IMF in the International Monetary System —Globalization and Fragmentation— **

ARIYOSHI Akira

Specially Appointed Professor, International University of Japan

Abstract

Although the International Monetary Fund (IMF) played a central role in the international monetary system in the post-World War II Bretton Woods System, it has been forced to adapt to changes in the environment, including in particular the emergence of multiple international currencies and a globalized financial system. The direct role of the IMF in the international monetary system became more limited to that of providing emergency assistance. In response, the IMF is branching outside its traditional focus on macroeconomic and exchange rate policies, including to that of an aid agency. The main tools with which the IMF now exercises its influence are its analysis and policy recommendations, but for these to have an impact, the IMF needs to have adequate expertise as well as broad trust and support. The financial system now presents an important source of risk to the international monetary system, but it is not evident that the IMF has sufficient expertise in this area. Moreover, the international political situation cast shadows over the maintenance of widespread support for the IMF. When looking ahead to the future of the international monetary system, there are risks of fragmentation brought about by factors such as financial technology and international politics. The IMF faces significant challenges as a global institution in maintaining its role as a forum for collaboration in the international monetary system, not least through strengthening its ability to exercise intellectual leadership and enhancing solidarity.

Keywords: International Monetary Fund (IMF), international monetary system, international institutions, international cooperation
JEL Classification: F33, F53, F55

I. Introduction

Wide use of a currency in international payments results in that currency being used as a reference currency in the quotation and determination of exchange rates and being held as international reserves. Discussions on the international monetary system (IMS) often revolve around the choice of an international currency and the papers in this issue are no ex-

* This article is based on a study first published in the Financial Review No. 153, pp. 260-284, Akira Ariyoshi, 2023, "IMF in the International Monetary System−Globalization and Fragmentation−" written in Japanese.
* The author is grateful for the comments and discussions in the review session for this volume of Financial Review and would like to thank the participants for their inputs.

ception. Analysis of the choice of an international currency typically focuses on the standard functions of a currency – namely means of exchange, unit of account, and store of value – in a cross-border setting. This approach may appear to be a natural one in thinking about currency systems. Nonetheless, it abstracts from entities such as firms and households that actually engage in payments and assumes as if payments are made between states using international currencies. Moreover, it does not explicitly recognize the infrastructure related to payments and liquidity and views the system as if payments were conducted through transfers of physical currencies.

In the early years of the post-World War II Bretton Woods System, most countries concentrated their holding of US dollars – effectively the sole international currency – with the central bank while severely restricting the private sector's holding of dollars. Under such a system, it would not be unnatural to think of international payments as occurring between nations. However, the liberalization of financial systems and cross-border capital flows, together with advances in financial technology, including for settlements, have advanced financial globalization and have fundamentally transformed the IMS.

The transformation of the IMS changed the role of international institutions, not least that of the International Monetary Fund (IMF). The IMF used to play a pivotal role in the Bretton Woods System, but its role has waned and would likely continue to evolve with the transformation of the IMS. Following the theme of this volume, this paper will investigate the changing role of the IMF in the IMS.

To this end, we will briefly trace the history of the IMF's role, starting from that under the original Bretton Woods System, and proceed to explore the challenges and future role of the IMF stemming from the transformations in the global economy and finances in the 21st Century. Past debate and policy recommendations on the IMF tended to focus on improving the IMF's lending programs[1]. However, in our discussions, we will not trace the evolution of the lending programs in detail. Emergency support function, though crucial, is one limited element of the IMS, and in any event, the IMF's lending toolkit has been reformed and expanded considerably over the last couple of decades.

II. Transformation of the IMS and the Role of the IMF: From the Original Bretton Woods Architecture to the Asian Financial Crisis[2]

IMS is a fairly loose concept, and for example, the IMF defines the IMS as comprising three elements: First, *rules and conventions* governing foreign exchange, international payments, international capital movements, and access to liquidity; second, *mechanisms* for balance of payments adjustment; and third, *institutions* for the implementation of rules and

[1] For example, De Gregorio et al., (1999) proposed reforms to the IMF's lending programs and their implementation to improve the IMF's crisis prevention and response capacity, and to that end advocated reform of its governance.

[2] There is vast literature on the history of the IMS, and we will not attempt to list them here. An official history of the IMF exists as a number of publications covering different periods, but the most recent by Boughton (2012) covers only up to 1999. Each publication is quite voluminous. A piece commissioned to commemorate the 50th anniversary of the IMF was published in 1996 (James, 1996). Among the more recent publications, Ocampo (2017) has a similar objective to this paper.

mechanisms (paraphrased from IMF (2016)). The original Bretton Woods architecture clearly established the rules and conventions and the mechanisms, and tasked the IMF with managing them, so that the Bretton Woods System was truly an international monetary system. However, with the blurring of rules and conventions, which also led to the shrinking role of the IMF in implementing them, the existing IMS is not a clear-cut system, and is often characterized as a 'non-system'[3].

II-1. The Bretton Woods System

The primary goal of the Bretton Woods System was to promote the development of free and multilateral international trade, and the IMS was expected to support that objective by facilitating international payments. In order to achieve this, the IMS would need to fulfill three functions: First, to allow the free exchange of domestic currency into foreign currency for trade-related payment (convertibility into generally accepted international currency). Second, to maintain stable exchange rates (stability of value). Third, to facilitate access to international (foreign) currency for cross-border payment (access to liquidity)[4].

The original Bretton Woods System effectively recognized the dollar as the sole international currency and invested the IMF with a central role in realizing the above functions of the IMS. Corresponding to the above three functions, (a) the original IMF treaty obligated members to maintain convertibility for current account transactions and otherwise generally prohibited exchange controls on such payments (Article 8) while subjecting residual controls to annual review by the IMF (Article 14); (b) fixed members' exchange rates against the US dollar and required IMF's consent for members to alter the parity rate (Article 4); and (c) instituted a mechanism for the IMF to provide loans[5] to countries experiencing shortages of foreign currencies. Additionally, for the system to be sustainable, the supply of international currency needs to increase in line with the expansion of the global economy (Ariyoshi, 2005). However, the Bretton Woods System had an inherent source of instability in this respect in that the supply of international currency depended on US BOP deficits[6]. The IMF attempted to address this problem by creating a mechanism to create international liquidity through a scheme called Special Drawing Rights (SDR). However, this attempt did not solve the problem, which was one of the factors that led to the demise of the Bretton

[3] The term 'non-system' is said to have been coined by John Williamson (according to Truman (2012)) but is now widely used to characterize the IMS after the fall of the Bretton Woods System.

[4] These functions follow the taxonomy in Ariyoshi (2005). In the IMF (2016), the rules and conventions that the IMS establishes relate to (a) exchange rates and exchange arrangements, (b) payments and transfers for current international transactions, (c) international capital movements, and (d) the holding of international reserves and official arrangements through which countries have access to liquidity. The IMF does not, in principle, have the powers to prohibit or demand restriction on capital account transactions, except in cases where they form part of the conditionality established in a lending program (Broos and Grund, 2018). Indeed, the IMF's original position vis-à-vis capital account transactions can be seen from the fact that in the IMF's Articles of Agreement, members' use of IMF resources to meet a large or sustained outflow of capital is prohibited, while members are free to exercise controls over capital flows so long as they do not restrict payments for current transactions (Article 6).

[5] Technically, the facility was constructed as purchase and repurchase, in effect a swap transaction.

[6] The so-called Triffin's dilemma (Triffin, 1960)

Woods System.

It should be noted that the prewar gold standard depended on each country adhering voluntarily to the 'rules of the game,' and no institution was responsible for maintaining the system. Discussions and cooperation took place within an informal setting and were unable to prevent the disorderly exit of countries from the gold standard that ultimately led to the disruption of the global economy. The IMF's important role in the post-war IMS was, and is, to provide a permanent forum for discussions and cooperation in ensuring the stability of the IMS[7].

II-2. The Transition to a 'Non-system' under Multiple International Currencies and the Declining Role of the IMF

With the recovery and growth of non-US countries, and as advanced economies liberalized the financial system and cross-border capital flows, the IMS underwent a profound transformation that reduced the role of governments and the IMF. The US dollar will continue to maintain a dominant role[8], but currencies of advanced economies could be used in international transactions and became 'international currencies.' In relation to the three functions of the IMS noted above: (a) There are no restrictions on the international use of currencies of advanced economies, and these currencies can be converted to any other currency for any transaction, including financial and capital transactions. Indeed, currencies of advanced economies, including the yen, are used extensively. (b) The exchange rates between major currencies are determined freely in the market under flexible exchange rate regimes. (c) There is essentially no restriction on holding currencies and financial assets, and liquidity is provided through the private banking system and capital markets. The result is that there is no clearly defined 'system' as such, and is thus characterized as a non-system[9].

II-2-1. Convertibility

It is natural that the role of the IMF should evolve in line with developments in the IMS. Firstly, as most countries abolished restrictions on payments for current transactions and moved to Article 8 status[10], the IMF's role in ensuring current account convertibility became

---

[7] Article 1 of the Agreement establishes the purposes of the IMF, and in Section 1 establishes its purpose '[t]o promote international monetary cooperation through a permanent institution which provides the machinery for consultation and collaboration on international monetary problems.' Even when the discussions are not held within the IMF proper, they are often conducted in a closely related forum. For example, the 1971 Smithsonian Agreement was concluded in the G10, a gathering of advanced economies participating in the GAB, a mechanism to supplement IMF resources.

[8] Roughly two-thirds of global holdings of foreign reserves and just under 90 percent of foreign exchange transactions are in US dollars, and the aggregate index of international currency usage estimated by the US Federal Reserve shows a stable share of the dollar at around 70 percent over the last two decades (Bertaut et al., 2021). Given that the statistics typically include the use of the euro in intra-eurozone use, the effective share of the dollar is probably higher.

[9] IMS was subject to numerous tensions and disruptions during the period of transition. Our discussions will largely skip these developments and focus on the landscape after a stable arrangement of the current (non-)system has emerged.

