



Report

External shock financing and economic development

Implications for future reforms to the global financing architecture

Sherillyn Raga

February 2024



Readers are encouraged to reproduce material for their own publications, as long as they are not being sold commercially. ODI requests due acknowledgement and a copy of the publication. For online use, we ask readers to link to the original resource on the ODI website. The views presented in this paper are those of the authors and do not necessarily represent the views of ODI or our partners.

This work is licensed under CC BY-NC-ND 4.0.

How to cite: Raga, S. (2024) 'External shock financing and economic development: Implications for future reforms to the global financing architecture' ODI Report. London: ODI (<https://odi.org/en/publications/external-shock-financing-and-economic-development-implications-for-future-reforms-to-the-global-financing-architecture>)

Photo credit: ArtBackground/Shutterstock

Acknowledgements

The author would like to thank Mark Miller for his valuable insights and contributions in shaping the direction of this report, and Annalisa Prizzon, Dirk Willem te Velde, Kevin Gallagher and Mark Flanagan for their useful comments on earlier drafts. The author is also grateful for the excellent research assistance extended by Derrick Abudu, Jessica Pudussery and David Rosenfeld. This paper benefited from the financial support of the Bill and Melinda Gates Foundation (BMGF). The views presented in this publication are those of the authors and do not necessarily represent the views of BMGF or ODI.

Underlying data utilised for the analysis in this report were collected between October 2022 and July 2023 and are available upon request. Comments are welcome to s.raga@odi.org.uk

About the author

Sherillyn Raga is a Research Fellow at ODI. She specialises in macroeconomics and financial development research. Prior to joining ODI, Sherillyn worked at the Bangko Sentral ng Pilipinas, the International Monetary Fund and the Asian Development Bank.

Key messages

- Large and overlapping global shocks result in disproportionate scarring effects for low- and middle-income countries (L&MICs). In many L&MICs where policy space is constrained, affordable external financing plays a significant role in shock management and recovery.
- The global shock financing architecture can help preserve growth and development by providing a combination of precautionary lines for liquidity, shock financing to augment government resources and secure financial flows, and long-term financing for productive investment. Nevertheless, the responsibilities of financing institutions and actors have become fragmented over time, with some financing facilities becoming elusive for many L&MICs.
- Based on an evaluation of International Monetary Fund (IMF) and World Bank financing during the recent global crises, this paper finds that the scale of financing (net flows) has fallen short compared with needs and in proportion to these institutions' lending capacity. The IMF's deployment of resources to respond to COVID-19 was faster than that of the World Bank, enabled by increasing its access limits for emergency financing. LIC take-up of multilateral financing was higher than that of MICs, shaped by multiple factors such as eligibility criteria, alternative financing sources and conditionalities.
- Potential implications for future reforms to the global financing architecture include securing sustained commitment to reach the needed scale of financing for LICs; automatically activating emergency financing without conditionalities during global shocks; expanding precautionary lines and debt relief mechanisms; and coordinating efforts to find synergies among shock financing instruments for short-term stabilisation and the safeguarding of growth and resilience.

Contents

Acknowledgements / i

Key messages / ii

Display items / iv

Acronyms / vi

Executive summary / 1

1 Introduction / 5

2 The relationship between external shock financing and economic development / 7

2.1 What are external shocks? / 7

2.2 Types of external shocks and the role of external finance in resilience / 7

2.3 Evidence on the impacts of external financing on growth / 12

3 Evolution of the external shock financing architecture / 18

3.1 Typology of shock financing / 18

3.2 Precautionary arrangements, or ‘safety nets’ / 19

3.3 Shock response financing / 21

3.4 Post-shock reconstruction financing and investment / 23

4 Performance of external shock financing during recent crises / 25

4.1 The scale of financing / 25

4.2 Speed of response / 33

4.3 Eligibility for and take-up of shock financing / 35

4.4 Conditions of financing / 41

5 Conclusions and implications for future reforms to the global financial architecture / 46

Appendix 1 Overview of IMF financing sources, facilities and instruments / 49

Appendix 2 World Bank shock financing facilities and instruments / 52

Appendix 3 IMF PRGT and IDA replenishment funding sources / 57

References / 62

Display items

Boxes

Box 1 How the shock of the Russia–Ukraine war has affected the Ghanaian economy / 11

Figures

Figure 1 Transmission channels of the impact of the Russia–Ukraine war and its spillover effects / 8

Figure 2 Fiscal policy response to COVID-19 (% of 2020 GDP) / 10

Figure 3 External shock financing architecture / 18

Figure 4 Global financial safety net resources, 1995–2020 (\$ billions) / 19

Figure 5 L&MICs: net debt flows (\$ billions) / 26

Figure 6 Financial flows to and from IMF members (\$ billions) / 27

Figure 7 SDR allocation and growth impact of recent crises / 28

Figure 8 2021 SDR allocation by income group / 29

Figure 9 Financial flows to and from World Bank members (\$ billions) / 30

Figure 10 IDA financing: commitments vis-à-vis disbursement / 31

Figure 11 Monthly financial flows to and from IMF members (\$ billions) / 33

Figure 12 Monthly World Bank project approvals (\$ billions) / 34

Figure 13 IMF and World Bank disbursements by GDP growth losses from pre-COVID projections / 35

Figure 14 IMF country disbursements by pre-existing exports and reserves / 36

Figure 15 IMF and World Bank disbursements by GDP per capita / 36

Figure 16 Volume of IMF lending, PRGT and GRA gross disbursements: pre- and post-crisis (\$ billions) / 37

Figure 17 Volume of World Bank lending, IDA and IBRD gross disbursements: pre- and post-crisis (\$ billions) / 37

Figure 18 IMF disbursements vis-à-vis annual access limits (median country, % of quota) / 39

Figure 19 SDR utilisation rate / 40

Figure 20 IMF net financial flows by selected facility* (\$ billions and % share) / 42

Figure 21 IMF and World Bank disbursements to current G20 Common Framework applicants (% of GDP) / 44

Figure 22 World Bank commitment by lending category (% share of annual commitment) / 45

Figure A3.1 PRGT borrowing arrangements / 57

Figure A3.2 PRGT subsidy contributions and pledges / 58

Figure A3.3 IDA replenishment (\$ billions) / 59

Figure A3.4 IDA donor contributions and the structural financing gap / 60

Tables

- Table 1** Domestic policy tool options to address aggregate demand shocks / 9
- Table 2** Shocks, transmission channels and growth impacts in L&MICs / 13
- Table 3** Recent evidence on the impact of IMF financing on macroeconomic variables / 16
- Table 4** Financing flows to different income groups / 32
- Table 5** COVID-19-related IMF financing and World Bank projects, 2020-2021 / 38
- Table A1.1** IMF lending facilities / 50
- Table A2.1** World Bank financing facilities and instruments / 54
- Table A3.1** 2021 PRGT subsidy fundraising target: pledges vs proposed contributions / 59

Acronyms

ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
BIS	Bank for International Settlements
BMGF	Bill and Melinda Gates Foundation
BoP	balance of payment
BSL	bilateral swap line
CAT-DDO	Catastrophe DDO
CCRT	Catastrophe and Containment Relief Trust Fund
CERC	Contingent Emergency Response Component
CRW	Crisis Response Window
DDO	Deferred Drawdown Option
DFI	development finance institution
DPF	Development Policy Financing
DPL	Development Policy Loan
DRMK	Disaster Risk Management Knowledge Centre
DSSI	Debt Service Suspension Initiative
ECB	European Central Bank
ECF	Extended Credit Facility
EFF	Extended Fund Facility
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
EU	European Union
FCL	Flexible Credit Line
FDI	foreign direct investment
FTCF	Fast Track COVID-19 Facility
FY	fiscal year
GDP	gross domestic product
GFC	global financial crisis
GIFF	Global Index Insurance Facility
GRA	General Resources Account
HICs	high-income countries
IBRD	International Bank for Reconstruction and Development
ICSID	International Centre for Settlement of Investment Disputes
IDA	International Development Association
IDS	International Debt Statistics
IFC	International Finance Corporation

