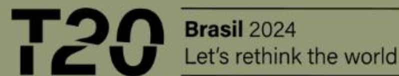
T20 Policy Brief



Task Force 03

REFORMING THE INTERNATIONAL FINANCIAL ARCHITECTURE

Rethinking the Role of Central Bank Currency Swaps to Strengthen the Global Financial Safety Net for Developing Countries: New Empirical Evidence

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Abstract

Since the 2007-09 global financial crisis, central bank currency swaps have emerged as a crucial component in the dynamically growing Global Financial Safety Net (GFSN). Yet, most developing countries are excluded from utilizing these instruments. Hence, the question arises: Why are certain countries excluded from access to swap liquidity, and how does this affect the GFSN's ability to mitigate and alleviate the severity of financial crises?

To fill this knowledge gap, we analyze a novel dataset on central bank currency swaps, covering 194 low-, middle- and high-income countries and 410 swap agreements between 2007 and 2022. The results indicate that access to swaps during a financial crisis largely hinges on the level of a country's economic development, economic size, country risk, trade agreements, and geographical closeness. Another key finding is that advanced countries are more likely to receive swap lines in times of crisis, whereas the opposite is true for most middle-income countries, while low-income countries are entirely excluded from the swap safety net.

Consequently, there is a pressing need to reform the GFSN to ensure equal access to crisis finance for all countries, including the least developed ones. We recommend three reform steps. First, multilateral, regional, and bilateral institutions in the GFSN should establish a governance mechanism that facilitates coordinated crisis financing with enhanced transparency and predictability. Second, more sources of crisis finance are required in those regions that are not yet part of a regional financing arrangement. Third, the IMF should increase unconditional lending, particularly to countries hit by external shocks that are not well covered by central bank currency swaps or regional financing arrangements.

Keywords: Financial Crisis; Central Bank Policy; Currency Swaps; International Financial Architecture

Diagnosis of the issue[1]

The international financial architecture and the stability of financial markets are key elements of the G20 agenda due to their important role for sustained economic growth and achieving the Sustainable Development Goals (SDGs). In alignment with these objectives, the G20 advocates for a strong and effective Global Safety Net (GFSN) (see, e.g., G20 Rome 2021). The GFSN is the set of institutions and arrangements that provide liquidity to prevent or backstop financial crises: the International Monetary Fund (IMF), regional financial arrangements (RFAs), and bilateral central bank currency swap agreements. The latter has become a key element of the GFSN since the global financial crisis of 2007-09. At its peak in 2021, central bank swap lines made up more than a third of GFSN liquidity, accounting for approximately US$ 1.7 trillion or 4.5 per cent of global GDP (Figure 1).

Swap agreements have gained popularity because they are voluminous, enable receiving central banks to access liquidity instantly and, in theory, without any conditionality. The immediacy and absence of conditionality for accessing liquidity are seen as key in preventing or backstopping financial crises. Therefore, swap agreements are often viewed as an efficient international lender-of-last-resort mechanism that played a pivotal role in preserving market stability during the global financial crises and the COVID-19 pandemic (Bahaj & Reis 2022).

[1] The views expressed here reflect only the personal view of the author.