[10] The number of countries that fully accepted the obligations under Article 8 was limited to only about 10 percent of the membership when the IMF was established, but expanded to over 40 percent in the 1980s and reached 90 percent by 2005 (IMF, 2006).

largely redundant. For capital account transactions, there were attempts to broaden the IMF's jurisdictions to promote capital account liberalization, but the movement lost momentum in the wake of the Asian Financial Crisis. In any event, advanced economies have signed up to the OECD Code of Liberalization of Capital Movements and effectively allow free movement of capital. Emerging economies have also progressively liberalized capital account transactions, partly motivated by the desire to facilitate financing for expanded trade and actively seek foreign direct investment.

II-2-2. Stability of Foreign Exchange Rates

The 1978 Amendment to the Articles of Agreement officially abolished the par value system, which freed countries to adopt exchange rate arrangements of their choice. Though the amended Article 4 states that members must 'avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain an unfair competitive advantage over other members,' the primary obligation of members is 'to collaborate with the Fund and other members to assure orderly exchange arrangements and to promote a stable system of exchange rate' (emphasis added). The agreement requires the IMF to 'exercise firm surveillance over the exchange rate policies of members', and the IMF conducts regular consultations with members in the so-called Article 4 Consultations, but the previous direct powers over the exchange rate through the establishment of par value and the need for IMF's concurrence has been lost. The IMF may still exert influence over members as part of conditionalities set in IMF lending but has very little leverage over countries with BOP surplus that do not require assistance. This has led to frequent criticisms of asymmetry in the IMF's influence over members.

Under the current arrangement, the discussions on exchange rate adjustment and coordination, particularly among major advanced economies, have shifted to fora such as the G7 (originally the G5) and to bilateral negotiations such as those between Japan and the US[11]. The IMF does participate in many of these multilateral fora as an observer and provides analytical background papers and support, but it does not have a direct say in the discussions.

The IMF's role has thus evolved from having direct responsibility over ensuring a stable system of exchange rates to that of supporting the effective functioning of the exchange rate mechanism by preventing or dealing with instability of the global economy that is accompanied by imbalances in the balance of payments. Furthermore, apart from being able to impose conditionalities on its borrowers, the tools it has at hand are restricted to providing analysis and (non-binding) policy recommendations.

II-2-3. Access to Liquidity

With the widespread availability of funding through financial institutions and capital markets, it became possible for most countries and firms to raise funds in normal times, so

[11] Since 1988, the US Congress has required the US Treasury to submit a semi-annual report on foreign exchange, including a judgment on whether key trading partners have engaged in currency manipulation. Based on the judgment, the US Treasury must initiate negotiations with the country through the IMF or bilaterally.

long as they bear the risk premium for the funds. The massive expansion of capital flows in the early 2000s led some to argue that the IMF was no longer necessary.

The IMF's role in providing liquidity thus became limited to providing emergency liquidity support in crises to countries experiencing difficulties in securing foreign currencies from private financial institutions or the capital market. The IMF's role had already declined substantially from the early days when the IMF could supply most of the required funding by itself. Since the Latin American Debt Crisis of the 1980s, the IMF could no longer fill the funding gap created by external debt servicing on its own, and its role was redefined to playing a catalytic role in rescheduling private and official bilateral loans. The IMF would play the role of an honest broker in striking an appropriate balance between the adjustment effort of the borrowers and the financial support by the lenders and would monitor whether the debtor countries were keeping to their promise in restoring debt sustainability.

The IMF's lending program had initially intended to provide short-term relief to a temporary deterioration in the current account balance of payments. However, the size of its lending increased, and the term of the loans became longer. In order to support such an expanded lending program, the IMF had to move beyond being a quota-based mutual assistance organization and began to rely on borrowed funds. It also expanded longer-term lending at concessionary terms to low-income countries lacking market access. To fund such activities, the IMF sought assistance from high-income countries as well as allocating resources from the sales of gold that had been paid in as a part of quota subscriptions.

II-2-4. International Liquidity

Liberalization of capital flows and financial systems allowed countries to build up their reserves through external borrowings from banks and capital markets, thus freeing countries from the need to run current account surpluses to secure foreign currency. The concept of international liquidity also changed. In the past, international liquidity was typically defined as the total amount of international reserve held by countries (other than the US). The supply of international liquidity was basically through the balance of payments deficit of the US. However, with the emergence of non-dollar currencies as international currencies that could be freely exchanged for US dollars, shortages of international liquidity per se were no longer an issue. The measurement of international liquidity also became varied; for example, the BIS has adopted the total foreign assets of the banking system as an indicator of global liquidity, while the ECB looks at the aggregate M2 of advanced and emerging market economies to monitor liquidity. Problems in international liquidity came to be understood as that of its distribution, where some countries face difficulties in gaining access. The need for SDR, which was created to supplement the dollar, became doubtful[12], and a general allocation of SDR was discontinued after the second round of allocations conducted between 1979 and 1981. The role of the SDR appeared to become limited to that of a unit of account for

[12] The IMF Articles of Agreement requires the SDR allocations (issues) to 'meet the long-term global need … to supplement existing reserve assets' (Article 18).

the IMF.

III. Changing Environment for the IMS in the 21st Century and the IMF's Responses

In considering the role of the IMF in the IMS of the 21st Century, we begin by taking a broad look at the changing IMS environment from a number of perspectives. Tectonic shifts occurred over time, driven by a series of events, but harbingers of the changes to take place were the 1994 Mexican Currency Crisis and the 1997 Asian Financial Crisis. The then IMF Managing Director Michel Camdessus referred to the Mexican Crisis as the 'the first financial crisis of the 21st century' (Camdessus, 1995). The main difference with previous crises was that it was the first instance of a 'capital account crisis' where integration with the global financial and capital markets led to a massive increase in capital flows, with a sudden outflow triggering a balance of payments cum currency crisis. The Asian Crisis occurred in the context of domestic financial liberalization proceeding concurrently with capital account liberalization, and the growing nexus between the two led to a balance of payments and currency crisis, triggering a financial crisis. Moreover, the Asian Crisis was notable in the contagion of crises among similarly placed countries.

Developments since the turn of the Century are closely related to financial globalization. Financial globalization influences, and is influenced by, the transformation of the IMS. We shall look at these interactive developments from two perspectives: issues relating to the supply of international money and access to liquidity, and issues relating to the stability of exchange rates, while noting the responses of the IMF[13].

III-1. Supply of International Money and Access to Liquidity

As noted earlier, liberalization of domestic financial systems and cross border capital lows have resulted in many currencies becoming international currencies that are used in international payments, investment and fund-raising, while the supply of each international currency is undertaken by the financial system of that currency. Although the central bank plays a central role in each currency's financial system and influences supply through its monetary operations, the provision of liquidity is driven mainly by the banking system of each country, which are then distributed and exchanged within the global banking network. Under such an arrangement, the stability of the IMS becomes synonymous with the stability of the international financial system, wherein the instability or malfunctioning of the financial system becomes closely associated with the eruption and spreading of crises. Moreover, the development and integration of international capital markets have broadened the channels of access to liquidity beyond that of direct supply from the banking system.

[13] While we are tempted to think of the IMF as behaving as an independent and autonomous entity, IMF decisions are ultimately guided by the will of its member governments, with inputs from the staff working under the direction of the Managing Director and shaped through the discussions of Directors representing member governments and authorities.

III-1-1. Expansion of Capital Flows and the Growing Size of Financial Support

Liberalization and globalization of financial and capital markets have resulted in the growing magnitude of balance of payments crises. Initially, it was enough for liquidity support to cover a temporary deficit in the current account. However, as noted in II-2-3, in the Latin American Debt Crisis of the 1980s, it became necessary to cover the repayment of debt principal falling due as well. The primary tool to address this was the rescheduling of debt. However, as market funding by emerging economies increased and as portfolio investment into these countries increased, rescheduling was no longer sufficient to stabilize capital outflows. Once a problem emerged, it could quickly develop into large-scale capital outflows, deterioration of asset prices, and a sharp depreciation.

Under such circumstances, the IMF's rescue package had to be one that would provide a sense of safety to investors so that they would maintain their exposure, which meant that the program had to be sufficiently large and ambitious. Table 1 compares the size of IMF programs in past crises. In the Latin American Debt Crises, IMF programs relied heavily on debt rescheduling. Not only were the size of the debt reductions limited, but the adjustment programs were also weak, and the combination led to a series of relatively small-scale IMF programs that were not particularly successful in ending the crises. From the Asian Crisis onwards, and learning the lessons from that crisis, the size of individual programs became much larger. The size of rescue packages after the Global Financial Crisis reached unprecedented proportions. Nonetheless, when these massive programs were combined with successful adjustment, capital inflows could resume, and the crisis would subside quickly.

Table 1: Comparison of the size of IMF packages (in percent of GDP)

	Country	IMF Program (Starting year)	IMF program size (percent of GDP)
Latin American Debt Crisis (1982~)	Mexico	1983, 86, 89	5.2
	Brazil	1983, 88, 92	3.7
Asian Financial Crises (1997~)	Thailand	1997	2.6
	Indonesia	1997, 98	4.8
	Korea	1997	4.0
Global Financial Crisis (2008~)	Hungary	2008	10.6
	Iceland	2008	13.1
	Latvia	2008	7.1
Eurozone Crises (2010~)	Greece	2010, 12	23.9
	Ireland	2010	14.5
	Portugal	2011	14.9

Source: Excerpt from Barkbu, et al. (2011) Table 1.
Note: Program size shows aggregate size where multiple programs were extended for the same country. The number for Greece is the author's estimate that adds the 2012 program.

III-1-2. Financial Crises in Major Currencies

The Asian Crisis was a crisis that was brought on by financial globalization, but it was the vulnerabilities in the financial systems of the emerging markets that triggered and expanded the crises. As such, the reforms introduced after the crisis focused on improving surveillance and the design of liquidity support measures with emerging markets in mind.