IFI	international financing institution
IMF	International Monetary Fund
IPF	Investment Project Financing
Lao PDR	Lao People's Democratic Republic
LIA	Lending into Arrears
LICs	low-income countries
L&MICs	low- and middle-income countries
LMICs	lower-middle-income countries
MDB	multilateral development bank
MIGA	Multilateral Investment Guarantee Agency
OECD	Organisation for Economic Co-operation and Development
MICs	middle-income countries
MPA	Multiphase Programmatic Approach
NDB	New Development Bank
PEF	Pandemic Emergency Facility
PforR	Program-for-Results
PLL	Precautionary and Liquidity Line
pp	percentage point
PRGT	Poverty Reduction and Growth Trust
RCF	Rapid Credit Facility
RFA	regional financing arrangement
RFI	Rapid Financing Instrument
RSF	Resilience and Sustainability Facility
SBA	Stand-by Arrangement
SCF	Stand-by Credit Facility
SDG	Sustainable Development Goal
SDRs	Special Drawing Rights
SLL	Short-Term Liquidity Line
SPRP	Strategic Preparedness and Response Program
UK	United Kingdom
UMICs	upper-middle-income countries
UN	United Nations
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
US	United States
WDI	World Development Indicators
WEO	World Economic Outlook

Executive summary

Large and overlapping global shocks can destroy national wealth and result in persistent output losses, ultimately derailing the growth and development trajectories of low- and middle-income countries (L&MICs)¹. The magnitude and persistence of shock impacts vary depending on countries' exposure and resilience to the shock. Domestic policies can play a role but, in many L&MICs where domestic resources are limited and policy space is constrained, affordable external financing plays a significant role in shock management and recovery.

A global shock financing architecture plays an important role in preserving growth and development in a shock-prone world. Based on this paper's scan of the literature, such an architecture can be a source of three types of complementary financing. One involves precautionary arrangements for quick liquidity access to address financial market and exchange rate volatility and emerging balance of payment (BoP) pressures, mitigating the cost of a full-blown crisis. The second refers to shock financing instruments to augment the financial resources available for mitigating the impact of the shock, as well as to fill the gap generated through lower net financial flows and expensive borrowing costs associated with the pro-cyclical nature of external private finance during crises. The third involves longer-term financing to support recovery through a combination of medium-term assistance to address macro-fiscal vulnerabilities and long-term financing to support investment to bolster productive growth and development.

Responsibilities of actors in the global financial architecture have become fragmented over time. Most high-income countries (HICs) have established precautionary arrangements, dominated by bilateral swap lines (BSLs) with the Federal Reserve. China's BSLs are also growing, although these remain largely limited to borrowers from the Belt and Road Initiative. Historically, the International Monetary Fund (IMF) focuses on short- to medium-term financing for crisis management, with the World Bank and other multilateral development banks (MDBs), including regional development banks, looking more to long-term development financing. In recent years, however, the separation of roles between the IMF and the MDBs has become blurred. For instance, the IMF has created a facility offering long-term financing to address climate challenges – an area that traditionally came within the scope of MDB financing. Meanwhile, the World Bank has increasingly been extending shorter-term budget support during crises.

To evaluate the performance of shock financing mechanisms during crises, this paper analyses IMF and World Bank financing in the context of COVID-19 and the Russia–Ukraine war (2020–2022). It finds some useful innovations but also some persistent challenges.

The IMF and World Bank were quick to announce a scale-up of financing in response to the pandemic but actual net flows to L&MICs fell short of countries' financing needs. The IMF announced that it was ready to mobilise its lending capacity of \$1 trillion to help its member countries

¹ Throughout this paper, L&MICs refer to low- and middle-income countries and LMICs to lower-middle-income countries.

during the pandemic (IMF, 2020a) but net flows from the IMF to L&MICs totalled only \$45 billion in 2020. This represents only 4.5% of the IMF's \$1 trillion lending capacity. As for the World Bank, net disbursements to L&MICs stood at \$27 billion in 2020. Broadly, combined net financing from the IMF and the World Bank at the peak of the pandemic in 2020 stood at 2.8% of low-income countries' (LICs') gross domestic product (GDP) and 0.6% of lower-middle-income countries' (LMICs') GDP, significantly lower than growth losses as a result of the pandemic, by 6 and 9 percentage points for LICs and LMICs in 2020, respectively. IMF and World Bank financing slowed in 2021 but picked up again in 2022 in the context of the Russia–Ukraine war.

The IMF exhibited a speedier response than the World Bank at the onset of the pandemic. The IMF's net financing in April 2020 alone comprised 32% and 39% of annual 2020 disbursements from its General Resources Account (GRA) and Poverty Reduction and Growth Trust (PRGT), respectively. Meanwhile, project approvals from the World Bank in 2020 did not peak until June 2020 and were not significantly different from the seasonal pattern of increasing World Bank project approvals towards the end of its fiscal year (May/June).

Uptake among IMF and World Bank financing was much higher in LICs relative to middle-income countries (MICs) at the peak of the pandemic, reflecting the reliance of the former on multilateral financing during crises. More than 70% of eligible LICs accessed the IMF's PRGT and World Bank International Development Association (IDA)/blend financing in 2020 but the take-up rate of MICs (and HICs for the IMF) was lower, at 23% and 38% for IMF GRA and World Bank International Bank for Reconstruction and Development (IBRD) financing, respectively.

Nevertheless, median MICs significantly increased IMF borrowing and moved closer to access limits in 2020 before tapering off in 2021.

Multiple factors can influence the take-up of shock financing from the IMF and the World Bank, including ex-ante eligibility criteria, availability of alternative resources and conditionalities. For instance, Zimbabwe's pre-Covid classification of being in debt distress significantly constrained its access to external financing from official sources in 2020. Tuvalu did not avail itself of financing from the IMF or the World Bank but secured a grant from the Asian Development Bank (ADB) worth 7.2% of GDP in 2020. Lao PDR, Türkiye and Sri Lanka did not avail themselves of IMF financing during the pandemic but have drawn resources worth 1.6%, 1.8% and 0.7% of GDP, respectively, from their BSLs with China. Countries are also less likely to avail themselves of financing with stringent conditionalities.

The IMF exhibited flexibility by temporarily increasing access limits on rapid financing instruments without conditionalities during the pandemic; the World Bank was less flexible. Between 2020 and 2021, the IMF increased access limits on its rapid financing instruments without ex-post conditionalities. This may have encouraged take-up, resulting in this instrument comprising 61% of approved IMF loans in 2020 compared with a 3.3% share in 2019. In contrast, while the share of the World Bank's relatively fast-disbursing instrument (in the form of budget support through development policy financing) increased in FY2019 and FY2020, conditionalities were attached to this financing, mostly oriented to longer-term reforms, which may be difficult to implement in times of crisis.

The above findings highlight the importance **of treating shock financing as development financing,** since multiple and large shocks, if not

mitigated in a timely manner, can have lasting consequences for growth and development. In this context, the following are possible implications for future reforms to the global shock financing architecture.

