

Discussion of “Global Bank Lending and Exchange Rates” by Becker, Schmeling, and Schrimpf¹

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¹The views expressed here are those of the author of the discussion and do not necessarily reflect the views of the Board of Governors or staff of the Federal Reserve System.

Overview

- Very interesting paper
- Step forward in understanding the relationship between the dollar and financial intermediaries
- Overview of comments:
 - Placing paper in literature
 - Theory
 - Background on syndicated lending market
 - Comments on empirics

Placing the paper in the literature

U.S. dollar capturing global financial cycle; stronger dollar correlates with:

- Lower cross-border bank lending and bank leverage (Bruno and Shin (2015))
- Larger CIP deviations (Avdjiev et al. (2019) and Du and Schreger (2021))
- Greater risk and lower U.S. purchases of foreign bonds (Lilley et al. (2022))
- Greater demand for safe assets (Bianchi et al. (2022), Jiang et al. (2021))
- Lower loan originations by U.S. banks and lower demand for syndicated loans (Niepmann and Schmidt-Eisenlohr (2023))

Trade in assets/capital flows explain bilateral exchange rates:

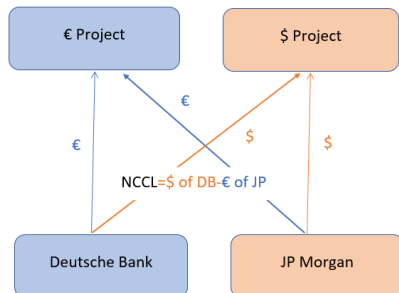
- Portfolio re-balancing equity flows (Camanho et al. (2022))
- Convenience yields on government bonds (Engel and Wu (2022))
- Hedging demand (Liao and Zhang (2021))

Empirical approach using syndicated loan data

- Monthly changes in the dollar exchange rate vis-a-vis currency c explained by changes in net cross-currency syndicated lending:

$$\Delta NCCL_{c,t} = [\log(USD\ loans_{c,t}) - \log(c\ loans_{US,t}) - [\log(USD\ loans_{c,t-1}) - \log(c\ loans_{US,t-1})]]$$

- $\Delta NCCL_{c,t}$ instrumented with granular IV (Gabaix and Kojien (2023))

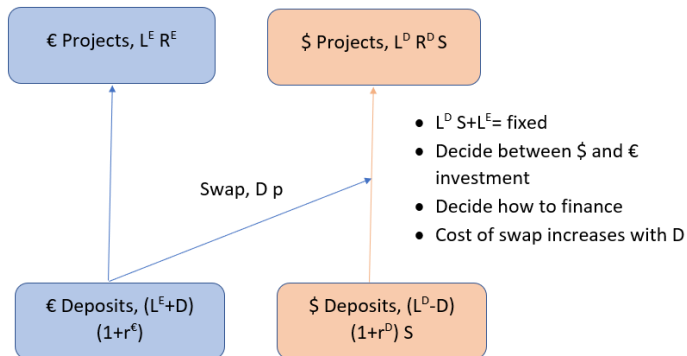


Findings

- When there is additional lending of \$42 billion into USD by foreign banks (net of fx lending by U.S. banks), the dollar appreciates by 0.36 percent
- Effects are larger
 - ▶ Post GFC
 - ▶ When broker-dealer leverage is low
 - ▶ When U.S. banks' holdings of excess reserves are lower
 - ▶ During Fed hiking cycles
 - ▶ For currencies of countries in which banks are net dollar borrowers

The theory/mechanism is unclear

- Capital allocation problem can be solved with exogenous exchange rate
- How is the exchange rate endogenized?



Could NCCL be capturing global financial cycle?

Key regression equation:

$$\Delta s_{c,t} = \phi \Delta NCCL_{c,t} + \psi_{c,t} \quad (1)$$

- Explore extent to which net cross-currency lending explains time series variation in exchange rates versus cross-sectional variation within time
 - ▶ Include month fixed effects instead of year fixed effects
 - ▶ Can first principle component of $\Delta NCCL_{c,t}$ explain changes in broad dollar index?
 - ▶ Show regression results by currency

Banks originate loans to sell them quickly

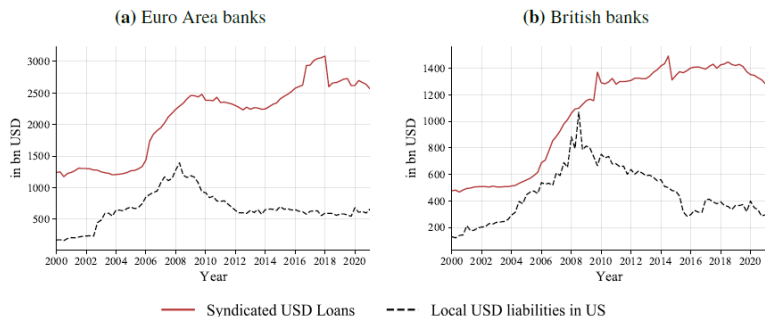


- Banks sell syndicated loans, especially risky ones, quickly after origination to CLOs and mutual funds (Lee et al. (2019))
- Institutional investors' risk appetite/demand for loans is key driver of loan syndication (Meisenzahl et al. (2021))
- Syndicated loans “escape” quarterly international banking statistics

