



Chapter III.F



Addressing systemic issues

1. Key messages and recommendations

The global financial and monetary systems are not designed to deliver the financing or stability needed to achieve the Sustainable Development Goals (SDGs). The current global systems evolved piecemeal from a now-outdated architecture created at the end of World War II. The volatility of financial markets and capital flows complicates macroeconomic management and undermines the stability of currencies and exchange rates. While these global systems have adapted over time to try to address some of the worst symptoms of instability and volatility, they remain not well suited to deliver for all countries and have not kept pace with the changing economic and social environments. The existing rules and governance arrangements for financial institutions and markets have not fully incorporated sustainable development in its three dimensions—economic, social and environmental. The cross-border nature of today’s challenges means that countries must work together to address these systemic issues, with the current set of crises (see chapter I) increasing the urgency of doing so. In recognition of this, the United Nations Secretary-General has called for an SDG Stimulus to provide immediate investment, but in doing so strengthen the global financial architecture. Political leadership will be needed to see through the scale of reforms that meet the ambitions of the SDGs. Global governance systems should be more representative of the current economic realities and guide the design and actions of the international financial system to finance the SDGs and climate action.

The global financial safety net urgently needs to be further strengthened and made fit for purpose. The safety net will require a larger total resource envelope to ensure effective insurance coverage for all countries and regions.

- Governments should continue to explore ways to effectively utilize special drawing rights (SDRs), such as encouraging unused SDRs to be more quickly rechannelled, including through multilateral development banks (MDBs), and

discussing how to ensure timely countercyclical issuance of SDRs when there is a long-term global need to supplement existing reserve assets;

- Regional arrangements could be made larger and give access to more countries with fewer preconditions;
- The international community could also explore how to build on the success of bilateral swap arrangements.

The global community could work to smooth the transition away from a single national currency as the anchor of the global reserve system. Active discussions might need to advance while digitalization and geoeconomic fragmentation evolve.

- A larger role for the SDR in buffering external adjustment or providing a flexible source of finance to bolster IMF lending capacity would require revisions to the IMF Articles of Agreement.

To address risks from non-bank financial intermediaries (NBFIs), policymakers should ensure a coherent regulatory umbrella according to the principle of “same activity, same risk, same rules”.

- This includes using this principle for regulatory frameworks for digital assets;
- The principle implies monitoring leverage, liquidity and capital buffers in NBFIs;
- Comprehensive, coordinated and consistent global standards are important to manage risks to users, markets and financial stability, and should be applied to financial technologies as they are applied to traditional financial intermediaries.

Addressing risks will help to curtail capital flow volatility, which can be further reduced through cross-border coordination on macroprudential and capital flow management policies.

- Governments should use the full policy toolbox—including monetary, exchange rate, macroprudential, capital flow management and other policies—to address the impacts of volatility;
- Source countries of capital flows should coordinate with destination countries to help reduce volatility.

Regulators and central banks should continue to incorporate climate change and other environmental factors coherently into their financial regulations and operations. Given that climate change and biodiversity loss create financial risks and that the financial sector can exacerbate or help to mitigate climate and other environmental risks, it is essential to ensure coherent policy responses.

- Regulators should systematically incorporate climate and environmental risks into overall macroprudential financial stability frameworks and into macroprudential frameworks that promote the safety and soundness of individual financial institutions; international standards can be developed to support these efforts;
- Greening regulation, supervision and central bank operations requires robust, comparable data, which can be accomplished by mandatory reporting against an agreed international reporting standard;
- Where needed to enable monetary and financial policies conducive to climate action, countries could consider providing the mandates for central banks and regulators to align their regulations and operations with the SDGs without prejudice to their price and financial stability mandates.

Central banks should also use the principle of “same activity, same risk, same rules” for addressing digital assets, while exploring the use of central bank digital currencies (CBDCs) to address long-standing inefficiencies and oligopolies in payments.

- Private providers of digital assets and digital asset services should be licensed, registered, regulated and supervised based on the risks they pose regardless of what they call their asset or service; this might entail prudential requirements, transparent reporting and consumer protection rules;
- Central banks should make CBDC design decisions that promote financial inclusion, increase payments competition and promote efficiency, while managing risks, including to other jurisdictions;
- CBDC design should also early on address interoperability in order to facilitate low-cost cross-border payments while preventing illicit financial flows.

Member States should use the United Nation’s inclusive forums to enhance the coherence of global economic governance.

- As governments prepare for the Summit of the Future in 2024 and a possible fourth international conference on Financing for Development in 2025, they can use the ECOSOC Forum on Financing for Development and the General Assembly High Level Dialogue on Financing for Development as decision points to take action.

2. International financial architecture

The international financial system (which includes both private and public institutions) should facilitate the allocation of

resources for investment in sustainable development as well as countercyclical access to financing in times of crisis. Such actions need to be coherent with other relevant parts of the international architecture, including international tax norms and the global trading system, to best contribute to sustainable development. Yet the current international financial architecture—the governance arrangements for both safeguarding the functioning of the global monetary and financial systems and ensuring that the system is aligned with sustainable development—has not kept pace with the changing global landscape. Some have used the term “non-system”¹ to describe the existing set of international financial frameworks and rules, institutions and markets that have evolved with different phases of economic globalization, often in *ad hoc* fashion and in response to economic and financial shocks. Even in a narrow economic context, capital is not allocated to its most productive uses and the architecture fails to avert boom-and-bust cycles.

2.1 Strengthening the global financial safety net

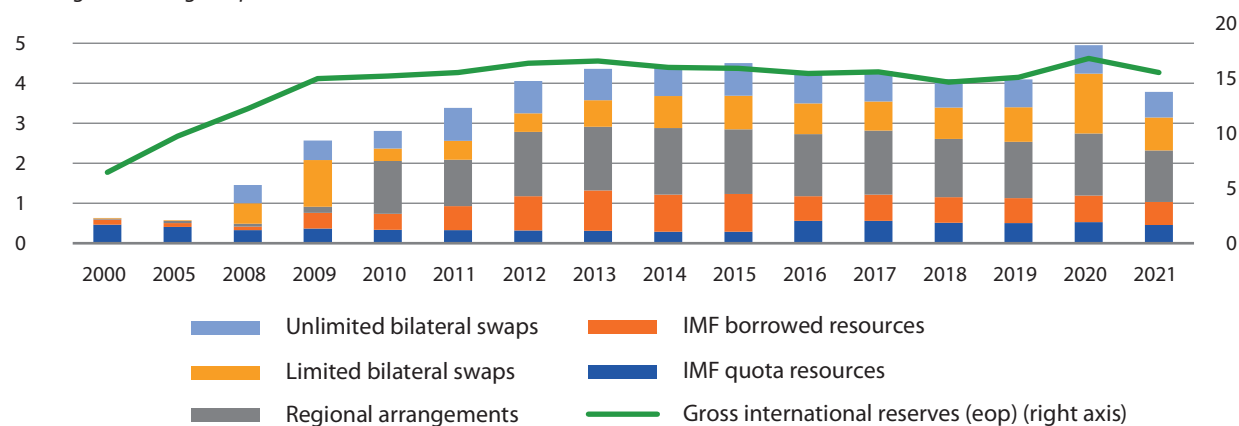
The global financial safety net is meant to support short-term liquidity needs for countries in balance of payments crises, which may be triggered or exacerbated by capital flow volatility. With the IMF at its centre, the global financial safety net also includes regional financing arrangements, bilateral swap arrangements and countries’ own foreign exchange reserves. The safety net has grown in volume since the 2008 world financial and economic crisis (see figure III.F.1) but has remained relatively steady since 2012. Foreign exchange reserves have fluctuated at around 15 per cent of world gross product, while institutional mechanisms for liquidity provision have remained in the range of 4–5 per cent of world gross product. While countries have accessed all four layers of the global financial safety net, the recent crises have exposed gaps and revealed uneven access.

The COVID-19 pandemic offered the first test of the expanded global financial safety net, which provided emergency support to countries suffering from its impacts. The historic \$650 billion allocation of IMF SDRs in August 2021 increased countries’ reserves, enabling some to draw down reserves for emergency finance. Countries also accessed IMF lending and, to a much lesser extent, regional financial arrangements. The World Bank mounted a large countercyclical lending response (see chapter III.C). Central banks instituted or expanded many bilateral swap lines in 2020, accounting for the lion’s share in the increase of the overall safety net seen in that year. Each layer of the safety net performed differently in the COVID-19 era, and lessons can be learned to strengthen the permanent international financial safety net as committed in the Addis Ababa Action Agenda. Amid tightening global financial conditions, burgeoning debt levels and a deteriorating economic outlook for some countries (see chapters I and III.E), more countries are expected to require support from the safety net going forward. The safety net was subsequently called upon to assist countries to address the food, fuel and finance crises sparked by the war in Ukraine.

2.1.1 Special drawing rights

SDR allocations were helpful to developing countries during 2021 and 2022, with active use of their holdings despite their small share of the allocation. The new allocation of SDRs in August 2021 helped to bridge some of the gaps in the global financial safety net.

Figure III.F.1
Size of global financial safety net, 2000–2021
 (Percentage of world gross product)



Source: IMF.

Note: Two-way arrangements are counted only once. Unlimited bilateral swap lines are among major developed country central banks and valued based on estimates of known past usage, following the methodology in Denbee et al. (2016, Bank of England Financial Stability Paper). Limited bilateral swaps include all arrangements with an explicit amount limit. Regional arrangements are based on explicit lending capacity/limit where available, committed resources, or estimated lending capacity based on country access limits and paid-in capital. IMF borrowed resources excludes prudential balances. IMF quota includes countries in the Financial Transaction Plan (FTP) after deducting prudential balance.

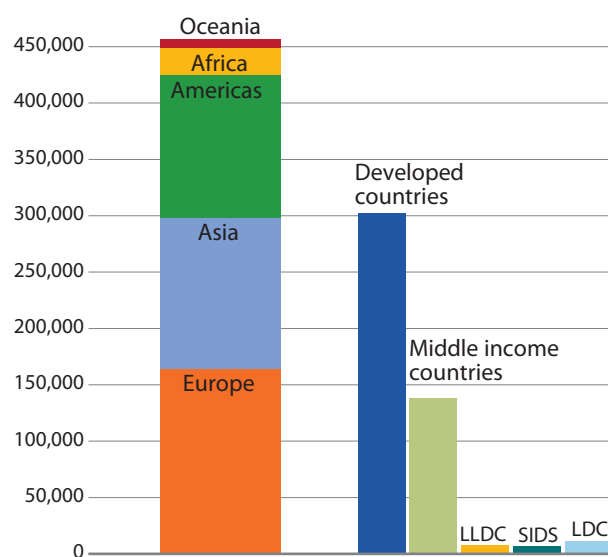
It provided member countries with unconditional liquidity, allowing them to boost their international reserves. The mechanism for allocating SDRs in proportion to countries' quota shares at the IMF meant that developing countries received only about one third of the 2021 allocation (see figure III.F.2). The proportion going to countries most in need was even smaller. Countries actively made use of the new allocations through 2022. Figure III.F.3 shows aggregate SDR holdings by country groups as a percentage of the total SDR allocation to that group at different points in time since the August 2021 allocation. Anything below 100 per cent indicates that SDR holdings were exchanged for other currencies, with countries in the least developed country (LDC) and landlocked developing country (LLDC) groups being the heaviest users of their SDRs.