By contrast, in the 2008 Global Financial Crisis (GFC), the banking systems of major international currencies fell into crisis, with the US as the epicenter. Traditional views on currency crises of emerging market economies held that they stemmed from weaknesses in the crisis countries, typically resulting in balance of payments pressures and restricted access to international currencies such as the dollar[14]. The GFC indiscriminately limited access regardless of the health and solvency of the borrowing countries, triggered by the financial crisis in the country issuing the international currency. In other words, financial crises in the major currencies severely damaged the smooth supply of international currency, which fundamentally jeopardized the functioning of the IMS.

The response to the Asian Crisis involved a strengthening of the institutions supporting the IMS. In 1999, in response to the Asian Crisis, the Financial Stability Forum (FSF) was set up by the G7, adding financial regulator authorities to the traditional finance ministers' and central bank governors' forum on macroeconomic policy consultation and coordination. Following the 2008 GFC, the forum was expanded in 2009 to cover the G20 countries and renamed the Financial Stability Board (FSB). The FSB is an independent entity that functions as a cooperative forum for country authorities and international institutions with a small secretariat in the BIS, which also funds the secretariat.

The IMF recognized the possibility that vulnerabilities in the financial system could lead to currency and balance of payments crises. It reorganized its Monetary and Exchange Affairs Department, which had focused on institution design in money and exchange markets as well as related technical assistance, into the Monetary and Capital Markets Department, which emphasized financial system surveillance. It has been publishing the Global Financial Stability Report as a companion flagship report to the World Economic Outlook semi-annually since 2003. It also conducts in-depth assessments of individual members' financial systems through its Financial Sector Assessment Program (FSAP). The program is conducted in roughly 5-year cycles for each country and is linked to the Financial System Stability Assessment. The strengthened focus on financial stability risk is also reflected in annual Article 4 Consultations (IMF IEO, 2019).

III-1-3. Push Factors in Cross-border Capital Flows

The massive increase in cross-border capital flows occurring in the context of financial globalization heightened interest in the so-called push factors as drivers of capital flows. The traditional view had emphasized domestic factors in the recipient countries in explain-

[14] These sentiments notwithstanding, some argued that the reversal of capital flows stemmed from excessive capital inflows in the first place, which were not necessary due to shortcomings in the recipient countries. This prompted a debate on the desirability of control on speculative capital inflows and outflows (Ariyoshi et al., 2000).

ing capital inflows (the 'pull factors'), but a growing body of evidence led to the recognition that liquidity and risk preferences in the global capital market have a significant impact on these flows[15]. The changes were partly due to the opening up of emerging and developing country economies that resulted in enlarged trade finance and direct investment flows, as well as the liberalization of portfolio investment inflows, but supply-side factors involving financial globalization were crucial. The increased awareness of push factors led the IMF to review its previous negative stance on capital controls. Its so-called 'Institutional View' published in 2012, acknowledged the possible role that capital flow management measures can play. Exchange control measures were also adopted in the Eurozone crises in IMF programs. Nonetheless, the IMF's basic stance is to consider capital controls as a final resort and appears to have reservations about their effectiveness and potential side effects (Ariyoshi, 2013).

III-1-4. Expansion and Diversification of the Safety Net

The IMF maintained the central role in providing liquidity support in crises under the 'non-system' IMS. Moreover, with the expansion of international capital flows and the diversification of the causes and forms of crises, the IMF's role as the 'lender of last resort' was strengthened, both in the size of its lending capacity and the diversity of lending arrangements. Nevertheless, further widening of funding gaps in crises and the larger share of bond financing that hampers collective action made it difficult for the IMF to structure adjustment programs that secured sufficient support from the creditors[16]. At the same time, some emerging and developing countries became mistrustful or cautious of relying on the IMF in view of the perceived mishandling of the Asian Crisis by the IMF.

This led to moves to build up international reserves as self-insurance and to create bilateral or regional mutual assistance schemes in order to reduce reliance on the IMF. If the IMF's global safety net functions effectively, such additional safety nets should be unnecessary and inefficient. Excessive holdings of reserves incur the opportunity cost of holding resources with low returns, as well as the risk of losses from negative-carry on domestic liabilities used to fund the reserve holdings. They could also expose the country to capital losses on its reserves in case of currency appreciation. Regional safety nets provide the possibility of solving problems without politically contentious IMF involvement, or for arranging supplementary financing alongside IMF programs quickly without negotiating individual burden sharing. Still, such regional schemes need to define their division of roles and coordinate with the IMF. There is also the risk that if the region under the same safety net umbrella is hit with a common shock, the resulting simultaneous demand for funds makes it difficult for the safety net to fulfill its role.

The Eurozone crisis provides a case study in how the IMF and regional safety nets may work together. In that crisis, the European Commission (EC), the European Central Bank

---

[15] Since Calvo, Leiderman, and Reinhart (1993), there have been many studies, particularly since the 2000s, on the effects of global capital market conditions on cross-border capital flows.

[16] In the past, the IMF program would be activated only after the entire financing gap is committed.

(ECB), and the IMF coordinated the rescue under the troika arrangement. The assessment by the Independent Evaluation Office (IEO) of the IMF (IMF IEO, 2016) judges that the arrangement proved to be an efficient mechanism in most instances for conducting program discussions with national authorities, but that the IMF lost its characteristic agility as a crisis manager. And because the EC negotiated on behalf of the Eurogroup, the troika arrangement potentially subjected IMF staff's technical judgments to political pressure from an early stage. The assessment also noted a number of issues concerning the relationship between the IMF staff and the Board in the decision-making process. It also recommended that the IMF establish a policy on cooperation with regional financing arrangements.

In the GFC, bilateral swap arrangements between central banks played a major role in the safety net arrangements. There were previous schemes that had adopted swap arrangements as a foreign exchange financing mechanism, including the Chiang Mai Initiative among ASEAN, China, Japan, and Korea. The IMF's lending itself is essentially constructed as a currency swap through the purchase of foreign currency by domestic currency.

In the GFC, access to the US dollar, used extensively in international transactions, became constrained for banks outside the US. The US Federal Reserve (FED) provided funds directly to US banks to circumvent the dysfunctional dollar interbank market, but this did not lead to the restoration of dollar supply to non-US banks. Because the FED cannot provide funds directly to non-US banks that do not have an account with the FED, it provided dollar funds to foreign central banks, which in turn would supply the dollars to its domestic banks. This arrangement helped maintain the supply of the dollar internationally, thus crucially supporting the dollar's role as an international currency.

Swap lines in financial crisis are particularly attractive instruments for emerging market economies, as they provide unconditional access to US dollars at low cost and also help demonstrate the country's creditworthiness. Many emerging economies are believed to have requested them, but the FED could not extend them indiscriminately because of the credit risk involved. Other than the advanced economy central banks, including the ECB, the Bank of Japan, and the Swiss National Bank, the FED eventually concluded swap arrangements with four emerging market countries: Brazil, Mexico, Korea, and Singapore[17]. The outstanding amount of swaps expanded rapidly, mainly with the ECB and the Bank of Japan, and peaked at approximately 600 billion dollars (Steil et al. 2021)[18].

Swap lines were also deployed to provide emergency liquidity support in the Eurozone crisis. The ECB and Sweden's Riksbank provided them to some EU members who had not yet adopted the euro. The swap arrangements that had been established with advanced economies during the GFC were subsequently made permanent. Moreover, in response to the COVID-19-induced stresses, the FED and the ECB reestablished their swap lines with

---

[17] According to Steil et al. (2021), the criteria for the selection of the swap counterparty was the effect on the US and the global economy stemming from restricted dollar access. In particular, those countries with large holdings of US mortgage securities and large dollar funding gaps were considered high risk, as liquidation of such securities could further deteriorate the US bond market.

[18] By comparison, the resources available to the IMF for lending in November 2008 were roughly 200 billion dollars. https://www.imf.org/external/np/tre/liquid/2008/1108.htm

emerging market economies. China has also concluded RMB-based swap lines with other countries since 2009. We will discuss them further in Section VI-2.

The IMF's lending programs have evolved. The Flexible Credit Line (FCL) was introduced in 2009 to provide large-scale and rapid support to countries with strong fundamentals and policy track record against heightened external stress, including on a precautionary basis. This type of facility had long been under discussion since the Asian Crisis, but a scheme that attracts voluntary participation had not been developed. The GFC provided an impetus for the new facility. The FCL was designed to provide a large 'war chest' to deter outflows of capital, and it was not envisaged that actual drawings would take place. The FCL was approved for Mexico, Poland, and Columbia but did not lead to a pick-up beyond these countries. Subsequent facilities that were built on the FCL aimed to provide precautionary support also did not lead to use on any meaningful scale. These facilities were not attractive compared in particular with central banks swap lines, since a request to the IMF, even on a precautionary basis, could have adverse reputational consequences when made in a deteriorating global environment.

III-1-5. Global Shortage of Liquidity and a New Role for the SDR

General allocation of SDR had long been neglected, but attention was revived during the GFC. As noted above, the GFC was characterized by a global drying up of the supply of international currency, particularly the US dollar. In order to resolve the global liquidity shortage rapidly on a large scale, a new allocation of SDR of 161.2 billion was made in August 2009. This amounted to 7.5 times the total allocation since its inception. Furthermore, during the COVID-19 crisis, a further 465.6 billion SDR were allocated in August 2021. Unlike the GFC, the COVID-19 crisis may not be a problem of global liquidity. However, as many countries were suffering from economic difficulties and balance of payments pressures from the COVID-19 pandemic, a large-scale allocation of SDR was considered to help countries respond to the crisis and to stabilize the global economy by making resources available for the imports of vaccines and rebuilding of the damaged economy.

