“Quantities and Covered-Interest Parity”

Discussion by Valentina Bruno

WAIFS, October 11, 2024

Synopsis

Existent literature on CIP: focus on prices

This study:

- Quantities (Bank positions) merged with prices
- Data help addressing “suggestive” evidence from prices

Question asked: What drives CIP bases?

Answer: Frictions

1) Scarcity of foreign safe assets

2) Market segmentation

3) Concentrated demand

Foreign safe asset scarcity

- Either you want but can’t borrow US dollars, and this affects CIP
- Or you can’t invest in foreign safe assets, and this affects CIP

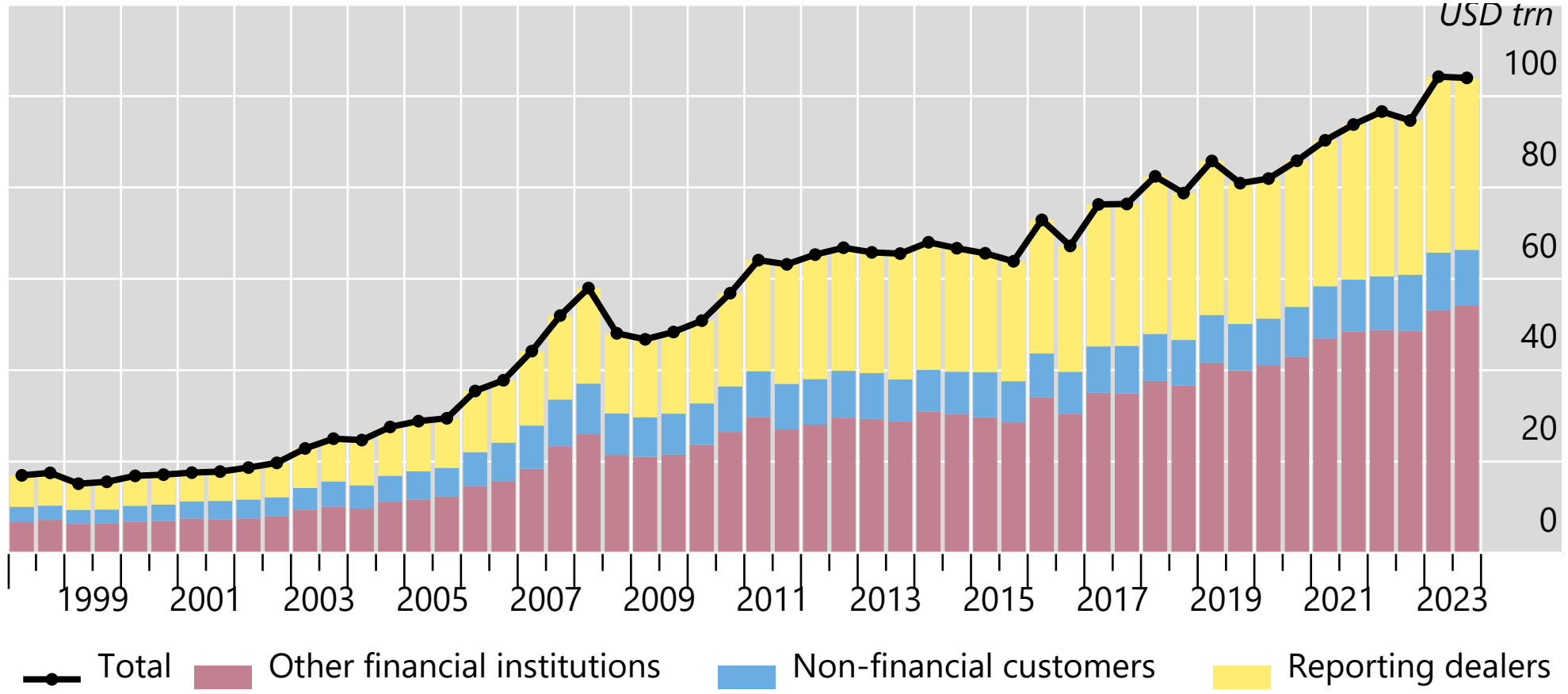
- Former or latter?

- I want dollars! > Demand for Dollar.

Comment #1: It’s a big carry trade

- I want to invest in high yield assets and not in safe foreign assets
- FX swap/forward= off balance sheet lending

FX swaps and forwards in all currencies



https://data.bis.org/topics/OTC_DER/BIS,WS_OTC_DERIV2,1.0/H.A.C.B.5J.A.5J.A.USD.TO1.A.A.3.C

