Special Series on COVID-19

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The Global Financial Safety Net during the COVID-19 Crisis: An Interim Stock-Take

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The global financial safety net (GFSN) has expanded substantially in recent years, but its coverage has remained uneven. At the onset of the COVID-19 crisis, the GFSN responded quickly and strongly by providing ample liquidity through central bank bilateral swap arrangements (BSAs) to select economies and IMF emergency financing to an unprecedented number of countries. A stronger deployment of other GFSN layers, particularly IMF full-fledged programs, will likely be needed in the next phase of the crisis.

EVOLUTION AND COVERAGE

The GFSN comprises a set of institutions and mechanisms that contribute to preventing or mitigating crises. It seeks to provide countries with insurance against crises, financing when shocks hit, and incentives for sound macroeconomic policies, thus helping to avoid spillovers and alleviate moral hazard concerns (IMF 2016).[2] The key layers of the GFSN are countries' own international reserves, the BSAs, the regional financial arrangements (RFAs), and the IMF (Box 1).[3] Multilateral development banks (MDBs) and official bilateral donors are usually not considered as part of the GFSN as they mainly provide long-term financing for development needs, but their financing could help countries close financing gaps during crises.

Box 1. GFSN Layers

The GFSN is largely comprised of countries' international reserves and external public sources of financing:

- **International reserves** provide countries with self-insurance and often serve as the first line of defense in a crisis.

[1] The authors thank colleagues in the Strategy Unit in the IMF Strategy, Policy, and Review Department for their useful feedback, as well as Shiming Xiong and colleagues in the Lending Policy Division and the Finance Department for data support.

[2] Access to GFSN elements could provide insurance against crises even if the elements are not actually tapped.

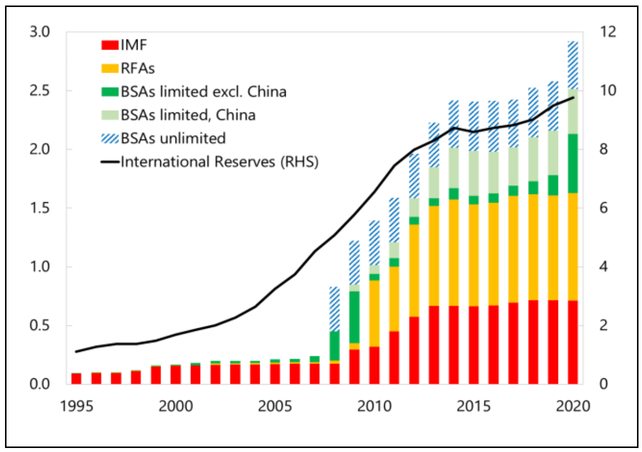
[3] Market instruments for insurance against crises are not covered in this note, given their limited use.

- **BSAs** are contingent arrangements to exchange currencies between the central banks of two countries. In most cases, BSAs aim to alleviate liquidity pressures in the financial markets in one country and reduce spillovers to, and financial stability risks in, the other.[1] Drawings are usually subject to central bank approval and pre-announced limits, although some lines have no explicit limits (referred here as unlimited BSAs).
- **RFAs** are arrangements between groups of countries, usually in the same region, to pool resources to leverage financing for any individual member in a crisis. The specific arrangements, however, vary substantially (IMF 2017a, 2017b). The RFAs discussed in this note are the Arab Monetary Fund (AMF), BRICS Contingent Reserve Arrangement (BCRA), Chiang Mai Initiative Multilateralization (CMIM), the Eurasian Fund for Stabilization and Development (EFSD), the European Stability Mechanism (ESM),[2] the European Union Balance of Payments Assistance Facility (EU BoP), and the Latin American Reserve Fund (FLAR).
- The **IMF** is a multilateral institution that pools resources from its membership (through quota contributions and borrowing) to provide financing to any of its 190 member countries facing actual, prospective, or potential balance of payments needs. The IMF can provide financial assistance through upper credit tranche (UCT)-quality programs (built on policy adjustment to resolve the underlying balance of payments problems and conditionality-based disbursements), precautionary arrangements (for members without an actual financing need), or emergency financing (rapidly deployed in emergencies). All IMF members are eligible to access the Fund's resources in the General Resources Account, but the IMF also provides concessional financing to low-income countries through the Poverty Reduction and Growth Trust.