The SDR provides a similar benefit to an overdraft facility at the bank for the user, allowing a country to borrow funds without conditions attached – an IMF version of FED swap lines. On the other hand, for countries that accept the SDR in exchange for a currency, the SDR provides a reserve asset that earns interest. Of course, the ability to use SDR as an international reserve depends on the continuation of the SDR system itself, and there would be limits on how much SDR can be allocated when SDR are used mainly by low-income countries and accumulated in advanced economies[19].

[19] Compared with the total existing holdings of international reserves of 13 trillion dollars, the total amount of SDR allocated is roughly 900 billion dollars. It is unclear whether there are limits to the acceptability of SDR and what the limits might be.

III-2. Stability of Exchange Rates

For emerging and developing countries, there is a debate on the choice of exchange rate regime from a macroeconomic performance and sustainability viewpoint. However, options other than the flexible exchange rate system are rarely considered for large, industrialized countries if we exclude Euro-style monetary unions. There is a general recognition that maintaining a fixed exchange rate with the current level of capital flows is untenable[20].

The system of multiple international currencies results in currency substitution between major currencies, so that differences in policies and divergent responses to common shocks influence the exchange rates via their interactions. Since the 1970s, there have been intermittent attempts to form explicit agreements on the exchange rates, such as the Plaza Agreement of 1985 and the Louvre Agreement of 1987. However, it has proven difficult for countries to agree on whether the current configuration of exchange rates was appropriate or on the desirable levels for the exchange rates. G7's communiques on the topic have tended to repeat stock wording noting that excessive exchange rate fluctuations were undesirable and that they should reflect fundamentals, or aim for sustainable non-inflationary growth. From a theoretical viewpoint, the convergence to stable medium-term economic performance across countries should anchor medium-term exchange rate expectations, thus stabilizing the current exchange rate. Central banks of major economies have adopted inflation targeting with a common target inflation rate of 2 percent, which provides an anchor to exchange rate expectations. Though not explicitly recognized as such, the common monetary policy framework may be said to be designed to provide exchange rate stability.

The exchange rates between major countries are influenced by the differences in the relative economic performance and policy stance of these countries. By contrast, smaller countries, including industrialized economies, can be regarded as small open economies where the countries themselves need to adjust their policies to stabilize the exchange rate, taking the international environment as given. The strengthened push factors in international capital flows have made policy implementation more difficult by making it necessary to adopt monetary policies that could be detrimental from a domestic perspective. Examples of such a challenge include the case following the GFC, where the ultra-loose monetary policy adopted by the US encouraged capital flows to emerging market economies in search of higher yield, forcing an unwelcome appreciation of the exchange rates in those countries. The 2013 episode of 'paper tantrum' showed how a shift in mere expectations of future policy tightening of US monetary policy could trigger capital reversals and a sharp fall in exchange rates of emerging economies.

---

[20] There are cases where an advanced economy with open capital markets has attempted to control the exchange rate. Switzerland, between September 2011 and January 2015, set an upper limit for its exchange rate against the euro and intervened to maintain the rate. Since a country can create its own currency at will, it is not impossible to continue buying foreign currency to put a cap on the rate. However, as the experience of Switzerland, which ultimately had to discontinue the policy, shows, many negative effects emerge from such a policy (Financial Times, 2015).

In response to these developments in exchange rate movements and the underlying flows of capital, the IMF began publishing in addition to the WEO regular Spillover Reports that analyzed the effects of policies of major countries and regions (the US, Euro area, China, Japan, and the UK) on each other and the broader global economy. The report was subsequently changed to one covering thematic issues and eventually discontinued in 2015. This was not for the lack of interest in the effects of policies on other countries but rather because the spillover aspect became an important component of IMF's surveillance and came to be integrated more deeply into the Article IV Consultation process[21]. Nonetheless, it remains doubtful whether these discussions and reports have a tangible impact on the policies of each country. Conditions in the international capital markets are heavily influenced by the monetary policy of major advanced economies and in particular US policy. However, central banks are legally required to pursue domestic price and (in the case of the US) employment goals and are given independence and accountability to pursue these objectives. Central banks are thus legally constrained in conducting policies for the benefit of other countries. Policies that consider the effect on other countries may be justified only in cases where the impact of policies on other countries results in outcomes that jeopardize the pursuit of its own domestic policy goals (the so-called spill-back)[22].

IV. The Role of the IMF in the Current IMS

In an era where the IMF had strong powers, what was necessary for the effective functioning of the IMS was for the IMF to correctly judge the appropriateness of adjustment to parity in exchange rate policies, to make correct assessments of debt sustainability, and to impose appropriate conditionality in its lending programs. However, the IMF's jurisdiction has shrunk, alternative funding sources have expanded, and its lead role in crisis response has eroded, as in the Eurozone crisis. Furthermore, policy issues in the international monetary and financial sphere now often fall outside the IMF's traditional jurisdiction and expertise, and discussions often take place elsewhere, such as in the G20 or FSB[23].

Under the circumstances, the IMF's role outside emergency liquidity provision is now mainly limited to providing impartial analysis, including for fora such as the G20, and to build consensus around policies that support the stability of the IMS.

Whether such activities bear traction depends on two conditions: one is that the IMF holds sufficient expertise in the areas that it provides analysis and advice, and second, related to the first, that the IMF has the trust of its member governments and the broader public.

---

[21] In the Integrated Surveillance Decision adopted in 2013 by the IMF, the discussions of the external effect of policies in Article IV Consultations were officially endorsed. However, this does not involve a new obligation under the Articles of Agreement to conduct policies that take into account the effect on other countries. Countries are only encouraged to consider alternative policies in light of recognition of such spillover effects (Schenk, 2019).

[22] A similar caveat exists for foreign exchange interventions. For central banks under an inflation-targeting regime, intervention can in theory be justified only when movements in the exchange rate hinder the pursuit of achieving the inflation objective.

[23] For cooperation among central banks, bimonthly meetings of Governors of the BIS, which have been held since the 1970s, play an important role.

IV-1. IMF's Expertise

In terms of expertise, macroeconomists traditionally staff the IMF, and about three-quarters of its 1,743 economists (figure for 2016/17 including long-term contractual staff) are generic macroeconomists[24]. This was an appropriate composition in an era where the stability of the IMS could be supported by macroeconomic and exchange rate policies. However, the stability of the IMS is now synonymous with the stability of the financial system, and there is likely to be a mismatch in the expertise. The IMF has been steadily expanding its staff in the financial sector following the series of financial crises since the turn of the Century. The Money and Capital Markets Department has expanded from a staff of around 100 in 2007 to 180 by 2017, of which half has experience in central banks and regulatory agencies. Impressive as this expansion may sound, the numbers can hardly be sufficient considering that the department's remit covers everything from monetary policy and exchange rate policy to money laundering and climate finance.

In the evaluation conducted by IMF's Independent Evaluation Office (IEO) on IMF's financial surveillance activities published in 2019 (IMF IEO, 2019), it is reported that in issues related to finance and banking, advanced and emerging market economies tend to turn to the BIS over the IMF. In view of the growing importance of the financial system in ensuring the stability of the IMS, the IMF must upgrade its expertise in the area as well as strengthen collaboration with institutions such as the BIS, which possess the expertise. Indeed, in FSAP, which conducts surveillance of members' financial systems, the IMF invites experts from central banks and supervisory agencies to staff its mission team. Still, for the FSAP reports and recommendations to be consistent across countries and to ensure the quality of the product, the IMF itself needs to possess a high degree of expertise.

The IMF was criticized in the 1990s for subscribing to the so-called Washington Consensus that was biased toward a competitive free market economy. In terms of the intellectual climate within the IMF, a large portion of the staff was from Europe and North America, and even those from elsewhere had received their PhDs from a small number of top-ranking universities in the US and the UK, resulting in a very homogeneous group[25]. The IMF has since strengthened its efforts to secure diversity[26], and it has been actively seeking staff of diverse nationalities and gender as well as those who were educated outside the US and the UK, and raising them to senior positions. It has also expanded mid-career recruitment and encouraged staff to experience positions in local offices and secondments to governments. Whether the increased diversity results in a shift in the official view of the institution is not clear since the IMF needs to maintain a common institutional view to ensure consistency

[24] According to the Human Resources Department of the IMF (Stedman, 2018, p. 20).
[25] When the author worked at the IMF in the second half of the 1980s, while there was a fair share of nationals from the region in the area departments, senior staff from division chief upwards in the department which set down common policy for the IMF (the ETR Department) was composed entirely of white males from the UK or North America.
[26] The IMF began formulating action plans to promote staff diversity in 1996 and has published annual Diversity Reports to monitor the progress in diversity since 2000.

and evenhandedness in its advice and operations. Indeed, revolutions in policy thinking have tended to emerge at the top. For example, under Managing Director Dominique Strauss-Kahn, a Finance Minister in the French Socialist Government, the renowned Keynesian economist Olivier Blanchard promoted expansionary fiscal policy as the Chief Economist. Another trigger for change in thinking appears to emerge from the demands of society at large[27].

IV-2. Is the IMF Trusted?

Since the IMF now has little power to impose its views, for the IMF's policy recommendations to be accepted and put into practice, there needs to be a broad trust in the IMF. With such backing, if an individual country does not follow the IMF's recommendation, the international community's support behind the IMF acts as peer pressure on the recalcitrant country. In this manner, the IMF can promote the stability of IMS.

In terms of trust in the IMF, several factors work against it. The biggest criticism is that the governance of the IMF lacks legitimacy, and its decisions do not necessarily reflect the collective will of the members. Various issues have been raised in this respect, and reforms addressing them have been put in place.

IV-2-1. Voting Power and the Election of Executive Directors

The IMF's operations are based on quota, which is akin to equity contributions. Apart from a limited number of basic votes that are distributed equally to members, voting rights are allocated in proportion to members' quota. Additionally, on the operational side, quota forms the basis of the amount of funds that members can borrow from the IMF. The selection of 24 members of the Executive Board, which makes operational decisions, is through voting by members, with coalitions being formed among member countries to represent their constituency.

