Monetary Aggregates and Liquidity in a Neo-Wicksellian Framework

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Discussion by
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NKM
Links money market rate to CCAPM rate from Euler equation

Observation
Disconnect between money market rate and CCAPM rate

Goal
Introduction of financial institutions in the New Keynesian framework for policy analysis
**Parallel**

*Equity Premium Puzzle:* Disconnect between measured returns of assets and CCAPM rate from Euler equation

*Rate of return puzzle:* Why do agents hold assets that are dominated in return?

**Solution**

Take into account that assets provide transaction services.
Literature

Finance (e.g. Lagos 2005)
Studies equity premium puzzle and rate of return puzzle in a search based model where assets provide different transaction services

Search based monetary economics (e.g. Berentsen and Monnet (2006), Lester, Postlewaite and Wright (2007))
Optimal monetary policy in a model where assets provide endogenously derived transaction services.
Environment

Continuum of differentiated consumer goods

Fixed durable good. ★

Two sectors: manufacturing sector, banking sector

Large household

Household work for all firms and all banks ★

Assets in the utility function
Assets

Money $m$: provides liquidity services $\phi_m$

Deposits $d$: provides liquidity services $\phi_d$

Government bonds $b$: provide liquidity services $\phi_b$

Riskfree bond $a$: no liquidity service $\rightarrow$ Rate of return CCAPM
Banking sector

Perfectly competitive

Providing loans is costly: \( l_b = Zn_b \)

Liquidity management: \( d_b = Z_b m_b^\delta b_b^{1-\delta} \)

Budget constraint: \( l_b + m_b + b_b = d_b + a_b \)
Government
Lump sum taxes, consumption $g$, prints money, issues bonds

Central bank
Open market operations: trade $b$ vs $m$
Target rate is $I_g$

Fiscal policy
Target $g/y$
Tax policy $b/y$
Results

Government determines liabilities (liquidity provision)

\[ \text{liab}_t = m_t + b_t \]

Central bank’s open market operations define effective transaction balances (liquidity buffering)

\[ d_{b,t} = Z_b m_{t,b}^{\delta} b_{b,t}^{1-\delta} \]

Disconnect between CCAPM interest rate and target rate \( I_c - I_g > 0 \).

OMO: Has less real effects than in the standard NKM.
Observation I

Household work for all firms and all banks.

**Perfect record keeping is feasible.**

Monetary policy in a cashless society (Woodford).

Paper adds financial intermediation and various assets in the *same* environment.
Consequently, these institutions play no welfare enhancing role.

Questions

Is this a valid short-cut to understand the effects of monetary policy?

In particular, since in reality financial intermediation and assets play a welfare enhancing role.
Observation II

Liquidity management: \( d_b = Z_b m_b^\delta b_b^{1-\delta} \)

Is this reasonable?

Consider cash-less society \( m \to 0 \) then \( d_b \to 0 \).
Or remove government bonds \( b \to 0 \) then \( d_b \to 0 \).

Why not the more natural specification \( d_b = Z_b \pi \left( m_b^\delta + b_b^{1-\delta} \right) \)?

The model does not work.
Observation III

HH must borrow to finance consumption of durable good, \( l > \ell \).

The durable good provides no utility.

Strictly welfare decreasing since \( l_b = Zn_b \).
Conclusion

Woodford (2006) “the neo-Wicksellian models are coherent as far as they go, but that they are incomplete.”

The paper is an attempt is fill this gap.

It would benefit from some microfoundations wrt to financial intermediation and asset demands.

Welfare analysis