1. Addressing funding constraints to scale up financing, especially for LICs.

Voluntary contributions, mostly from HICs, are the main funding sources for dedicated IMF PRGT and World Bank IDA facilities for LICs. In recent years, some of the traditional top donors have contributed less than they have historically (e.g., the US and Germany to PRGT subsidy resources; the UK, Germany and France to IDA replenishment). As L&MICs are expected to have deeper scarring effects from recent shocks, sustained commitment from HICs to these facilities is needed to narrow the gap and enable more equitable shock recovery.

2. Automatically activating higher access to emergency funding without conditionality in global shock and protracted crisis scenarios.

The IMF's design and implementation in temporarily increasing access to its rapid financing facilities during the pandemic provided lessons on how to quickly disburse resources to member countries at times of crisis. Uptake was also high, given that these instruments do not have attached conditionalities. In the context of overlapping external shocks, maintaining higher access to emergency funding until the global economy recovers to the pre-crisis growth path may be warranted.

3. Extending precautionary arrangements to LICs and LMICs, which could be a potential powerful tool to mitigate the escalation of crisis impacts. Precautionary arrangements and BSLs enable quick access to liquidity when capital market sources become inaccessible or expensive during crises. However, these arrangements mostly involve only HICs and

a few MICs. In addition, IMF precautionary lines are reserved for those with very strong economic fundamentals (mostly MICs/HICs), which may partly explain the lower rate of drawdowns. There is a need to expand access to flexible precautionary arrangements and BSLs to LICs and LMICs, which suffer more from capital outflows and sharp exchange rate volatilities in times of shock and global financial tightening. For the IMF, this may mean a careful review of the extent to which precautionary lending with less strict ex-ante requirements could be extended to more countries in times of shock while safeguarding IMF resources.

4. Utilising debt relief mechanisms for crisis management and shock recovery.

Debt relief can be an instrument for crisis prevention and management (e.g., as resources are channelled to mitigate the impact of the crisis in the short term) and economic recovery (e.g., as debt restructurings allow room for long-term public investment in more productive activities). At the global level, there is a need to think about automatically extending Debt Service Suspension Initiative-type instruments in the context of protracted crisis and addressing the bottlenecks to progressing the G20 Common Framework for Debt Treatment. Financing institutions may also need to innovate in terms of instruments and funding strategies for debt relief during crises. Efforts may include incorporating pause clauses into debt repayments and expanding resources for financing facilities that provide grants for debt servicing during growth recessions and prolonged debt restructuring negotiations.

5. Coordinating the efforts of financing institutions to increase the effectiveness of and synergies among shock financing instruments. The current shock financing system is fragmented. HICs have established precautionary arrangements. Multilateral

institutions step up shock financing during crises but efforts are less coordinated on how financing instruments can be more flexible (e.g., in terms of ex-ante requirements and conditionalities) and sustained according to country recipients' financing needs for lasting recovery. Temporary debt relief is not sufficient but existing debt treatment mechanisms have

been extremely slow to progress. Financing institutions need to actively consider funding strategies and design complementary financing instruments to enable countries to prevent and address short-term macro-fiscal imbalances while also safeguarding financing flows for public investment to support productive growth and climate resilience.

1 Introduction

External shocks can have profound short- and long-term implications for growth and development in low- and middle-income countries (L&MICs). For instance, at the peak of the COVID-19 pandemic in 2020, halted global and domestic economic activities and demand led to a substantial loss in employment, a reduction in the trade of goods and services, a fall in government revenues amid increased spending pressures to mitigate the impact of COVID-19 and growing public debt in L&MICs. Millions were pushed into poverty, women and youth were disproportionately affected and inequalities widened (e.g., between those who could and could not adapt to digital working and learning; between countries with and without access to vaccines). Low-income and emerging economies are expected to suffer more persistent damage ('scarring effects') to their supply potential from COVID-19 than are advanced economies (IMF, 2021a).

In response to the pandemic, substantial liquidity and lending support was activated by the international financial institutions (IFIs) and development banks, and by governments and central banks with pre-existing policy space. However, by early 2022, trade disruptions from the Russia–Ukraine war contributed to increases in global prices of commodities, accelerating inflation worldwide. In response, high-income countries (HICs) increased their policy rates, with important spillover effects on capital outflows and higher borrowing costs for many L&MICs. The impacts of the compounding shocks of COVID-19 and the Russia–Ukraine war have hurt LICs' growth prospects the most, given their depleted policy space, persistent inflation, higher risks of debt distress and climate change vulnerabilities.

As external shocks are becoming more frequent and systemically damaging, the discussion on the role of the global financial architecture in preserving the growth and development paths of L&MICs has never been more important. Calls for reforms have emerged on different fronts and at different speeds. Discussions on reforms to the multilateral development banks (MDBs) to unlock more development finance have been relatively lively in recent years. The G20 initiated an independent review of MDBs' capital adequacy framework in 2022, and by July 2023 had developed a roadmap to implement the recommendations for this. Several global independent think tanks are also advancing such calls for MDB reform (see Chakrabarti et al., 2022). There have been calls from the G7 (2021) and the G20 (2022) for a rechanneling of International Monetary Fund (IMF) Special Drawing Rights (SDRs) from countries with a strong external position to poorer and vulnerable countries. Meanwhile, African ministers are calling for more rule-based reforms in the SDR system, including on triggers related to increasing SDR allocations and changing the SDR allocation formula to account for both liquidity needs and IMF quotas (UNECA, 2023). Meanwhile, the Bridgetown Agenda calls for the reform of the global financial architecture not only to respond to immediate crises but also to support climate action and efforts to achieve the Sustainable Development Goals (SDGs).

While recent calls for reform aim to increase or direct more resources to lower-income countries and climate finance, there has been relatively less discussion on the overall shock financing architecture. While IFIs typically step up their financial assistance to member countries in times of crisis, there are persistent challenges related

to the predictability of the scale and speed of financing, as well as the appropriateness of eligibility requirements and conditionalities in such contexts.

Against this backdrop, this paper aims to understand the role that external shock financing can play in addressing the adverse impacts of external shocks in L&MICs. It begins by putting into context the importance of external shocks to economic growth and development (Section 2). Section 3 then maps out existing external shock

financing facilities and instruments, including their main purposes and characteristics as well as the key organisations that operate them. Section 4 assesses how these mechanisms have performed during recent crises based on empirical evidence from the literature, and provides an analysis of IMF and World Bank lending in response to the shocks from the COVID-19 pandemic and, to some extent, the Russia–Ukraine war. Section 5 concludes with lessons learned and implications for the future reforms to the global shock financing architecture.

2 The relationship between external shock financing and economic development

This section first provides an overview of the main characteristics and types of external shocks (including global systemic shocks). It then presents evidence from the literature on transmission channels as well as mitigating and exacerbating factors related to the external shock impact on growth. Finally, it highlights the role of external finance in mitigating the short- and long-term growth and development impacts of external shocks in L&MICs.

2.1 What are external shocks?

Economic shocks are generally characterised as large and unexpected events that have significant negative effects on growth, inflation, employment and overall macroeconomic stability.

Shocks may be classified by their domestic (or endogenous) and external (or exogenous) origin. Endogenous shocks are induced within the country's economic system (e.g., by poor economic management, political instability, conflict), whereas external shocks are sudden events that are beyond the influence of domestic policies and institutions (e.g., sharp fluctuations of global commodity prices). This paper focuses on external shocks, including those that are triggered by global systemic shocks, as discussed below.

