

“Fiscal Multipliers in Small Open Economies With
Heterogeneous Households” by Jeppe Druedahl, Soren Hove
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Discussion by Gernot Müller
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The paper

Fiscal multiplier in the open economy

- ▶ Compare systematically small-open economy HANK with RANK model
- ▶ HANK doesn't make much of difference for multiplier
... even as it does in closed economy (Auclert et al 2024)

What kills HANK in the open economy?

- ▶ Knife-edge results
- ▶ Key role for monetary policy

Very nice & elegant paper

1. Insights into open-economy fiscal transmission beyond HANK
2. Completes picture of open-economy fiscal policy

A step back: fiscal expansion in Mundell-Fleming (MF)

- ▶ Output determined by exogenous money supply under perfect capital mobility $r = r^*$

$$\frac{M}{P} = L(r^*, Y)$$

- ▶ Goods market (IS^* curve) determines net exports

$$Y = C(Y - T) + I(r^*) + G + NX(\underline{e})$$

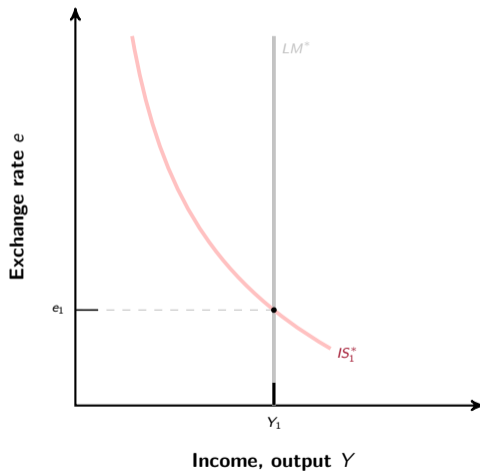
where e is the amount of foreign currency per unit of domestic currency

Zero multiplier

- ▶ Higher government spending crowds out net exports completely, ie by 100%

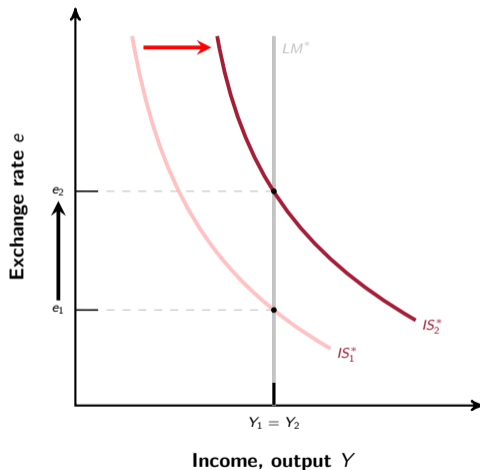
A step back: fiscal expansion in Mundell-Fleming (MF)

Mankiw (Macroeconomics 10th ed. 2019): Figure 13-4



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The paper: two very interesting limiting cases

Proposition 2: no home bias/max openness $\alpha \rightarrow 1$

- ▶ Multiplier either 1 or 0, depending on real-rate policy: $r_t = r_{ss} + \phi_Y y_t$

$$d\mathbf{Y}^{RA} = d\mathbf{Y}^{HA} = \begin{cases} d\mathbf{G} & \text{if } \phi_Y = 0 \\ \mathbf{0} & \text{if } \phi_Y > 0 \end{cases} \quad \underline{\text{just like MF!!!}}$$

- ▶ Paper explains: real interest rate goes up, causing appreciation and crowding out of NX
- ▶ But why complete?

Proposition 3: trade-price elast $\eta \rightarrow \infty$ and $\phi_Y > 0$

$$d\mathbf{Y}^{RA} = d\mathbf{Y}^{HA} = \mathbf{0} \quad \underline{\text{just like MF!!!}}$$

- ▶ “net exports respond very strongly to any movement in the real exchange rate”
- ▶ But why complete crowding out?

My discussion

Outline

1. Understanding limiting cases
2. Openness and the multiplier
3. The big picture

What I don't address

1. Well known issues regarding empirical performance of open-economy models
2. Two decades of literature struggling with NX and RX response to government spending

2. Understanding the limiting cases

Why is there 100% crowding out? zero multiplier?

- ▶ Insights from RANK w/ complete markets (Gali Monacelli 2005 + G)

Prop 2: Complete openness and $\phi_y > 0$

- ▶ International risk sharing

$$c_t = \frac{1}{\sigma}(1 - \alpha)s_t \Rightarrow \text{consumption constant if } \alpha = 1$$

- ▶ Substitute for monetary policy in Euler equation

$$c_t = E_t c_{t+1} - \phi_y y_t \Rightarrow \text{nails } \underline{\text{output}} \text{ if } \phi_y > 0$$

- ▶ As in MF: NX must adjust accordingly: 100% crowding out

2. Understanding the limiting cases cont'd

Prop 3: Infinite trade elast and $\phi_y > 0$

- ▶ International risk sharing & market clearing:

$$s_t = \frac{1}{\sigma_\alpha} (y_t - \hat{g}_t)$$

- ▶ $\lim_{\eta \rightarrow \infty} \sigma_\alpha \equiv \frac{\sigma}{c_y [(1-\alpha)^2 + \sigma \eta \alpha (2-\alpha)]} = 0$: terms of trade do not move, logic from above applies