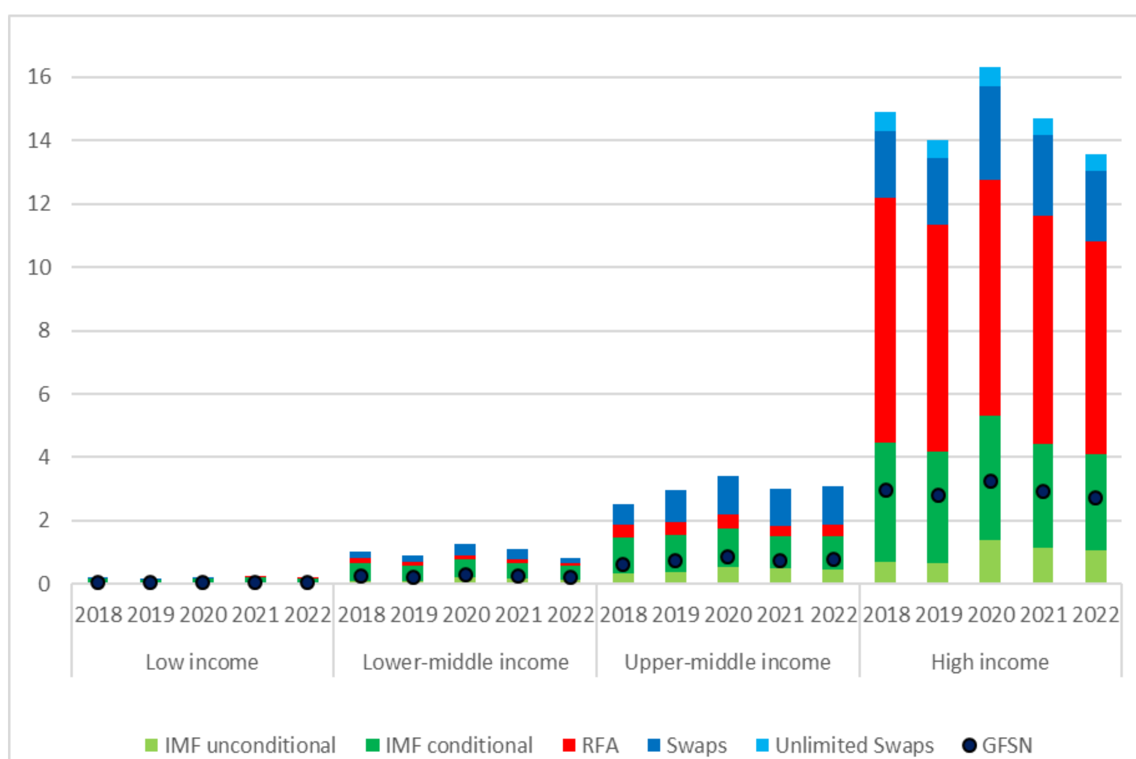

FIGURE 1. GFSN components as a percentage of GDP (2018-2022)

Source: Mühlich et al. (2023). Note: GFSN denotes the average access to all GFSN components. The values are weighted by the economic size of the borrowing country.

At the same time, swap agreements are the least predictable and the most selectively provided crisis response (Denbee et al. 2016). They increase the fragmentation of the GFSN and make coordination more challenging since they "are subject to conditions prevailing in providing countries and regions …. and do not cover several systemically significant countries" (G20 EPG 2018). Swaps further question the role of the IMF as the quasi-lender-of-last-resort in the center of the GFSN and the global financial system, which already has been under pressure due to limited financial resources and the emergence of large RFAs (Kring et al. 2023). While the G20 Cannes Communiqué (2011) states that "central banks play a major role in addressing liquidity shocks at a global and regional level", swap agreements at the same time add to the existing inequalities in access to international crisis finance due to their selective nature (Mühlich et al. 2022).

The question is, why are certain countries excluded from access to swap liquidity, and how does this affect the GFSN's ability to mitigate and alleviate the severity of financial crises? Answering this question is important due to the significance of a well-functioning GFSN amidst the current global poly-crisis and the lack of comprehensive analysis in the existing literature. Most empirical studies have focused either on the US Federal Reserve (Fed) (e.g., Aizenman et al. 2021; Sahasrabuddhe 2019; Bahaj & Reis 2022) or the People's Bank of China (PBOC) (e.g., Liao & McDowell 2015; Horn et al. 2023). Additionally, literature typically restricts their analysis to the global financial crisis or the COVID-19 pandemic.

