Discussion of

"Balance Sheets, Exchange Rates, and International Monetary Spillovers "

by Ozge Akinci and Albert Queralto

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The FED, the Dollar, and EMEs

Key questions

[1] How does US monetary policy transmit internationally to (small) open economies?

[2] Does the US Dollar play a special role? What is the mechanism?

[3] How should domestic policy-makers respond? What are the trade offs?

Approach

- Canonical small open economy NK-DSGE augmented with banking sector.
- Framework:

Firm/Bank

Assets		*Liabilities*	
Securities	qS	Deposits (LC)	D
		Deposits ($)	$\mathcal{Q}D^*$
		Equity	ξ

- Key ingredients:
  - **Financial frictions**: balance sheet constraints (limited enforcement)
  - **US Dollar dominant role**: liability dollarization (and dollar invoicing of trade).

The mechanism

- Banks' required excess return relative to foreign rates in equilibrium higher than for domestic rates:

$$\underbrace{\beta\mathbb{E}\left[R_{K,t+1} - R^*_{t+1}\frac{Q_{t+1}}{Q_t}\right]}_{\varrho_t} = (1+\gamma)\underbrace{\beta\mathbb{E}\left[R_{K,t+1} - R_{t+1}\right]}_{\mu_t}$$

- $\gamma > 0$ captures the notion that the bank can more easily divert resources when they are financed by foreign loans (rather than by domestic loans).

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- **Key channel** Time varying deviations from UIP μ^* (currency risk premium) proportional to domestic credit spread:

$$\mu^*_t = \beta \mathbb{E}\left[R_{t+1} - R^*_{t+1}\frac{Q_{t+1}}{Q_t}\right] = \gamma\underbrace{\beta \mathbb{E}\left[R_{K,t+1} - R_{t+1}\right]}_{\mu_t}$$

Comments/Questions

- Really great paper. Significant contribution to modeling international monetary policy spillovers.
- Helps us understanding why *modest* movements in US short rates can lead to *large* spillovers.
- Sheds light on the trade-offs for domestic policy makers.

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- Helps us understanding why *modest* movements in US short rates can lead to *large* spillovers.
- Sheds light on the trade-offs for domestic policy makers.
- **Three issues for discussion**.

[#1] Is the assumption of $\gamma > 0$ in line with the data?

- Assumption of $\gamma > 0$ is crucial. Leads to endogenous UIP wedge that reinforces the financial channel.

- **Interpretation** Banks can more easily divert resources when they are financed by foreign loans.

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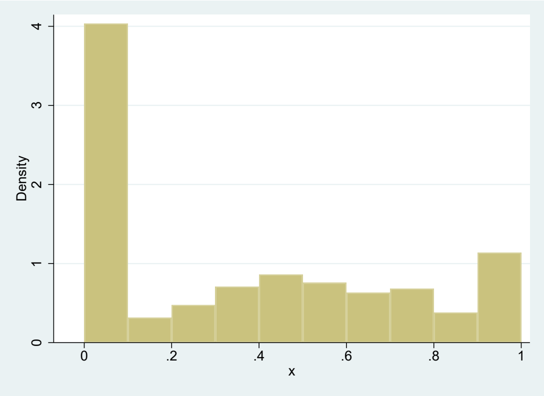
- Assumption of $\gamma > 0$ is crucial. Leads to endogenous UIP wedge that reinforces the financial channel.
- **Interpretation** Banks can more easily divert resources when they are financed by foreign loans.
- Intuitive: but supported by the data?
- Implications of $\gamma > 0$ (from steady state comparative statics):
  - The higher the share of US$ liabilities, the larger the credit spread.
  - Should hold in the data (on average).

[#1] Is the assumption of $\gamma > 0$ in line with the data?

- Micro data on UK firms' borrowing in bond markets [Cesa-Bianchi and Passari].
  - Bond-level information.
  - Currency denomination of the bonds.
  - Sample period 1997 to 2018

[#1] Is the assumption of $\gamma > 0$ in line with the data?

- Micro data on UK firms' borrowing in bond markets [Cesa-Bianchi and Passari].
- Sort firms by share of US$ liabilities (x_{it}) $\Rightarrow$ Large heterogeneity.



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- Micro data on UK firms' borrowing in bond markets [Cesa-Bianchi and Passari].
- Compute average spread by quartiles of x_{it}:

	Spread (bps)		
	All	Non-fin.	Fin.
Q1 (x_{it})	231	231	211
Q2 (x_{it})	170	170	146
Q3 (x_{it})	218	218	171
Q4 (x_{it})	209	209	195

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- Micro data on UK firms' borrowing in bond markets [Cesa-Bianchi and Passari].
- Higher x_{it} does not clearly map into higher credit spreads!

