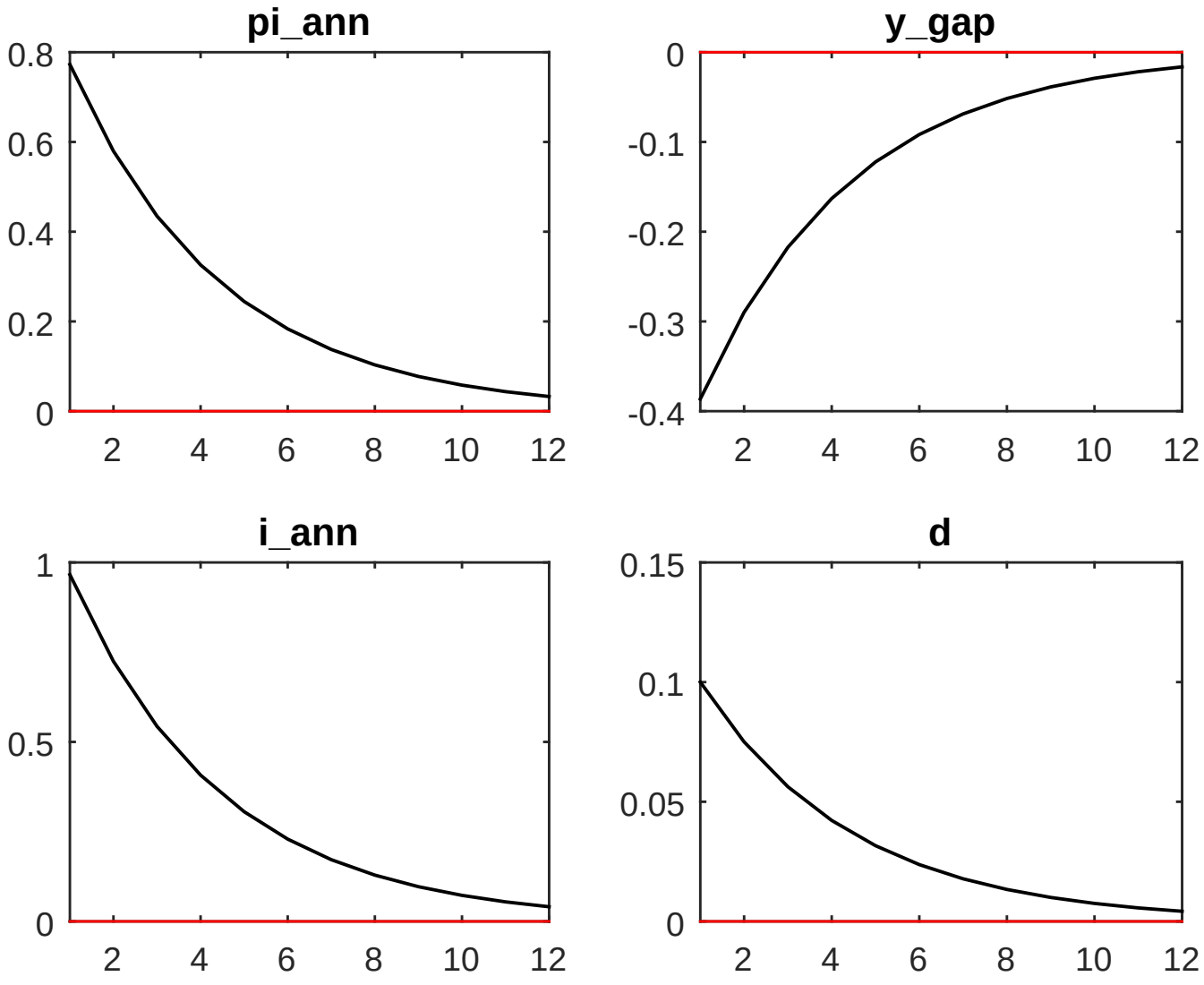
Possible Extensions
Relation to NK DSGE literature (2/3)

- can be motivated by costly forecast of marginal costs, with cost D_t
- in first-order condition of retailer (see Galí, 2008):

$$\sum_{k=0}^{\infty} \theta^k E_t \left\{ Q_{t,t+k} Y_{t+k|t} \left(P_t^* - D_t \mathcal{M} \Psi'_{t+k}(Y_{t+k|t}) \right) \right\} = 0$$

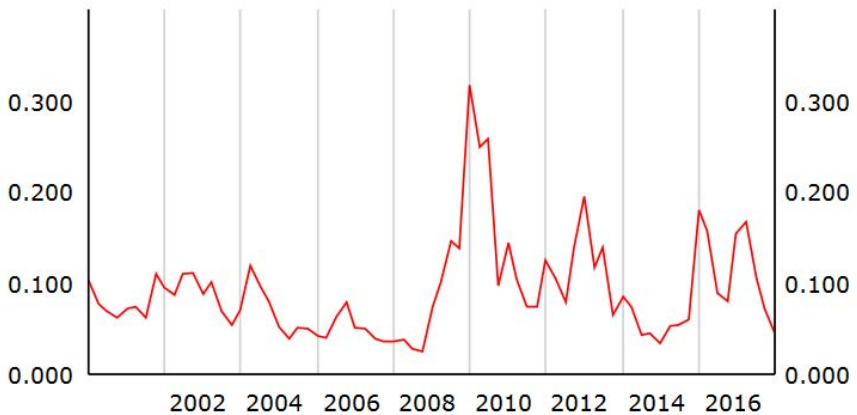
- could be calibrated to the values you obtain (not done here)

Possible Extensions
Relation to NK DSGE literature (3/3)



Possible Extensions
Repeat Analysis for Euro Area (EA)

- use EA Survey of Professional Forecasters data (only quarterly from 98Q4 to 16Q4), e.g. variance of point forecasts:



- relate to debate about de-anchoring (e.g. Łyziak and Paloviita, 2015; Nautz, Pagenhardt and Strohsal, 2017)

Conclusion

- the paper shows that IEU is associated with increase in inflation and diminished output gap
- detailed literature review, precise analysis, interesting and highly relevant topic (esp. today!)
- there is potential for further analysis:
  - show impulse responses to exogenous increase in IEU
  - more robustness checks (lags, expectations horizon, disagreement measure)
  - policy implications
  - (maybe) compare to predictions from small DSGE model
  - (maybe) redo similar analysis for EA