This policy brief aims to bridge the knowledge gap by providing empirical insights into the factors influencing the occurrence of bilateral central bank currency swaps from 2007 to 2022 for 194 countries, going beyond the swap networks of the Fed and the PBOC. To identify the main determinants of central bank swap agreements, we use a novel dataset that comprises 410 currency swap agreements. The dataset is based on the GFSN tracker (Mühlich et al. 2023) and novel data from Goda et al. (2024) that extends its temporal scope. The findings of this analysis help us to draw conclusions on whether the GFSN is 'fit-for-purpose' and contribute to the development of evidence-based reform proposals for effective and efficient crisis finance in the international financial architecture.

Recommendations

The enrolling narrative on central bank swaps in the GFSN is that the Fed and the PBOC are providers of crisis finance, which effectively backstops financial crises, and that the selection of countries that get access to their swaps is determined by financial and trade exposure, debt distress, military alliances, and geopolitical interests (Liao & McDowell 2015; Sahasrabuddhe 2019; Aizenman et al. 2021; Horn et al. 2023).

Going beyond the sole analysis of either Fed or PBOC swaps, Table 1 shows that China has been the main provider of global central bank swaps, followed by the USA, Japan, Korea and the ECB. More specifically, nearly two-thirds of the swap agreements were made by advanced economies, with 40% of them made between advanced economies. Generally, relatively few developing countries received (40 out of 154 countries) or provided (16 out of 154) swaps. China was responsible for nearly 80% of all swap provisions originating from developing countries (122 out of 155) and almost 40% of all swap provisions towards developing countries (78 out of 202). Notably, Mexico and Brazil were the only developing countries that received swaps from the Fed, although the Fed was responsible for almost 30% of all advanced economy swap provisions.

These data support Galagher et al.'s (2023) argument that the swap partner selection of the Fed leaves an important gap in the GFSN, which is filled by Chinese currency swaps. However, Table 1 shows that mainly emerging upper-middle-income countries have benefited from PBOC's swaps, while low-income countries are excluded from this GFSN component altogether. A recent paper from Goda et al. (2024) provides more evidence on the matter, employing logistic panel regressions on the swap sample of Table 1. Their results show that a country is more likely to receive a currency swap if it has a higher level of economic development, economic size, and credit rating, and when it is

geographically close to and has a trade agreement with the swap-providing central banks country.

Moreover, Goda et al. (2024) reveal that the Fed and the PBOC act in a similar manner as international quasi-lenders-of-last-resort, but that a country's income level is a more relevant determinant for receiving a swap than being in a financial crisis or having a high external debt level. More specifically, their results reveal a disparity in swap agreement allocation during financial crises: advanced countries are more likely to receive a swap during a financial crisis, whereas the opposite is true for middle-income countries compared to non-crisis periods. Additionally, middle-income countries are also less likely to receive a swap when they have higher external debt. Moreover, their results show that a country's access to unconditional IMF lending lowers the likelihood of being provided with a central bank swap, indicating that the different GFSN components relate to each other.

This evidence shows that predominantly developing countries face a shortage of access to crisis finance. For them, the IMF is literally the only source of liquidity provision if an external shock hits. At the same time, these countries are the most vulnerable. We recommend closing this inequality in access to GFSN finance with three reform steps:

TABLE 1. Providers and receivers of central bank swap agreements (2007-2022)