[1] BSAs may also serve other purposes; notably, many of the Chinese swap lines were established to promote trade and investment.
[2] Data on RFAs also include the European Financial Stability Facility (EFSF) and the European Financial Stabilization Mechanism (EFSM), which were superseded by the ESM. The EFSF does not provide any further financial assistance but has past loans outstanding, while the EFSM is not actively deployed but remains in place and can be used if the need arises.

The GFSN has continued to expand and become more multi-layered in recent years. Since the global financial crisis, the total stock of international reserve holdings more than doubled, reaching almost SDR 10 trillion at end-2020, while the size of external resources available through various GFSN layers increased about tenfold, to almost SDR 3 trillion (Figure 1). This largely reflects the introduction of BSAs among reserve-currency issuer countries at the onset of the global financial crisis, the activation of limited BSAs with other countries during global crisis episodes, and the massive scaling-up of the lending capacity of the IMF and RFAs during the global financial crisis and the European debt crisis (for example, Bank of England (2016)).[4] The expansion of Chinese BSAs in 2009–15 was another notable development; however, these lines may serve different purposes, for example, to promote trade and investment (Perks and others 2021).[5]

Figure 1. GFSN Size and Composition
(Trillions of SDRs)



Sources: Perks and others (2021); US Federal Reserve website; IMF, RFA annual reports and press releases; and IMF staff calculations (see Annex for details).
Note: Unlimited BSAs are illustrated at maximum past drawings.

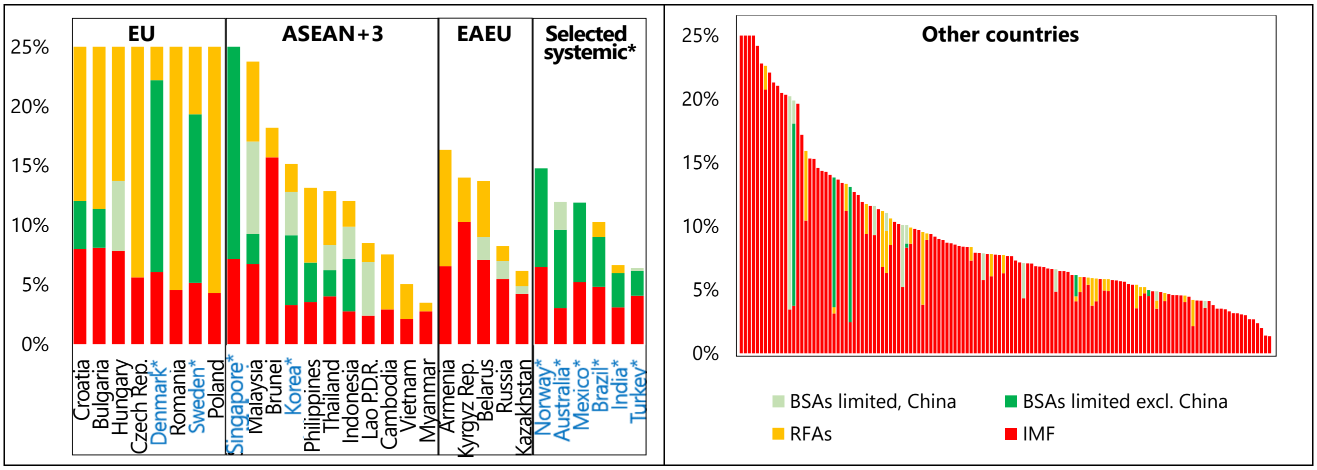
[4] Bank of Canada, Bank of England, Bank of Japan, the European Central Bank (ECB), the Swiss National Bank, and the US Federal Reserve System (the Fed) established at the start of the global financial crisis a set of temporary limited swap lines. These were converted in October 2008 into unlimited lines and in October 2013 into standing unlimited lines.

[5] By end-2020, Chinese swaps covered more than 30 countries with the total limit exceeding $500 billion.