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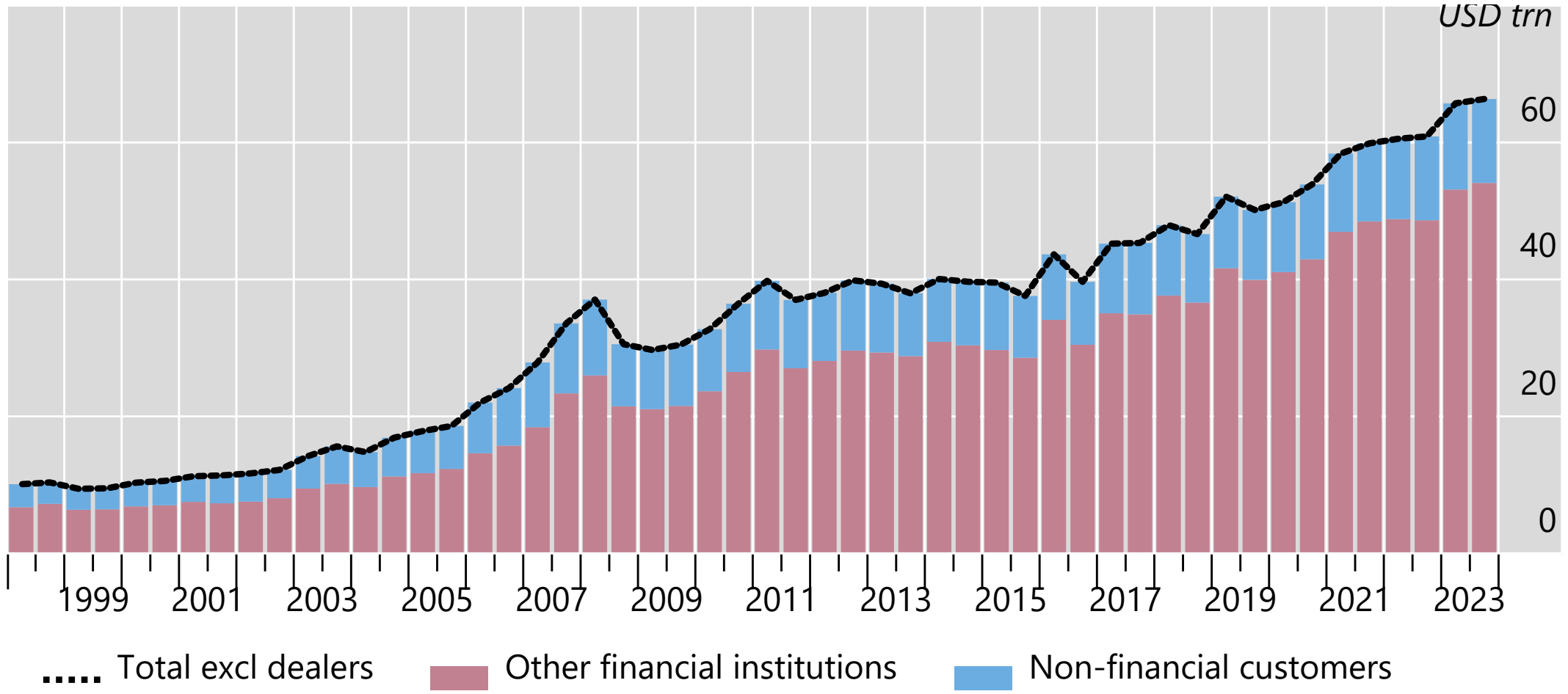
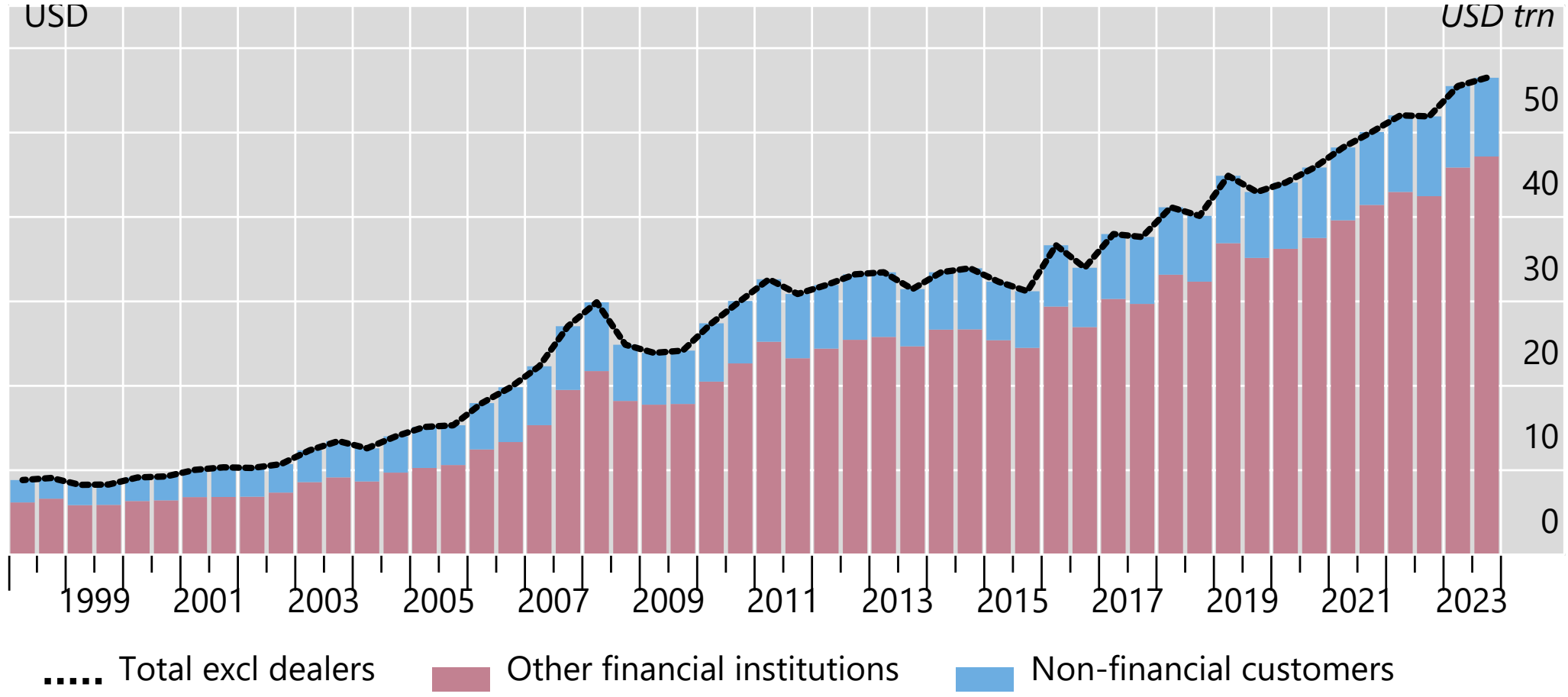
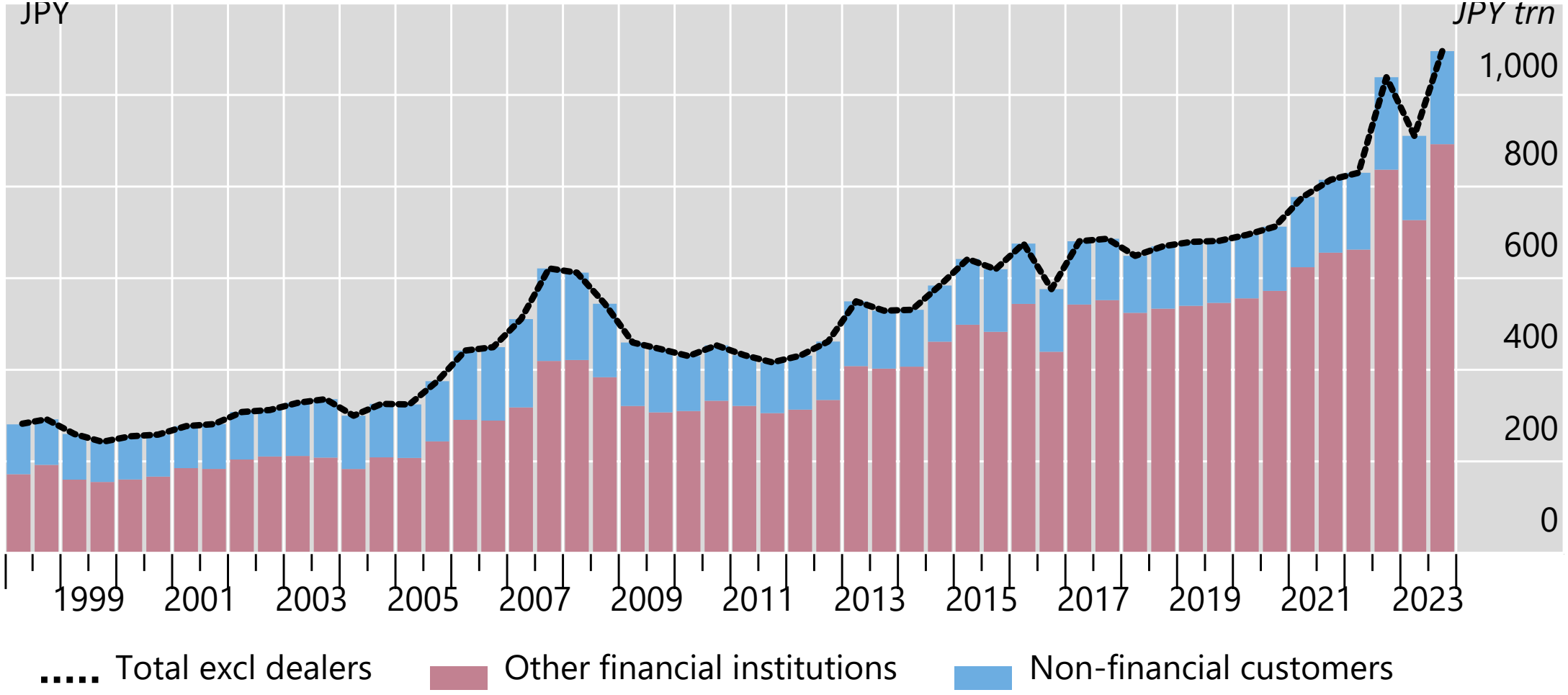


