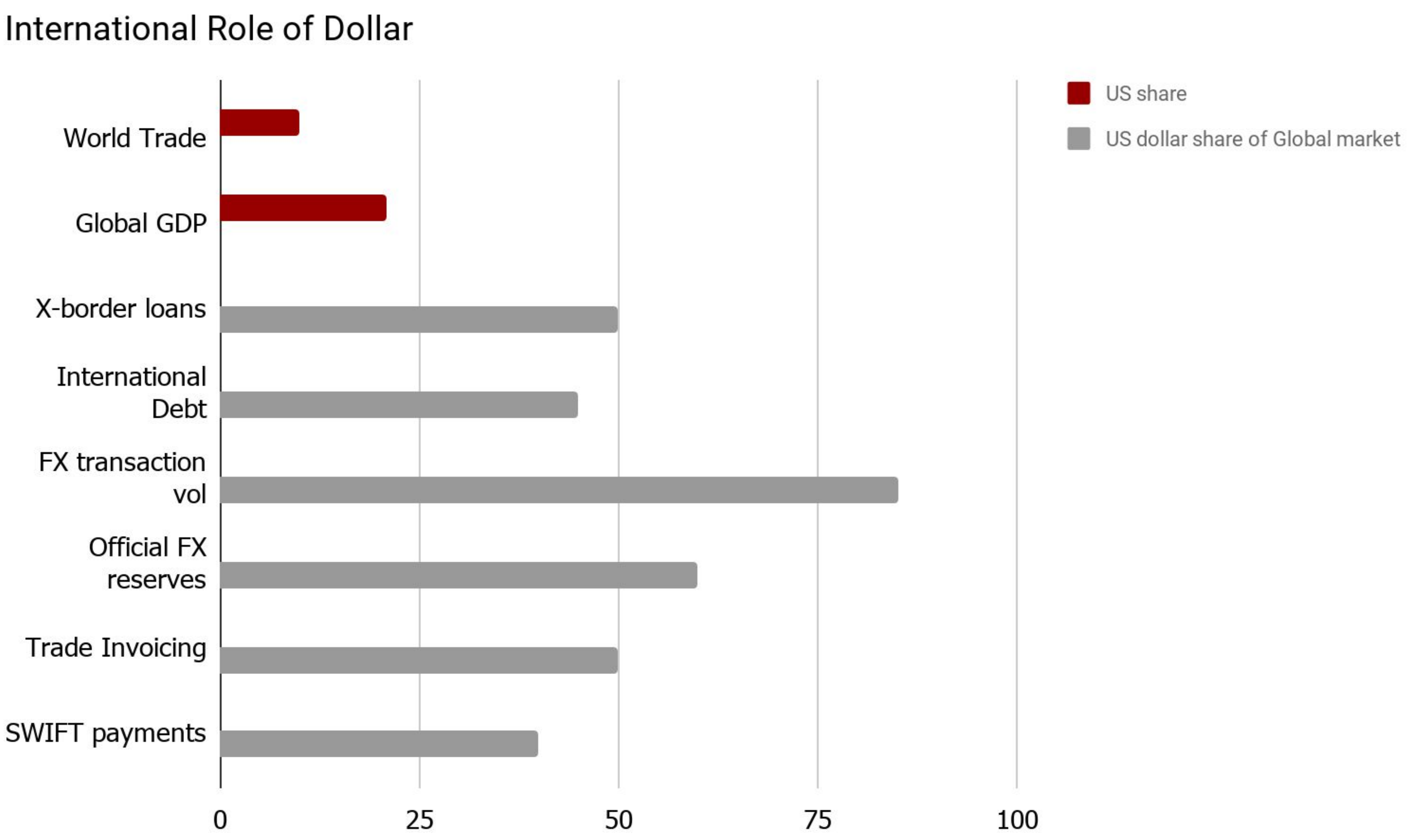
U.S. Banks and Global Liquidity

Introduction by Hanno Lustig (Stanford GSB)

