

Discussion of “Devaluations, Deposit Dollarization, and Household Heterogeneity” by Ferrante and Gornemann

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- ▶ This paper: how do 2. and 3. *interact* given existing balance sheets?

What the authors do

- ▶ Take a HANK version of the Gali-Monacelli model [eg Auclert et al]
 - ▶ Household balance sheet channel for C
 - ▶ Aggregate C sensitive to Y
- ▶ Add in a constrained bank+firm sector from Gertler-Karadi
 - ▶ Add bank balance sheet channel for I
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 - ▶ 1% depreciation \rightarrow consumption declines 1%, vs 0.5% in RANK
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- ▶ Additional results: deposit dollarization has large distributive effects
 - ▶ More unequal dollarization can easily double the consumption decline

My assessment

- ▶ Great paper!
 - ▶ Devaluations clearly have importance balance sheet and distributive effects across households and firms
 - ▶ Largely ignored by the international macro literature to date
 - ▶ Even though we have good data on these balance sheets!

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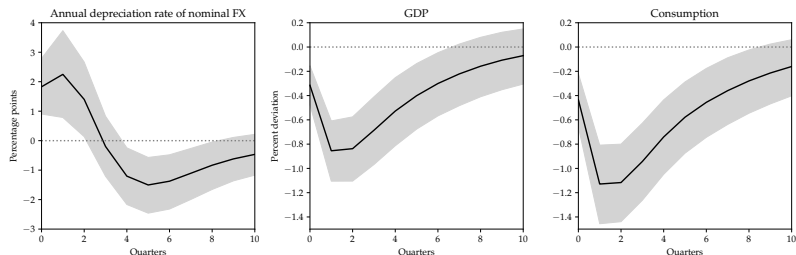
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- ▶ My discussion
 - ▶ Are devaluations contractionary?
 - ▶ A sufficient statistic for the investment-balance sheet channel?
 - ▶ Throughout: go over main modeling choices, comments on literature

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- ▶ Difficult to evaluate causal effect of the depreciation per se in data
- ▶ Vicondoa (2019, JIE): effect from identified increase in US rate



- ▶ Consumption appears to fall together with GDP: not just investment
- ▶ Problem: US $i_t^* \uparrow$ typically associated with other effects
[eg risk premia increasing, cf Miranda-Agrippino-Rey etc]

Are devaluations contractionary? contd.

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- ▶ “What is the economic effect of local currency depreciation?”

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% of central banks in	AEs	EMEs
Expansionary	75%	38%
Contractionary	6%	12%
No response	18%	50%

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- ▶ Two ways to read this:
 - ▶ Depreciations rarely are contractionary in practice
 - ▶ Central bankers priors too shaped by expenditure switching models!
- ▶ Could exploit model comparative statics to figure out when contractionary devaluations are more likely, and test in macro data

Gertler-Karadi meets HANK

- ▶ Very interesting combination! Why?

1. **Steady state:** intermediation spread $R^L - R^D$

- ▶ Generates a kink with 0 wealth households
- ▶ Natural mechanism for generating high average MPCs

2. **Dynamics:** bank net worth $n_t \downarrow$ implies

- ▶ Lower investment $I_t \downarrow$ (so standard financial accelerator)
- ▶ Higher intermediation spread $R_t^L - R_t^D \uparrow$
 - ▶ Redistributes away from borrowers
 - ▶ Since those have high MPCs, lowers *consumption*

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- ▶ Some of this also in Lee-Luetticke-Ravn closed economy model
 - ▶ Clarify what is new/special to the open economy!

Sufficient statistic for the investment-balance sheet channel

- ▶ Currency mismatch implies revaluation effects from devaluation
- ▶ Conceptually, holding other aggregates fixed:
 - ▶ “1% decline in exchange rate $\rightarrow x\%$ decline in net worth
 $\rightarrow y\%$ decline in investment”

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$$q_t^k k_t = \varphi_t n_t$$

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 - ▶ Balance sheet and leverage are critical moments

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 - ▶ Balance sheet and leverage are critical moments
- ▶ Note: Maturity structure of assets and liabilities matters, not just currency mismatch. Could see how much it matters in the model.

Bank+firm maturity mismatch in calibration

- ▶ Are banks and firms really that currency mismatched?
- ▶ Many theories show currency hedging incentives are large
 - ▶ Bocola-Lorenzoni: banks issue foreign currency loans due to demand for currency deposits
 - ▶ Gopinath-Stein: firms hedge exposure from dollar-invoiced imports by borrowing in dollars
- ▶ Not all currency exposures are observed in data (eg swaps)

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- ▶ Should we calibrate to banks only? Banks+firms?
 - ▶ How granular is the information in the micro data?
- ▶ Note: DCP or LCP rather than PCP would change exposures
 - ▶ Would be interesting to see how much that matters.

How does the interaction work?

- ▶ Main mechanism: interaction bw. HANK and investment accelerator
- ▶ Two components in general equilibrium:
 1. Tightening of spreads \rightarrow borrowing rate $\rightarrow C$ via higher
 2. Decline of aggregate demand \rightarrow labor income $\rightarrow C$ via high MPCs
- ▶ Quantitative results show that 2 matters more

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- ▶ Quantitative results show that 2 matters more
- ▶ Closely related to Auclert-Rognlie-Straub $C - I$ complementarity:

	Rep agent	Het agent
Without I	Benchmark	Same (Werning)
With I	Same (Euler eq)	Amplification

Final words

- ▶ Great paper!
 - ▶ improves our understanding of the transmission of currency changes to economic activity through foreign currency exposures
 - ▶ shows how bank and household balance sheet channels interact in GE
- ▶ Suggestions for improvement:
 - ▶ Relation to literature
 - ▶ Calibration (sufficient statistics, household+bank+firm portfolios)
 - ▶ Exploit comp. stats in the model to compare to macro evidence