Exchanging SDRs for other currencies carries a cost for any country, and that cost has been rising along with tightening global liquidity. While the exchange of SDRs for other currencies is not considered debt creating, countries are liable to pay (or entitled to receive) interest on the difference between their SDR holdings and their SDR allocations. This charge is based on the SDR interest rate which is a weighted average of the interest rates on the financial instruments of each component currency in the SDR basket. In 2021, the SDR interest rate was very low, but it moved from less than 0.1 per cent at the start of 2022 to almost 3 per cent at the end of that year. This resulted in significant increases in the charges applied to countries that exchanged their SDRs for hard currencies (see figure III.F.4).

While both the G7 and G20 have called for a voluntary channelling of \$100 billion of unused SDRs, actual rechannelling has happened at a much slower pace. As of November 2022, the G20 reported pledges of a total of \$81.6 billion,² with rechannelling a fraction of that number. Rechannelling decisions must be made independently in each country subject to their own regulatory, policy and institutional arrangements. Rechannelled SDRs are primarily being used to finance the

IMF Poverty Reduction and Growth Trust (PRGT), which provides subsidy resources for loans to low-income and other vulnerable countries on concessional terms, and the IMF's new Resilience and Sustainability Trust (RST) (see below). By early November 2022, five countries had committed 8.6 billion SDRs to the RST under loan agreements, with countries transferring over 1.8 billion SDRs into the RST.³

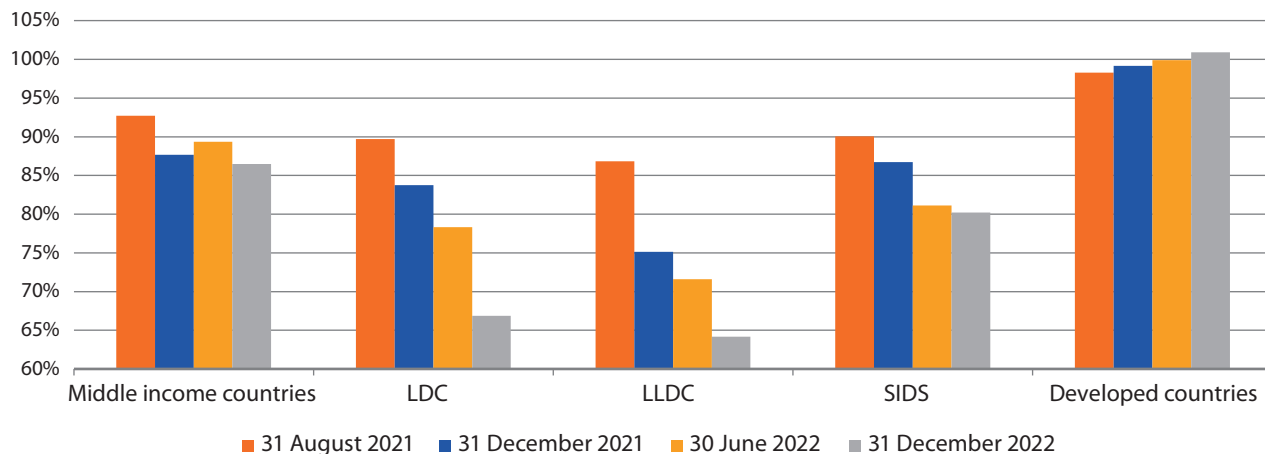
Figure III.F.2
Size of SDR allocation, by region and country group, 2021
 (Millions of SDRs)



Source: UN/DESA calculations based on IMF data.

Note: M49 geographic regions, country groupings landlocked developing countries (LLDC), small island developing States (SIDS), least developed countries (LDC).

Figure III.F.3
Holdings of SDRs as a percentage of total SDR allocation, 2021–2022
 (Percentage)



Source: UN/DESA calculations based on IMF data.
Note: Aggregate spot holdings at the end of the day indicated.

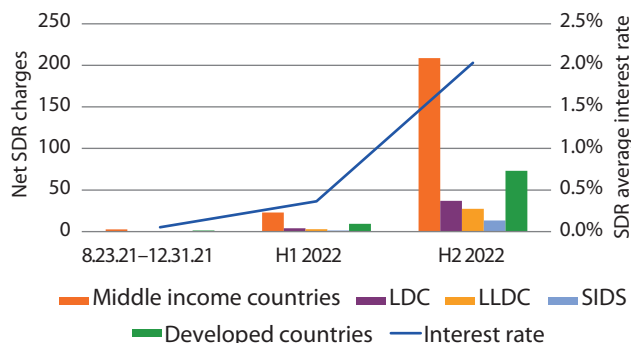
Less progress has been made on rechanneling SDRs through multilateral and regional development banks. Member States have acknowledged that another option is to channel SDRs through multilateral and regional development banks. Only IMF members and certain other designated institutions may hold SDRs, including four regional central banks, three intergovernmental monetary institutions and 13 development banks, five of which were recently authorized.⁴ The African Development Bank (AfDB) has advanced the furthest, presenting to the IMF board a mechanism that allows countries to provide their SDRs as hybrid capital, which the bank would leverage to provide long-term financing.⁵ The AfDB’s liquidity backstop, modelled on the PRGT/RST, seeks to maintain the reserve asset characteristics of SDRs by allowing lenders to redeem their loan in case of balance of payments issues.

Proposals on a greater role for SDRs in addressing systemic risks could be analysed and discussed further. Currently, the IMF Managing Director, with the agreement of the Executive Board, can recommend new allocations of SDRs, which must be approved by the IMF Board of Governors, made up of finance ministers and central bank heads from IMF members. SDR allocations can be made if there is a long-term global need to supplement existing reserve assets. For SDRs to contribute more broadly to the smooth functioning and stability of the international monetary system would require revisions to the IMF Articles of Agreement.⁶

2.1.2 IMF financing mechanisms

At the centre of the global financial safety net, the IMF increased emergency lending in 2021 and 2022. The IMF agreed to 20 arrangements with countries in 2021 worth 47.5 billion SDRs (\$63.7 billion), and 21 arrangements in 2022 worth 66.3 billion SDRs (\$88.8 billion). IMF lending disbursements in 2021 totalled 9.2 billion SDRs (\$12.4 billion), while in 2022 they rose to 27.3 billion SDRs (\$36.6 billion). Of that total, concessional lending disbursements were \$4.0 billion in 2021 and \$2.7 billion in 2022. Disbursements are lower than commitments because lending arrangements can last several years, some countries do not draw down the fully agreed amount, and some arrangements are precautionary. The IMF has a number of lending facilities and in the previous two years most non-concessional disbursements have been under the Extended Fund Facility and concessional disbursements under the Extended Credit Facility—a pair of facilities that are designed for lending over the medium term of three to four years. The IMF implemented several short-term measures, including to increase access limits and temporarily streamline approval processes. From January 2022, cumulative access limits were reduced to their pre-pandemic levels for most facilities.⁷ The IMF reported a forward commitment capacity of 156 billion SDRs (\$207.7 billion) at the end of 2022, as well as having the ability to borrow more than \$500 billion from its members through unactivated borrowing arrangements.⁸

Figure III.F.4
Net SDR charges, by country groups, and average SDR interest rate, 2021–2022
 (Millions of SDRs, percentage)



Source: UN/DESA calculations based on IMF data.

The IMF has created three new financing facilities over the last several years to help with short-term liquidity, food crisis support and resilience. In April 2020, the IMF established a new short-term liquidity line (SLL) for countries with very strong policies and fundamentals—the first addition to the IMF financing toolkit in almost 10 years. Its unique design means that the IMF proactively offers an arrangement to countries under the SLL, rather than countries having to request it. The first offer of this instrument, in May 2022, was accepted by a large middle-income country for a three-month period. A spike in food prices has also prompted changes. Research has shown that 50 countries are facing food insecurity and terms of trade shocks, with the costs of addressing the impacts estimated at \$5 billion to \$10 billion.⁹ In September 2022, the IMF Executive Board approved a new, time-bound, 12-month Food Shock Window under its rapid financing instruments.¹⁰ The Food Shock Window provides resources for one year to member countries that have urgent balance of payments needs and meet a set of qualification criteria related to the global food shock as well as the standard qualification criteria under the rapid financing instruments. Four countries, including one major food exporter and three African countries, have already accessed emergency financing under the window, with other requests being considered.

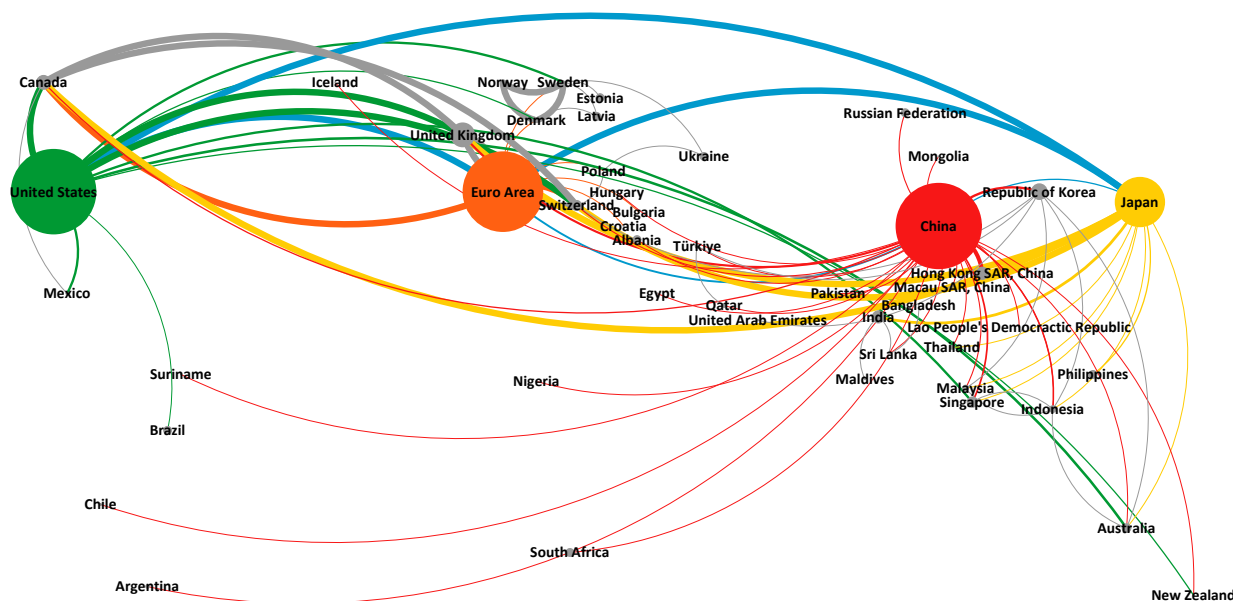
The IMF Resilience and Sustainability Trust (RST) represents a new direction for the IMF as it provides longer-term lending than other IMF programmes. The RST and its associated facility aims to help low-income and vulnerable middle-income countries build resilience to external shocks and ensure sustainable growth, contributing to their long-term balance of payments stability. About three quarters of the IMF’s country membership are eligible for the RST, including all the SIDS. The RST provides longer-term, affordable financing to support policy reforms that

reduce macroeconomic risks arising from longer-term structural challenges, including climate change and pandemic preparedness. It also increases policy space and financial buffers to mitigate prospective balance of payments risks. Arrangements have a 20-year maturity and a 10.5-year grace period during which no principal is repaid. The RST was operationalized in October 2022; by the end of 2022 it had received pledges to contribute resources of 29 billion SDRs (US\$37 billion) from 13 countries. There are 143 RST-eligible countries, and four programmes under the resilience and sustainability facility have already been agreed with a total amount of 1.9 billion SDRs (\$2.6 billion). To access RST funding, countries need to have a concurrent IMF-supported programme under another facility. The IMF staff coordinate with the World Bank, World Health Organization, regional MDBs and other relevant agencies to provide relevant subject matter expertise.