Dollar Dominance

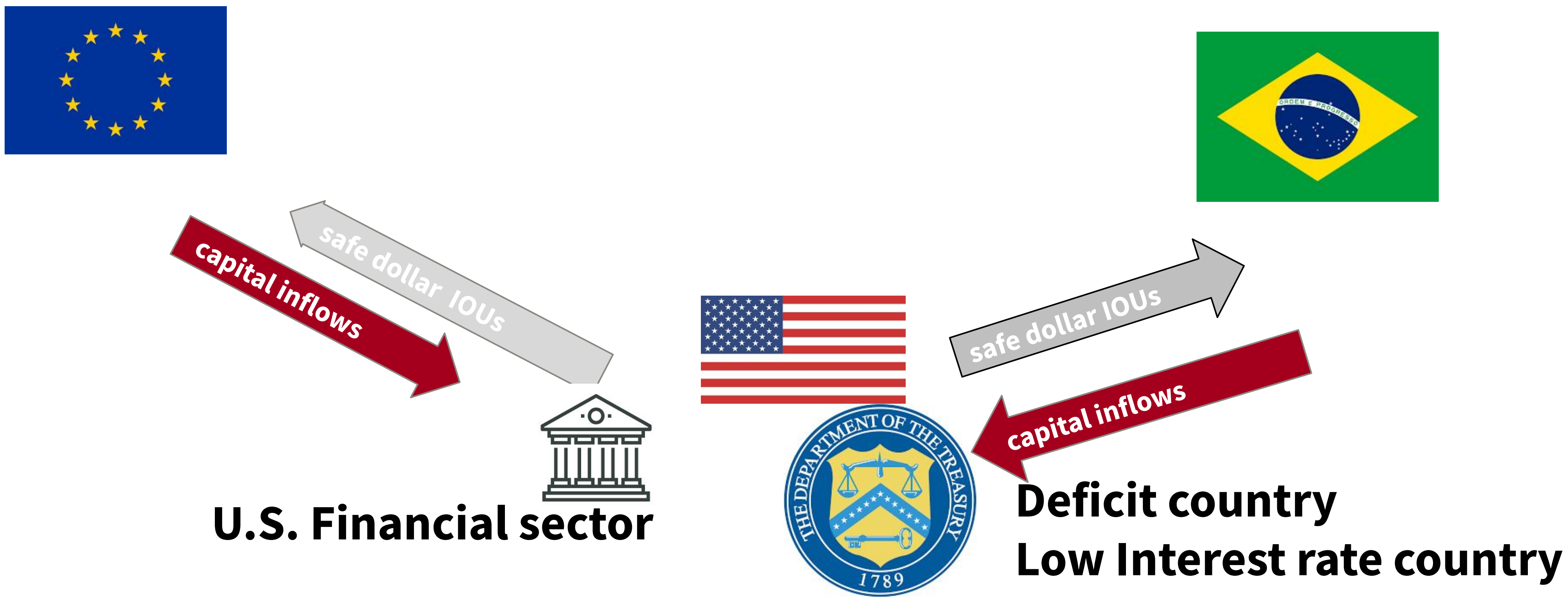


BIS report on Dollar Funding Markets, June 2020.

Manufacturing Dollar Safe Assets

- foreign investors derive convenience yields from **dollar safe assets** (e.g. Treasurys) (see e.g. Gopinath and Stein, 2018; He, Krishnamurthy, Milbradt, 2019; Koijen and Yogo, 2019; Liu, Schmid and Yaron, 2019)
  - dollar exchange rate prices in convenience yields; dollar appreciates in bad times (Valchev, 2016; Jiang, Krishnamurthy, and Lustig, 2017, 2018)
- U.S. financial system creates **substitutes for U.S. Treasurys**
  - banks before GFC: growth in MBS;
  - non-banks after GFC: growth in leveraged loans
- U.S. earns seigniorage revenue from creation of dollar safe assets; invests in risky foreign assets (Gourinchas and Rey, 2007).
- U.S. is a **low interest rate country**, but runs large and persistent current account **deficits**
- **Foreigners** also borrow in dollars
  - dollar debt dominance (see Ivashina, Scharfstein and Stein, 2015; Maggiori, Neiman and Schreger, 2020)
- **Foreigners** (occasionally) **need lots of funding dollars:**
  - currency mismatch around the world, especially in emerging markets (Kalemli-Ozcan, Kamil et al 2016)