Providers (33 countries)						Receivers (58 countries)					
Advanced (17)			Developing (16)			Advanced (18)			Developing (40)		
	Freq.	**% of total**		**Freq.**	**% of total**		**Freq.**	**% of total**		**Freq.**	**% of total**
USA	74	18.0%	CHN	122	29.8%	JPN	28	6.8%	CHN	44	10.7%
JPN	40	9.8%	TUR	7	1.7%	ECB	24	5.9%	IDN	17	4.1%
KOR	22	5.4%	QAT	4	1.0%	CHE	20	4.9%	TUR	12	2.9%
ECB	21	5.1%	IND	3	0.7%	GBR	19	4.6%	MYS	11	2.7%
CHE	15	3.7%	IRN	3	0.7%	CAN	16	3.9%	IND	8	2.0%
AUS	13	3.2%	LKA	3	0.7%	KOR	16	3.9%	THA	8	2.0%
GBR	13	3.2%	ARE	2	0.5%	AUS	14	3.4%	ARE	7	1.7%
SGP	13	3.2%	PAK	2	0.5%	SGP	13	3.2%	QAT	7	1.7%
CAN	10	2.4%	POL	2	0.5%	DNK	9	2.2%	PAK	6	1.5%
ISL	7	1.7%	BGD	1	0.2%	SWE	9	2.2%	UKR	6	1.5%
HKG	6	1.5%	ETH	1	0.2%	NZL	8	2.0%	BRA	5	1.2%
SWE	6	1.5%	IDN	1	0.2%	ISL	7	1.7%	LKA	5	1.2%
DNK	5	1.2%	IRQ	1	0.2%	LTU	7	1.7%	MNG	5	1.2%
NZL	4	1.0%	MYS	1	0.2%	NOR	7	1.7%	ARG	4	1.0%
NOR	3	0.7%	SDN	1	0.2%	HKG	6	1.5%	CHL	4	1.0%
LVA	2	0.5%	UKR	1	0.2%	HRV	2	0.5%	HUN	4	1.0%
EST	1	0.2%				LVA	2	0.5%	MEX	4	1.0%
						EST	1	0.2%	PHL	4	1.0%
									POL	4	1.0%
									ALB	3	0.7%
									BLR	3	0.7%
									IRN	3	0.7%
									KAZ	3	0.7%
									RUS	3	0.7%
									ZAF	3	0.7%
									EGY	2	0.5%
									SRB	2	0.5%
									SUR	2	0.5%
									TJK	2	0.5%
									ARM	1	0.2%
									BGD	1	0.2%
									BGR	1	0.2%
									ETH	1	0.2%
									IRQ	1	0.2%
									LAO	1	0.2%
									MAR	1	0.2%
									NGA	1	0.2%
									SDN	1	0.2%
									UZB	1	0.2%
									ZWE	1	0.2%
Total	**255**	**62%**	**Total**	**155**	**38%**	**Total**	**208**	**51%**	**Total**	**202**	**49%**

Source: Goda et al. (2024). Note: This table lists the number of swap agreements each country is engaged in, along with their share of the 410 total agreements signed.

First, a "GFSN as a system" is needed: multilateral, regional, and bilateral GFSN institutions should establish a coordinated governance mechanism that leverages the strengths of crisis financing of each GFSN element through coordination (see Vinokurov

et al. 2023). Such coordination should include a mechanism that defines the order and magnitude of lending from each of the three GFSN components depending on the crisis situation and the liquidity supply each component can provide. A transparent and predictable multi-tier GFSN that coordinates and surveils the joint lending of central banks, RFAs, and the IMF would allow access to and utilization of crisis finance according to each GFSN component's strength, i.e. timely and transparent disbursement through the RFAs, selective voluminous crisis finance through currency swaps, and comprehensive access to information, surveillance mechanisms, and the quasi lender-of-last-resort function of the IMF.

The G20 emphasized the coordination of GFSN components and declared the "Principles for Cooperation between the IMF and Regional Financing Arrangements" in Cannes (2011). We recommend that the G20 push for more binding agreements that also include central banks, for example, through the Bank for International Settlements. Based on the Cannes Principles, the G20 Eminent Persons Group on Global Financial Governance could be tasked to elaborate a tier-system for coordinated lending mechanisms between the IMF, the RFAs and the central banks.