2.1.3 Bilateral swap arrangements

Bilateral swap lines may have been effective at dampening the volatility of capital flows but they are not widely available to developing countries. The global network of swap lines—voluntary currency exchange arrangements between countries’ central banks—has expanded dramatically since the 2008 world financial and economic crisis, when swap lines were opened amongst six developed country central banks (see figure III.F.1). Today there are over 90 swap lines in existence (see figure III.F.5), with both permanent ones and temporary ones opened during the COVID-19 pandemic.¹¹ Typically, swap lines are unconditional in nature, though most of them are limited in volume. There may be multiple motivations for signing swap lines, which could include reducing balance of payments pressures, alleviating pressure on exchange rates, or facilitating international trade. Available evidence indicates that

Figure III.F.5
Bilateral swap line networks, 2022
 (Scaled by volume)



Source: UN/DESA based on IMF and the GFSN Tracker.

Note: Color coded as – US: green, China: red, euro area: orange, Japan: yellow. Swap lines between these countries are blue. All other countries are gray. The size of each bubble represents the total amount of swap lines in U.S. dollar terms. Line thickness is scaled by the volume of bilateral swap line, unlimited bilateral swap lines are set at maximum thickness.

the existence of a swap line had no effect on interest rates or credit risk estimates before the pandemic but it seems to have helped countries to contain increases to sovereign borrowing risk premia after the onset of the pandemic.¹² Swap lines tend to be made available from major central banks to partners that have large financial or trade linkages,¹³ which leaves many developing countries, particularly the poorest, out of the global network of swap arrangements (see figure III.F.6).

2.1.4 Regional financing arrangements

Regional financing arrangements can play an important role in strengthening the global financial safety net but were relatively unused during the COVID-19 pandemic. Developing countries have access to six regional financing arrangements with a combined lending power of \$1 trillion.¹⁴ Between February 2020 and February 2023, regional arrangements disbursed \$9.9 billion to member countries, partly in combination with IMF programmes. More than one third of this was provided to a single country in Europe. This amount is small compared to bilateral currency swaps between central banks, which stand at more than \$1.5 trillion, and the IMF lending described above (see figure III.F.7). Some of the larger arrangements, notably the Chiang Mai Initiative Multilateralization (CMIM) and the Contingent Reserve Arrangement (CRA) of the New Development Bank, were not used at all. The relatively low mobilization from RFAs was consistent across both poorer and more developed countries.¹⁵ Nonetheless, the quick disbursement of RFA loans provided fast and flexible relief for those countries that accessed them.

Regional financing arrangements could be adjusted to provide more resources on better terms with more predictability. Compared to bilateral swap arrangements, regional facilities are predictable and not decided based on historical, political, financial or trade linkages. Regional arrangements also give voice and representation to their member countries, most of which are not included in other multilateral forums such as the G20. During the pandemic, the most-used regional arrangements were those which did not require an IMF programme to be in place to

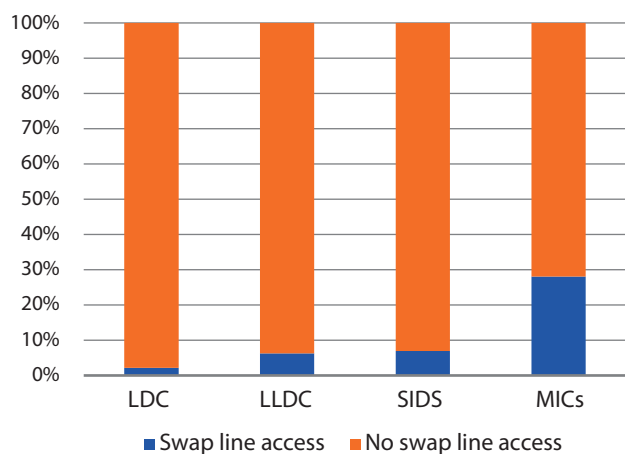
access funds.¹⁶ Cooperation between regional financing arrangements and the IMF is essential to coordinate across layers of the safety net; formal linkages could be revised to give more autonomy to regional arrangement decisions. An expansion of their member base could help regional arrangements to further strengthen their role. For instance, the Latin American Reserve Fund (FLAR) recently introduced the new member category “associated central banks”, under which the Central Bank of Chile joined in February 2022.

2.2 Role of global reserve currencies

Use of a national currency as the global reserve creates asymmetries during times of shock. Global monetary policy conditions, including shocks, are transmitted from reserve issuing countries to the rest of the world—through interest rates, capital flows and asset prices—with the potential to create challenges to economic and financial stability.¹⁷ Monetary policy spillovers affect developing countries regardless of exchange rate regime (see box III.F.1) and in times of crisis there is a flight to safety among international investors, who rush to hold reserve-issuing country assets.

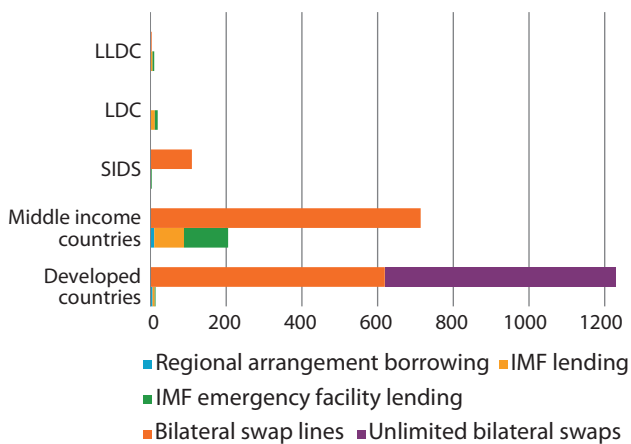
The United States dollar remains the pre-eminent global reserve currency and has the central role in the financial system as the currency vehicle for most international financial transactions. The dollar has retained an over 80 per cent share of over-the-counter foreign exchange transactions since 1998, when the data survey of such transactions began (see figure III.F.8). For exchange traded derivatives, it has an almost 99 per cent share.¹⁸ While the share of the dollar in official foreign exchange reserves has declined from its peak in 2001, it remains at about 60 per cent of the known allocations (see figure III.F.9).

Figure III.F.6
Access to bilateral swap lines, by country groups, 2021
(Percentage of countries)



Source: UN/DESA calculations based on Perks et al 2021; central bank websites; and IMF staff estimates.

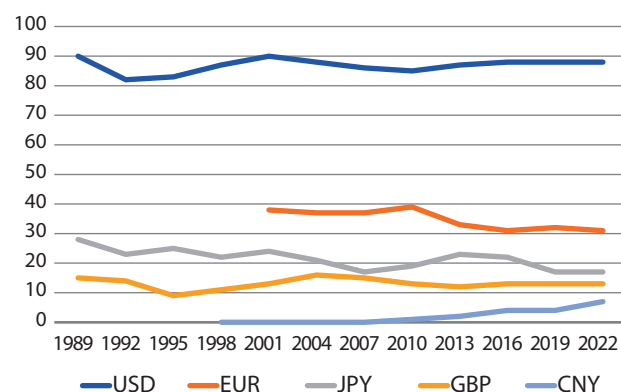
Figure III.F.7
Use of the global financial safety net, 2020–2022
(Billions of United States dollars)



Source: GFSN Tracker; IMF.

Note: Bilateral swap lines are listed according to their limit rather than actual usage, and are not directly comparable to IMF and regional arrangement lending. Bilateral swaps between two developing economies and swaps between two developed countries are counted for both countries. Bilateral swaps between developing and developed countries are counted once on the side of the developing country. Swaps of other developing countries with China are also only counted once. Unlimited bilateral swaps are valued based on estimates of known past usage, as described in the note to figure 1.

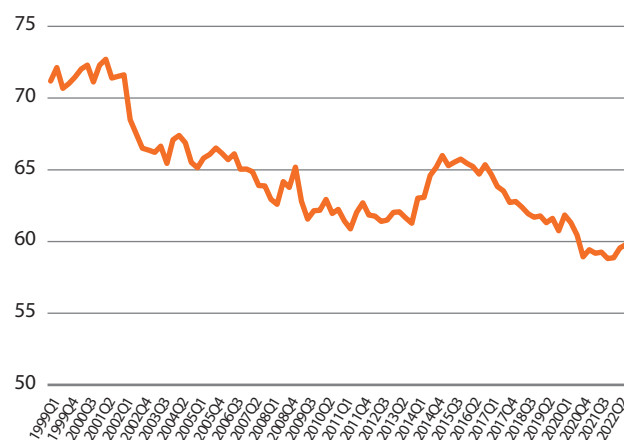
Figure III.F.8
Turnover of over-the-counter foreign exchange instruments, by currency, 1989–2022
 (Percentage)



Source: BIS.

The dollar is likely to retain its role as the major vehicle currency for the immediate future because of the depth and liquidity of US dollar markets. The world's capital markets are deep and highly integrated and cross-currency capital movements combine huge scale with high mobility. United States dollar-denominated securities markets are the deepest and most liquid, which allows any financial market actor to store large amounts of funds at lower risk than in other currencies. Central banks that want to minimize the impact of cross-currency capital movements on their domestic currencies, keep in reserve financial securities that: (i) have a large and safe value storage capacity, (ii) are available in abundance, and thus (iii) are highly liquid. No other financial securities and no other financial instruments, including crypto and digital currencies, can match United States Treasuries in these criteria.¹⁹

Figure III.F.9
Share of United States dollars in official reserves, 1999–2022
 (Percentage)



Source: IMF.