Exorbitant privilege



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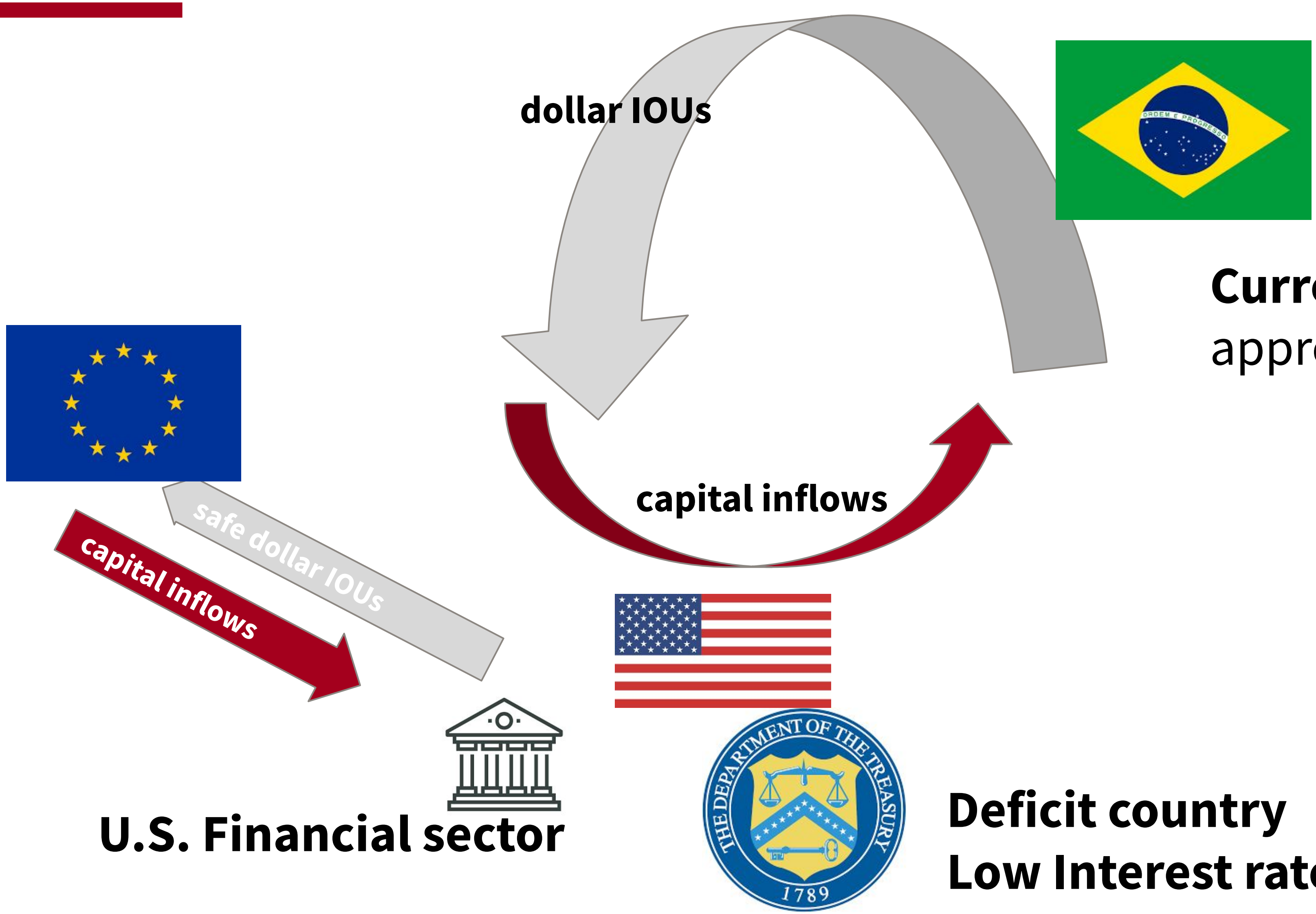
Currency Mismatch and Dollar Shortages



