Comments on BBP

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Survey data

1. Expectations in surveys are often not purely extrapolations

2. However survey expectations often fail tests for “rationality”

3. Since responders often have no incentive to figure out actual expectations, the ratio of noise to signal is just too high.
   - Exceptions such as analysts forecasts.

4. Expectation surveys largely ignored in equilibrium macroeconomics.
   - Exceptions: Sticky expectations New Keynesian models.
Some recent papers using subjective expectations in equilibrium asset-pricing

- Nagel and Xu (2018)
  - Reconcile behavior of asset prices and survey data using standard asset-pricing model and representative agent who learns with fading memory about the mean endowment growth rate. (Malmendier and Nagel).
    - Equity premium is objectively counter-cyclical, but subjectively it is not.

- Jin and Sui (2018)
  - A representative agent model with return extrapolation.
    - Lower weight on more distant observations in the past than N-X
Some recent papers using subjective expectations in equilibrium asset-pricing

- Bhandari, Borovicka and Ho (2018)
  - Motivated by upward bias, positive correlation and counter-cyclicality of household forecasts for unemployment and inflation rates.
  - Agent’s subjective beliefs influenced by time-varying concerns of model misspecification
  - New-Keynesian model with frictional labor markets can reconcile differences between forecasts and objective measures
Bhandari, Borovicka and Payne

- Household survey data on macroeconomic forecasts contain large systematic biases
  - Substantial belief dispersion in the cross section.
  - Large variation in the time series.
- As in BBH concern for model specification is modeled as in Hansen-Sargent

\[
V_t = \inf_{\{E_t m_{t+1} = 1\}} \log C_t + \beta E_t [m_{t+1} V_{t+1} + \frac{\beta}{\theta} E_t [m_{t+1} \log (m_{t+1})]].
\]

- The change in measure from the objective distribution to the subjective distribution is given by

\[
m_{t+1} = \frac{e^{-\theta V_{t+1}}}{E_t [e^{-\theta V_{t+1}}]}.
\]
Bhandari, Borovicka and Payne

- Responses to survey assumed to reflect subjective distribution.
  - Alternative: $m$ influences savings and portfolio decisions but not what I answer to pollster.
- One period ahead belief wedges on r.v. $x_{t+1}$,

$$E_t[m_{t+1}x_{t+1}] - E_t[x_{t+1}]$$

- Data + model + linear approximations allow for estimating belief wedges for different groups.
  - At this point assume identical $\theta$ and $\beta$.
  - Variations come from correlation of (scaled) continuation values on observables for the different groups.
    - $V$ is endogenous - solution method developed in BBH.
Bhandari, Borovicka and Payne

- Ambitious and interesting project to explain cross-sectional variations in beliefs.
- Malmendier and Shen (2018)
  - Significant and long-lasting effects of crisis experiences on consumer spending after controlling for time effects, age, income, wealth, and several demographic and macroeconomic factors.
  - Experiences affect individual’s beliefs about future economic conditions.
  - Lifetime experiences do not predict future income after including the same set of controls.
  - Proposes a cause for difference in subjective beliefs.
Bhandari, Borovicka and Payne

• BBP
  • Estimate risk exposures from consumption micro data.
  • In principle one could add a module of equilibrium consumption-portfolio decisions. (Not easy)
  • To accommodate age-cross-section would need a life-cycle model
  • Set of rich predictions.
Experts

- Graham *et al.* on experts accuracy on macroeconomics forecasting.
- More likely that experts responses to non-anonymous poll reflect concerns about model mispecification.