The need to hold reserves creates costs for developing countries.

Developing countries have built up international reserves as a form of self-insurance against capital flows and exchange rate volatility, reducing the risk of balance of payments crises. However, these benefits are weighed against the costs, as foreign currency reserve accumulation has an opportunity cost of foregone domestic investment, when reserves could have been invested into productive capacity and infrastructure at much higher financial returns and with greater positive social and environmental impacts. Additionally, when countries accumulate reserves, they often do so by selling local currency to buy foreign securities, thus increasing the domestic money supply. To mitigate the inflationary impact of this, central banks might “sterilize” the foreign exchange accumulation by buying back the currency, pushing up domestic interest rates. Making the global financial safety net more reliable can provide benefits by reducing the desire to hold foreign exchange reserves. Regional monetary cooperation could be designed to refinance and promote intraregional trade and develop intraregional value chains, particularly with local currency invoicing arrangements and regional payments systems. These systems could be created or enhanced through the strengthened monetary cooperation that is burgeoning as a result of experimentation with CBDCs and their potential interchange (see section 5).

2.3 Managing capital flow volatility

Private capital markets promulgate volatile international capital flows which complicate macroeconomic management.

Theoretically, resources should flow to countries and sectors where capital is scarce and returns, adjusted for risk, are high, thus providing the resources necessary for development. However, capital has not always flowed to areas where returns are greatest for a host of reasons, including skewed incentives, short-termism and risk-aversion. Volatile boom-bust patterns of capital flows have led to instability in the real economy and made macroeconomic policy management more challenging.²⁰ As discussed in chapter I, the past year has seen periods of strong capital inflows and outflows from developing countries. Capital flows, especially portfolio investment in debt and equity markets, also trigger exchange rate movements as investors repatriate funds, or redeploy them to other markets. The increased volume of gross capital flows is reflected in the increasing share of developing country currencies in all currency transactions (see figure III.F.10). Downside risks to portfolio flows remain elevated compared to historical norms amid persistent dollar strength, market volatility and heightened uncertainty about the economic and political outlook.²¹

A suite of policy tools can be used to address volatility by both source and destination countries.

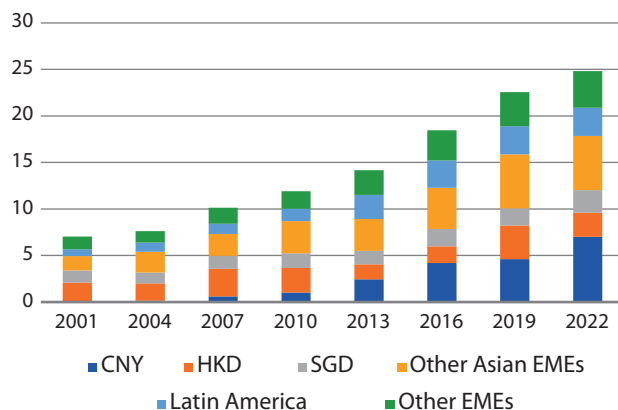
At the start of the COVID-19 crisis, more countries than in the past were able to deploy countercyclical monetary policies, including interest rate cuts and, in some cases, quantitative easing, foreign exchange interventions, easing of macroprudential regulations, and capital flow management measures.²² Countries should be able to draw on the full range of tools—monetary and fiscal policies, exchange rate policies, including foreign exchange intervention, macroprudential measures, capital flow management measures and others—at their disposal to mitigate the impacts of volatile international capital flows. The IMF institutional view (see below) holds that capital flow management measures should not substitute for warranted

macroeconomic adjustment and should be phased out once the high level of capital flow volatility (inflow surges or disruptive outflows) has abated. International coordination and transparent forward guidance on monetary policy decisions in source countries for capital flows are important to help reduce negative spillovers. Source countries should also continue efforts to enhance financial stability and incentives for long-term sustainable investment, which could reduce cross-border capital flow volatility. Following integrated policy frameworks, developed by the IMF, can help countries to determine the best policy mix and could be implemented as part of broader integrated national financing frameworks or other national planning systems.

Figure III.F.10

Share of developing country currencies in global foreign exchange turnover, 2001–2022

(Percentage)



Source: BIS.

Note: CNY = Chinese yuan, HKD = Hong Kong dollar, SGD = Singapore dollar, EME = emerging market economy.

Box III.F.1

Are all emerging markets susceptible to US monetary policy spillovers?

Countries with flexible exchange rate regimes may be better insulated from US monetary policy spillovers as they do not need to maintain a peg against the US dollar and can therefore pursue an independent monetary policy.^a Countries with fixed exchange rates, on the other hand, need to follow the United States Federal Reserve's decisions almost mechanically to avoid large swings in cross-border capital flows. However, a growing body of research has shown that even a floating exchange rate regime may not afford countries complete monetary sovereignty. This could be because shifts in US monetary policy are the primary drivers of the global financial cycle, which affects monetary conditions in all economies irrespective of their exchange rate regimes. In addition, countries, concerned about the contractionary effects of a currency depreciation following US tightening, may want to raise policy rates to prevent a substantial weakening of their currencies. They can also raise rates to tame inflation, which could be on the rise if there is

The IMF now recognizes that pre-emptive capital inflow management measures, which are also macroprudential measures, may be appropriate in certain circumstances. In March 2022, the IMF completed a review of its 2012 institutional view on capital flows. The review recognized the potential role of measures that combine elements of both capital flow management and macroprudential measures for reducing systemic financial risk from currency mismatches, such as limits on or taxation of banks' foreign currency exposures, which limit the build-up of financial vulnerabilities by reducing capital inflows in relevant sectors. As a result, new IMF guidance sees a role for pre-emptive measures to reduce systemic risk not only when capital inflows surge but also at other times.²³ This is in line with Member States' recognition in the Addis Ababa Action Agenda of the potential role of capital flow management.

3. Financial market regulation for sustainable development

Systems for financial regulation have dramatically improved coverage of systemic risks since 2008 but parts of the financial system are not subject to this regulation, and efforts on integrating climate and other environmental risks are only just beginning.

Implementation of the reforms to banking regulation and supervision agreed by the G20 after the 2008 world financial and economic crisis is nearly complete, with implementation of most of the final reforms to the Basel III capital adequacy standards for regulated banks planned to take effect from January 2023.²⁴ However, with a worsening climate emergency and biodiversity crisis, public authorities are developing rules for addressing non-financial and non-economic risks such as climate change. In addition, the regulatory systems for non-bank financial intermediaries (NBFIs) leave many systemic risks ineffectively addressed. Policies on both of these agendas may not yet be strong enough to guide the financial system towards desired economic, social and environmental outcomes.

high exchange-rate pass-through to domestic prices, and inflation expectations are not well anchored.^b Reluctance to allow exchange rates to fluctuate ("fear of floating") on the part of policy authorities may be a useful policy response and can justify policy choices such as foreign exchange rate interventions.^c

^a For example, see Obstfeld, Maurice, Jonathan D. Ostry, and Mahvash S. Qureshi, 2019, "A Tie That Binds: Revisiting the Trilemma in Emerging Market Economies," *The Review of Economics and Statistics*, 101(2): 279–293.

^b For example, on the global financial cycle please see Rey, Hélène, 2015, "Dilemma not Trilemma: The Global Financial Cycle and Monetary Policy Independence", Working Paper 21162, National Bureau of Economic Research. On contractionary devaluations see Auclert, Adrien, Matthew Rognlie, Martin Souchier, and Ludwig Straub, 2021, "Exchange Rates and Monetary Policy with Heterogeneous Agents: Sizing Up the Real Income Channel", Working Paper 28872, National Bureau of Economic Research. On the effect of poorly anchored inflation expectations along with other vulnerabilities (private balance sheets with high currency mismatch) see Ahmed, Shaghil, Ozge Akin, and Albert Queraltó, 2021, "U.S. Monetary Policy Spillovers to Emerging Markets: Both Shocks and Vulnerabilities Matter", International Finance Discussion Paper 1321, Board of Governors of the Federal Reserve System. For more on the link between policy rates in the US and emerging markets see Huertas, Gonzalo, 2022, "Why Follow the Fed? Monetary Policy in Times of US Tightening", forthcoming IMF Working Paper.

^c Basu et al, 2020, "A Conceptual Model for the Integrated Policy Framework", IMF WP/20/121.

3.1 Addressing risks from non-bank financial intermediation

The recent growth of NBFIs means that financial risks are increasingly being held outside of the banking sector. NBFIs now hold almost half of global financial assets, up from 42 per cent in 2008 (see figure III.F.11).²⁵ NBFIs include money market funds, pension funds, hedge funds, mutual funds, insurers and vehicles for securitization, as well as financial technology (fintech) providers that act as financial intermediaries, among others. Many NBFIs such as money market funds are open-ended, allowing investors to withdraw their money with little or no notice, and can therefore be subject to runs. Some NBFIs, such as many hedge funds and structured financial products, make ample use of leverage to increase returns from their trading strategies, while others may have exposure to highly leveraged entities, for example through the leveraged loan market.

NBFIs can transmit and amplify market shocks, which could precipitate a wider-scale financial crisis. While NBFIs contribute to a diversified financing landscape, their vulnerabilities can amplify volatility and market stress, particularly through derivatives and leverage. Liquidity mismatches (for example when holdings of illiquid long-term investments are funded with short-term borrowings), currency mismatches and leverage are vulnerabilities associated with NBFIs.²⁶ In the event of a shock these can lead managers at NBFIs to sell assets to cover redemptions or margin calls.²⁷ These rapid spikes in demand for liquidity may be difficult for market intermediaries to absorb.²⁸ The increased importance of NBFIs to the real economy means that the rapid sell-offs, which may involve deleveraging, of these institutions are likely to be transmitted into the real economy, for example through reduced credit availability for non-financial businesses. Investment funds, a type of NBFIs, are the largest holders of cross-border claims, constituting the portfolio capital flows discussed earlier.²⁹