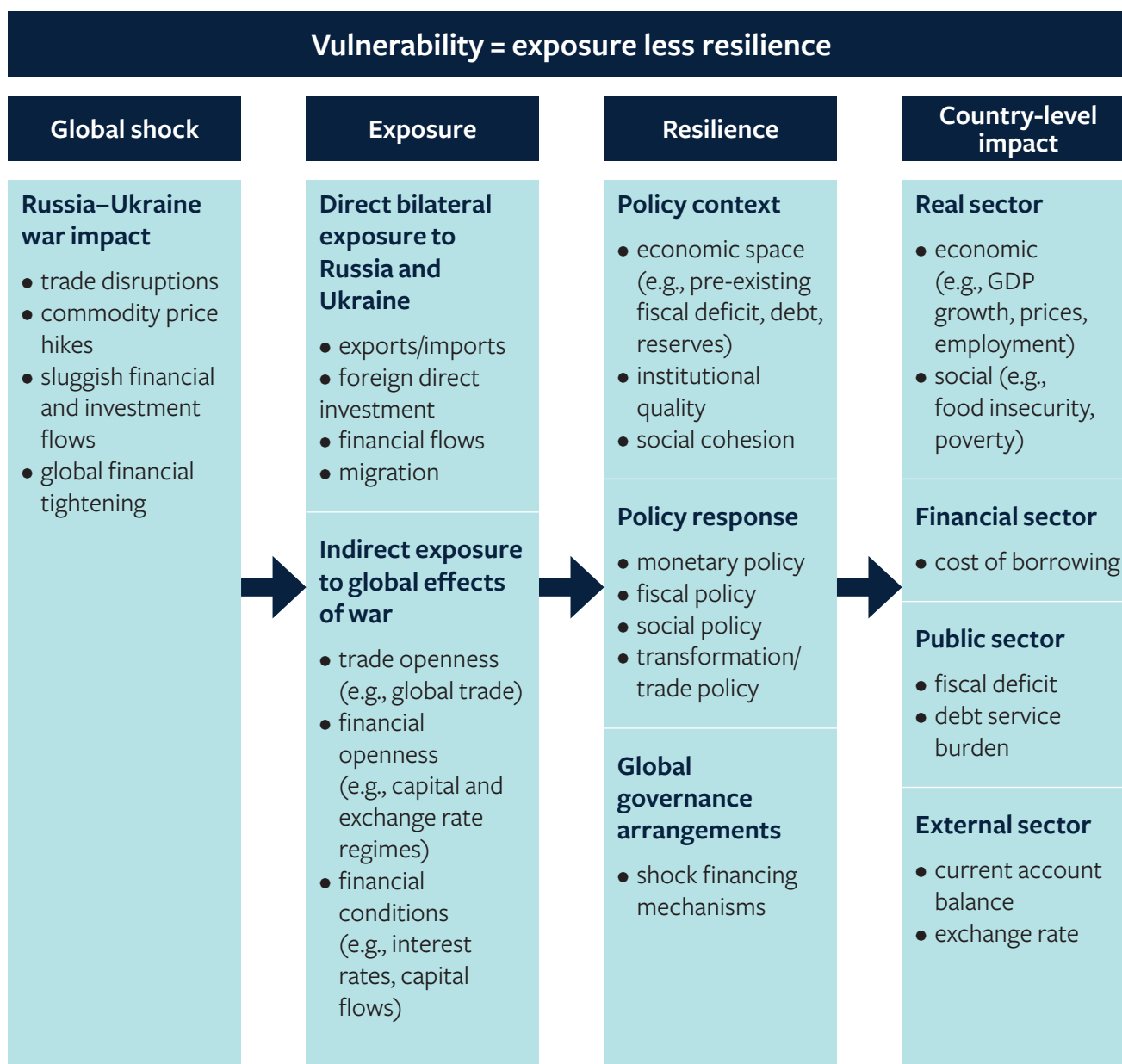
2.2 Types of external shocks and the role of external finance in resilience

There is a vast literature on the economic impacts of different types of external shocks, including:

- terms of trade shocks, such as a sharp drop in the prices of a country's major exports, or sharp increases in the prices of a country's major imports
- natural disasters, such as droughts, floods, earthquakes and storms. Climate change may also contribute to the increasing frequency of natural disasters
- conflict in neighbouring countries, typically characterised by intense armed conflict, resulting in battle-related deaths, displacement and cross-border migration of refugees
- health crises owing to disease outbreaks and epidemics
- changes in financial conditions, often driven by abrupt policy changes (e.g., an increase in US interest rates) or business cycles in major economies (e.g., a downturn in the US or China) or capital flight from L&MICs owing to investor risk averseness typically triggered by global financial conditions or negative domestic shocks
- global systemic crises, characterised by severe trigger events (e.g., economic and financial stress, pandemics, cyber risks, etc.) that typically originate from large and/or integrated economies, affecting economic agents in a large number of countries usually over a short period (IMF, 2011; OECD, 2011; World Bank 2017). The most common recent examples are the global financial crisis (GFC) of 2008–2009 and the COVID-19 pandemic.

Figure 1 provides a simplified framework of how external shocks translate to impacts at the country level depending on the exposure and resilience of the country.²

Figure 1 Transmission channels of the impact of the Russia–Ukraine war and its spillover effects



Source: Author

² ODI developed similar frameworks in various analyses during the GFC (ODI, 2010), COVID-19 (Raga and te Velde, 2020), Russia-Ukraine war (Raga and Pettinotti, 2022; Raga et al., 2024). This framework is also similar to those being utilised by international organisations such as the Asian Development Bank (ADB, ESCAP and UNDP, 2010), the IMF (Briguglio, 2016), the Commonwealth Secretariat (2021), the UN (Guillaumont and Wagner, 2021; UN, 2022) and the European Commission (DRMK, 2023), as well as the wider academic literature (e.g., Diop et al., 2021).

Exposure relates to the extent to which an economy is vulnerable to a particular type of shock. Certain countries are particularly exposed to certain types of shocks. For instance, countries on tectonic plates are exposed to earthquakes. Similarly, one could think of countries being particularly exposed to certain kinds of economic shock as a result of their economic structure (e.g., exposure to sudden changes in particular commodity prices). An economy's exposure to certain shocks is not fixed but it might be difficult to change in the short term.

Resilience relates to how well-placed countries are to respond to shocks, thereby reducing their overall vulnerability and minimising the impact of the shock. Resilience is a function of national

policies and institutions but also international governance arrangements.

At the national level, countercyclical measures can mitigate the impacts of adverse external shocks. This was evident during the COVID-19 crisis when government support was found to be successful in reducing the failure rate of small and medium enterprises, modestly offsetting a proportion of the decline in real output owing to COVID-19 and preserving employment in demand-constrained sectors (Gourinchas et al., 2021). Table 1 presents examples of domestic fiscal, monetary and trade policy tools available to a small open economy with policy space to stimulate dampened aggregate demand arising as a result of an external shock.

