Discussion of "Individual Uncertainty and Attentiveness to Macroeconomic Conditions"

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Review of Main Results

- **How do different types of individual uncertainty correlate with attention to inflation?**
- Proxy of inattention: Size of forecast errors for consumer price and home price inflation in NY Fed SCE microdata

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- **How do different types of individual uncertainty correlate with attention to inflation?**
- Proxy of inattention: Size of forecast errors for consumer price and home price inflation in NY Fed SCE microdata
- Smaller forecast errors when conditional* income uncertainty is high
  * Uncertainty about future income if hypothetically in same job at same employer
  - Precautionary attention
- Larger forecast errors when unemployed
  - Job search effort crowding out attention

Comments

- Measures of attention
- Other moments
- Role of sentiment
- Theory?

Measures of attention

Does size of forecast errors reflect attention?

$$\pi_{t+1} = \rho\pi_t + v_{t+1}, \quad v_{t+1} \text{ iid normal}$$
$$s_t = \pi_t + \epsilon_t, \quad \epsilon_t \text{ iid normal and indep of } v$$
$$\pi_{t+1} - \pi_{t+1|t} = \rho\left[(1-m_t)(\pi_t - \pi_{t|t-1}) + m_t\epsilon_t\right] + v_{t+1}$$

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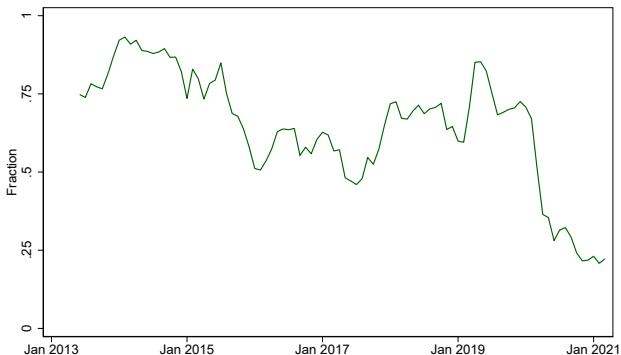
- No clear monotonic relationship between size of forecast error and attention (m_t)
- Persistence of forecast errors may provide a better test (Bracha and Tang 2022)
- Can also use CG (2015) regressions to elicit properties of attention
- Or inflation forecast uncertainty directly since, under rational inattention, $Var(\pi_{t+1} - \pi_{t+1|t}|t) = \rho^2(1-m_t)\sigma^2_{t|t-1} + \sigma^2_v$

Other moments?

Inflation forecast errors and mean forecasts

- Given consumers' bias in forecasting inflation, larger forecast errors are often just higher mean forecasts

Fraction of Inflation Forecasts Above Actual



Other moments?

Inflation forecast errors and mean forecasts

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HDFE Linear regression — Number of obs = 67,615
Absorbing 4 HDFE groups — F(1, 8783) = 395.87
Statistics robust to heteroskedasticity — Prob > F = 0.0000
R-squared = 0.6707
Adj R-squared = 0.6179
Within R-sq. = 0.2586
Number of clusters (userid) = 8,784 — Root MSE = 2.7133

(Std. err. adjusted for 8,784 clusters in userid)

absinflerr	Coefficient	Robust std. err.	t	P>|t|	[95% conf.	interval]
inflexp	.4110188	.0206578	19.90	0.000	.3705248	.4515129
_cons	2.014446	.0744966	27.04	0.000	1.868416	2.160477

- Similar results for house price inflation.

Other moments?

Income uncertainty vs "optimism" about income

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Income uncertainty vs "optimism" about income

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HDFE Linear regression — Number of obs = 67,615
Absorbing 4 HDFE groups — F(1, 8783) = 721.32
Statistics robust to heteroskedasticity — Prob > F = 0.0000
R-squared = 0.8176
Adj R-squared = 0.7884
Within R-sq. = 0.2491
Number of clusters (userid) = 8,784 — Root MSE = 1.9685

(Std. err. adjusted for 8,784 clusters in userid)

income_iqr	Coefficient	Robust std. err.	t	P>|t|	[95% conf.	interval]
income_cent75	.3072904	.0114416	26.86	0.000	.2848622	.3297186
_cons	1.788638	.0499475	35.81	0.000	1.690729	1.886547

Other moments?

Income uncertainty vs "optimism" about income

- Given downward nominal wage rigidity, income uncertainty may be mainly driven by increased probability of higher income

HDFE Linear regression — Number of obs = 67,615
Absorbing 4 HDFE groups — F(1, 8783) = 34.98
Statistics robust to heteroskedasticity — Prob > F = 0.0000
R-squared = 0.7614
Adj R-squared = 0.7232
Within R-sq. = 0.0178
Number of clusters (userid) = 8,784 — Root MSE = 2.2515

(Std. err. adjusted for 8,784 clusters in userid)

income_iqr	Coefficient	Robust std. err.	t	P>|t|	[95% conf.	interval]
income_cent25	-.0938503	.0158678	-5.91	0.000	-.1249548	-.0627458
_cons	3.24603	.0196021	165.60	0.000	3.207606	3.284455

Other moments?

- In general, important to control for first moments when looking at relationships involving uncertainty.
- Particularly important in this context because of relationships between inflation forecasts and absolute forecast errors and between upper tail of income distribution and income uncertainty.

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  - A pessimistic consumer may expect a higher probability of unemployment, a lower chance of large income increases, and higher inflation, which yield larger absolute forecast errors due to positive inflation expectation bias
- Broader point: Sentiment may drive relationships between not just mean expectations of variables, but also uncertainty
- Complicates causal inference based on relationships between different survey responses

Theory?

- What would theory predict about inflation/macro vs income uncertainty?
- Reis (2006) predicts that attentiveness rises with volatility of the exogenous income shock
  - But in reality, income uncertainty may be endogenous and could be lowered with more attentiveness
  - Could potentially reduce endogeneity by looking at income uncertainty increases due to job changes
- Is this more about attention to individual versus aggregate conditions (Mackowiak and Wiederholt 2009)?

Conclusions

- Paper has very interesting suggestive results so far
- Consider other measures/tests of attention
- Control for other moments to isolate relationship with "pure" uncertainty
- Think more about theoretical predictions