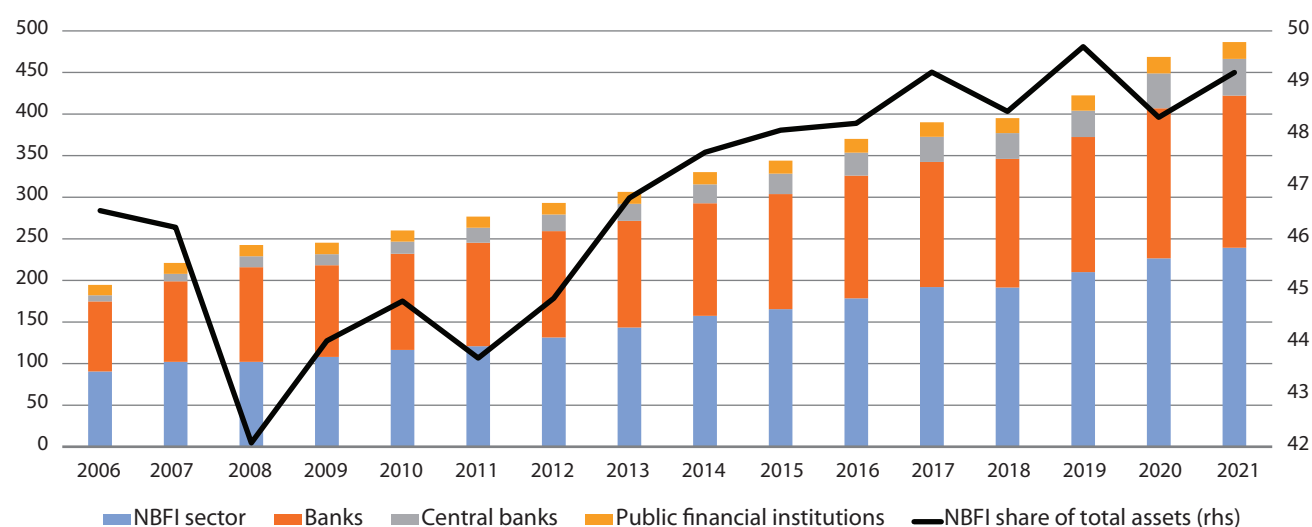
Existing regulations on NBFIs have traditionally focused mostly on protection for investors rather than systemic risk. Regulations on some of these entities include market conduct rules to ensure fair treatment for end users and microprudential rules focused on the stability of the entity, while failing to reflect the systemic dimension.³⁰ Other types of NBFIs lack even microprudential regulation, with rules mainly on market conduct, such as disclosure, fraud prevention and barring market manipulation. This stands in contrast to requirements for systemically important regulated banks, which now include measures to mitigate systemic risks such as capital surcharges and crisis management rules. The governance and internal incentive structures for NBFIs do not cover systemic risks.

The growth in NBFIs investment flows to developing countries has created additional vulnerabilities, which materialized during the pandemic. NBFIs played an increasing role in cross-border flows as both public and private entities shifted to tapping capital markets. This includes the growth in investment funds benchmarked to local currency bond indices in developing countries, which have risen fivefold since the mid-2000s to around \$300 billion.³¹ Studies focusing on NBFIs' behaviour suggest that they tend to act more procyclically than banks, especially when it comes to cross-border activity.³² In March 2020 amid a flight to safety at the start of the pandemic, developing country assets experienced large price declines. Sales by foreign investors resulted in large-scale capital outflows in some jurisdictions and contributed to local currency depreciation.³³ Sovereign rating downgrades may have added to the pressures, particularly when countries lost investment grade ratings, forcing sales by pension funds and other managers that are prohibited from holding assets below investment grade. Sovereign downgrades also affected the cost of borrowing for corporations located in those countries due to the sovereign ceiling on ratings.³⁴ The episode reinforces the need for policymakers in

Figure III.F.11

Total global financial assets, 2006–2021

(Trillions of United States dollars, percentage of total assets)



Source: FSB.

Note: Banks includes all deposit-taking corporations. The NBFI sector includes insurance corporations, pension funds, other financial intermediaries (particularly investment funds) and financial auxiliaries. Includes data from 21 jurisdictions plus entire euro area; data for Russia is only available through 2020.

developing countries to use the full policy toolbox to respond to volatile capital flows as appropriate, such as implementing measures to incentivize longer time horizons for investors. Regulators and supervisors overseeing NBFIs in developed countries generally have no mandate to address spillovers to other countries, though policies in source countries that impose appropriate regulation and supervision to address high leverage, or at least smooth deleveraging, could help to constrain volatility (see above).

Regulatory authorities are working together to change international standards to address the growing risk from the growth in size of NBFIs. As standards are translated into regulations on NBFIs, they should aim to better align incentives with stability goals. The main focus of the proposals being developed at the Financial Stability Board and the International Organization of Securities Commissions is to reduce excessive spikes in the demand for liquidity by addressing the vulnerabilities that drive those spikes (e.g., by reducing liquidity mismatches or the build-up of leverage) or by mitigating their impact on financial stability (e.g., by ensuring that redeeming investors pay the cost of liquidity and by enhancing the liquidity preparedness of market participants to meet margin calls). Some countries are considering providing access to central bank liquidity for some NBFIs; however, such access should come coupled with the creation of an appropriate regulatory framework for those institutions to manage risks, ensure a level playing field with banks and prevent regulatory arbitrage.

3.2 Addressing climate and nature-related risks and greening the financial system

Climate-related and nature-related risks can impact asset values and financial performance and threaten financial stability, necessitating systemic regulatory and supervisory responses. Climate change impacts the entire financial system and needs to be addressed with a consistent global approach to assess, manage and mitigate the resulting financial vulnerabilities, which some call “climate-related financial risks”.³⁵ While individual financial institutions are increasingly recognizing environmental and climate related risks, these are not necessarily being fully incorporated into decision-making and risk management frameworks. Similar to other exogenous shocks, embedding climate-related risks in risk management frameworks is difficult because of the forward-looking nature of shocks, amongst other reasons. A system-wide perspective should be applied to understand: (1) physical risks as well as risks associated with transitioning to a low-carbon economy³⁶ at the national level, and (2) the transmission and amplification channels for how these risks can spill over across sectors or borders. Most private financial institutions have also not yet incorporated environmental sustainability concerns into their internal governance structures that set incentives for staff. To help guide policymakers, the World Bank has developed a framework that provides a range of practical approaches that authorities can take to promote green finance and manage climate-related and environmental risks (see figure III.F.12).³⁷ Financial policymakers should have a good understanding of specific local barriers and climate risks related to green finance in order to prioritize and tailor policy actions to local contexts.

Standard setters for regulated banks are advancing principles for how regulation can address climate risks. The Basel Committee on Banking Supervision (BCBS) has agreed to 18 high-level principles for how

regulators and supervisors should improve risk management and supervisory practices of climate-related financial risks. The principles, which seek to accommodate banking systems at different levels of size and complexity, span the following topics: 1) corporate governance, 2) internal control frameworks, 3) capital and liquidity adequacy, 4) risk management process, 5) management monitoring and reporting, 6) comprehensive management of credit risk, 7) comprehensive management of market, liquidity, operational and other risks, and 8) scenario analysis. By issuing principles rather than standards, the BCBS is allowing flexibility in how national regulators act on climate-related financial risks.³⁸

Regulators are still considering how to adapt principles on climate risk into regulations for banks’ capital requirements. The primary role of financial regulators is to ensure safety and soundness in the financial system. To address climate change, most of the focus to date has been on how climate change impacts financial returns (single materiality) and not on how the loan portfolios of banks impact climate change (or double materiality). Three approaches can be used to incorporate environmental issues into the capital requirements of regulated banks: (1) microprudential approaches based on how environmental risks impact a bank’s financial performance; (2) “weak” macroprudential approaches that address systemic risks linked to how specific sectors and geographic areas might impact the banking system more broadly; and (3) “strong” macroprudential approaches that explicitly consider feedback loops and double materiality.³⁹ In regard to microprudential approaches, regulators are debating whether to apply adjustment factors to capital requirements depending on the “greenness” or “environmental harmfulness” of an asset. While aligning regulatory requirements with underlying risks is critical, methodological challenges and data gaps hamper both the assessment of climate-related risks and the measurement of exposure to these risks in individual institutions. Many regulatory authorities have indicated that better assessments of potential losses for financial firms and the overall financial system are necessary to gauge more precisely the financial stability implications of climate risks and to inform policy decisions.⁴⁰ Regulators should build on existing voluntary transition planning by businesses⁴¹ and require financial institutions to develop internal processes to evaluate the impact of climate risks on their solvency and include them in their internal capital adequacy process. A network of central banks and regulators has suggested the development of forward-looking assessments of climate-related and environmental risks based on climate change and policy scenarios.⁴² Many central banks and other financial authorities have begun running such scenario analysis exercises.⁴³ Some national members have experimented in calculating default probabilities of specific sectors based on the scenarios, but no regulators or supervisors have yet changed capital requirements using this approach.⁴⁴


There is not yet a focus on how to address the impact of financial institutions’ activities on the environment. Major central banks and supervisors have acknowledged that climate change and biodiversity loss are not only a source of risk for the financial performance of individual financial institutions; they could also have significant macroeconomic implications.⁴⁵ Banks, insurers and investors have signed onto voluntary commitments and statements (see chapter III.B), but turning this into action on a scale to address systemic risks will require government policies and regulations. Macroprudential regulation for both banks and NBFIs could help to incentivize the reallocation of finance away from

Figure III.F.12

Toolkits for policymakers on greening the financial system

A holistic approach to greening the financial system: toolkits for policymakers

Concrete actions for financial regulators, central banks and government authorities

Strategy	Financial sector strategy Ministries, financial sector authorities	National climate/nature finance strategy Ministries, NDFIs	Institutional strategies CB, financial regulator, supervisor		
Building capacity	National platform Ministries, CB, financial regulator, industry associations	International networks Ministries, CB, financial regulator	FI net-zero transition plans Ministries, financial regulator, industry associations		
Regulation & CB activities	Climate & environmental risk analysis CB, financial regulator	Supervisory tools & actions CB, financial regulator	Supervisory guidance CB, financial regulator		Greening CB activities CB
Transparency	Disclosure and reporting Ministries, CB, financial regulator	Green/sustainable taxonomy Ministries, CB, financial regulator	Data provision Ministries, data providers		
Green(ing) public FIs	Greening NDFIs Ministries, NDBs, other public FIs	National green finance entity Ministries	Greening public guarantee schemes Ministries		
Financial instruments	Corporate labelled bonds Financial regulator, industry associations	Sovereign labelled bonds Ministries	Climate risk resilience products Ministries, NDBs or other public FIs		Green credit Financial supervisor, regulator

Source: World Bank. 2021. Toolkits for Policymakers to Green the Financial System.

Note: CB = central banks, NDFIs = national development finance institutions; FI = financial institution.

environmentally harmful activities and towards transition finance.⁴⁶ Prudential supervisors should operate within their legal mandate, which is usually focused on promoting a safe and sound financial system. Where needed in the longer term to ensure a financial system compatible with the sustainable development agenda, policymakers may wish to consider the need to augment mandates without compromising financial stability.

Improved corporate sustainability disclosure will be necessary.

