

Expectations Uncertainty and Household Economic Behavior  
By  
Ben-David, Fermann, Kuhnen, and Li

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Nancy R. Xu

Boston College

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# Objective

- ▶ “Expectations Uncertainty” How and why do households (HHs) differ in how uncertain they are in their economic expectations?
- ▶ “Household Economic Behavior” How does this uncertainty influence their economic and financial choices?

# Second moment

▶ Literature:

- ⇒ There is a decent amount of research documenting and studying the **first moment**: levels of expectations. Souleles (2004), Piazzesi and Schneider (2012), Malmendier and Nagel (2016), Das, Kuhnen, and Nagel (2017), D'Acunto, Hoang, and Weber (2017), Da, Huang, and Jin (WP), among many others

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### ► Suggestive theory:

When agents are more **uncertain** about their economic forecasts, it could trigger **prudence**: increased precautionary behaviors, preferences towards liquidity, decreasing durable consumption, and lower allocation to risky assets.

# The Main Finding: (1) Establishing Heterogeneity

- ▶ The paper documents significant heterogeneity across U.S. HHs on their expectations uncertainty
- ▶ Higher expectations uncertainty: lower income, lower education, a more precarious financial situation (default probability), part-time workers, living in counties with higher unemployment, female, non-white



# The Main Finding: (2) Implications of uncertainty on HH decisions

- ▶ Higher expectations uncertainty: precautionary behaviors, namely reduce consumption, secure additional credit access, and reduce exposure to equity market investments

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Interesting and novel paper, examining and pushing the big agenda of understanding heterogeneous investors and their decision process in Household Finance! I enjoyed reading it!

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1. First vs. second moments (of economic forecasts)
2. Upside and downside uncertainty
3. Implications for the aggregate literature

## Comment 1: Relation between first and second moments

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Table 2: Commonality across uncertainty measur

The table shows the pairwise correlations between uncertainty measures, and economic variables measured in the core survey: personal income growth, the prices in the 12 months following the time of the survey.

	<i>Expected Personal Income<sub>it</sub></i>	<i>Expected Inflation<sub>it</sub></i>	<i>Expected Natnl Home Prices<sub>it</sub></i>
<i>Expected Personal Income<sub>it</sub></i>	1.0000		
<i>Expected Inflation<sub>it</sub></i>	0.0991***	1.0000	
<i>Expected Natnl Home Prices<sub>it</sub></i>	0.1819***	0.3901***	1.0000
<i>SD(PersonalInc)<sub>it</sub></i>	0.2647***	-0.0639***	-0.0649***
<i>SD(Inflation)<sub>it</sub></i>	-0.0087	0.2168***	0.0139***
<i>SD(NatnlHP)<sub>it</sub></i>	0.0217***	0.0438***	0.2146***

And we have learned that economic forecast levels do (also) predict HH decisions

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- ▶ The present main results: Table 8 (demonstrating the predictive power of uncertainty on investment and economic decisions) appends the expectation levels as one independent explanatory variable, whereas Table 3 (understanding why expectations uncertainty differs in cross section) has shown that expectation levels also significantly predict uncertainty.
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  - ⇒ Step 1, create  $\widehat{uncertainty}$  (orthogonal to the level)
  - ⇒ Step 2, redo Tables 3 and 8 without expectation levels

## Comment 2: Upside and downside uncertainties?

- ▶ Facts: Some dispersion of the subjective distribution is coming from periods when they have relatively more positive forecasts (weights), or from periods when they have relatively more negative forecasts (weights) (For simplicity, upward and downward can be evaluated and obtained ex-post.)
- ▶ Call them upside and downside uncertainties (for now)

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- ⇒ Most behavioral finance literature would suggest a strong asymmetry based on prospect theory; for instance, high volatility in the negative domain should drive the higher precautionary/prudent choices of individuals.
- ⇒ The same predictions would probably come out also of totally rational frameworks in which one cares to insure himself/herself. Insurance only helps in potential future very bad states of the world, and not in very good states of the world.

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- ▶ Proposal:
  - ⇒ Calculate  $uncertainty^{Upside} + Forecasting$ :
  - ⇒ Calculate  $uncertainty^{Downside} - Forecasting$
  - ⇒ Figure out which one is accountable for most of the predictability power for HH decisions.

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- ▶ I personally think, we can learn a lot! For example, trading volumes occur naturally when there are heterogeneous investors (wealth/income to start with), and more in line with my agenda, time-varying aggregate risk aversion (which has tremendous implications on the global risk pass-through through trading behaviors).  
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- ▶ A general comment: Include some discussion about why the findings will matter to the aggregate market; the macro finance literature needs some direct evidence for our assumptions :)

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► Proposal 1:

⇒ Uncertainty predicting consumption choices: – sign found. In macro, under a bad economic environment, the intertemporal substitution effect suggests that the agent would borrow to consume, whereas the precautionary saving effect suggests that the agent would drop the consumption and save more. Your data can potentially test this macro question – which is still an ongoing debate.

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- ▶ Proposal 2: Macroeconomists like to think about wealth. It would be helpful to run main results by wealth groups.



# Conclusion

- ▶ Nice paper and execution! I highly recommend it!
- ▶ To make it more convincing:
  1. Level is important and should be treated for skeptical audience
  2. Trying to differentiate upside and downside uncertainty obtained from + and - forecasting environment
  3. Implications for the aggregate literature

Thank You!  
nancy.xu@bc.edu