The Fed's International Dollar Liquidity Facilities and the COVID-19 Period

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1 Introduction

Discussions reflecting on the era of floating exchange rates and the international roles of the U.S. dollar frequently mention the importance and evolution over five decades of dollar liquidity, global liquidity flows, and the safety net around currencies. This chapter provides perspective on the Federal Reserve's creation, expansion, and deployment of its international dollar liquidity backstop facilities, which are relevant for the stability of the broader international monetary environment with the dollar as a central currency. The starting points are 2020 events and the strains which developed in global dollar funding markets. The analysis – drawing closely from writings of Cetorelli, Goldberg, Ravazzolo (2020), Choi, Goldberg, Lerman, and Ravazzolo (2022), and Goldberg and Ravazzolo (2023) – informs the types of facilities that the Federal Reserve has in place to address pressures in offshore dollar funding and U.S. Treasury dislocation. I also review evidence on what those facilities seem to have been achieving.

2 Global dollar funding markets in March 2020

A number of forces contributed to strains in global dollar funding markets at the onset of pandemic shutdowns. First, a reduced supply of dollars to funding markets resulted from lenders holding dollars as a precaution amid the significant economic and financial disruption and uncertainty. Second, increased funding and hedging demand for dollars arose. Some foreign banks within the United States faced new funding needs from corporate drawdowns of committed credit lines and faced reduced access to other funding sources along with higher funding costs. Regulatory data collected in the United States show that the US branches of foreign banks sourced net liquidity from their parents during this episode (Cetorelli, Goldberg, and Ravazzolo 2020). The status of US branches as a net recipient of liquidity from their parent organizations was a reversal of the pattern exhibited during the Global Financial Crisis (GFC), when some US branches of foreign banks initially were tapped to provide dollar liquidity to parent banks that faced new funding needs due to the asset-backed commercial paper losses brought onto their balance sheets [2]

[1] Views are those of the author, and do not necessarily reflect the views of the Federal Reserve Bank of New York or Federal Reserve System. Prepared for Peterson Institute for International Economics: Floating Exchange Rates at Fifty Conference, March 24, 2023. The author thanks Maury Obstfeld for helpful comments.
[2] Internal capital market flows in global banks during the GFC in relation to dollar liquidity provision in central banks are discussed in Goldberg and Skeie (2011) and Cetorelli and Goldberg (2011, 2012).

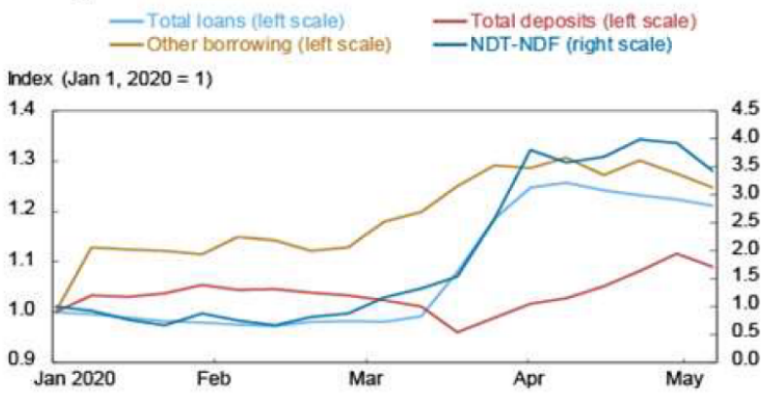

Figure 1: **Funding Needs of U.S. Branches of FBOs During the Pandemic Crisis**
Sources: Federal Reserve, FR 2644; Federal Financial Institutions Examination Council, FFIEC 002.
Note: NDT-NDF stands for "Net due to less net due from." NDT-NDF is measured on the right-hand scale. Our sample contains sixty-five foreign banking organizations (FBOs). FBOs are defined as institutions that submit both FR 2644 and FFIEC 002 forms.

This dynamic is illustrated in Figure 1, which shows Total Loans, Total Deposits, Other Borrowing, and the difference between "Net Due To" and "Net Due From" positions of the U.S. Branches of Foreign Banking Organizations (FBOs) between January and May of 2020. The sourcing by U.S. branches of more net liquidity from their parents, reflected in the net due balances, is consistent with a supervisory and regulatory regime where the parent banks have a key role. Parent banks, whether in Japan or Switzerland or Europe or elsewhere, had to come up with more dollars. As dollar funding costs increased, borrowers who went to financial markets were faced with prices that reflected these stress conditions.