Funding of loans comes from institutional investors

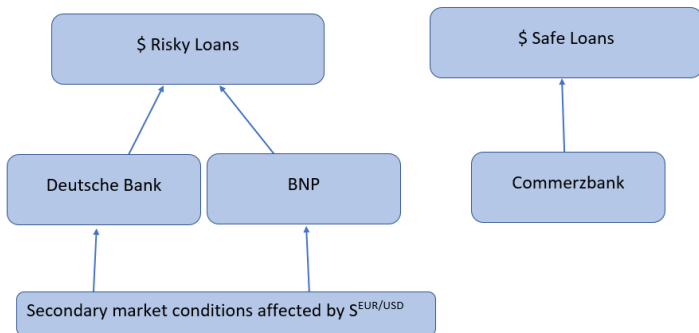
- Paper argues that banks rely increasingly on FX swaps to fund syndicated loans as syndicated lending relative to USD liabilities has increased
- But banks need less funding today because they quickly sell loans

Figure 3: USD syndicated loans in relation to local USD liabilities of non-US banks



GIV does not solve all endogeneity issues

- GIV: Aggregate change in lending MINUS average change in lending across banks
- GIV strategy assume that any variable that affects banks' lending behavior and the dollar would affect all banks in the same way
- But large and small lenders may differ in what type of loans they originate and whether they originate to distribute



Corroborating results with data from BIS LBS

- From Locational Banking Statistics, construct quarterly $\Delta NCCL_{c,t}$ in two ways:

$$\Delta NCCL_{c,t} = \Delta (\log(USD\ claims_{c,t}) - \log(c\ claims_{US,t})) \text{ and}$$

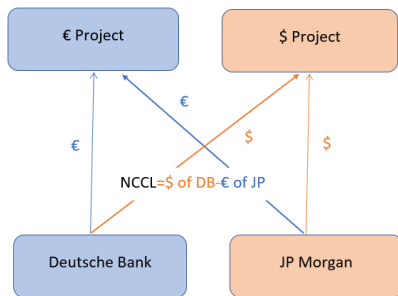
$$\Delta NCCL_{c,t}^* = \Delta \underbrace{\log(USD\ claims_{c,t} - c\ claims_{US,t})}_{>0 \text{ in BIS data}}$$

- Regress change in exchange rate on $\Delta NCCL_t$ by currency

	(1) EUR	(2) GBP	(3) YEN	(4) Broad	(5) EUR	(6) GBP	(7) YEN	(8) Broad
$\Delta NCCL$	-0.113 (0.0817)	0.00919 (0.00806)	-0.00777 (0.0411)	0.112** (0.0529)				
$\Delta NCCL^*$					-0.173** (0.0840)	-0.0842 (0.127)	0.556*** (0.158)	0.0378 (0.0702)
Constant	0.00427 (0.00501)	0.00924 (0.00577)	-0.00477 (0.00711)	0.00691** (0.00331)	0.00444 (0.00480)	0.00831 (0.00523)	-0.0114 (0.00696)	0.00668* (0.00365)
Observations	59	59	59	42	59	59	59	42
R-squared	0.055	0.003	0.001	0.062	0.081	0.020	0.164	0.004

Is missing information on loan amounts a big issue?

- Dealscan only has full information on the loan allocation between syndicate members for 33 percent of the loans; 67 percent are allocated equally among member
- Show that lack of info is not a problem:
 - ▶ Syndicate members typically take equal shares, or
 - ▶ Loan syndicates only consist of either US parent banks or non-US banks (unlikely to be true)



How do you deal with valuation effects?

- Volumes of USD loans and FX loans both expressed in dollar
- Appreciation of dollar implies more USD lending relative to FX lending with same underlying quantities
- The GVI approach takes care of that mechanic relationship (I think); would be worth pointing out

Are syndicated loan flows large enough to move exchange rates?

- \$42 billion monthly inflows into USD lead to 0.36 percent appreciation
- BIS triennial survey shows daily USD spot transactions at \$1.8 trillion

Additional questions

- How important is the netting? Do results hold with just FX lending by US banks or USD lending by foreign banks?
- How important is the GIV approach? What do OLS results look like?
- Why do you compute $\Delta NCCL_t$ as

$$\begin{aligned}\Delta NCCL_{c,t} &= [\log(USD\ loans_{c,t}) - \log(c\ loans_{US,t})] \\ &\quad - [\log(USD\ loans_{c,t-1}) - \log(c\ loans_{US,t-1})]\end{aligned}$$

?

- ▶ Approach compares changes in lending by US and non-US banks irrespective of size of net flows; but size of net flow should matter
- ▶ Why not compute $net = USD\ loans_{c,t-1} - c\ loans_{US,t-1}$ and study growth rate in net flows?
- ▶ Derive specification from theory

Final remarks

- This paper is going to be a significant contribution to the literature
- I look forward to reading the next draft and seeing this paper evolve
- My comments should be straightforward to address and incorporate

THANK YOU FOR YOUR ATTENTION!