# Discussion of "Monetary Policy in a Small Open Economy with Multiple Monetary Assets" by Van H. Nguyen

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DSGE Modelling for Emerging Open Economies

May 18, 2022

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 Simple-sum:  $SM_t = Ca_t + D_t$ 

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 Monetary Base:  $MB_t = A_t = Ca_t + \tau D_t$ 

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Implications:

- $\longrightarrow$  Divisia measure is strictly better than simple-sum measure and monetary base in tackling the movement of money
- $\longrightarrow$  Openness has an inverse relation with home-bias in consumption, on the volatility of macro variables

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$$C_{H,t} = \left(\frac{1}{n}\right)^{\frac{1}{\epsilon}} \left(\int_0^n C_{H,t}(j)^{\frac{\epsilon-1}{\epsilon}}\right)^{\frac{\epsilon}{\epsilon-1}}$$
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$$U_t = \ln C_t - \psi_N \frac{N_t^{1+\xi}}{1+\xi} + \psi_M \ln\left(\frac{M_t}{P_t}\right)$$
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where  $\sigma$  is the inverse of IES between bundles and  $\chi$  is the inverse of IES between consumption and real balances.

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•  $\sigma > \chi$ : consumption and real balances are compliments

- $\longrightarrow$  complementarity helps fit the response of velocity to interest rate in the data
- $\longrightarrow$  estimates of  $\chi$  are lower than conventional numbers for  $\sigma$ .

## An alternate money supply rule

Piazzesi, Rogers, and Schneider (2022) considers the money supply rule

$$\frac{D_t}{P_t} = D_t^r + \mu \left(\frac{D_{t-1}}{P_t} - D_t^r\right) \tag{7}$$

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- $\longrightarrow\,$  If  $\mu=$  0, the government simply commits to a path for real balances
- $\rightarrow$  If  $\mu > 0$ , it captures the short term nominal rigidity in the money supply: while inflation can temporarily erode the supply of real balances, the government gradually steers that supply towards its desired path  $D_t^r > 0$ .

# **Robustness Checks**

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 $\beta = 0.98525$   $\longrightarrow \text{ why not } \beta = 0.99?$ 

Monetary policy rule in the paper:

$$r_{t} = (1 - \rho_{r})r + \rho_{r}r_{t-1} + (1 - \rho_{r})\rho_{\pi}(\pi_{H,t} - \pi_{H}) + \epsilon_{r,t}$$
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How about:

$$r_{t} = (1 - \rho_{r})r + \rho_{r}r_{t-1} + (1 - \rho_{r})(\rho_{\pi}\hat{\pi}_{H,t} + \rho_{y}\hat{y}_{t}) + \epsilon_{r,t}$$
(9)

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  - $\longrightarrow$  how (and why) openness affects the volatility of macro variables
- 'I' and 'We' used alternatively throughout the text

## Conclusion

- $\longrightarrow$  A great paper!
- $\longrightarrow$  Lots of food for thought;
- $\longrightarrow$  Still some way to go in modeling the money supply in full;

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 $\longrightarrow$  Observance is required in presenting the results.

Thank you!

#### References

FAIA, E., AND T. MONACELLI (2008): "Optimal monetary policy in a small open economy with home bias," *Journal of Money, credit and Banking*, 40(4), 721–750.
PIAZZESI, M., C. ROGERS, AND M. SCHNEIDER (2022): "Money and banking in a New Keynesian model," *Standford WP*.

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