3 How dollar backstop facilities help mitigate market stresses

The network of U.S. dollar liquidity swap lines serves as an important liquidity backstop to ease strains in global funding markets, thereby helping to mitigate the effects of such strains on the supply of credit to households and businesses. The central bank dollar facilities allow commercial banks outside the US to access US dollar liquidity that obviates the need for them to bid up market rates excessively. If banks do not have to sell less liquid assets to obtain dollar liquidity, fire sales of dollar-denominated assets abroad or in the United States are reduced, and the associated price externalities for other firms are reduced. Having this dollar liquidity access means that banks can continue provision of credit in their local economies as well as in the United States, where they are funding different types of commercial activities. When these banks have access to central-bank supplied dollars, they can continue to intermediate funds to other financial as well as non-financial institutions such as corporations.

The dollar liquidity swap lines eliminate the need for some central banks to intervene in the foreign exchange (FX) market to meet dollar needs of their own domestic entities. Some central banks have their own network of swap line arrangements with other central banks. Serving financial center roles, these CBs more broadly distribute dollars.

These swap lines are priced as a backstop facility so that it is minimally and sporadically used during normal market conditions to encourage private transactions.

4 FOMC March 2020 actions address global dollar funding strains

With central bank dollar swap lines in place, the parent banks with direct access to US dollar operations of such foreign central banks could instead draw on those operations for sourcing dollar funding instead of trying to borrow dollars from private funding markets. The FOMC actions to address global dollar funding strains are discussed in extensive detail in Choi, Goldberg, Lerman, and Ravazzolo (2022). In March 2020, the FOMC in collaboration with its standing swap central bank (SSCB) counterparties (the European Central Bank, the Bank of Japan, the Bank of England, the Swiss National Bank, and the Bank of Canada) took a series of steps to ease access to the swap lines. First, the network lowered the price from a spread of 50 basis points to a spread of 25 basis points over the overnight indexed swaps rate and added an operation for eighty-four-day term lending to its existing weekly operation for seven-day funds. Then, it increased the frequency of the operations for seven-day funds from weekly to daily. In addition, the FOMC also extended temporary lines through December 2021 with nine other central banks (TSCBs), the same group that had these temporary swap lines in the global financial crisis (GFC).[3]

Together, the draws on these facilities generated a total of $449 billion outstanding by May 2020, versus the $598 billion peak in the GFC. The concentration of dollar funding activity shifted somewhat from Europe to Asia after the GFC, also reflected in the comparison of the regional peak outstanding positions relative to the COVID-19 period. As well documented elsewhere (Fleming, Liu, Podjaskek, and Schurmeier 2022), March 2020 also was characterized by extensive strains to US Treasury markets and dash-for-dollar dynamics (Barone, Chaboud, Copeland, Kavoussi, Keane and Searls 2022). Specifically related to official international counterparties, on March 30, 2020, a new facility for foreign and international monetary authorities (FIMA) was deployed (Choi, Goldberg, Lerman, and Ravazzolo 2022). The new FIMA repo facility allows a broader range of foreign official entities to temporarily exchange their U.S. Treasury securities held with the System Open Market Account of the Federal Reserve for U.S. dollars. This dollar liquidity can then be made available to institutions in their jurisdictions. While initially a “temporary” facility, it was formalized as a “standing” facility on July 28, 2021. With the dollar still the leading component of countries’ official foreign exchange reserves, this innovation represented an important addition to the global financial safety net.

[3] See Goldberg, Kennedy and Miu (2011).

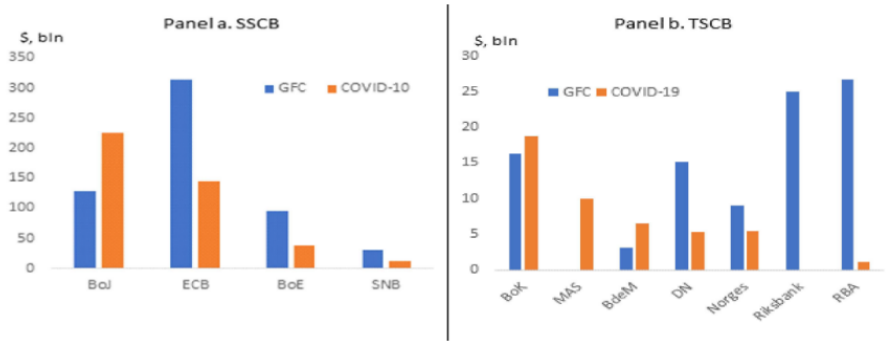

Figure 2: **Peak U.S. Dollar Swap Balances Outstanding during GFC and COVID-19**
Source: Federal Reserve Bank of New York, desk computations.
Note: Bank of Canada, Banco do Brasil, and Reserve Bank of New Zealand did not use the facility.