When quota is increased, the increase is allocated to countries based on their position in the world economy at the time of the decision. Since only the increment reflects the current status, quotas for countries whose economy had expanded rapidly tend to lag the economic expansion, and those for original members, such as advanced European countries, tend to be overallocated. Moreover, European nationals traditionally accounted for a third of the seats and were deemed overrepresented. Within the EU, there were concerns that with the Euro member countries split into eight different constituencies represented by different Directors[28], a common position for the Euro area and more broadly for the EU could not always be advanced at the IMF. In 2015, the EC recommended appointing a single director repre-

---

[27] A more fundamental backdrop is that the GFC raised questions on the legitimacy of traditional macroeconomic theory. There have been a number of efforts to 'rethink' macroeconomics, but there does not appear to be consensus on what direction it should take.

[28] In addition to France and Germany each electing a board member on its own, other Euro area countries jointly elect their board representative with non-Euro area EU members and/or non-European countries.

senting the Euro area, but it ran into opposition and has not been realized (De Ryck, 2019).

Imbalance in quota distribution had long been a subject of major debate, and a series of regular and special quota revisions helped to increase the weights of developing and emerging market countries, albeit gradually and in a limited manner. In 2010, a major breakthrough occurred with the agreement to double the quota resources in response to the need to strengthen IMF resources made apparent in the GFC. This doubling took effect in 2016 and allowed a significant reallocation of quota shares. Compared with the shares that were established after the 11th Quota Review agreed in 1997 (effective January 1999), which was prior to the Asian Crisis and the criticism against the IMF was not yet strong, the quota share post-revision for advanced countries fell 3.9 percentage points from 61.6 percent to 57.7 percent, with a corresponding increase in the share for emerging and developing countries[29]. There was also a trebling of the basic votes distributed equally across members, so the shift in the voting power share amounted to 5.3 percentage points. With these reforms, the overallocation of quota to advanced economies as a whole was corrected, seen both in terms of the formula to calculate the quota allocation[30], or simply on the basis of GDP shares (Table 2).

Table 2: IMF quota share and voting share after the 2010 quota increase agreement (in percent)

	GDP share	Theoretical quota share	2006 quota share	Post-increase quota share	Post-increase voting share
Advanced Economies	60.0	58.2	61.6	57.7	55.3
Emerging and developing economies	40.0	41.8	38.4	42.3	44.7

Source: IMF

The 2010 agreement on quota increase was accompanied by an agreement on the selection of Executive Directors, which became effective with the revision to the Articles of Agreement in 2016. The revised Articles abolished the right of the top five countries by quo-

[29] The numbers in 2006 reflect a small increase in quota from admission of new members in addition to the effects of the 11th Review of Quota.
[30] The current quota formula was adopted in 2008 and is formulated as:
$(0.50 * GDP + 0.30 * openness + 0.15 * variability + 0.05 * foreign\ reserves)^{compression\ factor}$
It should be noted that the formula itself is the result of negotiations that take into account the results produced from the formula and is not necessarily a purely objective formula.

ta size to appoint their own Directors and allowed 13 Chairs to appoint two Alternated Directors each, which made it possible for the representatives from smaller countries to participate in the Board[31].

IV-2-2. Selection of Managing Director

The Managing Director (MD) is the Chairman of the Executive Board and also heads the staff. The position has traditionally gone to a European, following an agreement reached when the Bretton Woods institutions were established, with the World Bank President going to an American. The 13 MDs to date have all been European, and in particular since 1978, four French Nationals have led the institution over 34 years. The selection process for the MD has become more transparent over time, but the practice of appointing a European continues. Nonetheless, the current MD chosen in 2020 is a Bulgarian national and is the first case where the MD comes from outside industrialized countries.

IV-2-3. The Effect of Governance Reforms

It is not clear whether the reforms implemented have increased trust in the IMF. Negative sentiment towards the IMF stems from opposition or hostility towards its policies, which are perceived to benefit advanced economies. The governance issue is a more visible aspect that supports such views. The revision to quotas may have achieved a 'fairer' distribution of voting rights. However, the advanced economies still control the majority, at 55.3%. Both the United States and the EU as a bloc have sufficient votes to block revision of the Articles and increases in quota that could lead to a reallocation of votes in their disfavor. During the Eurozone crisis, massive support was extended flexibly. While this reflected the lessons learned from the Asian Crisis, some see the flexibility as politically motivated preferential treatment for Europe, a large shareholder that also supplies the institution's head, in contrast to the harsher stance shown to Asian countries during their crisis[32].

V. IMF's Shifting Role

As the role of the IMF in the mainstream IMS area declined, the IMF has branched out into areas outside its traditional domain of monetary, fiscal, and exchange rate policies. This may have been a necessary response to the changing environment, but it also constitutes ef-

[31] In appointing the 24 Board Directors, a simple calculation shows that a voting share of just over 4 percent is needed to appoint each Director. In practice, votes of about 3 percent on average are sufficient to secure a seat because of the existence of members such as the US, which hold large voting shares. The voting shares of members who used to appoint Directors on their own surpass this threshold easily, so abolishing appointed directors is symbolic. From the viewpoint of securing a voice for smaller countries, the appointment of multiple Alternate Directors in a constituency is more meaningful. The advanced European countries have also committed to reducing their Directors by two, though there has been no visible progress on this front. The 2023 Annual Meetings of the IMF did, however, reach an agreement to allocate a third seat for Africa by adding a 25th position to the Board.

[32] IMF IEO (2016) noted that the programs during the Eurozone crisis were negotiated with very little prior involvement of the Board, and the changes to the rules required to lift the access limit were made without any substantive discussions at the Board. The report speculates that bypassing the Board, which is the decision-making body of the IMF, has encouraged such views of unequal treatment.

forts to retain support from its member countries and the broader civil society.

V-1. IMF as an Aid Institution

As outlined above, from the 1970s until the GFC and the Eurozone Crisis proved otherwise, lack of access to international liquidity was an issue that was considered to be limited to emerging and developing economies. However, liquidity needs in low-income developing countries could not be met simply by short-term liquidity support, and it was recognized that longer-term concessional financing was necessary. Moreover, the policies required were not short-run macroeconomic adjustments but longer-term, structural ones. The understanding led to the introduction in 1986 of a Structural Adjustment Facility (SAF), which provided 10-year loans at 0.5 percent interest rate. The facility was revised and expanded as the Extended Structural Adjustment Facility (ESAF) in the following year, and in 1999 was replaced by the Poverty Reduction and Growth Facility (PRGF). Policy conditions for the PRGF loans are based on the Poverty Reduction Strategy Paper (PRSP) that the recipient government produces in consultation with not just the IMF and the World Bank but with NGOs and donor governments.

In the 2000s, there was a massive expansion of capital inflows into emerging market countries that eliminated the need for new borrowings and accelerated repayments of past IMF loans. By the eve of the GFC in 2006, Turkey was the only country to have outstanding borrowing from the IMF's ordinary resources, leaving aside two small loans extended to post-conflict countries. By contrast, 27 countries were receiving funds under the PRGF in the same year. This meant that the only countries for which the IMF could exercise influence over policies through its lending programs were limited to low-income countries, strengthening the IMF's character as an aid institution.

These trends did see a correction with the GFC and the Eurozone Crisis, which restored the IMF's lending activity to advanced and emerging market economies. Also, in the PRSP exercises, the IMF focused on macro aspects, thus restoring the more traditional division of labor. On the other hand, the issue of poverty, particularly in developing countries, was attracting stronger attention worldwide, thus pushing the IMF towards responding to these challenges.

Technical assistance (capacity development) constitutes a core activity for the IMF alongside surveillance and lending, and a quarter of the IMF budget is devoted to that activity. The IMF's technical assistance had played a large role in supporting the transition of former socialist economies into market economies, but with the transition largely completed, the focus of the IMF's technical assistance activities moved to low-income developing countries, which were receiving roughly 70 percent of the resources in this area by the turn of the Century (IMF IEO, 2005).

The COVID-19 pandemic resulted in a massive expansion of IMF lending, both in terms of the target countries as well as in the amount of loans, and by March 9, 2022, 170 billion dollars had been pledged to 90 countries[33]. This apparent resurrection of the IMF's liquidity

support role notwithstanding, the breakdown of the countries shows that 57 of the 90 countries were either low- or lower-middle-income countries. In particular, all 23 low-income countries, except conflict-ridden Syria, Eritrea, and Yemen, are recipients of IMF loans. Moreover, countries with higher income comprise transition economies in Europe that have suffered from conflict, small island countries, and traditional users of IMF funds in Latin America, including Mexico and Columbia, so there may be less of a return of IMF's liquidity support function than meets the eye.

In a similar vein, the 2021 general allocation of SDR was explicitly motivated by the goal of easing the import constraint of low-income countries. As such, its primary purpose was not to supplement the shortage in global reserve assets but rather to provide rapid financial support to low-income countries.

V-2. Structural Reforms and the IMF

The IMF's traditional area of expertise has been in the macroeconomic policies of monetary, exchange rate, and fiscal policies. In structural policies, the World Bank for developing countries and OECF for advanced economies have been lead players among international institutions. However, balance of payments problems that could be corrected solely by macroeconomic adjustment have become rarer, with developing countries aiming to achieve sustainable growth and external balance by addressing structural problems. Similarly, in advanced economies, the focus of economic policies has moved to raising potential growth by tackling structural issues such as labor market rigidity. Recently, the combination of elevated debt levels and zero or low interest rates has meant little room for maneuver in monetary and fiscal policies, so the IMF's policy recommendations have tended toward structural policies (IMF, 2021). This has implications for the IMF's reputation since unlike macro policies, where links between policies and microeconomic effects on individual firms and households are not readily identifiable, structural policies' effects are more visible and could result in social and political tensions and raise criticism and hostility against the IMF, which in turn may erode the support for and legitimacy of the IMF and impede its operations. Recognizing the risks, the IMF has decided that its involvement in structural issues should be parsimonious and restricted to 'macro-critical' areas (IMF, 2019).