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- US$-denominated liabilities (x_{it}) not necessarily a 'vulnerability' indicator.
  - E.g.: Only most productive firms have access to US$ credit markets. [Salomao and Varela (2018); Maggiori, Neiman, Schreger (2018)]

[#2] Empirics: Closer to the model?

- Theoretical model is rich of testable predictions that are not fully exploited:
  1. A US tightening leads to an increase in UIP wedge (μ^*_{it}), credit spreads (cs_{it}), and a depreciation of the exchange rate ($\mathcal{Q}_{it}$).
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- Response of $\mu^*_{it}/cs_{it}/\mathcal{Q}_{it}$ conditional to *identified* monetary policy shocks ($\varepsilon_{US,t}$):

$$cs_{it}/\mu^*_{it}/\mathcal{Q}_{it} = \alpha_i + \beta\varepsilon^m_{US,t} + e_{it}$$

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  - Credit spreads: Rey (2106), but on AEs only.
  - Currency risk premia: Stavrakeva and Tang (2018) and Rogers, Scotti, and Wright (2018), but also on AEs only.
  - Exchange rate: Dedola, Rivolta and Stracca (2018), among many others.

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- Response of $\mu_{it}^*/cs_{it}/\mathcal{Q}_{it}$ to $\varepsilon_{US,t}^m$ for different levels of the share of US$ liabilities (x_{it}):

$$cs_{it}/\mu_{it}^*/\mathcal{Q}_{it} = \alpha_i + \beta_1\varepsilon_{US,t}^m + \beta_2\left(\varepsilon_{US,t}^m \cdot x_{it}\right) + \delta x_{it} + e_{it}$$

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  - Exchange rate: Cesa-Bianchi, Ferrero, Rebucci (2018), but conditional on an international credit supply shock.

[#2] Empirics: Closer to the model?

- **Caution** Country share of US$ liabilities could be correlated with other features (FX flexibility, degree of ERPT,...).

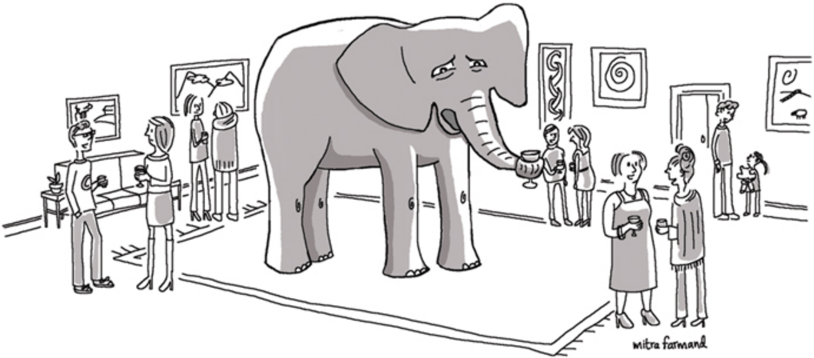
- Possible solution: Micro data. Can exploit within firm-time variation price of bonds denominated in different currencies:

$$cs_{ij,t} = \alpha_i + \alpha_{j,t} + \beta \left(\varepsilon^m_{US,t} \cdot \mathbb{I}^{\$} \right) + e_{it}.$$

- β captures the marginal impact of $\varepsilon^m_{US,t}$ on $ bond credit spread *relative* to £ bond credit spread.

- We consistently find $\beta > 0$.

[#3] Sterilized foreign exchange interventions



"Why is every party like this?"

[#3] Sterilized foreign exchange interventions

- From the conclusions:
  "*Common view is called into question: using monetary policy to stabilize the exchange rate not necessarily more desirable with foreign-currency debt, and can back fire.*"

- Including the exchange rate in the Taylor rule reduces the central bank autonomy in setting the interest rate.

- At times, central banks manage exchange rates precisely to *increase* their room for policy maneuvering ⇒ FXI and monetary policy as complements [Cavallino (2018)]

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- At times, central banks manage exchange rates precisely to *increase* their room for policy maneuvering $\Rightarrow$ FXI and monetary policy as complements [Cavallino (2018)]

- Role of sterilized FX interventions. To what extent they can undo the financial loop?

Summary

- Great paper.
- Learnt a lot about self-reinforcing feedback between the exchange rate and domestic balance sheets via the currency risk premium.
- Could be more ambitious with empirical evidence. Would strengthen the results).
- Would be interesting to study the role of sterilized FX interventions in this framework.