The GFSN coverage has remained uneven, however, with only the IMF providing nearly universal access to external financing. Canada, euro area countries, Japan, Switzerland, the United Kingdom, and the United States are best served by the GFSN as they can rely on the unlimited BSA network among the reserve currency-issuer countries, if needed. Other systemic countries with strong global financial links have access to BSAs during global crises, although with relatively low limits in some cases.[6] Countries from strongly integrated regions are covered by RFAs, with the European Union (EU) providing the highest coverage, followed by the Eurasian Economic Union (EAEU) and the ASEAN+3, although the latter RFA has never been activated. Most other countries, however, rely only on their own reserves and IMF resources (Figure 2).

Figure 2. GFSN Coverage excl. Reserves, end-2020

(Percent of GDP)



Sources: Perks and others (2021); US Federal Reserve website; IMF, RFA annual reports and press releases; and IMF staff calculations (see Annex for details).

Note: The figure panels exclude countries with unlimited BSAs, China, and Venezuela; the bars for non-euro area EU countries and Singapore are truncated. Systemic countries, marked with asterisk, are identified as top 10 countries (besides those excluded above) with the highest alpha centrality measures for portfolio investments and interbank positions. Other countries include all remaining countries.

THE COVID-19 RESPONSE

The GFSN provided fast and ample financing in response to the COVID-19 shock, helping to quickly stabilize the global financial markets and contain the economic crisis. Due to the exogenous and acute nature of the initial shock, the emphasis was on providing fast liquidity support, mostly through BSAs and IMF emergency financing and precautionary arrangements, which require little or no conditionality (Figure 3). Together with supportive monetary, fiscal, and financial policies, especially massive asset purchases and liquidity injections in advanced economies, the GFSN financing helped maintain easy financial conditions and stabilize capital flows to emerging market economies in the first months of the crisis (Figure 4), mitigating the economic and financial impact and reducing the demand for further external financing and the use of reserves. In addition, the IMF provided unprecedented liquidity support and helped catalyze additional financing for low-income countries, which were particularly hard hit by the pandemic due to weak health systems coupled with limited policy space and market access (IMF 2021b).

[6] Other systemic countries are identified as the top 10 countries (excluding Canada, China, euro area countries, Japan, Switzerland, the United Kingdom, and the United States) with the highest alpha centrality measures for portfolio investments and interbank positions (Papamichalis and others forthcoming).

Figure 3. GFSN Response to COVID-19
(Billions of US dollars)

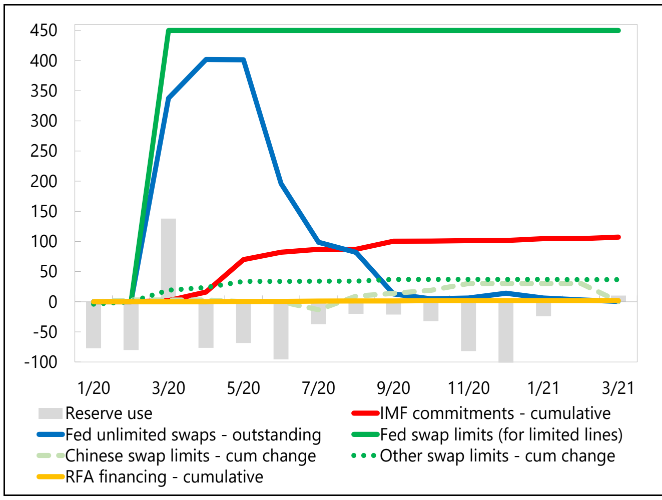
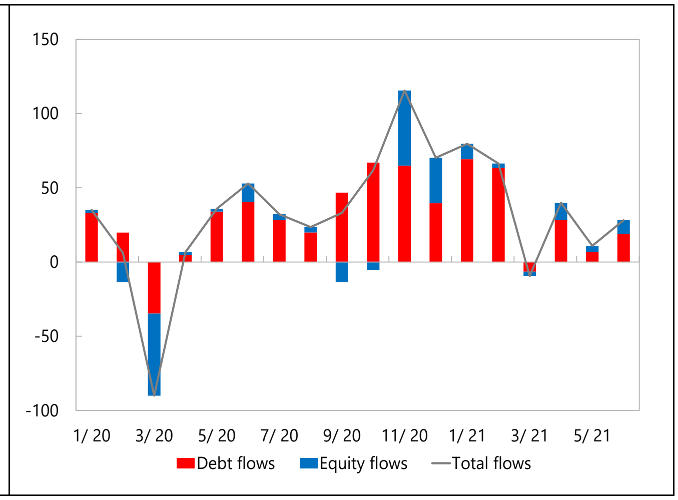