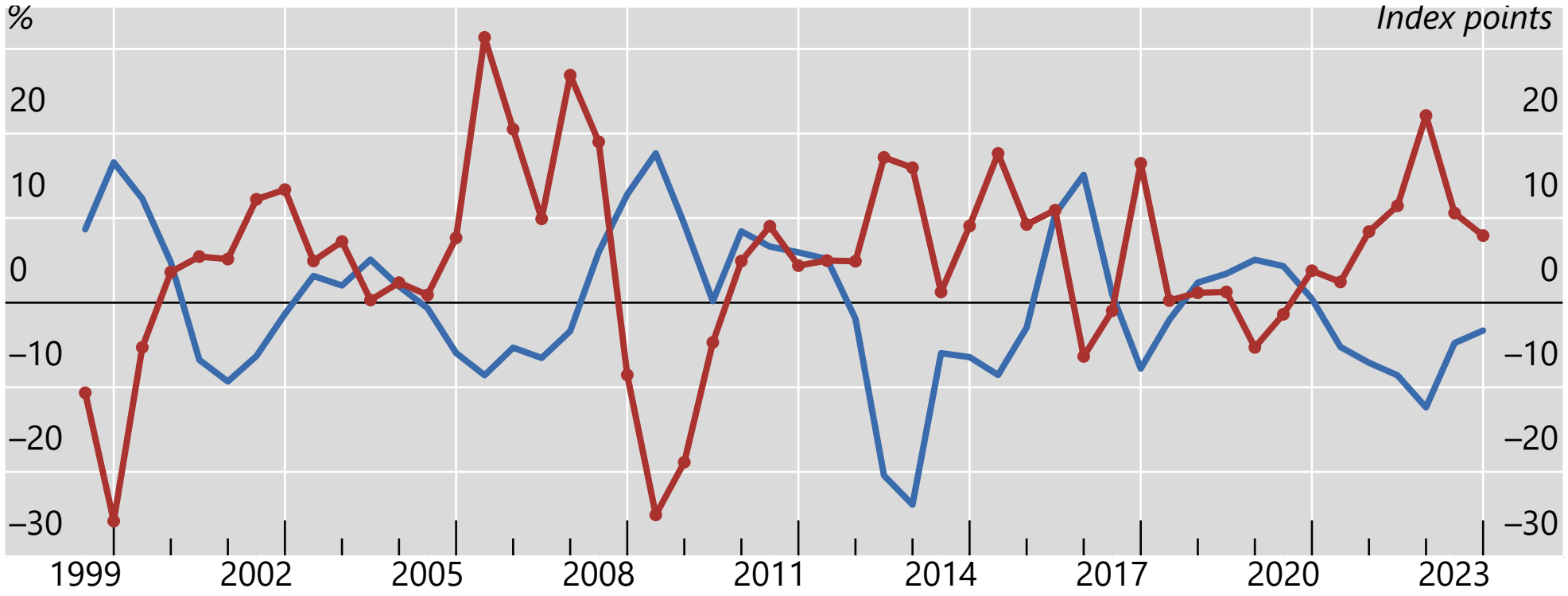
FX swaps and forwards in USD



FX swaps and forwards in JPY

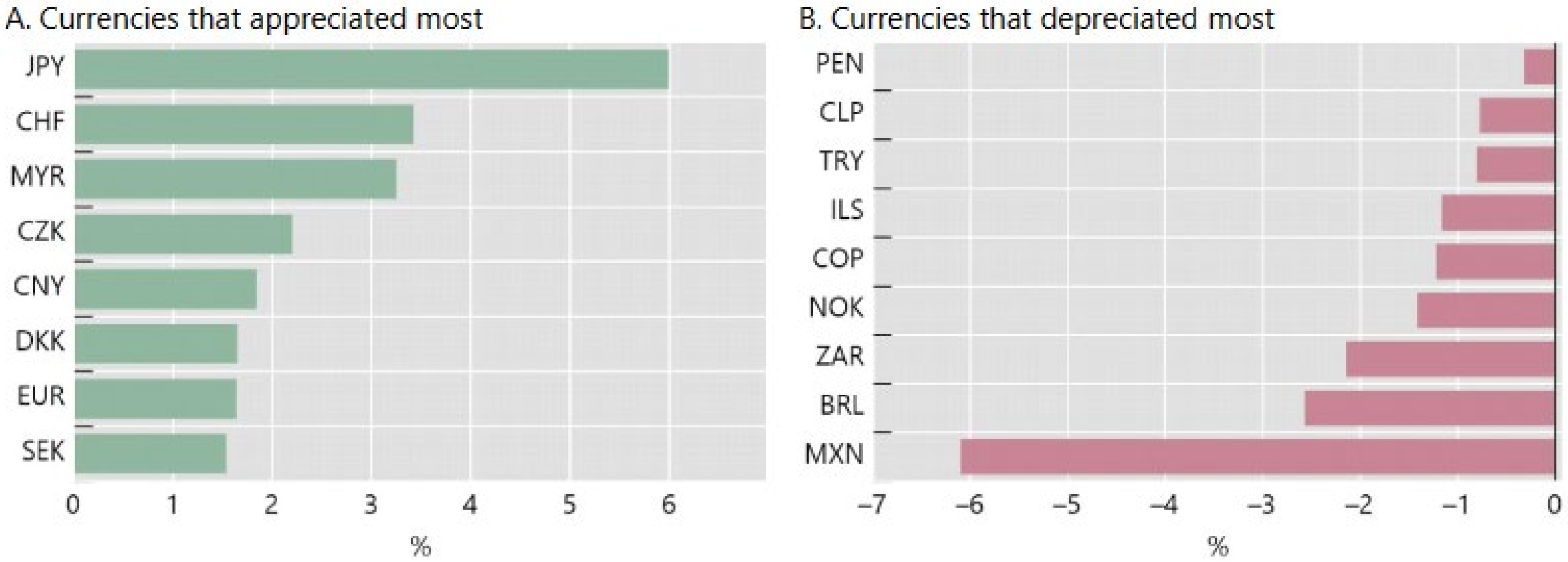


FX swaps in JPY expands when broad JPY index falls



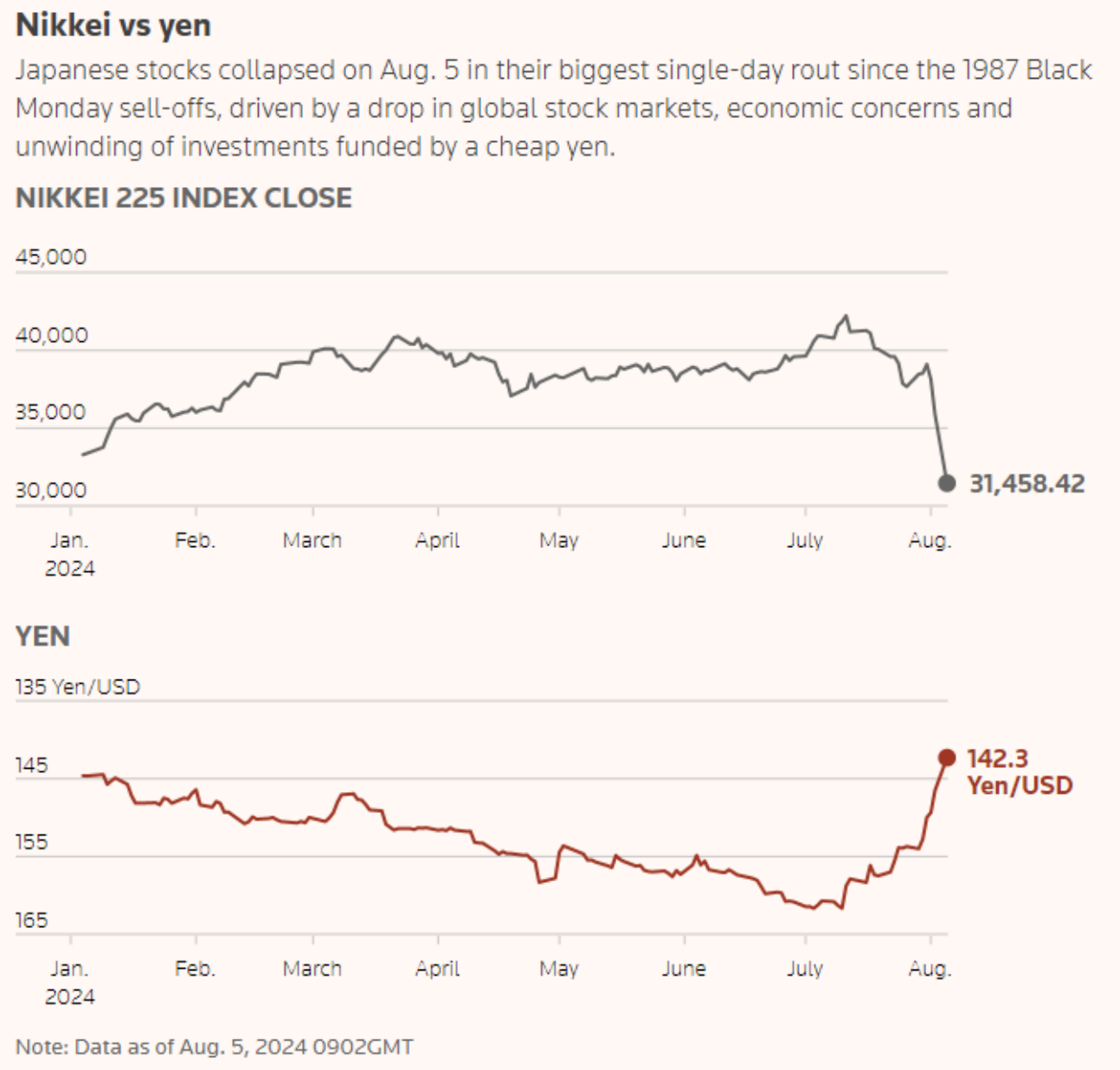
Changes in exchange rates against the US dollar, 1–5 August

Graph 5



Sources: BIS bilateral exchange rates; authors' calculations.

Source: BIS bulletin 90



August 5th, 2024: Nikkei Posts Biggest One-Day Fall Since 1987 Crash, Yen Rallies

https://www.reuters.com/graphics/JAPAN-YEN/EXPLAINER/xmvjnxjmbvr/

Comment #2: US banks do not give the full picture. You need to look at non-US banks, too.