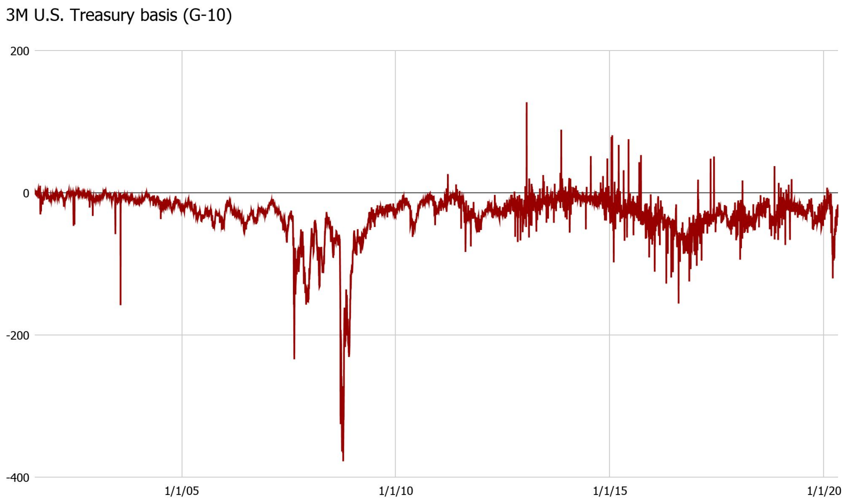
Currency Mismatch: $ appreciates in bad times