Figure 4. Portfolio Flows to Emerging Markets
(Billions of US dollars)

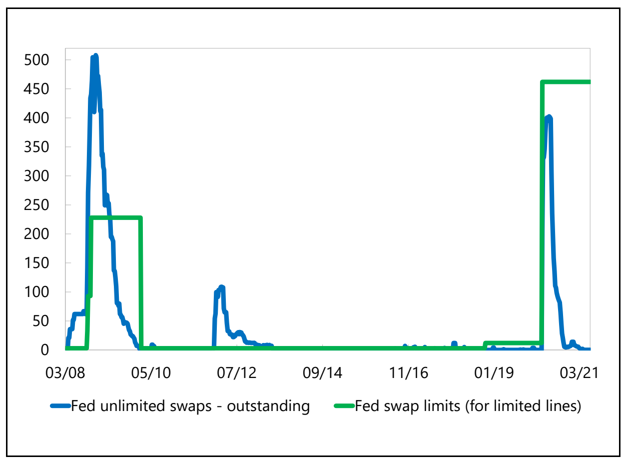


Sources: US Federal Reserve website; Perks and others (2021); IIF Portfolio Flows Tracker; IMF, RFA annual reports; and IMF staff calculations (see Annex for details).

Note: Reserve use is the negative monthly change of international foreign assets, calculated at fixed exchange rates; the bar for 12/20 is truncated. Chinese swap limits and other swap limits show the cumulative change of the respective swap line limits since the beginning of the COVID-19 crisis.

Scaled-up and reactivated BSAs for select countries, particularly Fed swaps, effectively cushioned the shock.[7] Drawings from the Fed's unlimited swap lines increased and exceeded $400 billion at the peak (in April–June 2020). In addition, the Fed reestablished temporary limited swap lines for nine countries with the total limit of $450 billion—the same countries as during the global financial crisis but double the amount (Figure 5).[8] Although these lines were made available to only a few central banks, they played an important role in providing US dollar liquidity to financial markets in systemic countries and stabilizing global financial conditions. In addition, the Fed set up the temporary Foreign and International Monetary Authorities (FIMA) overnight repo to provide US dollar liquidity support in exchange for US Treasuries to monetary authorities with New York Fed accounts, which was used only in limited scale.

Figure 5. Fed Swaps
(Billions of US dollars)



Sources: US Federal Reserve website; and IMF staff calculations.

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[7] See Aizenman, Ito, and Pasricha (2021), for more details on the Fed's response, including an estimate of the effects of announcements about Fed swap lines establishment and the effects of actual drawings.

[8] The countries covered by the Fed limited swap lines are Australia, Brazil, Denmark, Korea, Mexico, New Zealand, Norway, Singapore, and Sweden, with the drawings reaching $46 billion at the peak (May–June 2020). Other central banks have smaller line limits than the Fed (except for Chinese swaps), while the actual drawings are often not published.

The IMF provided financial assistance to an unprecedented number of countries, mostly through emergency financing and precautionary arrangements.[9] From March 2020 to June 2021, $114 billion was approved for 85 countries through IMF emergency financing and new arrangements or augmentation under the existing ones. Emergency assistance was widely used in the first months of the pandemic to deal with the initial COVID-19 shock (Figure 6), while several precautionary arrangements were put in place for countries in Latin America.[10] Moreover, the IMF provided unprecedented liquidity support to low-income countries, almost doubling its outstanding credit and offering debt service relief through the Catastrophe Containment and Relief Trust (Figure 7), which supplemented the G20 Debt Service Suspension Initiative (DSSI). Unlike in previous crisis episodes, UCT-quality programs played a very limited role in the first year of the crisis. This was due to the nature of the COVID-19 shock, which for many countries did not warrant policy adjustment to address macroeconomic imbalances, and due to the availability of other financing, including official support and private capital flows. In addition, the general allocation of SDRs (in the amount equivalent to about $650 billion) gave a strong boost to member countries' reserves. Other steps to provide further assistance to vulnerable countries are being explored, including rechanneling of SDRs.