FX swaps in USD expands when broad dollar index falls

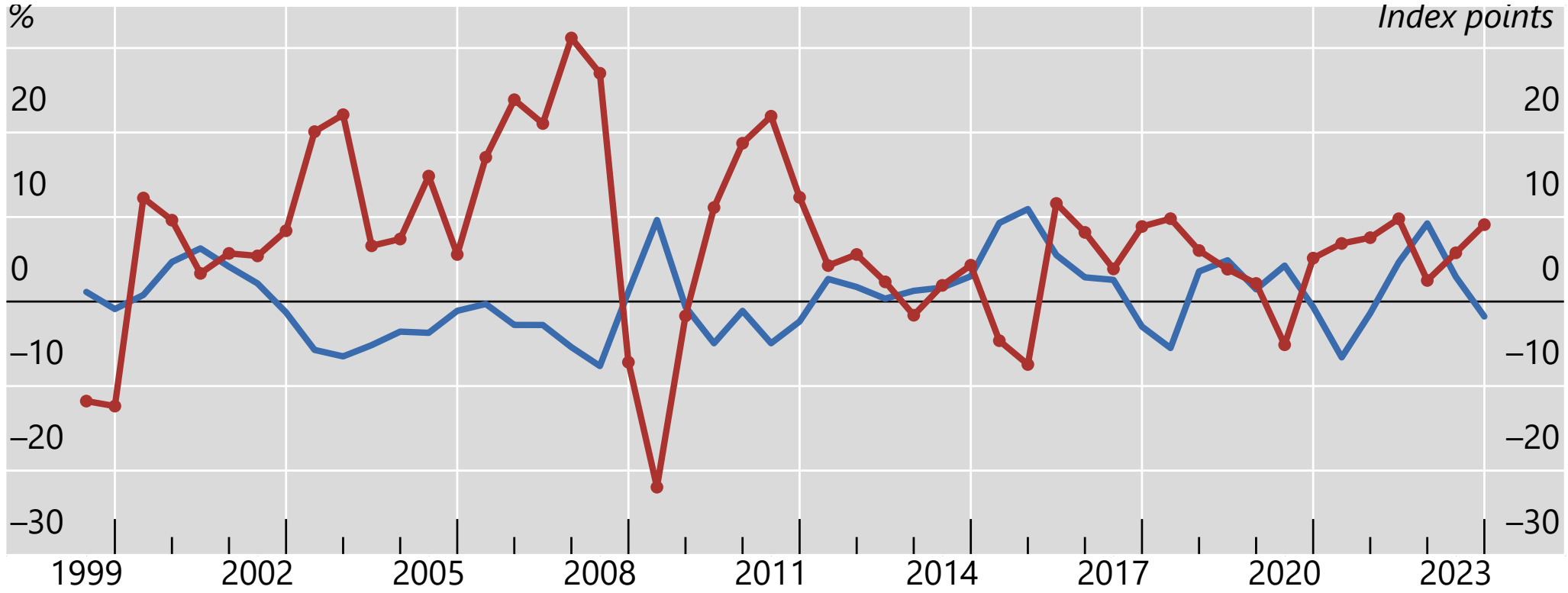
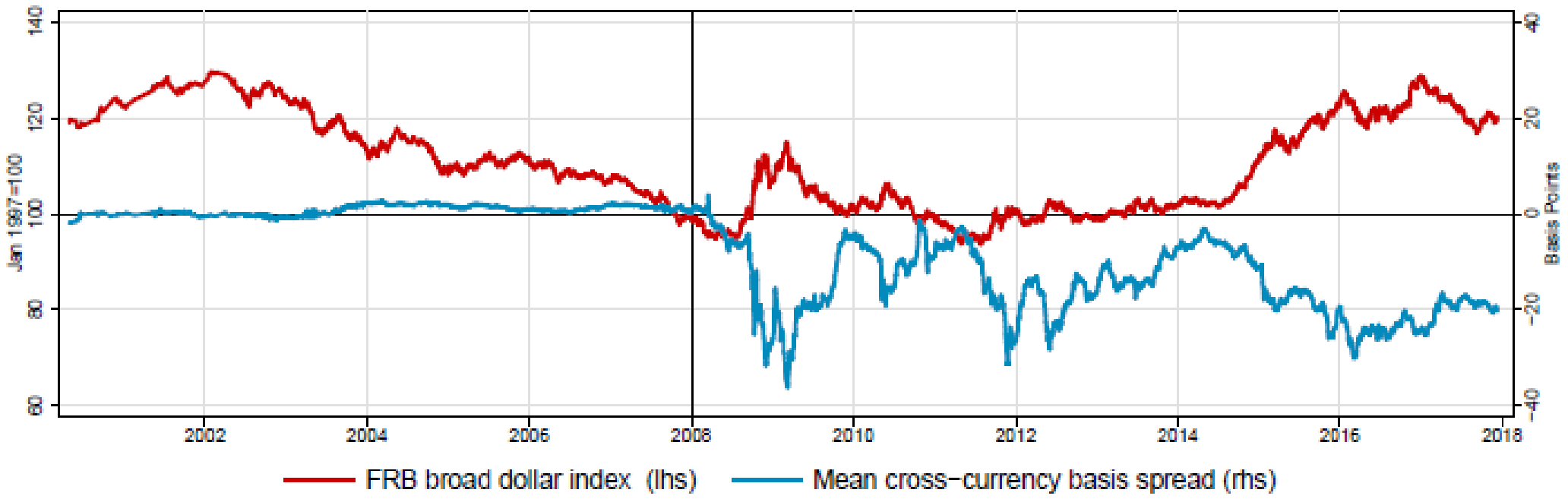
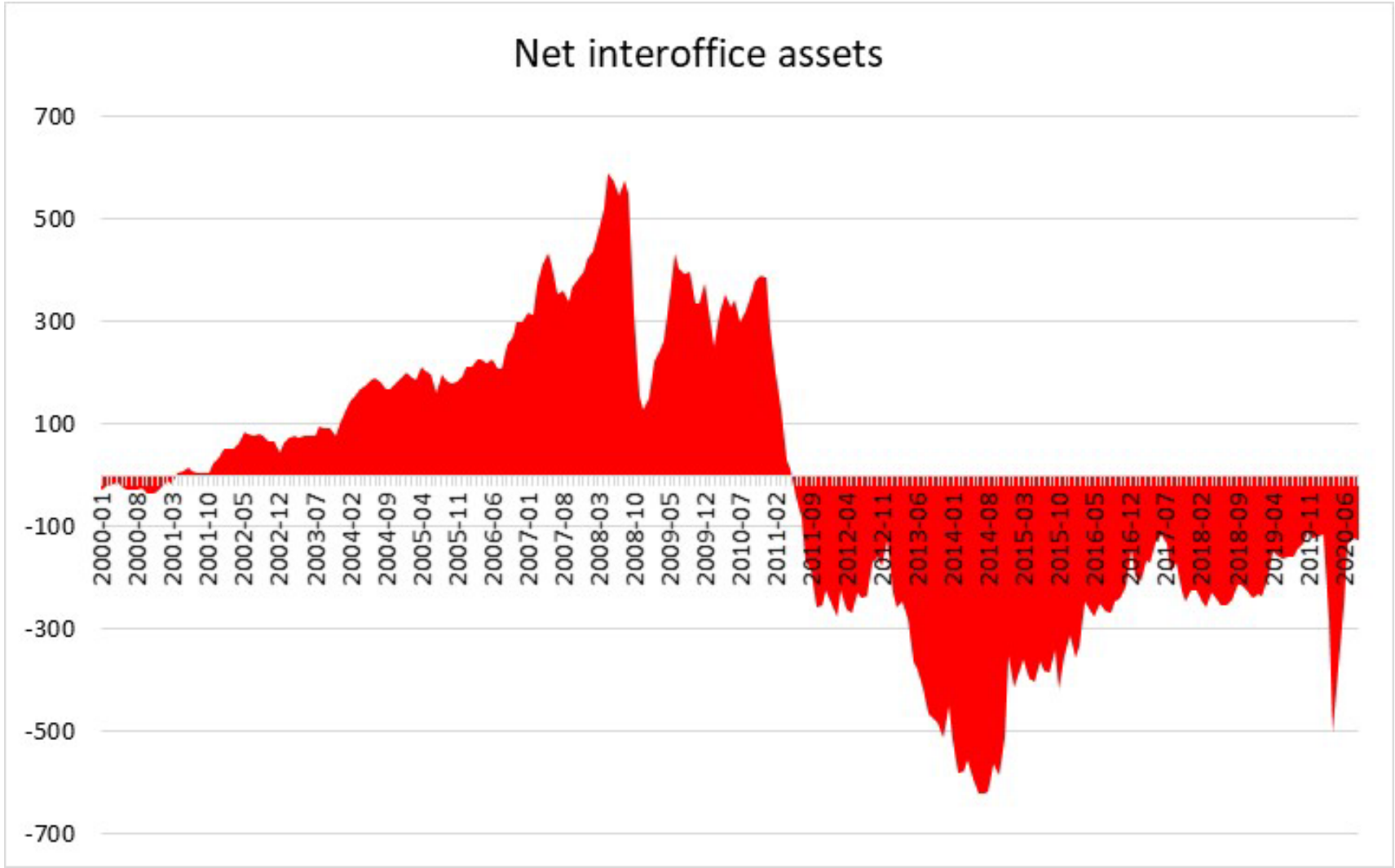


Figure 1: U.S. dollar broad index and the cross-currency basis (2000-2017)