Table 1 Domestic policy tool options to address aggregate demand shocks

Fiscal policy	Monetary and financial policy	Trade policy
<ul style="list-style-type: none"> ● increased government investment and consumption expenditures ● lump sum transfer payments ● tax cuts or relief for labour, consumption and corporate income ● additional public borrowing for unexpected increases in public financing 	<ul style="list-style-type: none"> ● lowering policy rates ● lowering bank capital requirements and easing regulatory requirements to encourage lending ● extending specific financing facilities to targeted affected sectors ● relevant foreign exchange intervention and capital flow management 	<ul style="list-style-type: none"> ● lowering technical and non-technical barriers to trade ● trade facilitation, integration (e.g., via free trade agreement or cooperation) ● targeted assistance facilitation of affected sectors (e.g., in the case of specific terms of trade shock)

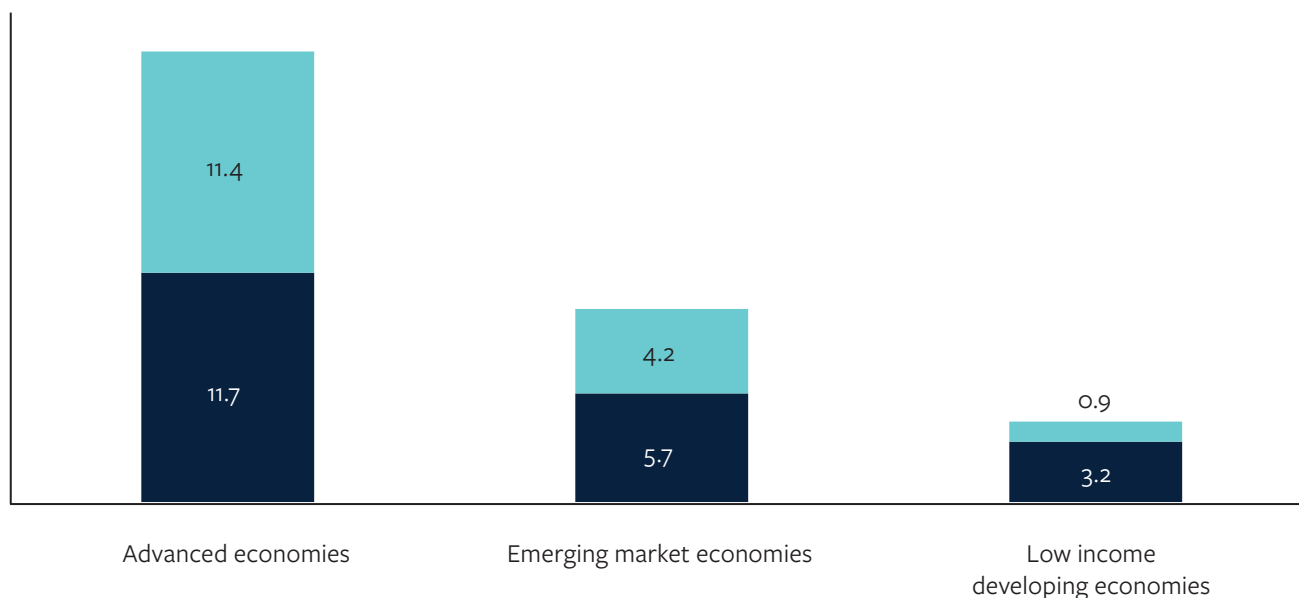
Source: Author

National policy responses are ultimately enabled by 'policy space,' which is the ability of the government to make extra or to reorder its expenditures, or to access additional financing at a reasonable cost (Horton and El-Ganainy, nd). Policy space is closely linked to economic characteristics, for instance,

a country's fiscal and debt constraints or levels of foreign currency reserves. During the pandemic, LICs exhibited limited policy space by having much less resourcing for their rescue packages compared with in higher-income countries (Figure 2).

Figure 2 Fiscal policy response to COVID-19 (% of 2020 GDP)

■ Additional spending and forgone revenue ■ Equity, loans, and guarantees



Notes: Estimates as of 27 September 2021. Fiscal measures include resources allocated or planned in response to COVID-19 since January 2020 for implementation in 2020, 2021 and beyond.

Source: IMF (2021j)

International policies, multilateral governance tools or bilateral initiatives can have a bearing on resilience and the policy space national policy-makers enjoy. For instance, the expansion of the US Federal Reserve's swap lines in response to COVID-19 increased the room for other central banks to respond to the shock.

One way in which international policies can affect resilience to crises is through the availability of (either promised or realised) external financing during crises. This is demonstrated by the role of external financing in mitigating the balance of payment (BoP) pressures on a small open economy resulting from the Russia–Ukraine war spillover effects (Box 1 presents Ghana's case). Global commodity price increases have translated to import bills that are higher than export earnings, especially for commodity importers,

making it necessary to borrow to finance wider current account deficits. The subsequent global financial tightening and dollar strengthening have also led to capital outflows and expensive borrowing costs for L&MICs. Without access to external financing, countries will be forced to adjust by controlling imports or cutting government spending, with adverse impacts on consumption and investment.

In addition, persistent capital outflows result in large exchange rate depreciation, particularly in countries with floating exchange rate regimes. This exacerbates macro-fiscal pressures. Sharp depreciations accelerate inflation (through exchange rate pass-through) and increase the domestic cost of foreign-denominated debt. Sharp depreciation may be arrested through foreign exchange intervention if the country has ample

foreign reserves or through higher policy interest rates, though the latter may depress investment and employment. Capital flow management (e.g., foreign exchange rationing, controls on foreign exchange flows) is an option but may induce inefficiencies in resource allocation and lead to the emergence of a parallel exchange rate market.

In the above context, affordable and long-term financing can help relax government financing

constraints and prevent the worsening of the impacts of crises through the direct provision of resources (e.g., as a form of budget support) and increasing foreign reserves to address exchange rate volatility. In addition, under specific circumstances,³ external financing from multilaterals may also improve access to international markets and catalyse private capital flows (Arabaci and Ecer, 2014; Erce and Riera-Crichton, 2015; Krahnke, 2023).

Box 1 How the shock of the Russia–Ukraine war has affected the Ghanaian economy

The direct impacts of the Russia–Ukraine war in terms of global commodity (especially food and fuel) price increases initially benefited Ghana's trade balances through higher prices for its oil and gold exports. However, trade disruptions have created inflationary pressures worldwide, inducing central banks in advanced economies such as the US to increase their policy rates. This has resulted in capital outflows from emerging markets to the US. The increase in global interest rates and the dollar's appreciation have thus led to significant capital outflows from Ghana and depreciation of the cedi exchange rate. Ultimately, capital and financial outflows have offset the benefits in trade balances, resulting in a BoP deficit.

Ghana has limited policy space to address the spillover effects of the war. The initial response was from the central bank: the Bank of Ghana increased policy interest rates to 27% in 2022 from 12.5% in 2021 to arrest inflation. It also implemented foreign exchange interventions to tame the Cedi's depreciation, contributing to declines in foreign reserves to critically low levels (0.6 months of imports) in 2022. However, the effectiveness of Ghana's monetary policy was limited in the context of supply shocks (higher global food prices), large monetary financing of the government and sharp depreciation, pushing inflation to 54.1% in 2022 (compared with 12.6% in 2021) (IMF, 2023e).

On the fiscal side, pre-COVID fiscal and debt vulnerabilities, which were exacerbated during the pandemic, put significant limits on Ghana's capacity to undertake countercyclical measures in 2022. With increasing macro risks and vulnerabilities, Ghana received credit rating downgrades from three major credit rating agencies in 2022, virtually shutting off the country's access to international markets. This has led Ghana to rely on domestic public debt at a higher cost, further increasing its debt vulnerabilities.

3 For example, Krahnke (2023) finds that, while IMF financial assistance catalyses private capital, this effect weakens and can potentially be reversed if the size of the IMF financing exceeds a certain level.

To help stabilise the economy, Ghana sought IMF financing in July 2022. However, the long process involved in securing creditor assurances to support Ghana's debt restructuring meant IMF funding was approved only in May 2023. In between, Ghana announced a restructuring of its domestic debt and interim suspension of external debt payments (December 2022) and subsequently applied to the G20 Common Framework (January 2023), further dampening investor confidence and growth prospects. These feedback effects from macro-financial linkages (real, financial, external and fiscal sectors) have resulted in an acute crisis in Ghana. Between 2020 and 2024, Ghana is estimated to have lost 10 percentage points (pp) of gross domestic product (GDP) growth.