Better data on climate and SDG impacts is needed for financial intermediaries to incorporate these into decision-making, as well as for regulatory and supervisory bodies. Sustainability disclosure is most advanced with respect to climate, with 41 per cent of banks aligned with the voluntary guidelines of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD), based on an assessment of their 2021 financial statements.⁴⁷ However, to report accurately on their underlying portfolios, they would need comparable data from all their borrowers. Several jurisdictions have begun to enforce mandatory climate-related risk disclosures in line with or based on the TCFD recommendations.⁴⁸ Some financial institutions, corporates and market service providers have also come together to set up a Task Force on Nature-Related Financial Disclosure, which has issued a nature-related risk management and disclosure beta framework.⁴⁹ The International Sustainability Standards Board (ISSB) under the IFRS Foundation is working to create a global baseline reporting standard with the goal of having final standards published by early 2023,⁵⁰ though again, these will be focused on the financial materiality of climate risks and not on the impact of the financial system on climate change (see chapter III.B).

To the extent allowed by their mandates, central banks, regulators and supervisors could support just transitions and include social impacts. If allowed by their legal frameworks, authorities could go further than microprudential or even macroprudential approaches, to include social considerations. Economic transitions to address climate change will have distributional implications, creating inequalities based on sector or geography. There is a two-way interaction between inequality and economic downturns, which has implications for monetary policies.⁵¹ Furthermore, inequality can impact financial stability, growth and employment.⁵² Thus, macroeconomic and financial regulatory policies geared to address climate change and the transition to net-zero may have positive or negative social implications, particularly for workers in polluting industries. Financial authorities, potentially as part of intragovernmental policy coordination, could consider the potential feedback loops between macroprudential policy, climate strategies, economic inequality and financial stability.

Central banks are also increasingly addressing climate-related risks as part of their mandates on price and financial stability.

Central banks face the same challenges as the private sector with regard to the lack of comprehensive, accurate and timely data (see chapter III.B). Central banks also vary in whether their mandates require (or even allow) them to incorporate sustainability issues into their activities. While most central bank mandates do not explicitly refer to sustainability, close to half of central banks worldwide have an indirect mandate to support the policy objectives of their respective governments.⁵³ Given that climate change will have effects on risks in the financial and economic system,

central banks should consider climate-related risks in their risk frameworks. As central banks develop their approach to climate risk assessment and incorporating sustainability into their operations, they should look at options related to credit policies, collateral policies and asset purchases.⁵⁴ For example, through their foreign reserve holdings, central banks may be exposed to climate-related physical and transition risks through their portfolios of sovereign and other assets.⁵⁵ In addition, many central banks use credit assessments by credit ratings agencies in their operational frameworks (e.g., asset purchase programmes and collateral frameworks) but the agencies vary in how they take on board climate risks in the ratings.⁵⁶

4. Digital finance and digital currencies

Rapid developments in digital financial technology, further accelerated by the pandemic, have transformed financial services.

While creating new opportunities for efficiency gains and financial inclusion (see chapter III.G), the large-scale adoption of these technologies also creates new risks, including for financial stability and integrity. A new range of digital assets, including cryptoassets and so-called stablecoins, has proved especially volatile. Many central banks are also exploring the development of central bank digital currencies (CBDCs), in part to address these risks by offering a safer alternative.

4.1 Digital financial services

Under a robust regulatory framework, fintech can contribute to financial inclusion and innovation and support efficiency gains, while maintaining financial stability. Fintech can deliver increased transparency and access to information and enable risks to be more accurately assessed and better priced. Fintech innovations can support improvements in the business models of financial institutions, thereby contributing to the overall efficiency of the financial system and the real economy, for example by reducing remittance costs (see chapter III.G). The benefits of decentralization and diversification espoused by fintech could potentially also help to limit the contagion effects of financial shocks in some circumstances.

Without strong regulatory frameworks, however, fintech can generate significant risks to financial stability. In the absence of effective regulation, fintech will generate new risks or amplify existing ones. For example, increased transactional speed might exacerbate contagion and cross-border spillovers. Additionally, new technologies like blockchain can allow entities to set up operations in one jurisdiction and market their services globally, making domestically focused regulation and supervision more challenging. Decentralized Finance (DeFi) goes a step further: participants on a single application are often pseudonymous and could continue to operate without a headquarters. The use by regulated financial institutions of cloud computing provided by large technology firms, which are not regulated, has the potential to create operational risks that need to be well managed (see chapter III.G). The use of complex algorithms can lead to greater homogeneity in risk assessments and credit decisions and rising interconnectedness. Even regulatory responses such as creating new institutional arrangements like sandboxes can create financial stability risks if not designed and implemented correctly. While global standard-setting

bodies take a technology neutral approach to fintech regulation, there are limited standards governing the way certain activities are delivered by fintech. Authorities may need to address those technology-specific risks during the implementation of those global standards.

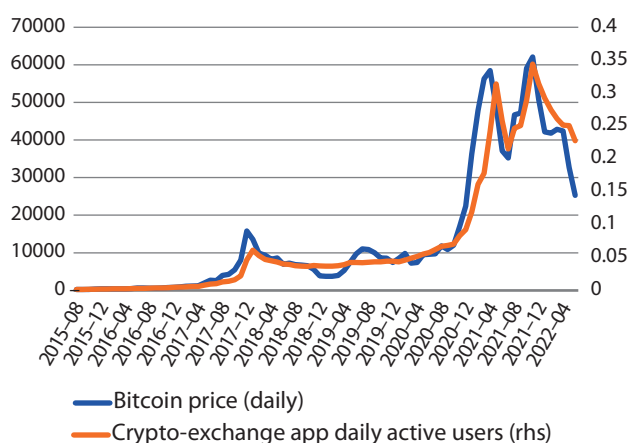
4.2 E-money, cryptoassets and stablecoins

E-money has grown rapidly in many jurisdictions, delivering the benefits of financial inclusion and payments efficiency but also generating new risks. E-money services have evolved in conjunction with the rapid growth in mobile networks and internet access. There are no tailored international standards for e-money providers, and regulatory practices are evolving on a country-by-country basis, reflecting local needs and constraints. E-money providers are typically required to match one-to-one the aggregate balance of their clients' e-wallets to a pool of liquid funds (generally bank deposits or short-term government debt) of at least equivalent value. Managing risks to financial stability is particularly important where e-money providers are large and provide specialized services for which there are limited alternatives, and where there is a high degree of interconnectedness between e-money providers and banks. Key areas of regulatory focus include taking an entity-based supervisory approach; segregation and safekeeping of funds; capital requirements; and internal controls, including operational resilience.⁵⁷

Cryptoassets have shown volatile growth and could generate financial stability risks in the future, while not yet showing benefits such as contributions to payments efficiency. Cryptoassets such as bitcoin are privately issued virtual tokens, many of which are based on decentralized networks using distributed ledger (blockchain) technology. Large swings in valuation render cryptoassets unfit to fulfil the three main functions of currencies, i.e. to serve as a store of value, as a unit of account, and as a medium of exchange.⁵⁸ Total cryptoasset market capitalization fell from \$3.1 trillion in November 2021 to under \$1 trillion by early July 2022. While interest in cryptoassets and so-called stablecoins increased during most of 2021, the sharp drop in valuations in May 2022 was accompanied by many high-profile bankruptcies in the sector. Large drops in cryptoasset prices in 2022 coincided with rises in benchmark interest rates in most developed countries as well as reduced daily usage of the major crypto trading apps (see figure III.F.13), an indicator that crypto trading is driven by speculative activity rather than payments.⁵⁹ Analysis of blockchains also shows that peer-to-peer and small retail are a tiny percentage of overall transaction volume in all regions of the world.

Cryptoassets also generate significant risks to market integrity, financial integrity and consumer protection. The use of leverage, the operational failures of key cryptoasset service providers and a lack of cybersecurity on the part of many service providers has led to significant losses for some users. The largest losses are related to the collapse of cryptoasset exchange FTX in November 2022, with allegations of fraud and mismanagement. The opacity of the market, particularly regarding price formation, has led to market manipulation, including pump-and-dump schemes and rug pulls (when developers abandon projects but keep investors' funds), generating significant risks to market integrity.⁶⁰ The pseudo-anonymous nature of cryptoasset transactions also raises concerns with respect to increasing the risk of illicit financial flows (see chapter III.A). The high energy consumption required to process transactions on large blockchain networks such as bitcoin is also a challenge, with a large carbon

Figure III.F.13
Bitcoin price and crypto-exchange app daily active users, 2015–2022
 (United States dollars, millions of users)



Source: R. Auer et al.

Note: Cross-country monthly average of daily active users, calculated on a sample of more than 200 crypto-exchange apps over 95 countries.

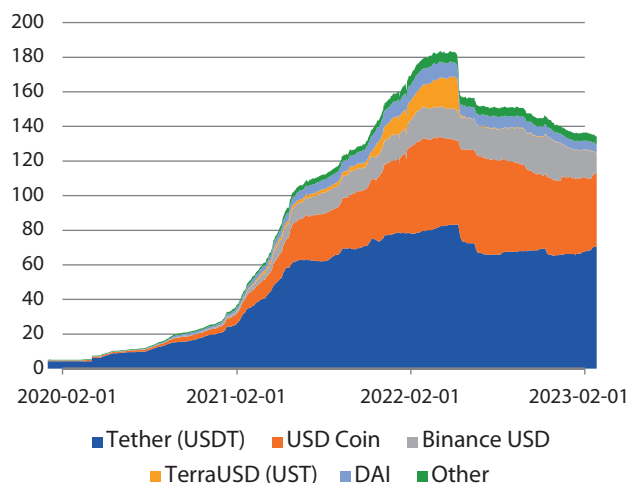
footprint associated with the energy used by the computers involved. The cross-border nature of cryptoassets makes them particularly challenging to regulate. Many cryptoasset service providers operate from one jurisdiction but market their services globally, which creates significant challenges for regulation and supervision.

Stablecoins also create financial stability risks, and widespread use may create challenges for macroeconomic management.

Stablecoins share many of the characteristics of cryptoassets, including their pseudo-anonymous nature. However, most existing stablecoin issuers promise (implicitly or explicitly) to maintain a stable value, typically relative to a single currency such as the US dollar. However, many of the existing stablecoins are issued by unregistered and unlicensed entities and do not have credible mechanisms to support their promise of price stability.⁶¹ When stablecoin reserve compositions are complex, less liquid or opaque, there are heightened risks to consumers and markets and a greater possibility of risks to financial stability.⁶² Most stablecoins are currently used for trading between cryptoassets and for conversion between cryptoassets and currencies. Despite their name, stablecoins can be vulnerable to runs when users lose trust and rush to redeem their holdings, generating bank run-like dynamics. This occurred in May 2022, when a loss of trust led to the collapse of the algorithmic stablecoin TerraUSD, previously one of the top five stablecoins by market capitalization (see figure III.F.14).⁶³ Dollar-denominated stablecoins are growing in popularity in developing countries as a potential store of value and hedge against inflation and exchange rate volatility, raising the same macroeconomic risks of dollarization.⁶⁴ Alongside fiscal risks (see chapter III.A), widespread adoption of cryptoassets could undermine the effectiveness of monetary policy and allow the circumvention of capital flow management measures.⁶⁵

Cryptoassets, stablecoins, exchanges and related providers should be subject to regulatory standards proportionate to their economic function and risks, rather than their legal form.