V-3. Societal Demand and the IMF

Recent years have seen more pronounced pressure from civil society, which appears to be having a greater influence on the IMF. Civil society's views may influence the IMF directly, but more often than not, their influence over advanced country governments affects the IMF's goals and activities. Anti-globalization sentiment and movements such as Occupy

[33] https://www.imf.org/en/Topics/imf-and-covid19/COVID-Lending-Tracker. Country classifications follow the World Bank definition.

Wall Street tend to be anti-finance. To the extent that the IMF is closely linked to financial globalization in people's minds, it threatens the institution's legitimacy.

A relatively recent example of civil society's influence over the IMF is the debt cancellation for the poorest countries[34]. In the wake of the Jubilee 2000 movement in which NGOs aligned globally to demand the cancellation of external debt for developing countries, advanced economies provided bilateral debt relief to the poorest countries, and the IMF strengthened its Heavily Indebted Poor Countries (HIPC) program that was aimed to reduce the debt of the poorest countries to sustainable levels. Furthermore, in 2006, the IMF, the World Bank, and the African Development Bank initiated the Multilateral Debt Relief Initiative (MDRI), providing full relief on loans from these institutions.

Admittedly, debt cancellation may have been implemented without outside pressure since actions were needed on the IMF's lending that had become unserviceable[35]. However, recent years have seen the IMF becoming involved in and speaking out on issues that are not directly macro-economic in nature and that are receiving attention from society, such as poverty, income inequality, gender, and climate change. For example, the IMF's website has a page[36] on the IMF's activities in various areas. In addition to the traditional main activities such as surveillance and fiscal policy, the website has discussions on climate change, income inequality, corruption, gender, SDGs, and low-income countries, emphasizing how the IMF maintains a keen interest in these issues. A possible motivation for the more visible treatment of these issues may be to rebut criticism that the IMF is indifferent to critical social issues such as poverty and income inequality and, therefore, lacks legitimacy.

The IMF now places considerable effort into the analysis of such topics. The semi-annual World Economic Outlook publication typically includes thematic chapters devoted to analyzing specific topics. Over the 6 years to mid-2022, there were 28 such chapters written. Many of the most recent ones naturally focus on COVID-19, but a number of chapters each have been written on income inequality, climate change, and low-income countries and surpass the eight chapters written on traditional macroeconomic themes[37]. The analyses also tend to support positions more acceptable to civil society. For example, in the issue of equality versus efficiency, past research has tended to view the two as a trade-off or emphasize the need for growth to reduce inequality. Recent IMF research claims that less inequality is beneficial to economic growth, thus advancing the view that the IMF's traditional goal of promoting economic growth is compatible with policies to reduce inequality.

---

[34] Details can be found in Baillot (2021).

[35] To be exact, the IMF's lending to the poorest countries are extended through Trust Funds, which the IMF manages, rather than from its own resources.

[36] As of July 2022. The format and content of the IMF website changes significantly over time.

[37] According to the author's count of the World Economic Outlook's Thematic Chapters. A single chapter may cover multiple topics or discuss linkages between topics.

VI. Risks to the IMS

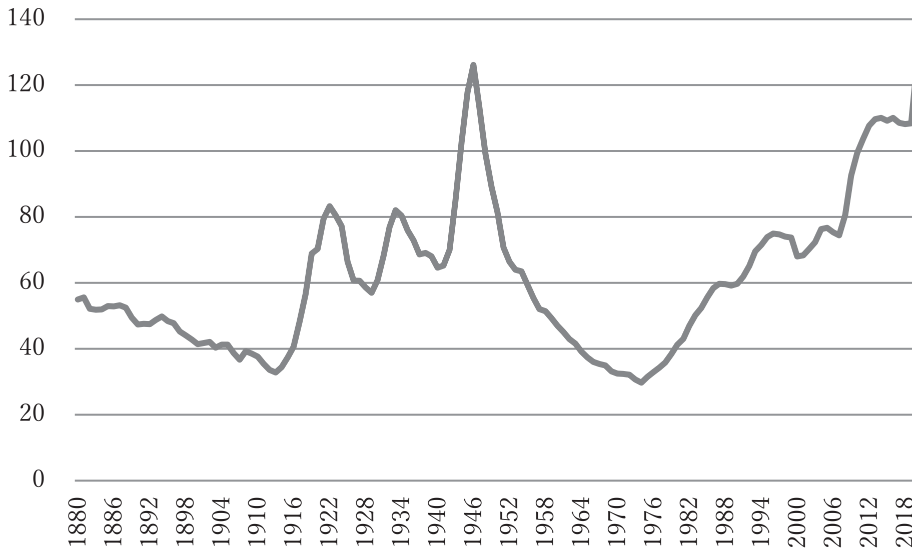
VI-1. Risks in the Current IMS

The changes currently underway pose risks that could lead to destabilization of the IMS.

VI-1-1. Expansion of Government Debt

With the GFC and COVID-19 crisis, public debt has undergone an explosive increase. The debt to GDP levels of advanced economy governments have reached levels not seen since the end of the Second World War (Figure 1). The massive levels of public debt create vulnerabilities that could lead to the destabilization of the IMS.

Figure 1: Government Debt in Advanced Economies (percent of GDP)



Source: IMF Fiscal Outlook, April 2021

As has been often pointed out, the sovereign-bank nexus propagates crisis across the two sectors through the holding of government bonds by domestic banks that generates a feedback effect: a crisis in the banking sector requires fiscal support that worsens public finances, which in turn damages the balance sheet of banks. In particular, when the government is already heavily indebted, it may not have enough fiscal space to support the banks and stem the crisis, or the rescue of banks could put further stress on public finance, leading to a sovereign debt crisis. If this dual crisis occurs in a major international currency-issuing country, it could result in a dysfunctional IMS that leads to a global crisis, much like in the case of the GFC.

Another concern is that if high levels of inflation persist for some reason and if some countries find it difficult to tighten monetary policy sufficiently because of large debt over-

hangs, then this could result in divergent inflation performance across countries. This would in turn increase exchange rate volatility, encourage protectionism, and possibly result in the adoption of exchange and capital controls. If this happens in major currencies, it is a recipe for IMS instability (Ariyoshi, 2021).

VI-1-2. Financial Regulation and Financial Sanctions

The strengthening enforcement of anti-money laundering and combating financing of terrorism (AML-CFT) measures and the more frequent use of financial sanctions to further political objectives are both having a growing impact on international payments, arguably the most important function of the IMS. In particular, developments in the US have a huge impact, given the dominant role of the dollar in international payments. AML-CFT increases the compliance cost of cross-border payments business for banks and brings the risk of incurring massive violation penalties, which are frequently used by US regulators. This has led to a reduction in corresponding banking services by industrialized country banks with those countries that are not particularly profitable but carry higher risk, resulting in restricted access of developing countries to trade finance and external payments (Erbenová et al., 2016). The US financial sanctions apply not just to US banks but also to non-US banks' transactions that use the US settlement system, and the non-US banks can also be subject to penalties, including being denied corresponding banking relationships with US banks, that would seriously hamper dollar transactions for the foreign bank[38].

In response to Russia's aggression against Ukraine, western countries excluded major Russian banks from the SWIFT network. This sanction seriously hinders external fund transfers and, together with the freeze on assets held by Russian banks, effectively excludes Russia from using major industrialized country currencies. Moreover, major Western countries froze the assets of the Russian Central Bank, denying Russia the use of their foreign reserves. This marks a significant escalation in the use of financial sanctions for political and diplomatic goals.

Financial regulation is also having a substantive impact on the functioning of the IMS. International standardization of financial regulation, such as the Basel regulations for banks, was intended to promote financial stability and competitive equality in a globalized financial system. However, not only were the rules unable to prevent financial crises, but some aspects of the rules increased the risks to the system. This led to revisions to strengthen existing rules and introduce new ones. Combined with the tightening of supervision to avoid fiscal support from spilling over to other countries, the regulatory reforms have increased the cost of international banking activities, leading to market fragmentation. A case in point is the breakdown of covered interest parity[39]. While strengthened regulations may help to enhance stability, it also risks the loss of efficiency of the IMS.

[38] The current range of sanctions are published by the US Treasury Department at https://home.treasury.gov/policy-issues/office-of-foreign-assets-control-sanctions-programs-and-information

[39] Du et al. (2018) cites the regulatory constraint on leverage as one source of this breakdown.

VI-1-3. Advances in Fintech

Advances in financial technology have the potential to radically improve the efficiency and quality of financial services, including through a large reduction in the cost and time as well as risk in international fund transfers[40] and trade finance. Significant benefits are also expected in cross-border investment, for example, by making internationally diversified portfolios easier and less costly to organize. On the other hand, an increase in capital flows that could easily and instantaneously reverse itself could increase risks globally (Prasad, 2021).

Fintech advances that could have a major impact on the IMS are the possible spread of private cryptocurrencies and the adoption of Central Bank Digital Currencies (CBDCs). Cryptocurrencies enjoy a high level of anonymity and are often used in criminal and illicit activities. The high level of volatility for the price of cryptocurrencies has attracted speculative demand, and though marked by booms and busts, its market size has expanded over time. Numerous cryptocurrencies have been invented following Bitcoin, and according to CoinMarketCap, which tracks market developments, there were 19,713 crypto assets as of early June 2022, with a market capitalization of over 1.2 trillion dollars. The volume is not particularly large compared with the global issue of currencies, which amounted to 40 trillion dollars of M1 and 100 trillion dollars on an M2 basis. Furthermore, the transactions of crypto assets are limited to around 100 billion dollars, and their use in payments is quite limited.

