Inflation Expectations and Behavior: Do Survey Respondents Act on their Beliefs? Armantier, Bruine de Bruin, Topa, Van der Klaauw, Zafar

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1. Summary of paper

Research questions:

- Do individual consumers act on their beliefs about future inflation?
- Output: Note that the inflation expectations elicited with surveys about the respondents' true beliefs?
 - focus on individual consumers rather than other agents (e.g. professional forecasters, financial market experts)
 - use of direct measurement of inflation expectations (via survey questions) & financially incentivized investment experiment
 - investment A whose outcome depends on rate of inflation
 - investment B whose outcome does not depend on rate of inflation

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1. Summary of the paper

Objects:

- Price of things I usually spend money on
- Rate of inflation

Time horizons:

- From now and 12 months from now
- Btw 24 and 36 months from now

Measures:

- Point predictions
- Probabilistic beliefs → "Estimated expected prediction" and "Estimated std.dev. of prediction"

1. Summary of the paper

Treatments:

- Survey treatment
 - Price in general
 - Rate of inflation
- Experimental treatment
 - Ascending scale earnings
 - Descending scale earnings

Models:

- $\bullet\,$ Switching point btw investment A and B \rightarrow Research question 1
- $\bullet\,$ Minimum distance from risk neutrality \to Research question 2

2. Main findings

Switching point analysis:

- No treatment effect
- Consistent with theory, there is a generally monotonic decreasing relationship between the reported price/inflation beliefs and the switching point
- Strong relationship between a respondent's price/inflation point prediction and his/her switching point
- All else equal, more risk averse subjects have lower switching point, while more risk loving subjects have higher switching point
- Respondents with more diffuse beliefs tend to switch investment earlier
- Neither the measure of numeracy and financial literacy, nor the time taken by respondents to complete the survey seems to have explanatory power
- \Rightarrow Evidence of *relationship btw stated beliefs and actions*, on average

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Min. distance from risk neutrality analysis:

- Strong positive relationship between the self reported distance from risk neutrality and the distance from the risk neutral choice
- Inconsistent with theory, additional parameters are significantly different from zero
- Both the measure of numeracy and financial literacy, and the time taken by respondents to complete the survey seems to have explanatory power

 \Rightarrow Evidence of high degree of *heterogeneity* across individuals, explained by *risk aversion and optimization errors*

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Subjective SAS risk aversion and Table 4 results

- 1 to 7 scale from very risk averse to very risk loving 4 = risk neutrality
- but.. is 4 really risk neutrality or a proxy for "I do not really know?"
- do you give the possibility of Do not know answers?
- what about focal points?
- worth trying defining risk neutral those reporting answers 3 & 5 and dropping answer 4?
- alternative measures of risk aversion? more objective? e.g. share of risky assets in their portfolio?

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3. Comments

Heterogeneity across individuals

- In line with Ehrmann et al. (2010): disagreement among professional forecasters
- Away from the "representative agent" model
 - What are the consequences for a CB?
 - Is this a good/bad thing?
 - Can this potentially lessen the ability of CB to manage inflation expectations?

Price in general vs Rate of inflation

- How do the two measures correlate with each other?
- Ex-post: can you say whether one is better perceived than the other?

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3. Comments

Very relevant topic!

Monetary policy

- Svensson (2004): Monetary policy is to a large extent the management of expectations
- Woodford (2003): Not only do expectations about policy matter, but, at least under current conditions, very little else matters
- Bini Smaghi (2005): Inflation is the "Enemy n. 1" of central bankers

CB communication

- Bernake (2005): A more transparent policy process increases democratic accountability, ..., reduces uncertainty in financial markets, and helps to anchor the public's expectations of long-run inflations, which promotes economic growth and stability
- Ullrich (2008), "Inflation expectations of experts and ECB communication" in The North American Journal of Economics and Finance - the indicator measuring the informational content of ECB rethoric contributes to the explanation of inflation expectations formation of financial market experts
- Can your paper (or potential extensions of it) contribute to this literature?

Discussion - Teppa (DNB)