2.3 Evidence on the impacts of external financing on growth

Based on evidence on the recent global shocks discussed above – the GFC, the COVID-19 pandemic and the Russia–Ukraine war – the ultimate impact of shocks at the country level depends not only on the shock and exposure but also on the policy response. In turn, the policy response is also shaped by access to external financing, especially for countries with pre-existing limited policy space. Could the provision of external financing during global and multiple external shocks help dampen scarring effects and prevent acute crises (e.g., macro instability, debt crisis) in L&MICs?

The above external shocks have negatively affected countries' growth outcomes at different magnitudes and levels of persistence, depending on the transmission channels and the mitigating (or exacerbating) factors in place when the crises

hit, as presented in Table 2. For example, terms of trade shocks can negatively affect countries with an export portfolio dominated by commodities, but impacts may be dampened by a deeper banking presence and higher holdings of foreign reserves.

For a systemic shock at the magnitude of the GFC in 2008, lasting impacts in terms of sluggish investment and reduced capital and total factor productivity resulted in slower growth performance that lasted over a decade. Similarly, the global shock from COVID-19 is estimated to have had scarring effects on growth, owing to permanent damage caused by corporate bankruptcies, productivity losses, sluggish investment, slower labour force growth and human capital losses from school closures. In both the GFC and the pandemic crises, output losses were dampened in countries that were able to provide countercyclical policy support (e.g., fiscal stimulus).

Table 2 Shocks, transmission channels and growth impacts in L&MICs

Shock	Transmission channel and factors mitigating/exacerbating the impact on growth	Cross-country evidence of impact	Study/coverage
1. Terms of trade	Trade structure of the economy, such that the impact is amplified on countries with a dominant share of commodity exports. Deeper banking sector development and higher holdings of foreign reserve dampen the impact of shock.	Both export and import shocks generate 40% of output fluctuations in the long run but export price shocks have larger and more persistent effects on macroeconomic variables.	Adler et al. (2017)/ 150 countries, 1960–2015 Kpodar et al. (2019)/ 38 LICs, 1978–2012 Di Pace et al. (2020)/ 38 LICs and emerging economies, 1980–2016
2. Climate-related natural disasters	Direct damages to agricultural production, economic activities, labour productivity and transport infrastructure; reduction of wealth and income. Impacts vary significantly depending on the state of the business cycle and fiscal space (public debt) when the shocks hit. Indirectly, countries that are more vulnerable to climate change pay a higher interest rate on government bonds, which in turn has negative ramifications for fiscal sustainability and hence growth.	Weather-related natural disasters lead to a significant and persistent decline in economic growth in developing countries but there is no such impact in advanced economies.	Cevik and Jalles, (2020)/ 98 advanced and developing countries, 1995–2017 Beirne et al. (2021)/ 40 advanced and emerging economies, 2002–2018 Cevik and Jalles, (2023)/ 173 countries, 1970–2020
3. Conflict in neighbouring countries	Disrupted bilateral trade (e.g., damage to transport corridors), lower foreign direct investment (FDI) and tourism activities, fiscal pressures for expenses for defence and social services for refugees. Impacts are lower for countries with relatively strong institutions/governance.	Growth reduction by approximately one-third of that exhibited in the neighbouring conflict-afflicted countries; up to 8% of GDP in the event of spillover of intense conflict. Persistent effects depend on duration and intensity of conflict.	Raga et al. (2023)/ review of literature
4. Epidemics	Temporary or permanent losses in the labour force owing to sickness and mortality, higher health care expenses and disrupted economic activities (firm closures, cancelled businesses, tourism, transportation). Simulated GDP losses from Ebola in West Africa were up to 15 times higher in a slow containment scenario than in a rapid containment scenario; the latter can be achieved with immediate national and international responses.	The impact of the Ebola outbreak in three affected countries is estimated to have reduced GDP growth by 2.1 pp in Guinea, 3.4 pp in Liberia and 3.3 pp in Sierra Leone for 2014 (peak of the outbreak). Over two years, West Africa was estimated to have lost 3.3% of GDP.	World Bank (2014)/ West Africa, 2014–2015

Shock	Transmission channel and factors mitigating/exacerbating the impact on growth	Cross-country evidence of impact	Study/coverage
5. Interest rate (by US/major economies) shock	Impacts of US interest rate shocks affecting investor sentiments are transmitted through increased borrowing costs, depreciated currencies, dampened capital flows, reduced consumption and lower public spending to improve budget balances. Reduction in growth is higher for countries with vulnerability (e.g., inflation, current account, reserves, debt).	A 100 basis point US rate hike reduces GDP in emerging and advanced economies by 0.8% and 0.5%, respectively. There is also increased likelihood of financial crisis (e.g., currency, banking and debt crises).	Arteta et al. (2022)/ 36 emerging and developing countries, 1997Q2–2019Q4 Iacoviello and Navarro (2018)/ 50 countries, 1965–2016
6. Sudden stops (of capital inflows)	Exchange rate depreciation, decline in equity prices, reduced foreign reserves, slowdown in investment. Policy space seems not to be insulated from negative output effects. Although deployment of various policy tools (e.g., macro-prudential, micro-prudential, FX intervention, etc.) seems to manage risks. IMF programme may reduce incidence of sudden stops but it may have no effect on negative growth impact once sudden stops occur.	GDP growth is slower by 4 pp year on year in the first four quarters of a sudden stop. Another study finds that, one year after the sudden stop, emerging markets' GDP is 1.8% below initial level, and remains 1.6% lower three years later.	Eichengreen et al. (2006)/ 24 emerging markets, 1980–2003 Eichengreen and Gupta (2016)/ unbalanced panel up to 34 emerging markets, 1991–2014 BIS (2021)/ advanced and emerging markets, 2000–2019
7. Global financial crisis, 2007–2009	Sluggish investment and long-lasting shortfalls in capital and total factor productivity. Countries with pre-existing financial vulnerabilities suffered greater output losses; those with stronger fiscal positions had lower output losses; and countries that deployed unprecedented policy action to support their economy tempered output losses.	Output losses of countries from the GFC appear to be persistent 10 years after the GFC, in which 60% and 85% of countries that did not and did experience banking experience in 2007–2008, respectively, performed below pre-2009 trends as of 2017.	IMF (2018)/ 180 countries, 2007–2017
8. Pandemic (COVID-19)	COVID-19 disruptions may lead to scarring effects through corporate bankruptcies, productivity losses, lower capital accumulation owing to sluggish investment, slower labour force growth and human capital losses from school closures. Scarring for emerging and lower-income countries are estimated to be larger owing to limited remote work adaptability, weaker policy support and slower vaccination.	Short-term output losses, but world output in the medium term is expected to be about 3% lower in 2024 than pre-pandemic projections. The pandemic shock appears transitory in advanced economies but there is permanent damage in emerging and lower-income economies.	IMF (2022b)/ global, forecast until 2024

Source: Author compilation

While conceptually external finance can play a role in enabling more robust national crisis responses, studies assessing the actual growth impact of shock financing, particularly that of the IMF, have shown mixed results. A large part of the empirical literature between 2000 and 2012 suggests that, while IMF programmes in L&MICs are associated with significant improvement in BoP and inflation to some extent, there are mixed results on the growth impact, which tend to be negative at least in the short term (Mumssen et al., 2013; Bird and Rowland, 2017).

Criticisms of IMF programmes during the Asian financial crisis in 1997 are documented, especially related to controversial conditionalities (e.g., closures of insolvent banks without adequate depositor protection; contractionary fiscal and monetary policy when output was falling) that appear to have accelerated capital outflows, currency depreciation and stock price declines in affected countries, which only halted after the IMF changed course and relaxed fiscal targets (Radelet and Sachs, 1998; Khor et al., 2022; Stiglitz, 2002). While more recent studies suggest that IMF arrangements reduce the likelihood of ‘sudden stops’ of capital flows, this effect is stronger only for countries with strong fundamentals (Eichengreen et al., 2006).