General insight applies to HANK, too (I suppose)

- ▶ Completely open economy/perfect competition: consumption completely insulated
- ▶ Euler equation & real output target rule: output completely insulated

3. Openness and the multiplier

Proposition 2 suggests that openness is key for the multiplier

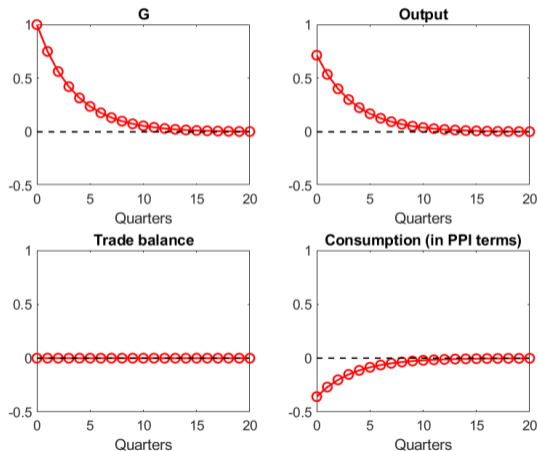
- ▶ But this holds only for very special monetary policy: real-output targeting rule

In RANK openness has no to little effect

- ▶ Assume conventional monetary policy
- ▶ Run a number of model simulations using version of Gali Monacelli (2005) + G

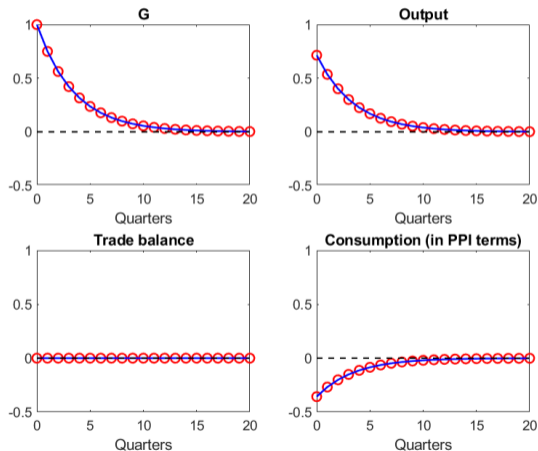
Effect of G-shock in RANK: closed economy

$$\alpha = 0$$



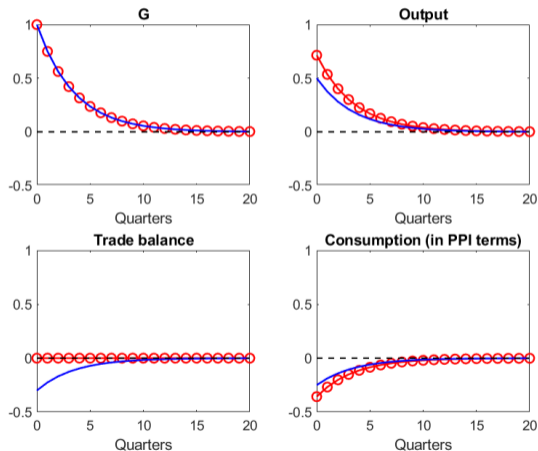
Effect of G-shock in RANK: closed economy v open economy

$\alpha = 0$ v $\alpha = 0.5$ & unitary trade elasticity



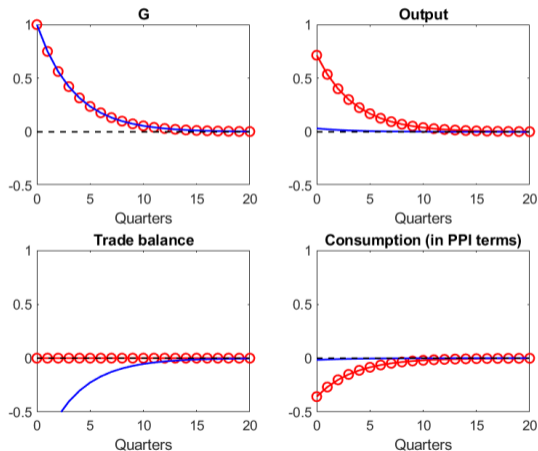
Effect of G-shock in RANK: closed economy v open economy

$\alpha = 0$ v $\alpha = 0.5$ & trade elasticity 3



Effect of G-shock in RANK: closed economy v open economy

$\alpha = 0$ v $\alpha = 0.5$ & trade elasticity 100 (cf proposition 3)



Openness in HANK

Paper contrasts HANK simulation to RANK

- ▶ Output response to government spending about the same
- ▶ Government spending crowds in consumption because of higher MPCs, but crowds out net exports (due to demand leakage)

What would be nice ...

- ▶ Benchmark SOE-HANK also against closed-economy HANK
- ▶ Illustrate more systematically how openness changes fiscal transmission
- ▶ Rather than just referring to Auclert et al for the closed-economy case

4. Big picture—multipliers

	RANK	HANK
Closed	< 1 Woodford (2012) consumption crowded out <i>Intertemporal</i> price of consumption \uparrow	$\gg 1$ Auclert et al (2024) consumption crowded in MPC non zero
Open	< 1 Erceg Linde (2012) consumption crowded out <i>Intra</i> temporal price of consumption \uparrow	≈ 1 This paper (2024) consumption crowded in, NX out Demand leakage ?