Deficit country
Low Interest rate country

Persistent Dollar Funding Shortages

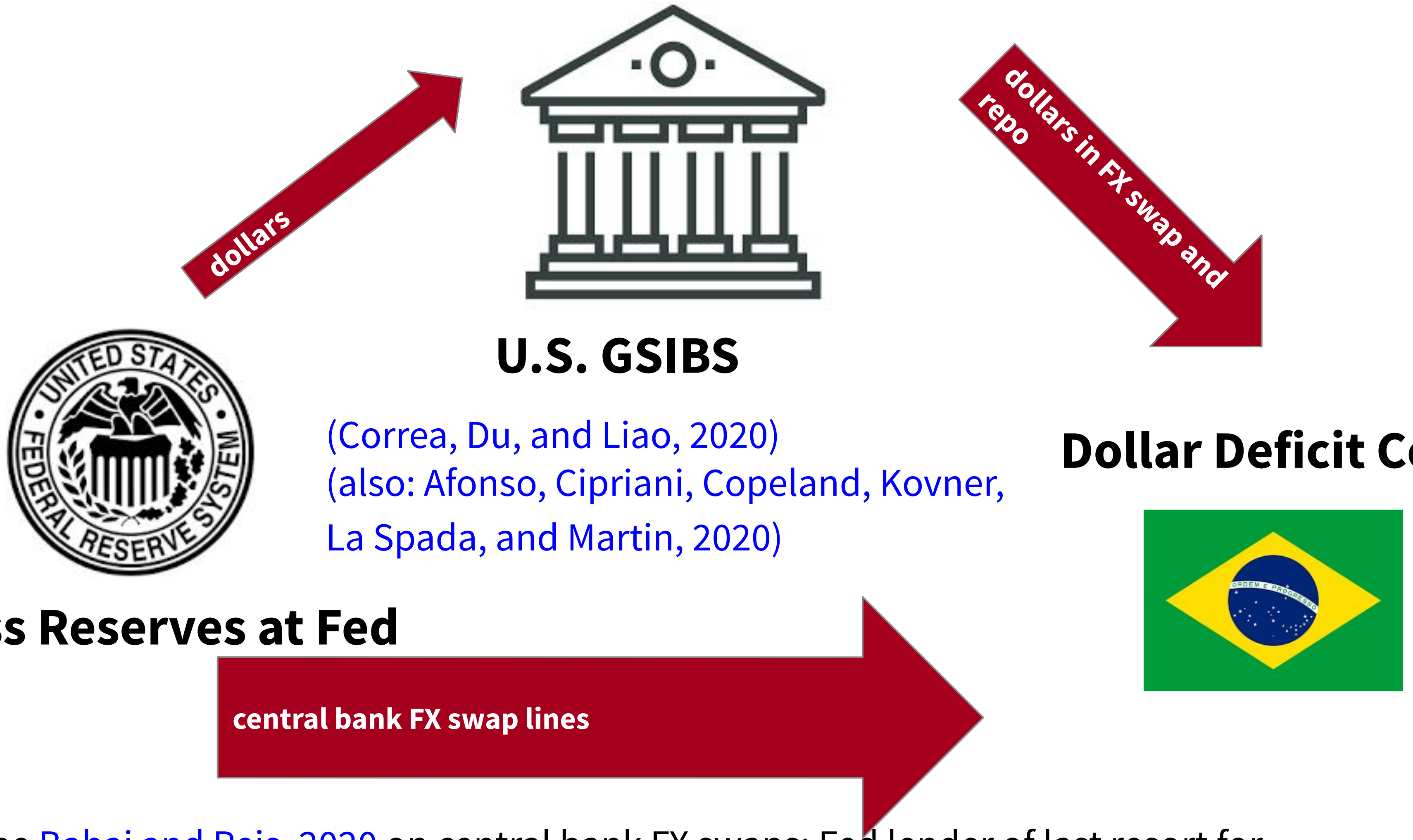
CIP Deviations

- **Covered Interest Rate Parity deviations** widened since GFC
    - *dollar basis=cash dollar interest rate-synthetic dollar interest rate*
  - **synthetic** dollar interest rate in FX markets > **cash** dollar interest rate in US Money and Treasury Markets
    - **foreign investor**: convenience yield on cash dollar instruments
    - **foreign borrower:** dollar funding shortage [Brazilian firm cannot tap U.S. money market; borrows at synthetic dollar interest rates]



Ivashina, Scharfstein and Stein, 2015
Du and Verdelhan, 2018;Du, Im and Schreger, 2019;
Liao, 2020. Jiang, Krishnamurthy, and Lustig, 2017, 2018

GSIBS Intermediating Global Dollar Shortages



see Bahaj and Reis, 2020 on central bank FX swaps: Fed lender of last resort for foreign banks (Gourinchas, Rey and Sauzet, 2019).

Follow-up Questions

1. **Shrinking Fed balance sheet in 2019:** Yes, Fed was shrinking balance sheet in Sept, 2019; but still $3.8 trillion; more than 4X pre-2008. Excess reserves are being hoarded? (see also Copeland, Duffie and Yang, 2020)

Follow-up Questions

1. **Shrinking Fed balance sheet in 2019**
2. **Is the Fed the world's central bank? permanent swap lines:** standing FX swap lines 6+9 countries ? Is that desirable? Or does that create moral hazard? (market participants engineer $ funding that is vulnerable to $ shortages) Does this put an upper bound on CIP deviations? Should Fed be lender of last resort for foreign banks?

Follow-up Questions

1. **Shrinking Fed balance sheet in 2019**
2. **Is the Fed the world's central bank? permanent swap lines**
3. **Right Size of Fed balance sheet**: is that (partly) why the Fed now needs a much larger balance sheet?