The cryptocurrencies do not pose a threat to the IMS at this point, but if the use spreads, it could impact the workings of the IMS. For example, capital flow management measures, including capital controls, could effectively counter instability caused by such flows. However, the application of the controls requires financial intermediaries' knowledge of the nature of the transactions and the identity of end-transactors. Crypto assets that lack such intermediaries are virtually impossible to control, and the inability to limit speculative inflows or capital flight potentially worsens the extent of the balance of payments crisis (Adrian et al., 2021). In particular, stablecoins, which link the value to a specific currency or a basket of currencies, unlike traditional crypto assets, are constructed in theory to maintain stable values and could also be designed to ensure anonymity. This may lead to a shift away from bank deposits into stablecoins. The ease of switching between coins linked to different currencies may accelerate currency substitution in times of crisis, adding a further source of instability[41].

CBDCs are digital assets issued by the central bank and have the potential to significantly reduce the time and cost needed for settlements and to improve financial inclusion. Currently, the CBDCs that a number of central banks have issued target domestic use, but if for-

[40] IMF (2020) estimates that a 200-dollar cross-border household remittance incurs an average fee of 14 dollars.

[41] When there is significant switching between stablecoins, the issuers are forced to buy or sell the underlying assets to match the issue or redemption of the coins, which could trigger financial market instability. If the resulting fall in the price of the underlying assets threatens the parity of the stablecoin, then something similar to the disruptions in the MMF market during the GFC could occur (FED May 2022 Financial Stability Report).

eigners gain access to CBDCs, this could have serious implications for the IMS. There is as yet limited research into the effects of CBDC on the IMS, and it is not clear what the implications would be. Apart from the well-known issue of money laundering, concerns have been expressed that if the design of CBDC differs across countries and adequate attention is not paid to the mutual connection and operations of different CBDC systems, it could lead to fragmentation (Auer et al., 2021, Georgieva, 2022).

VI-1-4. Cyber Security

A major risk for the financial system is the threat posed by cyber-attacks that result in system failures and theft of financial assets. In February 2016 Bangladesh’s Central Bank was penetrated by hackers, who robbed the bank of 100 million dollars of foreign reserves held at the FED by issuing false instructions through the SWIFT network. The risk is rising that an extensive and coordinated attack on a country’s financial system could generate a financial crisis. Problems in a core international system such as SWIFT could cause disruptions on a global scale. A joint report by the World Economic Forum and the Carnegie Endowment for International Peace highlights the vulnerabilities caused by the lack of a clear line of responsibility and coordination in this area between financial, national security, and diplomatic establishments against the rapid advances in technology and the blurring of lines between financial and technology firms (Mauer and Nelson, 2020).

VI-2. Fragmentation of the IMS

When a country is targeted for financial sanctions by the US, its use of the dollar in international transactions is proscribed, and the resulting economic damage can be significant. The potential to impose such sanctions constitutes a powerful diplomatic weapon for the US but is a threat to countries with strained relationships with the US. Such countries have attempted to avoid reliance on systems under US influence and to reduce the use of dollars.

China and Russia have constructed parallel systems to the SWIFT network for payments of RMB and the ruble, respectively. China aims to reduce the risk of reliance on the US dollar by accelerating RMB internationalization. As a means of further internationalization of the currency, China is extending its network of swap arrangements for RMB, in addition to the creation of a settlement network. China has since 2009 concluded swap arrangements with 32 countries and regions by the end of 2021. The aim was understood to be to supply RMB to counterparties for use in trade payments, but it is believed that the activation of the swap with Argentina in 2014 was done to augment Argentina’s international reserves and that Argentina was allowed to convert the RMB proceeds into other hard currencies (Steil et al., 2021).

China has also begun an experimental introduction of CBDC. While it currently has domestic use in mind, it could provide a very competitive means of payment if used in international transactions. Expanded use of RMB in international payments constitutes an attractive option for countries wanting to reduce the risk of US sanctions. If a sufficiently large num-

ber of countries adopt the RMB or alternative currencies, and if the use of these currencies follows practices and conventions that are separate from those that currently apply, that could create a separate currency bloc, in other words, a parallel IMS. If transactions between separate currency blocs follow common rules and procedures, this may not pose a problem[42], but if separate currency blocs establish their own, unique rules, then that would lead to a fragmentation of the IMS.

Privately issued crypto assets allow funds to be transferred anonymously outside the existing formal settlement systems, allowing users to evade financial regulations and the fund movements from being tracked. If their use expands, that would also enlarge the system outside the existing IMS.

Although it has yet to result in the creation of a parallel IMS, the enfeebling of international cooperation, a core element of the IMS, can be seen in some areas. Concerns have been voiced that China, whose rapid economic growth has propelled the country to a top position in many areas of the global economy, does not intend to unconditionally follow the existing international order (De Gregorio et al., 2018). In international finance, China has been expanding infrastructure exports and associated financing to developing countries. The policy, dubbed the ‘One Road One Belt’ initiative, aims to expand its sphere of economic influence while also providing an outlet for excess domestic capacity, making China the biggest external creditor in a number of developing countries[43]. China’s expansion in aid has resulted in geopolitical rivalry with other major nations and, in the sphere of international finance, is challenging traditional rules and practices. Critics maintain that China’s behavior is having detrimental effects. The issues raised include: China does not subscribe to the OECD’s Arrangement on Officially Supported Export Credits and supplies export credit at more generous rates, which confer unfair competitive advantage to Chinese infrastructure exporters; financing decisions are politically motivated without due consideration of the economic viability of the project, resulting in an excessive debt burden for the developing country; projects that are not environmentally questionable are implemented; and when loans default China takes control of the project in question or otherwise extract economic or political concessions from the debtor country (so-called ‘debt trap diplomacy’). China has also leveraged its large holdings of external assets to create new institutions, including the Asian Infrastructure Investment Bank (AIIB), that could challenge existing international finance institutions and possibly international order in this area.

As China’s weight in global finance has increased, its presence is being felt in the IMS. A standard response to resolve balance of payments crises involves private and public creditors agreeing to a debt rescheduling plan to ensure the sustainability of external debt. The importance of coordinated rescheduling among private banks has declined since the 1980s as borrowing shifted from bank loans to bond issuances. However, the Paris Club still re-

[42] There are regional common currency and cooperation arrangements, such as the single currency in the EU.

[43] Johnson and Zühr (2021) estimate that ODA-like funding by China amounted to 5.9 billion dollars, which would put it in sixth place among DAC members, and the amount of non-concessionary financing to low- and middle-income countries reached 159 billion dollars, making China the biggest creditor.

tains an essential role in resolving the debt problems of developing countries that rely on official financing. China's involvement in debt restructuring is now crucial for many developing countries, including in Africa, where China has become the top creditor for several countries through its massive investments in the region. However, China is not a member of the Paris Club and does not abide by its rules. In addition to refusing to disclose its credit to countries undergoing restructuring, it has secured collateral for the loans and claims that its state-owned banks are commercial entities whose loans are not subject to official debt rescheduling (Rieffel, 2021). The refusal to participate in coordinated debt restructuring poses an obstacle to reaching an agreement among other private and public creditors for fear of China free-riding on their rescue.

Nevertheless, China does extend support, including providing debt relief to heavily indebted countries on a substantial scale. Acker, Brautigam, and Huang (2020) report that between 2000 and 2019, China provided a total of 15 billion dollars in debt relief to African courtiers. China also participated in the G20's Debt Service Suspension Initiative following the COVID-19-induced debt-servicing difficulties and subscribed to its 'Common Approach' for developing country debt relief announced in November 2020. These actions appear to reflect China's preference for the G20 forum, which includes emerging and developing countries, over the industrial country-dominated Paris Club. Nonetheless, since China's debt relief is negotiated on an individual loan-by-loan basis, it is not clear whether an equitable contribution is being made, as would be ensured under Paris Club agreements backed by IMF programs. China's decision to opt out of coordinated debt relief threatens the IMF's remaining role in the IMS of ensuring the stability of the IMS by providing emergency liquidity.

Looking back, communist countries did not join the Bretton Woods System and created their own currency area through the Council for Mutual Economic Assistance (COMECON). Following the dissolution of the Soviet Union, the former socialist economies joined the IMF, and, with 190 members, almost all the countries except for Cuba and North Korea are members. The IMF is now a truly global institution. It currently enjoys a broad consensus in its activities, but if, for example, China begins to assert itself based on a different set of values from other major shareholders, and if enough countries align themselves with China, there is a risk that the IMF would lose its consensus-based character. The danger is that this would lead to paralysis or, in the worst case, a split of the organization. This would fundamentally impair the IMF's core role as the forum for international cooperation in the IMS.

VII. Concluding Remarks

The liberalization of financial systems and cross-border capital flows have resulted in a significant loss of the IMF's direct role in managing the IMS. The IMF's most significant contribution to the IMS today rests on encouraging countries to undertake policies consistent with the stable and effective functioning of the IMS through exercising intellectual leadership. Its remaining direct function in the IMS of liquidity provision in balance of pay-

ments crises has experienced a resurgence through a series of recent crises of GFC, Eurozone, and COVID-19 crises, and its liquidity provisioning capacity has increased with reforms to lending programs, quota increases, and SDR allocations. Nonetheless, the IMF cannot quell crises on its own and needs to achieve consensus and cooperation of the international community in the design and implementation of crisis response.

In order to obtain necessary cooperation, the IMF needs to gain the support of member governments and the broader civil society. That requires further improving its professional capacities, in particular on financial system issues that now form the basis for the IMS. Cooperation and coordination with other institutions, such as the BIS and FSB, are necessary. At the same time, the IMF needs to secure the trust of governments and civil society. The IMF's recent involvement in issues that do not appear to be directly relevant to the IMS, such as income disparity, environment, and gender, can be understood in this context. The IMF needs to demonstrate that it is cognizant of these issues and that they will be reflected in its macroeconomic analysis and policy recommendations so that the IMF may maintain legitimacy and support for its activities.

Maintaining trust in the institution requires further reforms to improve governance so that all members regard the IMF as 'their own' institution. Nonetheless, the IMS is a part of the broader international political order, and divisions in international politics could result in difficulties in reaching consensus within the IMF and pose a possible threat of fragmentation of the IMS. That would threaten the IMF's most fundamental role as the forum for discussions and cooperation on the IMS.

