Discussion of Ascari, Colciago and Rossi "Limited Asset Market Participation and Optimal Monetary Policy"

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Quick summary

What does the paper do?

Studies optimal monetary policy in New Keynesian model with

- Limited asset market participation (LAMP) as in Bilbiee (2008)
- 2 Nominal wage stickiness as in Erceg et. al. (2000)

Bilbiee (2008)

Sufficiently severe LAMP

- Aggregate demand increasing in real interest rate (IADL)
- · Features of optimal monetary policy inverted

Strong response of wage to aggregate demand is key

Key insight of this paper

- Wage stickiness eliminates IADL
- Restores familiar optimal monetary policy

Discussion

Very nice paper

- Wage flexibility key in Bilbee's mechanism
- Very natural to revisit his analysis with wage stickiness

Plan for rest of discussion

- Simple two-period version of Bilbee (2008), not linearized
- Consider first flexible, then sticky wages
- Point out problem with IADL:
 - Arises only in unstable equilibrium
 - Stable equilibrium missed because of linearization
- Consequence of interaction LAMP & wage flexibility:
 - Not IADL (and the associated monetary policy implications)
 - Bad stable equilibrium with usual comparative statics
- Sticky wages stabilize, eliminate bad equilibrium

Model

Simple two-period model

- Nominal price level fixed in period 1
- Flexible price equilibrium in period 2
- Production function: Y = N
- Period utility: $\log(C + \gamma) + \log(1 N)$

Consumption of Ricardian households

- Period 2: flexible price equilibrium C^{*}_S
- Period 1: Euler equation yields

$$C_{\mathcal{S}}(r) = [\beta(1+r)]^{-1}(C_{\mathcal{S}}^* + \gamma) - \gamma.$$

Model

Labor supply

- Ricardian: $N_{S}(w, C_{S}) = \max \left\{1 \frac{C_{S} + \gamma}{w}, 0\right\}$
- Non-Ricardian:

$$N_{H}(w) = \max\left\{\frac{1}{2}\left[1-\frac{\gamma}{w}\right], 0
ight\}$$

Labor market clearing

- Condition: $Y = \lambda N_H(w) + (1 \lambda)N_S(w, C_S)$
- Solve for $w(Y, C_S)$

Keynesian Cross

$$\mathbf{Y} = \lambda \frac{1}{2} \left[w(\mathbf{Y}, \mathbf{C}_{\mathcal{S}}(r)) - \gamma \right] + (1 - \lambda) \mathbf{C}_{\mathcal{S}}(r)$$

Illustration with $\lambda = 0.9$ and $\gamma = 0.1$



Illustration with $\lambda = 0.9$ and $\gamma = 0.1$





Labor rationing

Assume equal rationing $N_{\rm S} = N_{\rm H} = Y$

Keynesian cross

$$\mathbf{Y} = \lambda \mathbf{w} \mathbf{Y} + (\mathbf{1} - \lambda) \mathbf{C}_{\mathbf{S}}$$

Illustration with $\lambda = 0.9$ and w = 1



Illustration with $\lambda = 0.9$ and w = 1



Punchline

- IADL may not be relevant even with wage flexibility
- Interaction LAMP with degree of wage flexibility important
- Model combining LAMP & wage stickiness very vauable