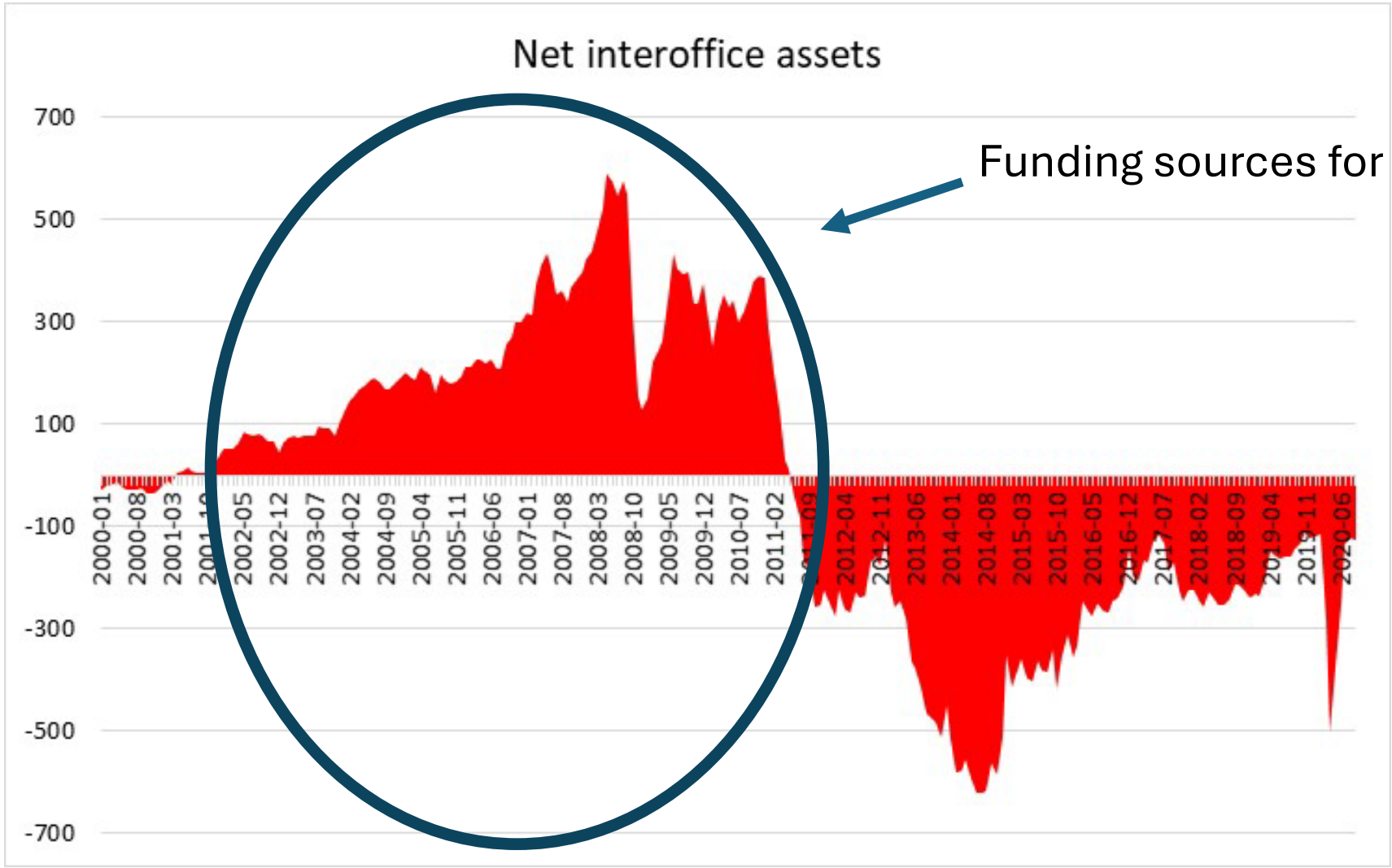


Notes: This figure plots the Federal Reserve Board broad dollar index (in red) and the average five-year cross-currency basis (in blue) for G10 currencies from January 1, 2000 to December 8, 2017. The ten sample currencies are: the Australian dollar, the British pound, the Canadian dollar, the Danish krone, the euro, the Japanese yen, the New Zealand dollar, the Norwegian krone, Swedish krona, and the Swiss franc.

Source: Avdjiev, Du, Koch and Shin (2019) The Dollar, Bank Leverage, and Deviations from Covered Interest Parity



Net interoffice assets of foreign banks in U.S. measure the net claim of the branch or subsidiary on its parent. It is given by negative of Federal Reserve weekly H8 series on “net due to related foreign offices of foreign-related institutions” (billion of dollar)



Funding sources for the parent bank

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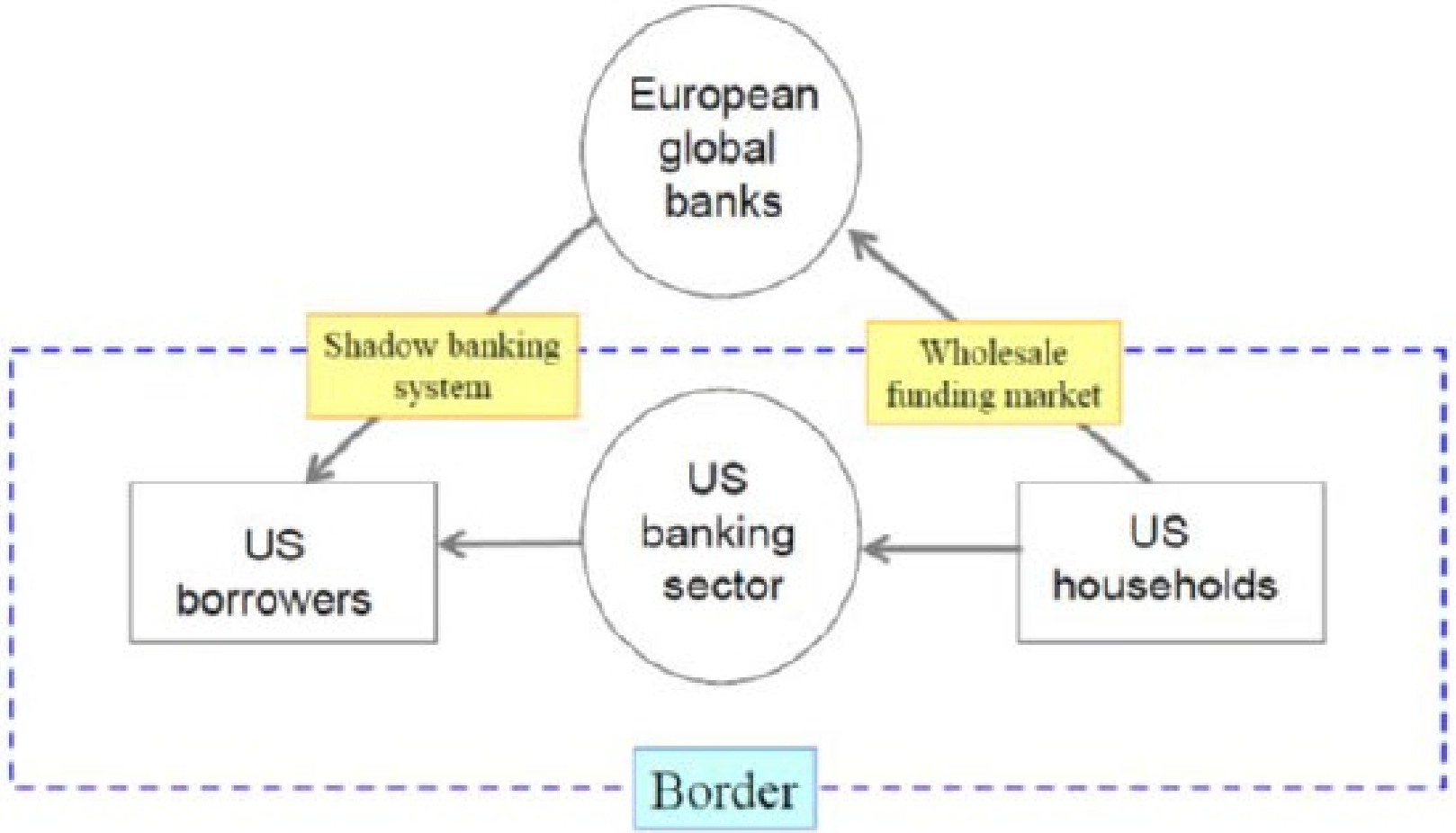
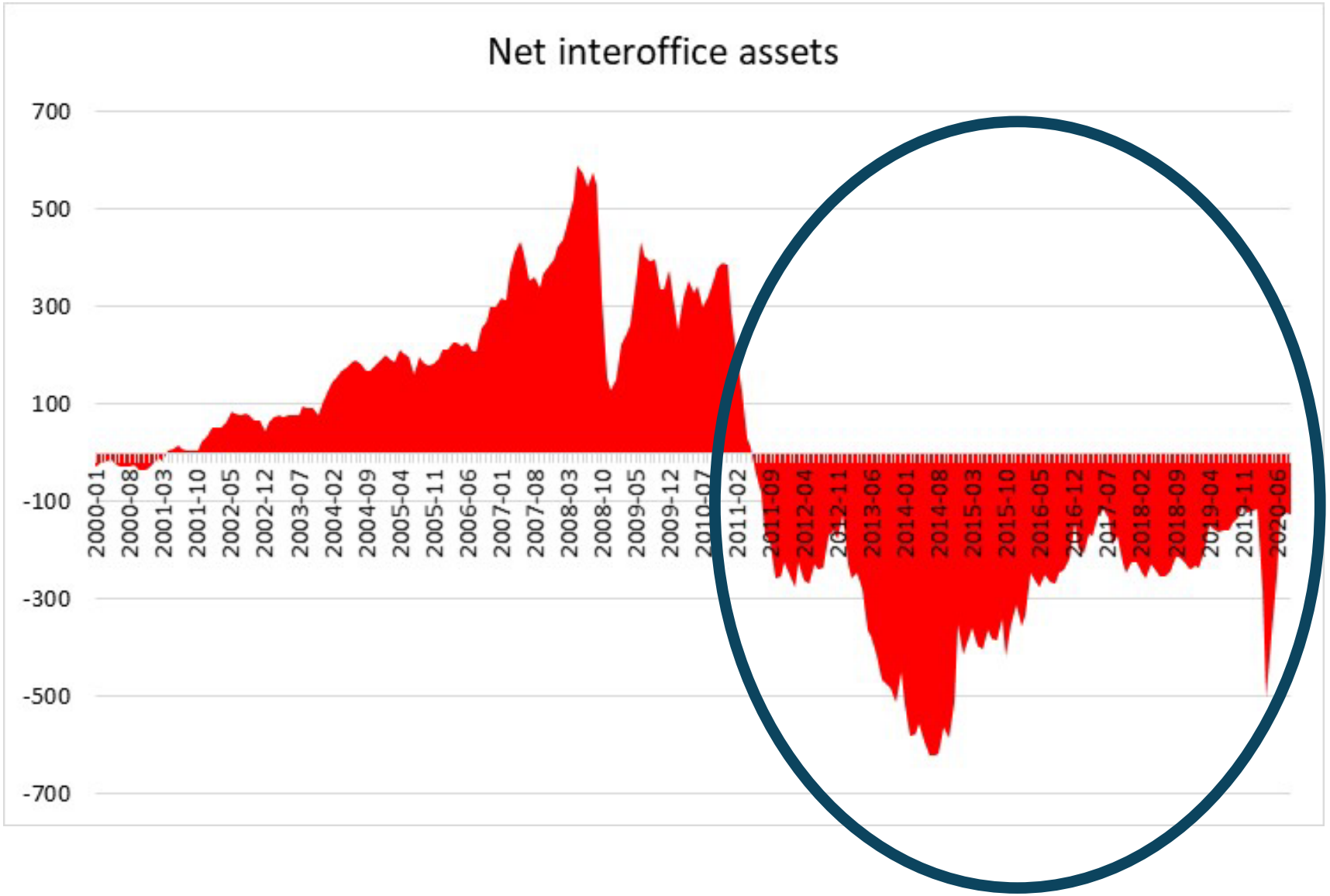
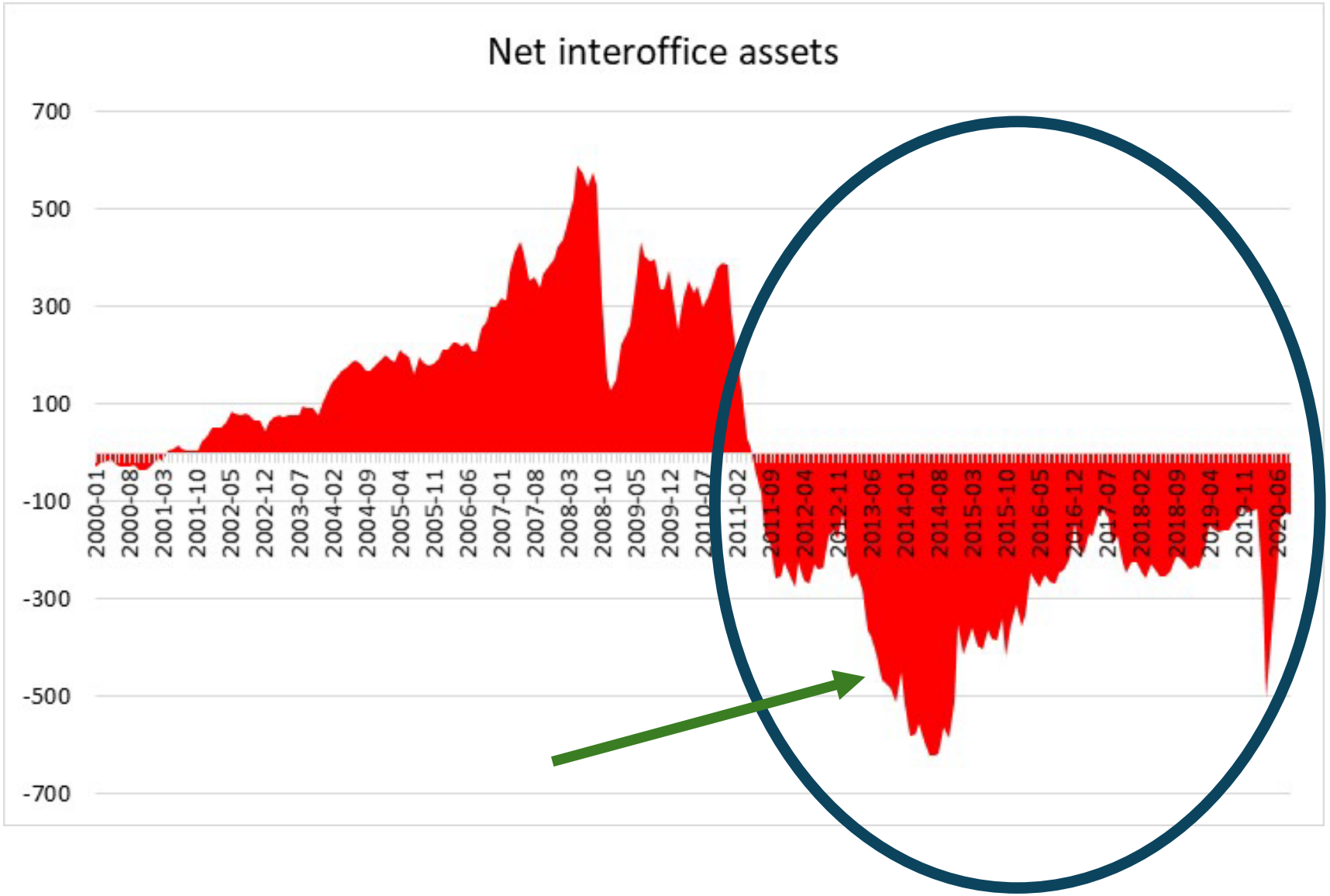
Structure of the global banking system