Figure III.F.14
Stablecoin market capitalization, 2020–2022
 (Billions of United States dollars)



Source: FSB, based on CoinGecko, CryptoCompare, Tether.

In October 2022, the Financial Stability Board issued a consultative document⁶⁶ that proposed a set of high-level recommendations for the regulation, supervision and oversight of cryptoasset activities and markets⁶⁷ and revised high-level recommendations for global stablecoins.⁶⁸ One of the key proposals is that authorities should apply effective regulation, supervision and oversight to cryptoasset activities and markets in line with the principle of “same activity, same risk, same regulation”, as this Task Force has called for in previous *Financing for Sustainable Development Reports*. This principle is already embedded in the July 2022 guidance issued jointly by the Committee on Payment and Market Infrastructures and IOSCO for how stablecoins should be able to access the payments system. It calls for stablecoin arrangements that have become systemically important and those that are intended to be used like money to meet the same principles as other payment infrastructures, in particular that final settlement should be provided on an intraday or real-time basis and that the issuer should have clear and direct lines of responsibility and accountability to real people for the operations.⁶⁹ The same principle underlies IMF guidance, which identifies nine elements for effective policies for cryptoassets, that when adopted would help policymakers to better mitigate the risks posed by cryptoassets while also harnessing the potential benefits of innovation. The elements are aligned with the Financial Stability Board standards but add additional guidance, including to safeguard monetary sovereignty and stability by not granting cryptoassets official currency or legal tender status.⁷⁰

4.3 Central bank digital currencies

Central banks worldwide are exploring digital currencies, which can be an alternative, safer way to address some of the issues highlighted by the interest in cryptoassets. CBDCs could be designed to address financial inclusion concerns and the inefficiency of some payments systems, while eliminating the speculative investment element that dominates cryptoasset use. A retail CBDC is intended for use by the general

public; a wholesale CBDC is used for transactions between financial institutions. A recent survey found that 90 per cent of central banks were engaged in CBDC-related work, with 68 per cent considering it likely or possible that they would issue a retail CBDC within the next six years (see box III.F.2 for discussion on CBDCs in Asia and the Pacific).⁷¹ Retail CBDCs have already been launched in several developing countries, with others in the pilot stage. Some of these operate like publicly issued e-money, with agents operating gateways and onboarding customers. To date, take-up has been lower than expected in some markets, with usage below 1 per cent in one case due to lack of awareness, limited additional benefits for use and limited acceptance by merchants.⁷² This parallels the experience of private sector payment innovations. For example, despite large marketing budgets and eight years of promotion, ApplePay is still only actively used by a very small share of consumers even though the majority of Apple phone owners have set up the service.⁷³

CBDCs are an opportunity to improve financial inclusion and address oligopolies in payment systems. According to the BIS survey for developing countries, the main motivating factor for exploring retail CBDCs is improving financial inclusion. While CBDCs do not directly address some of the structural barriers to financial inclusion, they can provide open infrastructure, promote financial sector competition and build trust in the system.⁷⁴ For developed countries the main drivers for CBDC work are domestic payments efficiency, payments safety, monetary sovereignty and financial stability. Payment service markets are often marked by oligopoly due to network effects, resulting in rent-seeking and high service costs.⁷⁵ Emerging research shows that existing payment providers, dominated by the credit card industry, may exacerbate inequality.⁷⁶ Introducing a retail CBDC provides a competitive alternative that can reduce rents, improve competition and reduce costs.⁷⁷

While CBDCs can offer various benefits, there are also associated risks for national financial systems. From a policy perspective, interest-bearing CBDCs may prompt many people to switch their savings from bank deposits to a CBDC, which could lead to financial instability if such financial disintermediation is sizeable. CBDCs could also exaggerate systemic bank runs because a digital flight to safety could occur at a significant scale and speed. From an operational perspective, examples of

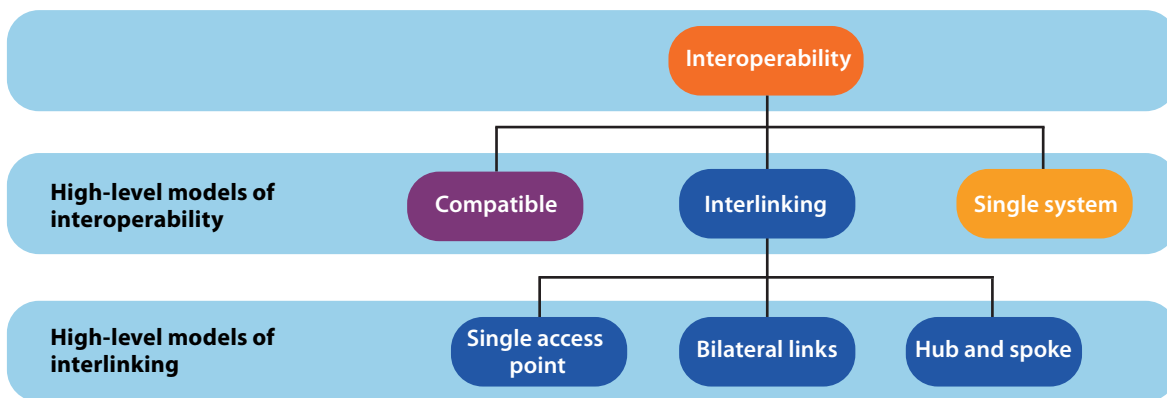
risks are fraud, cyberattacks and reputational and financial damage caused by outsourced firms.

CBDCs can improve cross-border payment efficiency. Interoperability between CBDCs in different jurisdictions could help to enhance cross-border payments. Currently, most cross-border payments use correspondent banking networks, which are slow, costly, untransparent and are experiencing declining linkages, potentially leaving some countries underserved and raising the cost of remittances (see chapter III.B).⁷⁸ Resolving the frictions requires legal, regulatory and technical changes which are difficult to graft onto existing payment systems. CBDCs provide a “clean slate” onto which design choices can ensure that CBDCs have efficient cross-border interoperability and cheaper means of implementing anti-money laundering controls. For CBDCs to enhance cross-border payments, jurisdictions working on a CBDC must take the cross-border functionality into account at an early stage to avoid unintended barriers later.⁷⁹ There are three high-level arrangements for interoperability: compatibility, interlinking, and single system, and three options for different types of interlinking (see figures III.F.15 and III.F.16). Compatible standards would be the easiest and least costly to implement, while interlinking and single systems would be more efficient but have higher costs and greater governance challenges.

Cross-border access to CBDCs could also create new risks involving possible currency substitution and capital flow volatility. If residents of one country were to adopt and use CBDCs from another country, this could create significant macroeconomic challenges similar to the impacts of dollarization. For this reason, most central banks are focusing CBDC interoperability on the wholesale segment. Regulatory guardrails might be needed even for wholesale CBDCs to prevent financial institutions from using CBDC interoperability to build up excessive foreign exchange positions. Design choices for retail CBDCs could help to mitigate some risks. For example, many retail CBDC prototypes are considering limits on aggregate balances and transaction size limits. Central banks should consider how to manage the potential trade-offs between efficiency gains for users and the systemic risks. This consideration should include the potential negative spillovers on other jurisdictions, which indicates the need for careful multilateral coordination before CBDC issuance in countries that issue reserve

Figure III.F.15

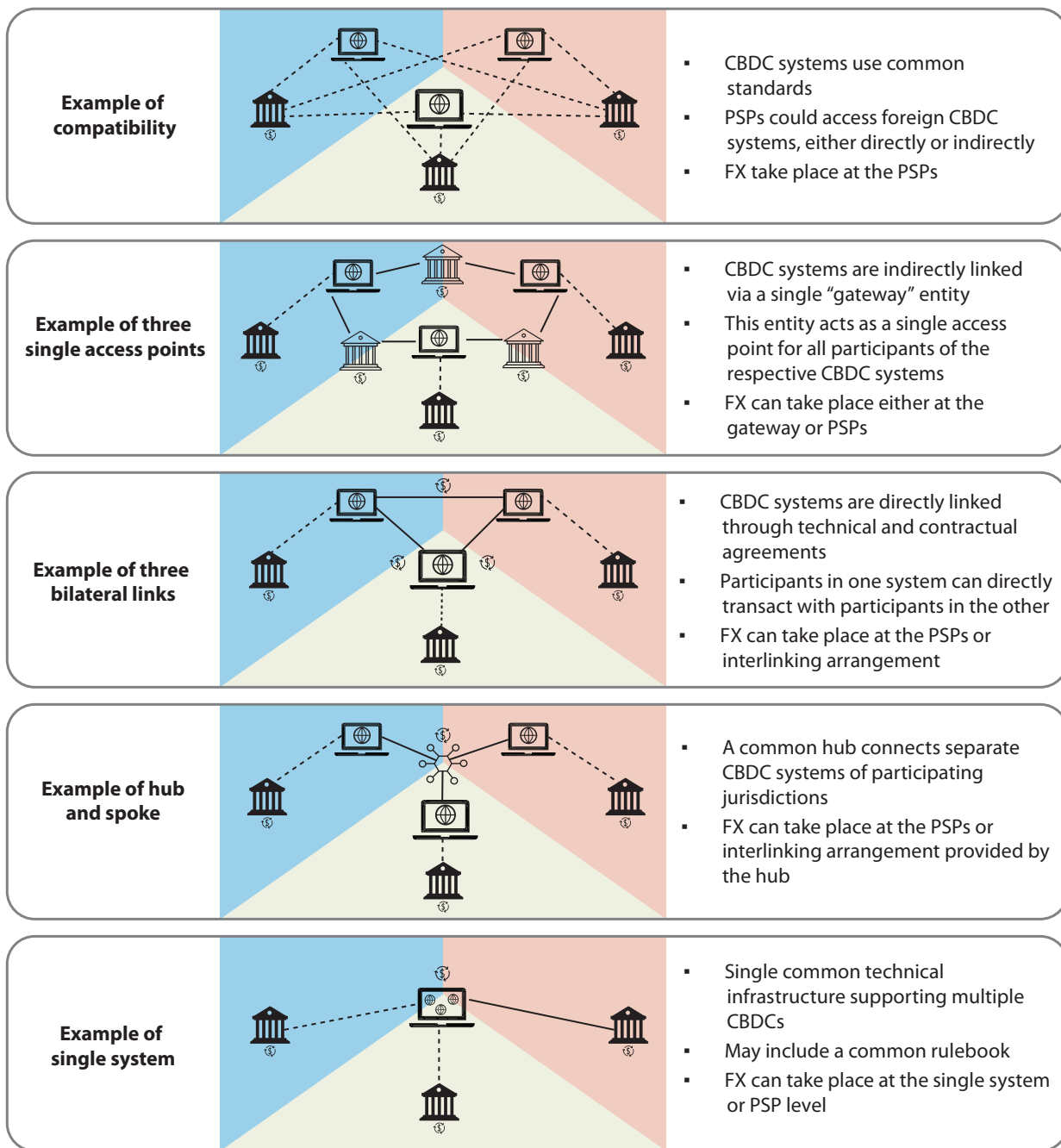
High-level models of interoperability and interlinking of CBDC systems



Source: BIS et al. 2022.

