Comments on Disentangling the Channels of the 2007-2009 Recession DSGE Model-Based Forecasting

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DSGE Model-Based Forecasting

- Showcases a variety of interesting calculations
- Compares the predictive performance of the DSGE model to other competing models
- Assesses performance through the financial crisis

SHOCK ACCOUNTING

- Two important shocks prior to financial crisis
  1. Equity premium
  2. Marginal efficiency of investment
- Wedges or financial shocks to financing constraints
  1. Reinterpret shocks as exogenous shifts in the impact of financing constraints and introduce a net worth state variable
  2. Example: Christiano-Motto-Rostagno - mean-preserving spread in the cross-sectional dispersion of "ability across entrepreneurs". Is this what we want to think of as an important trigger for the financial crisis?

QUESTIONS

- Microeconomic motivation without using microeconomic evidence?
- What are the "shocks" connected to financing frictions and why are they uncorrelated with other shocks?
- Stochastic discount factor dynamics?
  1. Which shock exposures command the biggest prices?
  2. How do these change over investment horizons?
- How do frictions operate?
  1. Difference between marginal and average investors - stochastic discount factor determined by marginal investors
  2. Wedge between "prices of internal financing and external financing" - multiple stochastic discount factors in play
  3. Economy-wide constraints bind sometimes but not always - source of nonlinearity

Modeling physical and financial returns

- Two physical returns not one because second-order adjustment costs make investment act as a second capital stock
- How new capital is financed (debt or equity) matters when we connect the return predictions from the model to data.

Disentanging the Channels of the 2007-2009 Recession

- Approach
  1. Apply linear dimensionality reduction methods to collapse large cross sections of macro and financial time series into a smaller number of macroeconomic factors
  2. Employ "structural" VAR methods to identify interpretable shocks
- Two findings
  1. Larger shocks with essentially the same transmission mechanism
  2. Important shocks were "financial disruptions" and "heightened uncertainty"

Larger shocks with essentially the same transmission mechanism

- Perhaps difficult to reject the null hypothesis - weak evidence?
- Alternative hypothesis is that of a simple break point - more interesting alternatives?

Uncertainty shocks

Identified by regressing the reduced-form innovations onto measured indictors - VIX, Bloom and Baker, Bloom and Davis

- The uncertainty shocks should be related explicitly to the direct macroeconomic evidence for "larger versions of shocks"
- The economic mechanisms by which increases in uncertainty influence behavior are hard to connect with linear time series models

FINANCIAL DISRUPTIONS

Identified by regressing the reduced-innovations onto measured indictors of the type discussed by Gilchrist

- Reinforce Gilchrist's findings and the same issues about shocks and mechanisms apply here.