Hyun Shin's banking glut



Net interoffice assets of foreign banks in U.S. given by negative of Federal Reserve weekly H8 series on “net due to related foreign offices of foreign-related institutions”



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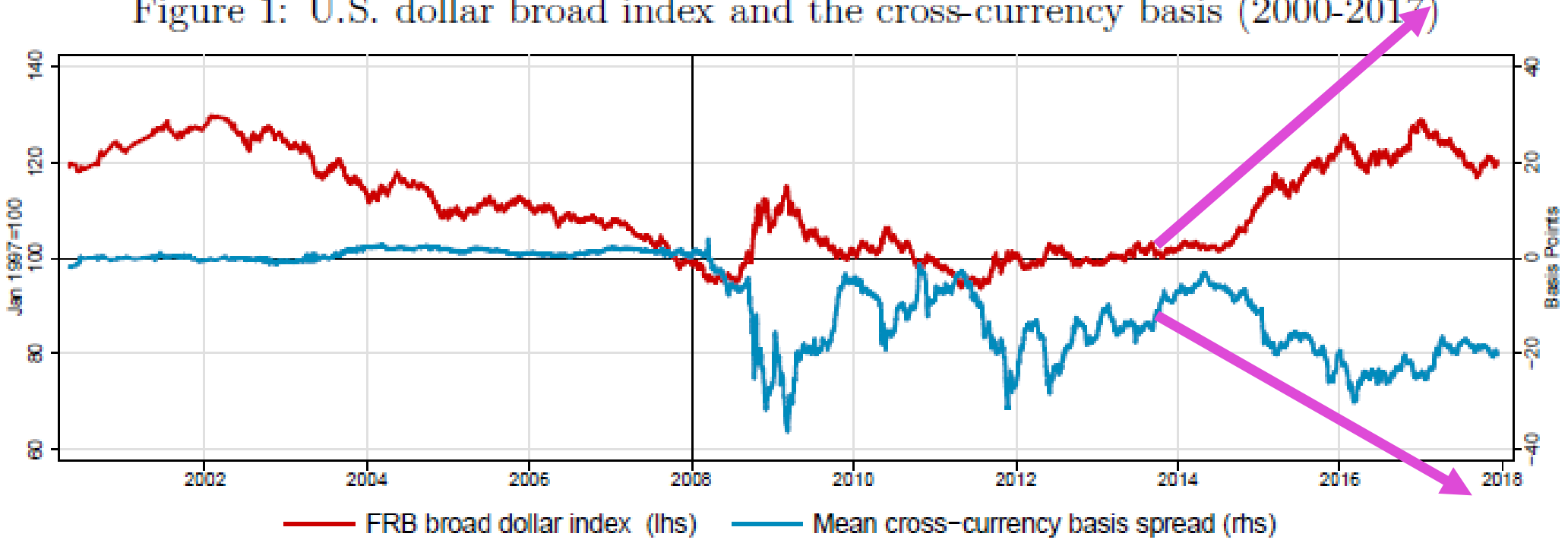