Figure 6. IMF General Resources Account
(Billions of SDRs)

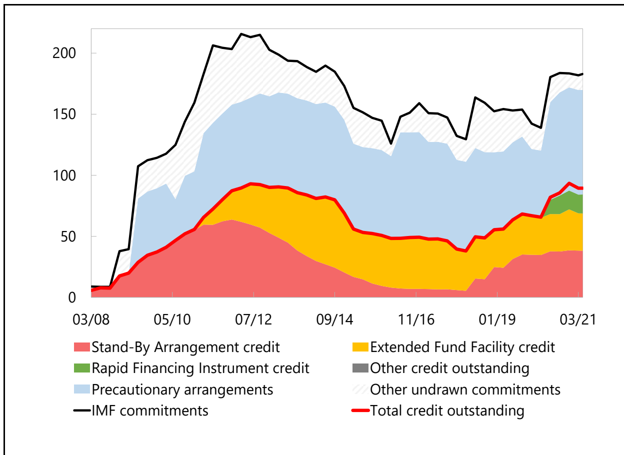
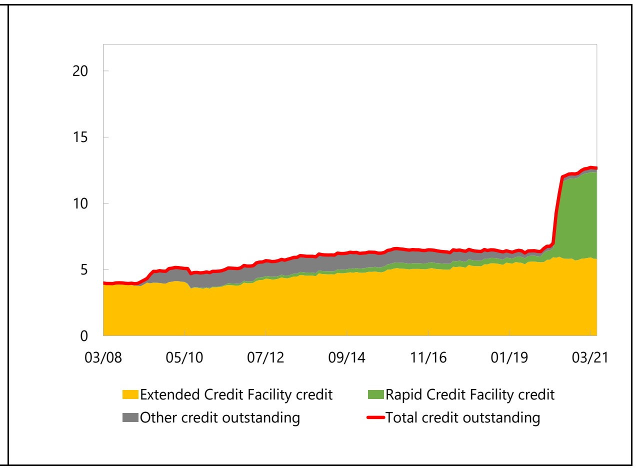


Figure 7. IMF Poverty Reduction and Growth Trust
(Billions of SDRs)



Sources: IMF staff calculations.

The overall volume of RFA lending remained low, as the demand for RFA financing was contained by supportive macroeconomic policies in advanced economies and timely financing from the BSAs and the IMF. EU RFAs were untapped as EU countries benefitted from BSAs (notably, ECB swap and repo lines and Fed swaps), the ECB quantitative easing, and ample EU support through various other channels.[11] Other large RFAs remained untested in practice; some smaller RFAs provided financing, but their overall contribution was limited (about $2 billion).

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[9] See IMF (2021a) for further discussion of the IMF response to the COVID-19 pandemic. More information can be also found on the website: https://www.imf.org/en/About/FAQ/imf-response-to-covid-19.

[10] From March 2020 to June 2021, new precautionary arrangements for Chile, Panama, and Peru were approved and the arrangement for Colombia was renewed and augmented, for a total amount of $54.6 billion. These are in addition to Mexico's pre-COVID precautionary arrangement.

[11] For example, the EU supported countries through budget stimulus, the NextGenerationEU Recovery Fund, Support to Mitigate Unemployment Risks in an Emergency (SURE), and the European Investment Bank.

