Discussion of "Reserve Accumulation, Growth and Financial Crises"

by Benigno, Fornaro and Wolf

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Summary of the paper

Motivating evidence and goal

1. Notable increase in FX reserves by EMEs
   - Crucial to understand the direction of capital flows

2. Negative corr. btw growth and net capital flows
   - Driven by official reserves

3. Positive corr. btw growth and reserve accumulation

Provide a framework to jointly explain behavior of private and public capital flows in fast growing EMEs

Key elements

T-NT SOE model. Three key elements/frictions:

1. Knowledge (X) is accumulated by importing (M)

$$X_{t+1} = \psi X_t + M_t^\xi X_t^{1-\xi}$$

   - Firms do not internalize this

2. Financial frictions and risk of sudden stops
   - Need for loans to finance M (WK loans)
   - Lack of commitment $\rightarrow$ borrowing constraint
   - Sudden stops tighten this constraint

3. Official reserves and private debt are imperfect substitutes

Reserve accumulation matters for **both**: growth and liquidity

Borrowing constraint, SS and the use of reserves

$$\phi P^M M_t - D_t - RB_t \leq \kappa_t X_t$$

- D_t: liquidity injection policy (w/ reserves). $\kappa \in \{\kappa_L, \kappa_H\}$.
- B_t: private bonds

$$\underbrace{\phi P^M M_t - D_t}_{\text{WK loan}} \leq \kappa_t X_t + RB_t$$

- When $\kappa = \kappa_L \rightarrow$ sudden stop. Gov. can step in and use D_t to soften the hit.
- Helps w/ crisis today **and** with knowledge accumulation

- In tranquil times: FX build up (to be used in SS)

- But also has an effect on growth **during** tranquil times
    - FX accum. takes trad. resources away from priv. sector ($\downarrow C^T$)
    - This decreases RER $\rightarrow$ more resources allocated to T sector
    - $\uparrow M \rightarrow \uparrow X \rightarrow \uparrow$growth

- Highlights the use of FX as a second-best tool to stimulate growth

Findings

- Planner's solution features zero reserves.
  - Even if reserves are still useful for liquidity
  - Everything can be done with B and a subsidy on M
  - Implementing this subsidy is *politically unfeasible*

  - Use of reserves as second-best instrument

- Ex-ante optimal reserve mgmt 'rule' (numerical exercise)
  - Fast accumulation of reserves
  - Higher growth and larger CA surplus than no-intervention eqm

- Significant welfare gains ($\approx 1\%$)
  - Bulk of it when reserves help stabilize output (consistent w/ findings in Bianchi and Sosa-Padilla 2020)
  - ... but still positive in case it cannot

My Comments

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Punchline: Neat angle on reserve accumulation. I like it.

Specific comments:

1. Financing the reserve accumulation
2. Numerical results and robustness
3. Assorted thoughts and comments
4. Other small comments $\rightarrow$ email

Financing reserve accumulation

- This paper: reserves financed w/ lump sum taxes (tradable)

- Data: reserves financed with external liabilities, domestic (remunerated) liab. and money

- Sosa-Padilla and Sturzenegger (2021) – how we finance reserves matters:
    - We focus on the effect on sov. spreads
    - Using domestic liab. reduces the spread

- Slightly richer model where sov. spread matters for the WK loans: financing of reserves non-trivial.

- For this paper: robustness to having distortionary financing.

Numerical results

- Mixed feelings
  - On the one hand: *"The model is too simple to lend itself to a careful calibration exercise"*
  - On the other hand: want to take welfare numbers seriously *"We find that welfare gains of reserve policy are significant"*

- I encourage the authors to go for it!

- *One* way forward: robustness to varying key parameters.
- Could *bound* the results:
  - Within reasonable parameter space: look for worst-case scenario
  - Does the main result survive?
  - It's also informative to know where it 'breaks down'

Assorted thoughts and comments

1. Fin. liberalization exercise:
   - Can replicate $corr(\hat{y}, CA) > 0$
   - But data is not exclusively from liberalization episodes
   i. Convince reader this is not a problem
   ii. What about a simple transitional dynamics exercise?

2. Your model predicts $CA > 0$. But your data has 55/66 countries w/ $CA < 0$. Should we worry about this?

3. I am not a big fan of the 'Aid' section
   - Comes a bit 'out of the blue"
   - Most of the paper: $FX \geq 0$ and $B^g = 0$
   - Here: $FX = 0$ and $B^g \leq 0$

The End

- **AGAIN:** Nice paper, neat angle on reserve accumulation.

- Encourage authors to go deeper in the quantitative analysis.

- Looking forward to the next iteration!