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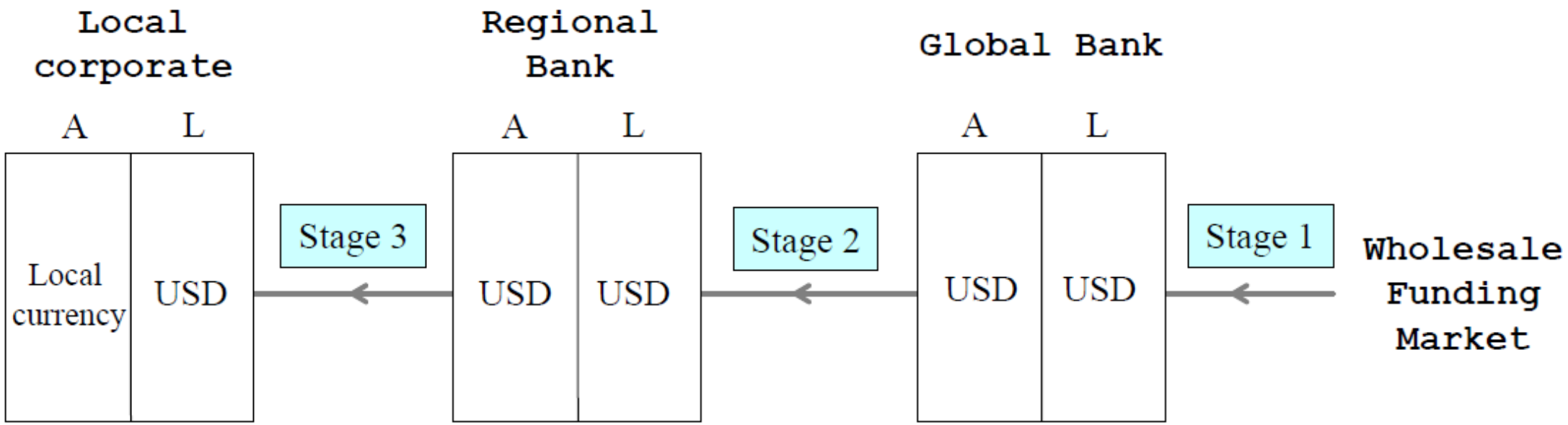
Global banking story and Exchange rates

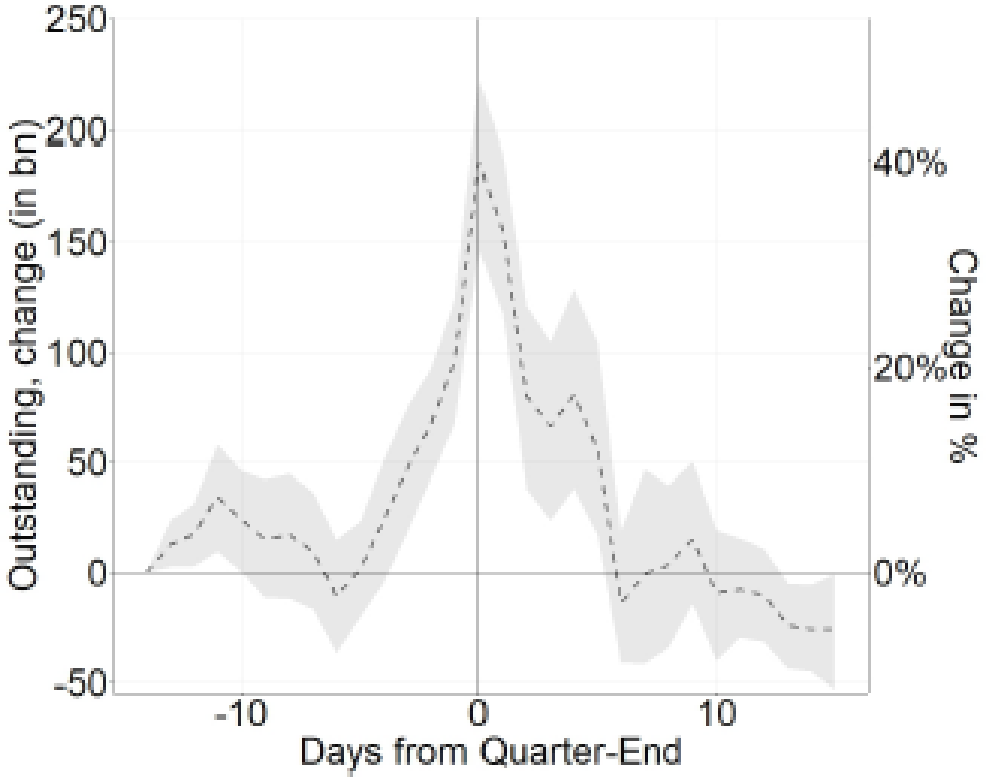


Bruno and Shin *Risk Taking Channel of Exchange Rates*

Global banking story and Exchange rates

- There is positive association between the growth in net interoffice assets of foreign banks in the US and the growth in cross-border loans (Bruno and Shin, 2015, *Review of Economic Studies*)

The surge in the CIP deviation at quarter-ends is mostly a European bank story. European banks are window dressing their Basel III leverage ratio by cutting back on repos as a source of dollar borrowing, and instead going into FX swaps.



Event study around quarter-ends for short-term outstanding FX swap positions. **The increase in quarter-end activity is linked to regulatory-driven demand effects**.

Kloks, Mattille, Ranaldo (2024)

HUNTING FOR DOLLARS!

Additional comments on the scarcity of foreign safe assets hypothesis

- If interest rates are zero, I do not need to buy bonds (safe assets) - I can just buy cash and put it in the luggage
  - Do the results hold for Japan?

- **What is a "safe asset"?** Are we comparing apples to apples?

The arbitrage strategy closer to the operations of a bank's proprietary trading desk (prop desk), involves rolling over overnight unsecured money market positions across currencies, and hedging interest rate risk using overnight index swap (OIS) contracts.

(Griffoli and Ranaldo, 2011)

Quibbles

Data on Swaps and Forwards: Cover cash-settled transactions, exclude contracts for difference or other non-deliverable transactions

- How big are the NDF? For USD, it seems more than 25%. For other currencies, it is more (BIS Triennial Central Bank Survey, 2022)

Quibbles

	Days to Maturity	$\ln(1+\text{Gross Notional})$	$\mathbb{I}$(Quarter End)	$\mathbb{I}$(Year End)	HMV_t^k
$Net_{t,t+n}^k$	0.046***	0.046***	−0.006**	−0.008***	0.007**
	(0.00)	(0.00)	(0.01)	(0.00)	(0.02)
N	151,655	151,655	151,655	151,655	129,059

- What is the expected correlation? In the commodity space, futures and forwards are the mirror of each others (Mixon and Onur)
- How about the broad dollar index?

Wrapping-up

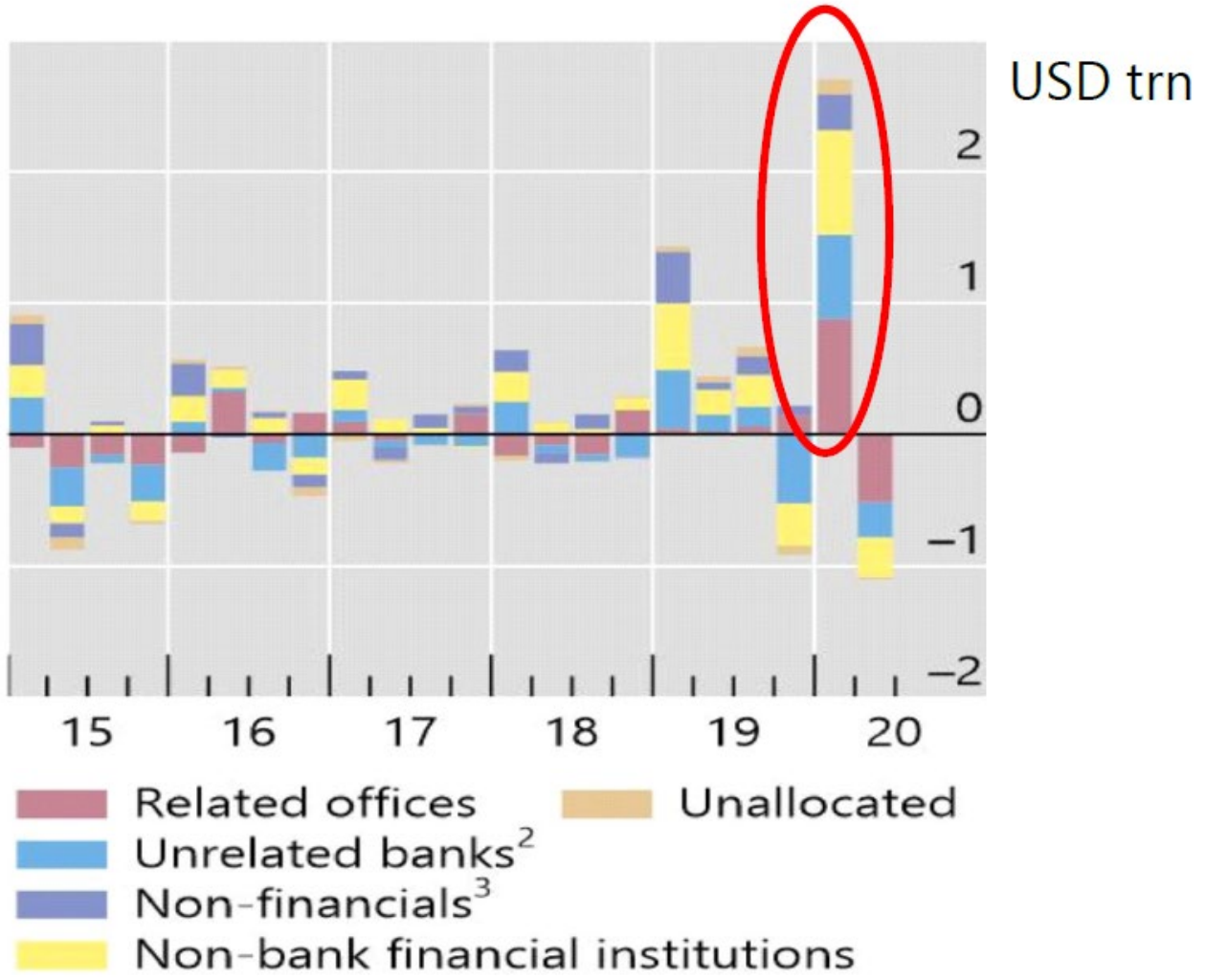
- Demand of dollars, Carry trades, and Risky position taking.
- And we need to look at European banks.