Second, to minimize the structural inequalities in access to crisis finance that swaps produce, a higher volume and coverage of crisis finance are required in those regions where developing economies are without access to an RFA. Particularly in Africa, a scaling up of RFAs is needed. For example, the proposal of the African Union for resource mobilization via an African Monetary Fund could be revitalized by an up-front capital reimbursement between lending and borrowing member countries (Dagah et al. 2019). Upon the inclusion of the African Union as a new member of the G20 in 2023, the G20 is in the best position to advance coverage of regional funds in Africa. The G20 has repeatedly called for a "strong and effective Global Financial Safety Net" with the aim of

"strengthening long-term financial resilience" (Rome 2021). As most African countries are excluded from components other than the IMF, the G20 can play a key role in closing this gap.

Third, the IMF should keep unconditional lending accessible in cases where developing economies that are excluded from swaps and sufficient RFA finance are hit by external shocks. By providing such unconditional emergency lending, the IMF would fulfill its role as an all-embracing crisis finance center of the GFSN, as foreseen by the G20 Finance Ministers in Riyadh (2020). This is needed given that transparent and predictable institutionalization of swaps, as recommended by the Korean G20 presidency in 2010, has not yet materialized. The IMF is the GFSN component that can most easily strengthen its transparency, and the predictability and accessibility of emergency finance, as shown by the unconditional IMF lending facilities for developing countries during the pandemic.

Therefore, IMF lending capacity needs to be expanded and put on a more stable footing. Currently, the fund's 1 USD trillion firepower is the smallest of the three GFSN components (Figure 1) and relies primarily on temporary funding sources. If the IMF is to be the center of the GFSN, a permanent quota-based funding mechanism is required that accounts for the representation of all member countries (Kring et al. 2023). The G20 is the highest global government-level forum for financial reforms. Its member countries hold almost 70% of the IMF quota and almost 65% of the IMF's voting power in the highest decision-making body of the IMF, the Board of Governors, where decisions are taken by a majority of votes. In addition, the G20 countries possess about 44% of the voting power in the IMF's Executive Board, which is elected by the Board of Governors and takes most decisions by consensus. G20 countries are additionally represented in voting rights groups that add up to more than 36% of the Executive Board votes.

Consequently, the G20 is uniquely positioned in the political as well as the operative bodies to build political consensus among its members and within international forums about the need to raise the IMF's financial resources, address the current underrepresentation of emerging markets and developing economies in the IMF's governance structure, and advance reforms in IMF's lending policies.

Scenario of outcomes

If the G20 would advocate for the abovementioned reforms, the GFSN would be stronger, with better global governance, and more fit for purpose. The most likely outcome of the reform would be a strengthening of the crisis resilience of developing economies and higher global financial stability. Both of which are key for sustained economic growth, especially in developing countries, which would improve the likelihood of achieving the SDGs by 2030.

Yet, one might argue that two major potential trade-offs need to be considered. First, easier access and a more extensive provision of crisis finance could incentivize moral hazard, i.e. incautious lending and borrowing. However, in a well-coordinated and transparent multi-tiered GFSN with robust surveillance mechanisms, lending policies can be expected to disincentivize moral hazard. Such coordination includes the commitment to address only liquidity crises and to incentivize sound macroeconomic policies to overcome them.

Second, more voluminous GFSN lending could result in unsustainable debt levels for borrowers, especially in the case of developing countries. To avoid such a scenario, distinguishing short-term liquidity needs from long-term solvency problems is an important prerequisite. A well-coordinated GFSN with robust surveillance mechanisms should be able to do so. Moreover, the provision of crisis finance enables solvent countries to overcome temporary liquidity needs, which is key to providing fiscal space and room for maneuvering in crisis situations and thus helps to prevent a temporary crisis from prolonging into a structural debt crisis (UNCTAD 2023).

In any case, creating a transparent and efficient international framework for orderly debt restructuring would be advisable. The G20 Common Framework for Debt Treatment

has taken a step in the direction of coordinated debt restructuring mechanisms but has so far fallen short of advancing an orderly international mechanism that is able to provide debt relief to countries in debt distress (Zucker-Marques / Espinosa 2024). Hence, the G20 should also consider overhauling this framework to support the financing needs of the SDG and the Paris Climate commitments.

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