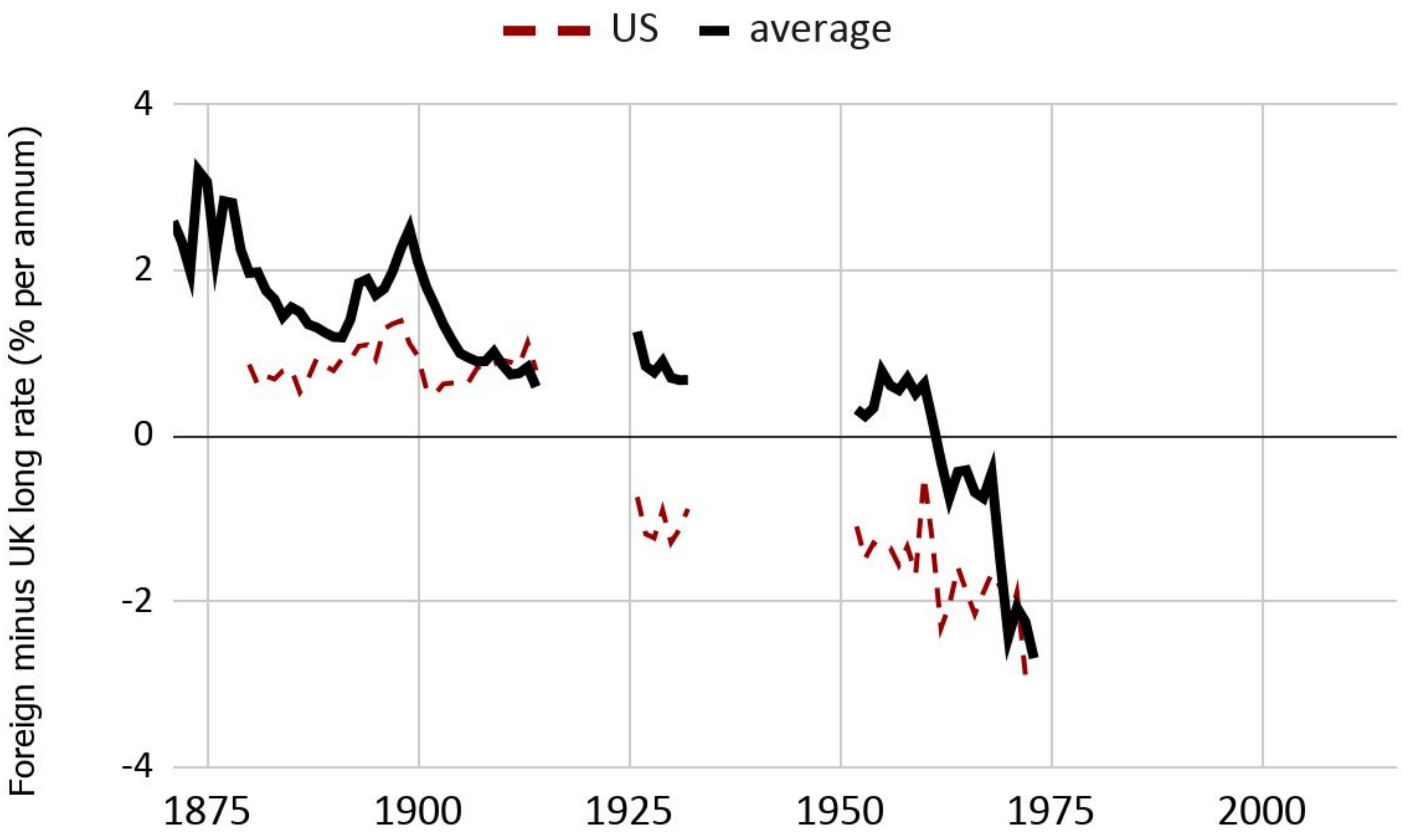
Follow-up Questions

1. **Shrinking Fed balance sheet in 2019**
2. **Is the Fed the world's central bank? permanent swap lines**
3. **Right Size of Fed balance sheet**
4. **GSIBS during COVID?** Between March-May 2020, with balance sheet \$6.9 trillion, still needed (at peak) \$0.4 trillion in FX swaps from Fed. What about GSIBS?

Follow-up Questions

1. **Shrinking Fed balance sheet in 2019**
2. **Is the Fed the world's central bank? permanent swap lines**
3. **Right Size of Fed balance sheet**
4. **GSIBS during COVID?**
5. **Design Flaws:** But maybe we need more balanced IFS Architecture : excessive dollar leverage, currency mismatch, Triffin dilemma. Perhaps we should move to a more balanced, less dollar-centric system?

US-UK Treasury Basis



Source: JORDÀ-SCHULARICK-TAYLOR MACROHISTORY DATABASE