Ideally, one would hope for a reorganization of the IMS to meet the current environment – a Bretton Woods II. However, the victorious allied countries of World War II conceived the original Bretton Woods Conference to establish the post-war order. Even then, the communist countries broke away to establish their separate order. It is difficult to envisage a new consensus emerging among countries with divergent values and political systems today. There is no alternative but for the IMF to build consensus on specific issues through a steadfast dedication to discussion and consideration to improve the IMS.

References

Acker, K., Brautigam, D., and Huang, Y. (2020), "Debt Relief with Chinese Characteristics", Working Paper No. 2020/39, China Africa Research Initiative, School of Advanced International Studies, Johns Hopkins University, Washington DC

Adrian, T., He, D., and Narain, A. (2021), "Global Crypto Regulation Should be Comprehensive, Consistent, and Coordinated", IMF Blog, Dec 9, 2021, https://www.imf.org/en/Blogs/Articles/2021/12/09/blog120921-global-crypto-regulation-should-be-comprehensive-consistent-coordinated (Accessed: 2022-06-30)

Ariyoshi, A. (2005), [The Evolution of International Monetary System from a Global Public Good Perspective] "Kokusai-Koukyouzai to shiteno Kokusai Tsuukaseido no Hensen", *Financial Review*, Volume 75, pp. 99-122 (January 2005), in Japanese

Ariyoshi, A. (2013), "Coping with Capital Inflow Surges: Reviewing the IMF's New 'Institutional View'", *Japanese Journal of Monetary and Financial Economics*, Volume 1 Issue 1, pp. 25-36

Ariyoshi, A. (2021), [The End of Financial Globalization?] "Kinyu Gurobarizesyon wa Shyuenwo Mukaeruka", *SRID Journal,* Vol 20 (Jan 2021), in Japanese, https://www.sridonline.org/j/doc/j202101s03a01.pdf

Ariyoshi, A. (2023), [IMF in the International Monetary System ― Globalization and Fragmentation ―] "Kokusai Tsuuka Seido no naka no IMF ― Gurobarizesyon to Bundanka ―", *Financial Review*, Volume 153, pp. 260-284 (June 2023), in Japanese

Ariyoshi, A., Habermeier, K., Laurens, B., Otker-Robe, I., Canales-Kriljenko, J.I., and Kirilenko, A. (2000), *Capital Controls: Country Experiences with Their Use and Liberalization*, IMF Occasional Paper, No.190

Auer, R., Frist, J., Gambacorta, L., Monnet, C., Rice, T., and Shin, H.S. (2021), "Central bank digital currencies: motives, economic implications and the research frontier", *Annual Review of Economics*, vol 14, 2022, pp. 697-721, submitted, DOI: https://doi.org/10.1146/annurev-economics-051420-020324

Baillot, H. (2021), "A Well-Adjusted Debt: How the International Anti-Debt Movement Failed to Delink Debt Relief and Structural Adjustment", retrieved from https://www.cambridge.org/core/journals/international-review-of-social-history/article/welladjusted-debt-how-the-international-antidebt-movement-failed-to-delink-debt-relief-and-structural-adjustment/1CF3490E9260FD47B8730907B598D87D, Cambridge University Press

Barkbu, B., Eichengreen, B., and Mody, A. (2011), "International Financial Crisis and the Multilateral response: What the Historical Records Show", *NBER Working Paper,* 17361

Bertaut, C., von Beschwitz, B., and Curcuru, S. (2021), "The International Role of the US Dollar," *FEDS Notes*, October 6, 2021, retrieved from https://www.federalreserve.gov/econres/notes/feds-notes/the-international-role-of-the-u-s-dollar-20211006.htm

Boughton, J.M. (2012), *World Without Walls: The Global Economy and the IMF, 1990-1999*, IMF

Broos, M., and Grund, S. (2018), "The IMF's Jurisdiction over the Capital Account ― Reviewing the Role of Surveillance in Managing Cross Border Capital Flows", *Journal of International Economic Law,* vol. 21, issue 3, pp. 489-507.

Camdessus, M. (2005), "Drawing Lessons from the Mexican Crisis: Preventing and Resolving Financial Crises--the Role of the IMF", Address by Michel Camdessus, Managing Director of the International Monetary Fund at the 25th Washington Conference of the Council of the Americas on "Staying the Course: Forging a Free Trade Area in the Americas", Washington, D.C., May 22, 1995, retrieved from https://www.imf.org/en/News/Articles/2015/09/28/04/53/spmds9508 (Accessed: 2022-06-30)

Calvo, G., Leiderman, L., and Reinhart, C. (1993), "Capital Inflows and Real Exchange Rate Appreciation in Latin America: The Role of External Factors", *IMF Staff Papers*,

1993, vol. 40 issue 1, pp. 108-151

De Gregorio, J., Eichengreen, B., Ito, T., and Wyplosz, C. (1999), *An Independent and Accountable IMF, Geneva Reports on the World Economy 1*, International Center for Monetary and Banking Studies and CEPR

De Gregorio, J., Eichengreen, B., Ito, T., and Wyplosz, C. (2018), *IMF Reform: The Unfinished Agenda, Geneva Reports on the World Economy 20*, International Center for Monetary and Banking Studies and CEPR

De Ryck, P. (2019), *Towards unified representation for the euro area within the IMF,* European Parliamentary Research Service Briefing, European Parliament

Du, W., Tepper, A., and Verdelhan, A. (2018), "Deviations from Covered Interest Rate Parity," *The Journal of Finance*, 73(3), pp. 915-957.

Erbenová, M., Liu, Y., Kyriakos-Saad, N., López-Mejía, A., Gasha, G., Mathias, E., Norat, M., Fernando, F., and Almeida, Y. (2016), *The Withdrawal of Correspondent Banking Relationships: A Case for Policy Action*, IMF Discussion Note, SDN/16/06, IMF

Financial Times (2015), "The Swiss National Bank jolts the financial system", retrieved from https://www.ft.com/content/75138b30-9cb1-11e4-971b-00144feabdc0 (Accessed: 2022-06-30)

Georgieva, K. (2022) "Confronting Fragmentation: How to Modernize the International Payment System", Concluding Remarks at the IMF-Swiss National Bank High-Level Conference, Zurich, May 10, 2022, retrieved from https://www.imf.org/en/News/Articles/2022/05/10/sp051022-md-concluding-remarks-at-the-snb-high-level-conference (Accessed: 2022-06-30)

IMF, *World Economic Outlook*, various issues

IMF (2006), *Article VIII Acceptance by IMF Members: Recent Trends and Implications for the Fund,* retrieved from https://www.imf.org/-/media/Websites/IMF/imported-full-text-pdf/external/np/pp/eng/2006/_052606.ash (Accessed: 2022-06-30)

IMF (2012), *The Liberalization and Management of Capital Flows: An Institutional View*, retrieved from http://www.imf.org/external/np/pp/eng/2012/111412.pdf

IMF (2016), *Strengthening the International Monetary System—A Stocktaking*, retrieved from https://www.imf.org/-/media/Websites/IMF/imported-full-text-pdf/external/np/pp/eng/2016/_022216b.ashx

IMF (2019), *2018 Review of Program Design and Conditionality*, retrieved from https://www.imf.org/-/media/Files/Publications/PP/2019/PPEA2019012.ashx

IMF (2020), *Digital Money Across Borders: Macro-Financial Implications,* retrieved from https://www.imf.org/-/media/Files/Publications/PP/2020/English/PPEA2020050.ashx

IMF (2021), *2021 Comprehensive Surveillance Review*, retrieved from https://www.imf.org/-/media/Files/Publications/PP/2021/English/PPEA2021027.ashx

IMF IEO (2005), *IMF Technical Assistance*, Evaluation Report, IMF

IMF IEO (2016), *The IMF and the Crises in Greece, Ireland, and Portugal*, Evaluation Report, IMF

IMF IEO (2019), *IMF Financial Surveillance*, Evaluation Report, IMF

James, H. (1996), *International Monetary Cooperation Since Bretton Woods*, Oxford University Press

Johnson, Z., and Zühr, R. (2021), "A New Era? Trends in China's financing for international development cooperation", *Donor Tracker Insight,* May 10, 2021, retrieved from https://donortracker.org/insights/new-era-trends-chinas-financing-international-development-cooperation

Mauer, T., and Nelson, A. (2020), *International Strategy to Better Protect the Financial System Against Cyber Threats*, Carnegie Endowment for International Peace, retrieved from https://carnegieendowment.org/files/Maurer_Nelson_FinCyber_final1.pdf

Ocampo, J.A. (2017), *Resetting the International Monetary (Non)System*, WIDER Studies in Development Economics, Oxford University Press

Prasad, E.S. (2021), *The Future of Money: How the Digital Revolution is Transforming Currencies and Finance*, Belknap Press, Cambridge, Massachusetts

Rieffel, L. (2021), "Normalizing China's Relation with the Paris Club", retrieved from https://www.stimson.org/2021/normalizing-chinas-relations-with-the-paris-club/ (Accessed: 2022-06-30)

Schenk, C. (2019) , "International Monetary Cooperation Since the Global Financial Crisis", Chapter 1, *IMF's Work on Encouraging International Policy Cooperation*, IEO Background Paper BP/19-01/06, IMF

Stedman, L. (2018), *Strengthening IMF Financial Surveillance: Organizational and Human Resource Issues*, IEO Background Paper BP/18-02/05, IMF

Steil, B., Rocca, B., and Walker, D. (2021), *Central Bank Currency Swap Tracker* retrieved from https://www.cfr.org/article/central-bank-currency-swaps-tracker

Triffin, R. (1960), *Gold and the Dollar Crisis: The Future of Convertibility*, Yale University Press

Truman, E.M. (2012), "The International Monetary System or "Non-system"?" in Bergsten, C.F., and Henning, R. (eds.) *Global Economics in Extraordinary Times: Essays in Honor of John Williamson*, Peterson Institute for International Economics