Results of earlier studies have been contested based on general methodological challenges. Limitations include a lack of analysis disaggregated by size, duration and concessionality of financing instrument, and recipient income level (e.g., LICs and MICs have structural differences). Another challenge refers to endogeneity/selection bias: for instance, countries that are experiencing BoP crises are likely to participate in IMF programmes, which may lead to biased conclusions that IMF programmes ‘cause’ such crises and their adverse economic effects (see Mumssen et al., 2013; Bird and Rowland, 2017).

Recent cross-country studies that utilise econometric techniques to address potential biases⁴ generally show positive growth effects of IMF financing in the short term, with the strongest and highest impacts for countries that exhibit poor economic performance and immediate BoP problems (Table 3). However, short-term increases in poverty and inequality are associated with IMF financing that requires greater fiscal consolidation as part of its conditionalities (Stubbs et al., 2021a). In the long term, IMF engagement (rather than the size of financing) is found to improve macroeconomic stability (e.g., less growth volatility) and social outcomes.

4 Note that the survey of studies was not exhaustive, and was limited to recent studies that utilised econometric techniques to address selection biases in assessing the growth impact of IMF financing.

Table 3 Recent evidence on the impact of IMF financing on macroeconomic variables

Study authors/ technique	Year/country coverage	Impact of IMF financing on selected macroeconomic variables
Mumssen et al. (2013) (propensity score matching)	75 LICs, 1986–2010	<ul style="list-style-type: none"> • Short-term IMF financial support in the context of shocks and policy slippages is positively associated with higher short-term growth (by up to 1.75%), current account balances and reserve coverage, as well as lower inflation and fiscal deficits compared with control groups, with the impact especially pronounced for countries with high propensity scores to request IMF financing. • Longer-term IMF programmes are positively associated with higher long-term growth rates, less growth volatility, more rapid reductions in poverty and inequality, higher government balances, higher levels of social spending, higher FDI and lower inflation. This result does not seem to depend on the amount of IMF financing provided over the longer term, highlighting the role of IMF engagement.
Bird and Rowland (2017) (propensity score matching)	66 LICs, 1989–2008	<ul style="list-style-type: none"> • There is a significant positive effect of concessional IMF financing on LIC growth over the three-year horizon (up by 1% on the first year of signing and 1.6% two years later), in contrast with often statistically significant negative effects of non-concessional programmes. • The strongest and most significant positive effect is for countries with a high estimated probability of signing an IMF programme (e.g., initially exhibiting relatively weak economic performance); there are more growth benefits two years after the signing of an IMF agreement for countries with prior IMF engagement in the previous three years. • There is a more pronounced positive effect of concessional IMF programmes on economic growth for countries that have poorer prior growth performance, rising debt levels and lower levels of pre-existing aid dependence programmes accompanied by a relatively low level of IMF financing.
Krahnke (2023) (instrumental variable)	103 countries, 1990–2018	<ul style="list-style-type: none"> • The catalytic effect on private capital flows is positive but would be reversed if IMF financing exceeded 5% of GDP.
Stubbs et al. (2021a) (instrumental variables, Heckman two-step correction)	79 countries, 2002–2018	<ul style="list-style-type: none"> • Stricter austerity targets attached to IMF financing are associated with greater income inequality for up to two years, as well as higher poverty headcounts and poverty gaps.
Chun et al. (2022) (two-way fixed effects with treatment variable)	134 LICs and emerging markets, 2020–2021	<ul style="list-style-type: none"> • A 10% increase in IMF financing is associated with up to a 0.4% increase in government spending and a 0.2 pp greater improvement in GDP levels (or smaller loss) by the end of 2021 in IMF-funded countries relative to countries that do not receive (or receive less) IMF funding. • The positive impact on growth may be explained by the role of the IMF in budget support and catalytic financing effects that allow government expenditures to support firms and households. The impact is 60% larger in LICs, potentially because of their more constrained policy space and market access relative to MICs.

Source: Author compilation

The evidence above highlights the contribution that external financing can make in terms of mitigating the immediate and long-term economic and social impacts of shocks, with stronger effects on lower-income countries facing higher fiscal and market access constraints. However, this type of evidence also tells us very little about the design

of external financing programmes, which clearly will have a bearing on overall outcomes. The next sections discuss the current global financing architecture responding to shocks (Section 3) and its performance in 2020–2022 amid multiple crises (Section 4).

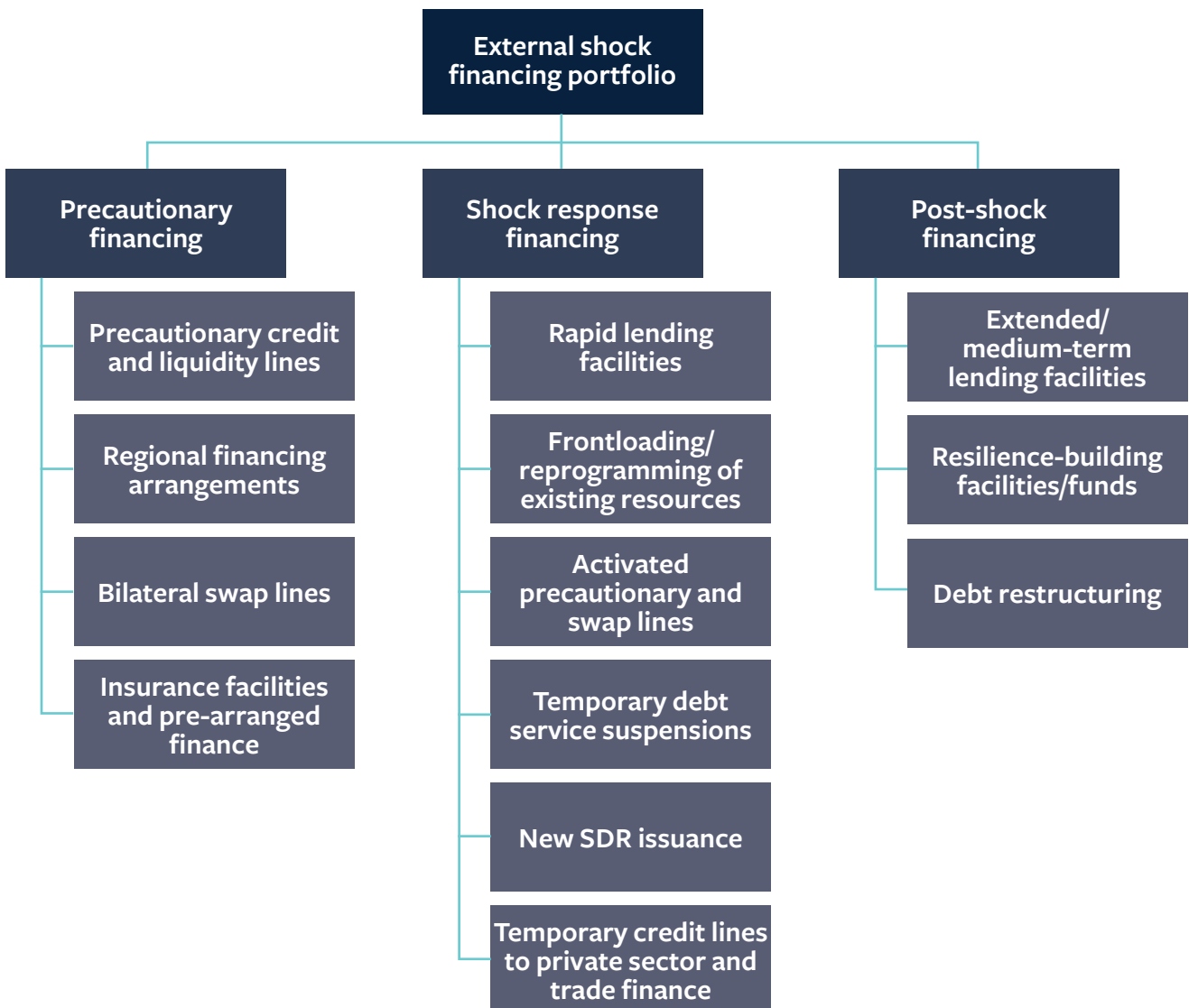
3 Evolution of the external shock financing architecture

3.1 Typology of shock financing

The existing shock financing architecture is shaped largely by the support extended by IFIs, development banks, and regional and bilateral arrangements. Shock financing can be categorised

broadly into (i) precautionary financing arrangements; (ii) shock response financing; and (iii) post-shock financing and investment for recovery. Figure 3 gives examples of the types of instruments used in each category.