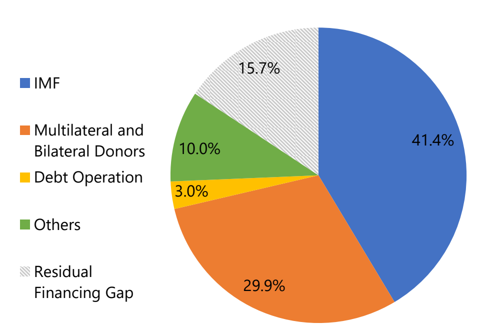
Beyond the GFSN, MDBs, and official bilateral donors played a critical role. They offered substantial liquidity support to both low-income countries and emerging market economies, complementing IMF financing (Box 2).

Box 2. Multilateral and Official Bilateral Support during the COVID-19 Crisis

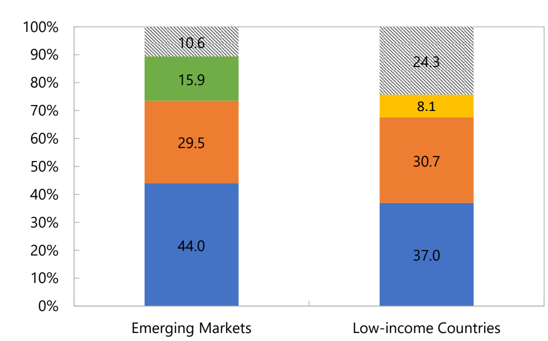
MDBs and official bilateral donors were projected to cover about 30 percent of the financing gap of the countries that received IMF financial support (Box Figure 1).[1] Requests for IMF financing arrangements from March 2020 to April 2021 identified a total financing gap of $134 billion in 2020–21, which was projected to be filled predominantly by the IMF (41.4 percent) and multilateral and bilateral donors (29.9 percent). The share of financing from other GFSN layers (BSAs and RFAs, captured under the "Others" category in Box Figure 1) was projected to be very small. This partly reflects the little use of some GFSN elements (for example, RFAs), but may also imply that countries sufficiently covered by the other layers (for example, BSAs) did not need IMF financing.

The share of multilateral and official bilateral support was substantial for both emerging market economies and low-income countries. During the COVID-19 crisis, the IMF's ability to catalyze additional financing to close the balance of payments gap in emerging markets appeared to be similar to that in low-income countries (Box Figure 2). This may be attributed to the reliance on emergency financing and to a less extent on UCT-quality programs during the acute phase of the crisis, which could have limited the scope for differentiated responses between these two groups of countries.

Box Figure 1. Burden Sharing for IMF Arrangements during the COVID-19 Crisis



Box Figure 2. Share of Financing Sources by Income Group



Source: Authors.

[1] The underlying data set compiles external financing gap and sources of financing (below the line) using IMF staff reports at program approval. It covers 82 countries (37 emerging market economies and 45 low-income countries) with 85 emergency financing arrangements (RFI, RCF) and 21 UCT-quality arrangements and augmentations (EFF, ECF, SBA); and excludes precautionary arrangements (FCL, PLL). Residual Financing Gap indicates the external financing gap without identified sources of financing at the time of the financing request. Financing from prospective multilateral/donor/IFIs/development partners was classified under Multilateral and Bilateral Donors even if the individual institutions were not specified. Debt Operation includes DSSI, CCRT, and debt restructuring. Others mainly include financing from private sources, BSAs, and RFAs. For emergency financing arrangements, data are recorded for a single year when the disbursement was made. In any given year, only data from the latest staff report are recorded unless the figures are reported on an incremental basis.

TAKING STOCK AND LOOKING AHEAD

The GFSN has been an effective liquidity backstop during the first year of the COVID-19 crisis. The crisis validated the key role of the BSAs during a global liquidity shock, despite uneven coverage. Together with the monetary policy support in advanced economies, BSAs scaled up financing quickly, eased global financial conditions, and stabilized capital flows, limiting the demand for external financing. The IMF responded fast and forcefully by providing emergency financing to its wide membership, including unprecedented liquidity support to low-income countries. The RFAs, on the other hand, were little tapped.