Main References

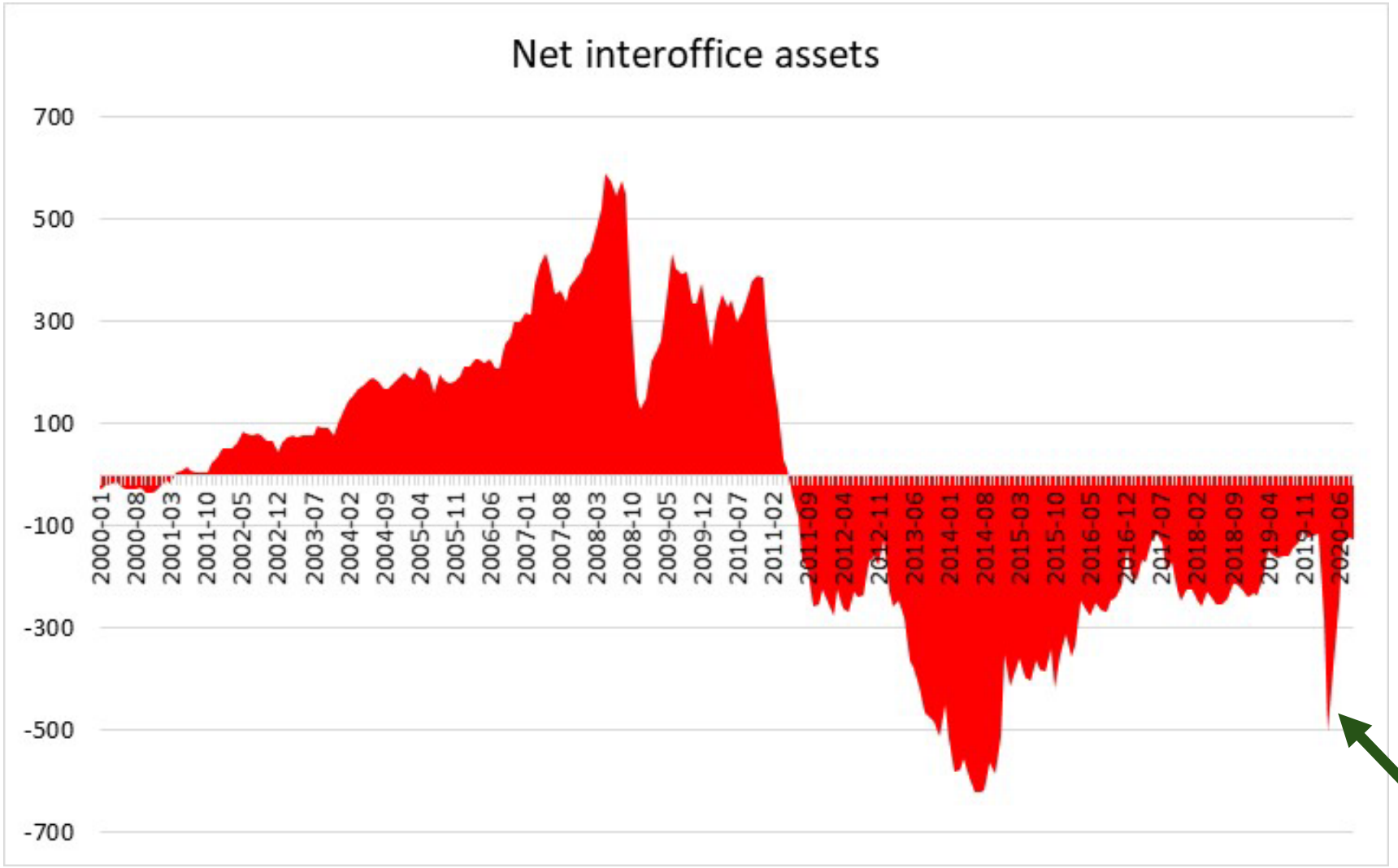
- Bruno and Shin (2015) “Cross-Border Banking and Global Liquidity,” Review of Economic Studies.
- Avdjiev, Du, Koch and Shin (2019) The dollar, bank leverage and the deviation from covered interest parity
- Shin (2024). What we Just learned from Carry Trade Blowup. Odd Lots podcast.
- Kloks, Mattille, Ranaldo (2024) Hunting for Dollars

- Griffolli and Ranaldo (2011) Limits to Arbitrage during the Crisis: Funding Liquidity Constraints and Covered Interest Parity
- Mixon and Onur (2020) Risk Appetite and Intermediation by Swap Dealers
- BIS Triennial Central Bank Survey, 2022 https://www.bis.org/statistics/rpfx22_fx_annex.pdf

Cross-border positions of BIS-reporting banks



Source: BIS international banking statistics, Graph 1, October 2020



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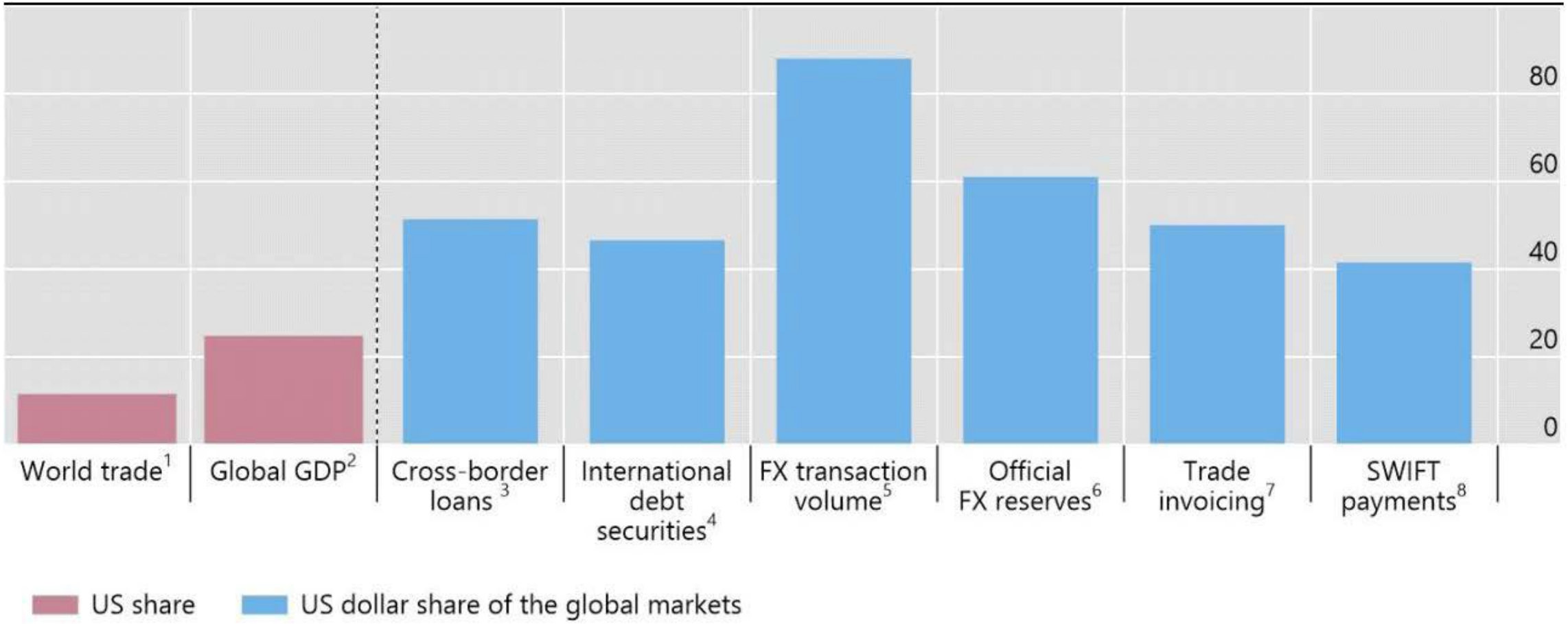
The US dollar is the dominant currency



Source: BIS