Discussion of *Monetary Policy According to HANK*

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Interesting, Creative, and Provocative Paper!

- Different approach for analyzing policy in economies with *large impediments to trade*
- Differs from CEE, Smets-Wouters, Woodford, Clarida-Gali-Gertler, etc.
- Centerpiece of models above is “New Keynesian IS curve”: intertemporal substitution

\[ E_t \sigma \{ c_{t+1} - c_t \} = i_t - E_t \pi_{t+1} \]  \hspace{1cm} (1)
HANK Doesn’t Have Strong Intertemporal Substitution

- HANK reminiscent of a much older literature:

\[ \Delta C = b \times \Delta Y, \ 0 < b < 1 \]  

(2)
HANK’s Alternative to Strong Intertemporal Substitution

- HANK’s 4 impediments to trade
  - Costly nominal price adjustment
  - Individual income shocks + household borrowing constraint (Incomplete markets - Bewley et al)
  - Costly to borrow - wedge between borrowing & saving rate
  - Costly to accumulate or decumulate productive assets
Monetary Policy as Fiscal Policy?

- Monetary policy (changing nominal interest rate) is effectively *fiscal policy*
- *Fiscal policy*, because monetary policy changes tightness of gov’t budget constraint
- Changes in gov’t budget can have big (non-Ricardian) effects
Should We Abandon Models with Significant Intertemporal Substitution?

- No - estimating EIS requires several maintained assumptions
- Separable, identical utility functions, no home production, no learning-by-doing, consumers face same intertemporal prices,...
- Mao (1987) - Estimated EIS biased down, assuming separable utility
  - Estimated EIS zero when true EIS (nonseparable utility) is around 2
  - Many studies in literature subject to this potential problem
- Consumers choose remarkably different portfolios
- Pistaferri et al (2015) - 90/10 percentile difference of individual asset returns ranges between 3.2 percent to 7.5 percent
Perhaps Not Surprising that EIS Estimates Vary Widely

- Range of EIS estimates all over the map - literally...
- Havranek et al (2015) summarize 2,375 estimates of IES from datasets from 104 countries
- 3.1 (Austria) to -0.4 (Switzerland)
What about Excess Sensitivity of Consumption?

- Evidence of excess sensitivity for fairly small changes in budget sets, but....
- Jappelli and Pistaferri - bigger changes in budget sets don't appear to be puzzle (retirement, kids going to college)
- Reasonable to pursue research in standard models and KMV approach
Costly Trading and Wealthy "Hand-to-Mouth" Consumers

- Two assets: high return (business, illiquid) & low return (liquid)
  - Illiquid asset return compensates investors for high transaction costs
  - Borrowing limit & high borrowing rate (8%)
- Many households hold no or very few liquid assets
- Households thus *choose to be constrained*
- This generates "Wealthy Hand-to-Mouth" consumers
Wealth distributions: Liquid wealth

- Top 10% share: SCF 2004: 86%, Model: 75%
- Top 1% share: SCF 2004: 47%, Model: 18%
- Gini coefficient: SCF 2004: 0.98, Model: 0.86
Who are the Wealthy Hand-to-Mouth Consumers?
Model generates high and heterogeneous MPCs

Fraction of lump sum transfer consumed

Quarterly MPC out of $500 = 16%

Quarterly MPC $500

Illiquid Wealth ($000)

Liquid Wealth ($000)
Is Illiquidity Really as Big of a Problem as in the Model?

- Calibrate asset transaction cost function to capture liquid/illiquid shares and fraction of "hand-to-mouth" consumers

\[
\text{trading cost} = 0.04 \cdot d + 0.96 \cdot \frac{d}{\max\{a, \bar{a}\}}^{1.4} \cdot \max\{a, \bar{a}\} \tag{3}
\]

- $800 cost for $3,000 transaction from $100,000 in illiquid assets
- $14,000 cost for $25,000 transaction from $100,000 in illiquid assets
- Generates "Wealthy Hand-to-Mouth Consumers"
- They exhibit high MPC for small shocks
- These are the consumers who provide the action in the model
This Economy Wants a Better Transactions Technology

- Society indeed produced a very efficient transaction technology
- Before May 1, 1975 - very expensive to buy and sell assets
  - Securities industry was a cartel with fixed commission rates
- $2,400 commission to buy/sell 500 shares of a blue chip stock
- May 1, 1975 ("May Day"), Deregulation drives down trading costs
Today’s Trading Costs can be Negligible

- Today, technological change & competition has reduced marginal cost to near zero
- Fidelity, Vanguard, Schwab, E-trade are low cost providers
  - 1998 Schwab transaction cost = $90
  - 2006 Schwab transaction cost = $22
  - Today, trading cost ranges between $0 to $7.95
- S & P 500 expense ratio about .05%
Isn’t Housing More Illiquid?

- What about housing? Low cost home equity credit lines
- *Lending Tree* offers 4.3% ($25,000 line) to 3% ($150,000)
- Can borrow up to $50,000 on 403(b)/457 plans for 5 years
- Can borrow against private business
- Model would perform differently with less costly transactions
Does Fiscal Policy Have Big (Non-Ricardian) Effects?

- Interesting to use model to study World War II
- Enormous changes in gov’t budget at this time
- G rises by 400%, debt rises to 100 percent of output, and...
- Big postwar deflation sharply reduces real value of debt
- Neoclassical model (McGrattan-Ohanian, 2010 IER) consistent with WWII
- Interesting project: Feed WWII into HANK
Figure 33  Real Detrended GNP, Private Consumption, and Private Investment, 1
(Benchmark Deterministic Model)

Legend

U.S. Data  
Model

Note: Data series are divided by the 1946 real detrended level of GNP less military compensation.
Conclusion

- Fascinating paper - congrats to authors!
- Interesting tests to conduct for HANK:
  - Big changes over time in asset market transaction costs and credit availability
  - Effect of big historical changes in fiscal policy
  - Effect of changes in bankruptcy laws
- Paper highlights importance of understanding individual portfolios
- Looking forward to seeing more