Continuing to provide the appropriate support until the crisis is fully resolved will be more challenging. A diverging recovery from the pandemic would likely put disproportionate pressure on low-income countries and some emerging market economies. Monetary stimulus unwinding in advanced economies could tighten global financial conditions and trigger capital outflows. Growing public debt levels would further increase vulnerabilities and pose additional risks to macroeconomic stability. BSAs, notably the Fed swap lines, would continue to help address liquidity shortages and stabilize global financial markets, but may come into dissonance with advanced economies' central bank mandates if their economies warrant a tightening of their monetary policy. Moreover, BSAs and IMF emergency financing are not supportive of macroeconomic adjustment, which will be increasingly important going forward.

Low-income countries and emerging market economies are likely to turn to the IMF for UCT-quality programs in the next phase of the crisis. Given the limitations of the BSAs and IMF emergency financing in addressing existing challenges, stronger deployment of other GFSN layers that support policy adjustment will be needed. RFAs provide a useful source of financing and may play a key role in some regions, but their coverage is uneven, and some remain untested in practice. More countries are thus likely to turn to IMF programs. To ensure that the GFSN continues to meet countries' financing needs while promoting sound policies, it is essential to maintain a strong quota based and adequately resourced IMF at its center.

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ANNEX: DATA AND CALCULATIONS

GFSN evolution graph:

- International reserves and IMF lending capacity data are from the IMF.
- RFAs' lending capacity is explicitly reported by some RFAs (ESM, EFSM, EU BoP, CMIM, EFSD) and estimated for the other RFAs using paid-in capital, reserves, and leverage (AMF, FLAR), countries' access limits (BCRA), or the outstanding loans (EFSF); all data are from the RFAs' annual reports.
- Limited BSAs exclude CMIM swaps since 2010 (which are included into RFAs), two-way arrangements are counted only once; the data are from the US Federal Reserve website and Perks and others (2021).
- Unlimited BSAs have no explicit limit, but for illustration estimated at maximum past drawings.

GFSN coverage graph:

- Countries with unlimited standing swaps (Canada, euro area countries, Japan, Switzerland, the United Kingdom, and the United States), China, and Venezuela are excluded.
- Other systemic countries are identified as top 10 countries (besides those excluded above) with the highest alpha centrality measures for portfolio investments and interbank positions, and comprise Australia, Brazil, Denmark, India, Korea, Mexico, Norway, Singapore, Sweden, and Turkey.
- IMF access is assumed at 300 percent of quota for Poverty Reduction and Growth Trust (PRGT)-eligible countries and 435 percent of quota for the other (General Resource Account, GRA, eligible) countries.
- RFA access is explicitly reported by some RFAs (CMIM, BCRA) and estimated for the other RFAs using paid-in capital and leverage (AMF, FLAR), past experience of modifying the reported access (EFSD), or assuming that countries have no clear limits and may borrow up to the lending capacity (ESM, EFSM, EU BoP); EFSF is not expected to provide new loans and is dropped from the calculations; for EU countries, the sum of individual country's access exceeds EU RFAs' lending capacity, reflecting past experience that EU RFAs can massively scale up their lending capacity when needed; all data are from the RFAs' annual reports.

GFSN response graph:

- Reserve use is the negative monthly change of international foreign assets, calculated at fixed exchange rates; valuation effects are calculated using the reserve composition and cross exchange rates; all data are from the IMF IFS database.
- IMF commitments include new emergency financing, precautionary arrangements, disbursing arrangements, as well as augmentation under existing programs, cumulative since the beginning of the crisis; all data are from the IMF.

- Fed unlimited swaps are actual outstanding US dollar swap amounts between the Fed and the five central banks (Bank of Canada, Bank of England, Bank of Japan, European Central Bank, Swiss National Bank); data are from the Fed website.
- Fed swap limits show the total swap lines limit established by the Fed for the nine central banks (Australia, Brazil, Denmark, Korea, Mexico, New Zealand, Norway, Singapore, and Sweden); data are from the Fed website.
- Chinese swap limits show cumulative increase since the beginning of the crisis of the swap lines limits established by the People's Bank of China; data are from Perks and others (2021).
- Other swap limits show the cumulative increase since the beginning of the crisis of other swap lines limits; data are from Perks and others (2021).
- RFA financing includes the financing announced by RFAs, cumulative since beginning of the crisis; data are from RFAs' press releases and the 2020 annual reports (when available).