5 Effects of the Fed's international dollar liquidity facilities

Goldberg and Ravazzolo (2022) examine whether the conjectures around what these facilities do seem to be supported in data. One conjecture pertains to reducing strains in dollar funding markets. The other is a broader issue, and related to the observation that global liquidity flows are highly responsive to risk sentiment and to risk events (Goldberg 2023). As the general goal is systemically reducing the risk sensitivity of international flows, if the facilities actually can have a reassuring role, then extra demand for dollar liquidity in a stress period should decline and cross-border flow volatility should fall. Of course, declaring as definitive any evidence from the period from February 2020 through the months that followed is impossible, given all of the pandemic events and policy responses around the world. Goldberg and Ravazzolo (2023) are clear that challenges in identification necessarily make their results, described below, indicative and not fully conclusive.

Countries with central bank access to standing or temporary swap lines saw reduced costs of borrowing dollars in the FX swap market. Following the establishment of the FIMA repo facility, additional countries had declines in local dollar funding costs despite minimal aggregate usage. Both facilities were associated with reduced risk sensitivity of funding costs, with risk measured using the VIX index. Strains in offshore dollar funding markets, and cross-border bank and international capital flows, normalized at a slower pace and to a lesser extent in countries without access. Cross-border bank flows did not collapse following the pandemic shock. However, banking systems with access to Fed facilities maintained stronger cross-border lending relative to those without access. Capital flows to countries where central banks had swap lines were particularly robust in comparison with other countries. Equity flows were not differentiated by facility access. Overall, the evidence suggests that the dollar facilities were associated with reduced dollar funding strains, continuing provision of credit by banks, and lower risk sensitivity of international flows.

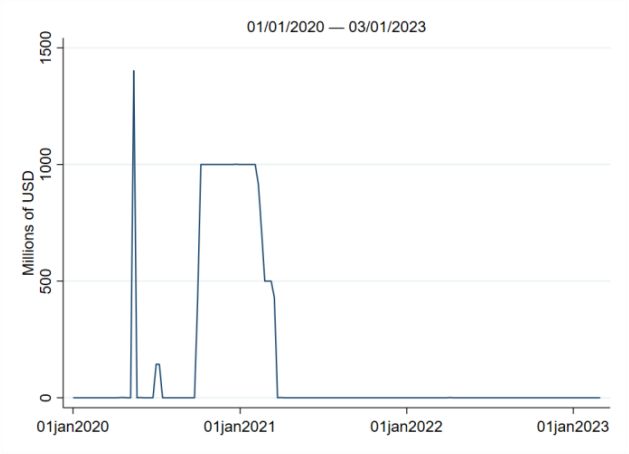

Figure 3: **Outstanding Foreign and International Monetary Authority (FIMA) Repo: Daily Average within Week**
Source: Federal Reserve Balance Sheet: Factors Affecting Reserve Balances – H.4.1.

6 Improving the Dollar-Based System?

The international roles of the dollar are central to understanding the determination of flexible exchange rates, flows of liquidity across borders, and frictions in intermediating dollar liquidity. The backstop functions of dollar facilities support credit provision to the real economy and aim to mitigate the effects of prolonged credit contractions to households and businesses. Future analytics can deepen understanding and possibly lead to refinements in official liquidity provision. Analytics can consider the speed, magnitude, and pass-through of backstop dollar liquidity. Analytics can also continue to work toward understanding how the functioning and scale of facilities best match the evolving structure and characteristics of financial intermediaries, the dollar-related financial system, and broader dollar use internationally. For example, there are many more non-bank financial institutions and they only get that credit after it is intermediated by banks. Additional questions relate to how different facilities implement their own restrictions, pricing, and incentives for use. Finally, as discussed in Goldberg (2023), the discussion about the need and operation of dollar liquidity facilities can focus not only on the structures and reach of the supply of dollar liquidity, but also on reducing the risk sensitivity of dollar liquidity flows when stress events occur.

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