

Discussion on “CONSUMPTION  
HETEROGENEITY AND MONETARY POLICY  
IN AN OPEN ECONOMY” by Sihao Chen,  
Michael B. Devereux, Kang Shi and Jenny Xu

Masashige HAMANO<sup>1</sup>

<sup>1</sup>Waseda University

28 July 2022

## Summary

- ▶ Limited asset market participation, captured by the size of Keynesian households,  $1 > n > 0$ .
- ▶ Monetary expansion → lower nominal rate → With the intertemporal substitution, higher current consumption for Ricardian households.
- ▶ But how does aggregate consumption change depend on the presence of Keynesian households.
- ▶ When  $n$  increases, aggregate consumption may fall. Specifically, under PCP,

$$\hat{Y}_t = \underbrace{\frac{1}{\delta} \hat{C}_t^R}_{\text{Aggregate consumption effect}} + \underbrace{\frac{1}{2} \hat{q}_t}_{\text{The terms of trade effect}}$$

- ▶ So impact on output depend on the sign of  $-\infty < \delta < 1$  in general equilibrium while the depreciation of the terms of trade followed by an expansionary monetary shock improves the output.

## Con't

- ▶ Also international transmission depends on



$$\hat{Y}_t^* = \frac{1}{\delta} \hat{C}_t^{R*} - \frac{1}{2} \hat{q}_t$$

- ▶ Asymmetric size of Keynesian households across countries ( $n \neq n^*$ ) change the results
- ▶ Under LCP, the impact of monetary policy shock is fully determined by the aggregate consumption effect, thus leading the economy to the monetary trap.
- ▶ Derive the optimal monetary policy under PCP and LCP with or without symmetric size of Keynesian households across countries and find that PPI domestic inflation targeting is a good policy.
- ▶ The real distortion (limited asset market participation) can be cured by other policy instruments.

## Comment 1: Risk sharing across and within countries via the terms of trade

- ▶ It is well known that the terms of trade work to restore the perfect consumption risk sharing (Colde and Obstfeld, 1991).
- ▶ For Ricardian households, this would be the case with Cobb-Douglas aggregator even without any state-contingent assets.
- ▶ Is this true also for Keynesian households?
- ▶ By looking at the solution under the flexible price, since  $\hat{H}_t^{fb} = \hat{H}_t^{fb*} = 0$ , this seems the case (no consumption heterogeneity)
- ▶ Put differently, even with the limited asset market participation, there is a perfect consumption risk sharing within countries (as well as across countries) under the flexible price.
- ▶ Further, can we claim that the allocation under the flexible price is the first best allocation? (Devereux, 2004 and Hamano and Pappada, 2021)
- ▶ I would like to see a clear discussion on the issue and the intuition behind.

## Comment 2: Role played by the elasticity of labor supply, $\omega$

- ▶ By setting  $\omega = 0$ , almost all the result seem to be collapsed since we see  $\omega$ , with  $n\omega$ .
- ▶  $W$  is the inverse of Frish elasticity of labor supply. By setting  $\omega = 0$ , labor supply becomes infinitely elastic.
- ▶ For instance, when this is the case, there is no monetary trap as the monetary trap takes place in the range of  $\left(\frac{1}{1+\omega}, \frac{1}{1+\frac{\omega}{2}}\right)$ .
- ▶ The elasticity of labor supply mitigates the problem related to the limited asset market participation?
- ▶ What is the intuition behind?

## Comment 3: Variability of exchange rate?

- ▶ In the literature, under PCP, one's house keep in order is the optimal policy (PPI inflation targeting)
- ▶ Under LCP, the nominal distortion in the pricing in exporting market must be taken into account in conducting the optimal policy. As a result, the fixed exchange rate regime may dominates (Devereux and Engel, 2003).
- ▶ The same mechanism would at work in the current model even with  $n > 0$ .
- ▶ What is the implied exchange rate variability under the optimal policy change with respect to  $n$ ?

## Other comments

- ▶ Related to my first comment, does monetary policy shock increase or reduce the inequality in the economy?
- ▶ I would like to see the solution of,  $L^R$ ,  $L^K$ ,  $w$  and  $C^K$  explicitly (it not easy to understand)
- ▶ In the numerical example, I would like to see how each variable (including the above two) change with respect to  $n$ .
- ▶ DP?
- ▶ For the consumption neutrality result under the flexible price, I didn't understand very well the logic of why financial markets matter to have these results?

## Conclusion

Very interesting and good paper. I would like to see further development and refinement in the future!