Figure III.F.16

Key features of interoperability and interlinking of CBDC systems



Jurisdiction A Jurisdiction B Jurisdiction C

Source: BIS et al. 2022.

Box III.F.2
Central bank digital currencies in Asia and the Pacific

An increasing number of central banks in Asia and the Pacific are exploring the issuance of CBDCs. Currently, at least 30 central banks in the region are either in the research, proof of concept or pilot stage.^b Central banks in countries such as Australia, China, India, Japan, Malaysia and Thailand are exploring more than one CBDC. In China, the central bank began pilot testing for the digital yuan in late 2019. As of end-August 2022, the digital yuan trial had reached almost \$14 billion in transaction value through 360 million transactions.^c

Several Asia-Pacific central banks have established dedicated CBDC units.^d The Bank of Korea has set up a new unit to work on CBDC research and technology as well as a task force to review the impacts of CBDC issuance on its mandates. Bank Indonesia has also formed a group to study CBDC technology. Meanwhile, CBDC work at the Monetary Authority of Singapore is supported by working groups comprising staff and representatives from the financial industry and blockchain ecosystem. The Fintech Facilitation Office within the Hong

Kong Monetary Authority coordinates a joint CBDC project with the Bank of Thailand.

Central banks in Asia and the Pacific need to be clear about their own objective(s) for issuing CBDCs and consider whether non-CBDC options could better meet those objectives. There are also considerations on operational issues, such as legal and governance frameworks and availability of relevant market infrastructure. In many Asia-Pacific economies, central bank laws still do not allow the issuance of currency in a digital format or individuals to open deposit accounts with the central bank. Central banks in less developed or smaller economies in Asia and the Pacific might benefit from multilateral cooperation in areas such as regional payment and settlement systems.

- a Based on UN/ESCAP. 2022. *Economic and Social Survey of Asia and the Pacific 2022*.
- b CBDC Tracker (<https://cbdctracker.org/>).
- c “China’s digital currency passes 100 bln yuan in spending – PBOC”. Reuters, 13 October 2022.
- d See Bangko Sentral ng Pilipinas (BSP). 2021. *Central Bank Digital Currency for the BSP: Fundamentals and Strategies*. Manila.

currencies. In principle, technological tools make it possible to embed some capital flow management measures into the design of CBDCs, though this has not yet been tested in practice. This may allow central banks to strike a better balance between efficiency gains and risk reduction.⁸⁰

5. Global governance and policy coherence

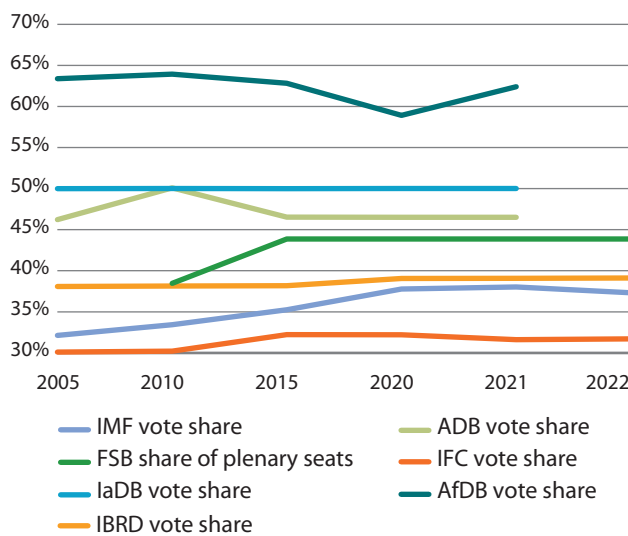
5.1 Governance at international institutions and standard-setting bodies

The representation of developing countries in international financial institutions, regional development banks and standard-setting bodies has remained largely unchanged in recent years. The Addis Ababa Action Agenda includes commitments to governance reforms in international bodies and to the open, transparent, gender-balanced and merit-based selection of the heads of international financial institutions. These commitments have since been frequently reiterated. Some improvements to voting rights can be seen between 2005 and 2015, especially at the IMF (see figure III.F.17). However, major developed countries continue to hold de facto veto powers in the decision-making bodies of these institutions. Several standard-setting bodies have seen declining representation of developing countries in their highest decision-making bodies (see figure III.F.18). Developed countries remain predominant, as most of these bodies were set up by the national regulatory and supervisory authorities in developed countries. The World Bank will choose a new president in the first half of 2023.

An IMF quota review to be completed in 2023 provides an opportunity to meet the commitments in the Addis Agenda for greater representation of developing countries. The ongoing IMF Sixteenth General Review of Quotas should be concluded no later than 15 December 2023. In 2019, when it was clear that the fifteenth general review would be

concluded with no agreement on changed quotas, the International Monetary and Financial Committee stated: “Any adjustment in quota shares would be expected to result in an increase in the quota shares of dynamic economies in line with their relative positions in the world economy and

Figure III.F.17
Representation of developing countries in international institutions, 2005–2022
(Percentage of voting rights or members)

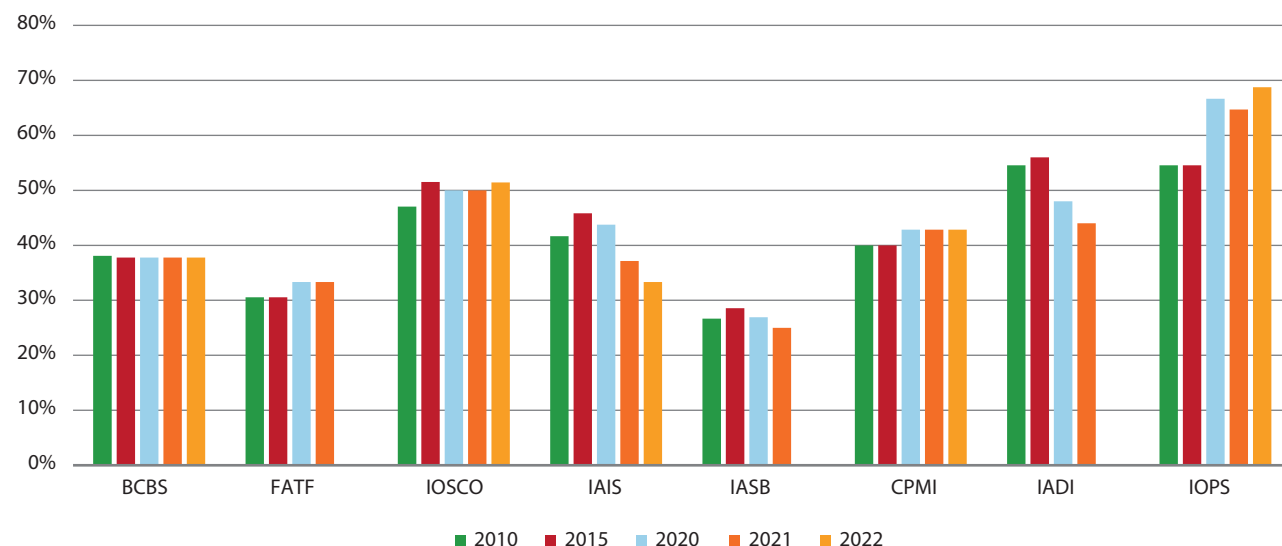


Source: UN/DESA.
Note: The International Monetary Fund (IMF), International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), Asian Development Bank (ADB), African Development Bank (AfDB), Inter-American Development Bank (IADB) show the percentage of voting rights. The Financial Stability Board (FSB) does not have voting rights, and thus data shows the number of seats at the plenary. All data is categorized according to the historical M49 classification of developed and developing regions.

Figure III.F.18

Representation of developing countries in standard-setting bodies, 2010–2022

(Percentage of voting rights or members)

**Source:** UN/DESA.

Note: The main international SSBs include the Basel Committee on Banking Supervision (BCBS) for standards on banking regulation; the Financial Action Task Force (FATF) for standards on combating money laundering, terrorist financing and other related threats to the integrity of the international financial system; the International Organization of Securities Commissions (IOSCO) for standards on securities regulation; the International Association of Insurance Supervisors (IAIS) for standards on insurance industry regulation and supervision; the International Accounting Standards Board (IASB) for accounting standards; the Basel Committee on Payments and Market Infrastructures (CPMI) for standards on payment, clearing, settlement systems and related arrangements; the International Association for Deposit Insurers (IADI) for deposit insurance standards; and the International Organisation of Pensions Supervisors (IOPS) for pension regulation. Basel Committee on Banking Supervision (BCBS) had no developing country members in 2005; and IOSCO and IOPS do not have data before 2010.

hence likely in the share of emerging market and developing countries as a whole, while protecting the voice and representation of the poorest members.”⁸¹ Following the major revision of voting rights in the International Development Association in 2021, the World Bank is now considering an evolution roadmap to adjust its mission and operational and financial model (see chapter III.C). Any agreed increases to the World Bank’s capital structure, such as called for under the United Nations Secretary-General’s proposed SDG Stimulus, also present an opportunity to adjust the governance of the institution to increase the voice of developing countries. A World Bank shareholding review was previously set to take place in 2025.

5.2 Improving coordination and policy coherence

Institutional coordination has improved since 2015 but there are risks of global geoeconomic fragmentation. The Addis Ababa Action Agenda broadened long-standing calls for increased coherence of the international financial, monetary and trading systems to cover a wider range of policy areas across all three dimensions of sustainable development. It also called on development finance institutions to align their business practices with the 2030 Agenda for Sustainable Development and the SDGs.

Enhancing coherence will require strengthened multilateralism and new forms of global cooperation which bring together different policy communities and give voice to the most vulnerable. This Task Force has already advanced institutional cooperation among international organizations. However, conflict and geopolitical rivalries are threatening the effectiveness of multilateralism.⁸²

The United Nations continues to provide a fully inclusive and legitimate forum for addressing global challenges. It constitutes a body of governments that convenes with relevant stakeholders across multiple domains and is uniquely placed to move forward coherent reforms to the international architecture that enhance coordination and alignment with the SDGs. The United Nations Secretary-General has already published some proposals for systemic reforms to address a wide set of global challenges and is preparing a more comprehensive proposal for financial architecture reform. As the half-way point towards the 2030 Agenda, 2023 will be a critical year with the United Nations set to host the High-Level Dialogue on Financing for Development, a Climate Ambition Summit and an SDG Summit in September. These discussions will be opportunities to deliver on the ambitious structural reform agendas set out in this report.

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