Figure 3 External shock financing architecture



Source: Author

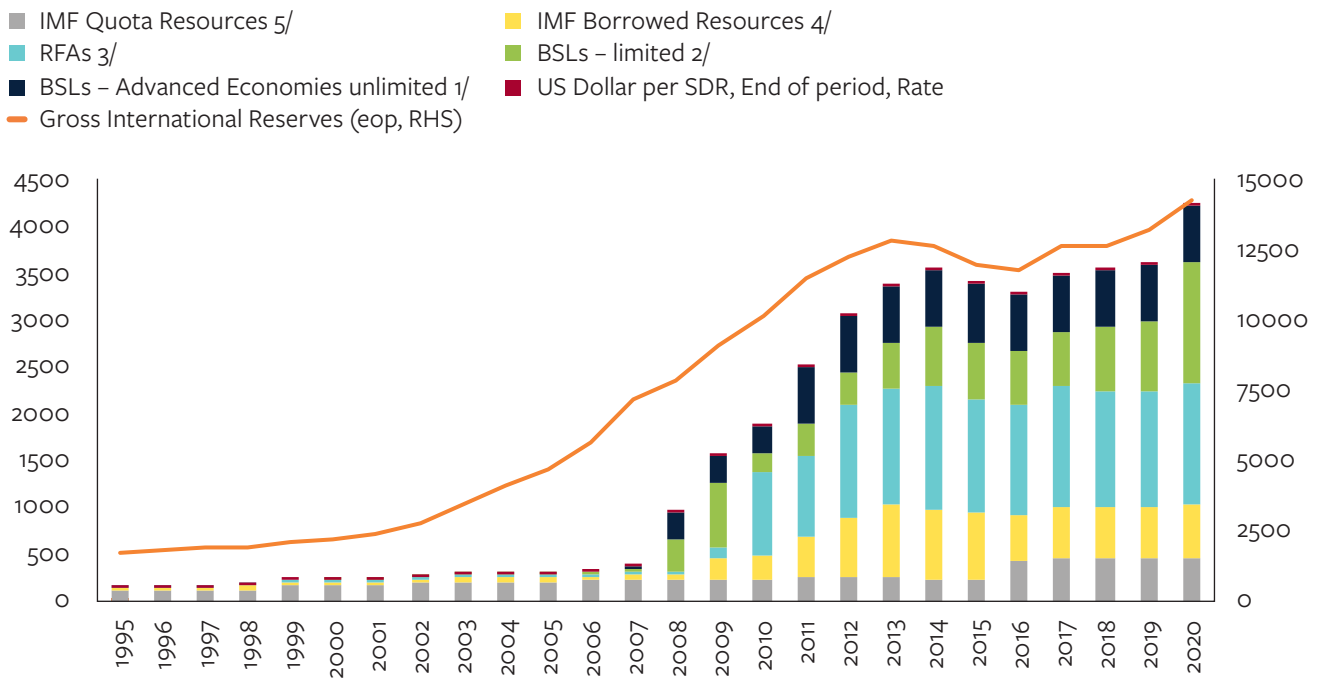
3.2 Precautionary arrangements, or ‘safety nets’

Precautionary arrangements, or ‘safety nets,’ generally refer to a set of institutions and mechanisms that provide insurance against crises as well as financing, allowing for pre-emptive measures to mitigate the risks and impact of shocks (Volz, 2016; Rana, 2017; Iancu et al., 2021). Such arrangements include precautionary lending facilities, such as the IMF’s Flexible Credit Line (FCL), Precautionary and Liquidity Line (PLL) and Short-Term Liquidity Line (SLL). These facilities can be drawn upon in events of potential or

actual BoP needs. For instance, Chile, Colombia and Peru agreed to a two-year FCL arrangement at the height of the COVID-19 crisis in May 2020; Mexico made the same arrangement in November 2021. However, the IMF’s precautionary lines are available only for countries with strong economic fundamentals and not for those with notable domestic weaknesses, as part of a mechanism to safeguard IMF resources (IMF, 2023c).

Increasingly, countries are looking to regional or bilateral arrangements to act as a safety net. Such arrangements have significantly outpaced the growth in IMF resources since 2008 (Figure 4).

Figure 4 Global financial safety net resources, 1995–2020 (\$ billions)



Notes: Two-way arrangements are counted only once. 1/ Permanent swap lines among the US Fed, ECB, Bank of England, Bank of Japan, Swiss National Bank, Bank of Canada. Estimated amount based on known past usage or, if undrawn, on average past maximum drawings of the remaining central bank members in the network. 2/ Limited-amount swap lines include all arrangements with an explicit amount limit. 3/ Based on explicit lending capacity/limit where available, committed resources or estimated lending capacity based on country access limits and paid-in capital. 4/ After prudential balances. 5/ Quota for countries in the IMF Financial Transaction Plan after deducting prudential balance.

Source: Perks et al. (2021)

The first regional financing arrangements (RFAs) emerged in the 1970s following the Bretton Woods system collapse. They included the Arab Monetary Fund (1976), the Association of Southeast Asian Nations swap arrangement (1977) and the Latin American Reserve Fund (1978). Other arrangements emerged in the aftermath of the Latin American and Asian crisis in the 1990s.

In Asia, self-insurance through reserve accumulation and strengthening regional arrangements was motivated by the deep economic and social costs associated with IMF programme conditionalities (Rhee et al., 2013). Discussions around the Chiang Mai Initiative swap arrangements began in 2000 and these were formally multilateralised by 2009 (ibid.). Meanwhile, Europe's regional financing mechanism came following the European debt crisis that started in Greece, with contagion to Ireland, Portugal, Spain, Cyprus and Italy (Hobelsberger et al., 2023). The European Financial Stability Facility was established in 2010 and was followed by a permanent European Stability Mechanism in 2012.

The number of bilateral swap lines (BSLs) between central banks has expanded since the GFC – from six in 2007 to 39 BSLs (20 of which are under the US Fed) by 2009, and 91 during the pandemic in 2020 (Perks et al., 2021). The US Fed has had permanent BSLs with five major central banks (the European Central Bank – ECB, Bank of

England, Bank of Japan, Swiss National Bank and Bank of Canada) since 2013. Fed arrangements, worth \$650 billion, dominate the overall volume of resources; these are followed by Asian swap lines at \$470 billion as of 2019 (ibid.). During the pandemic in 2020, Perks et al. (2021) found that such swap lines were effective in stabilising market conditions, as indicated by lower hikes in risk premia, with stronger effects for those with arrangements with the US Fed.

IFIs have experimented with certain facilities tailored to specific kinds of shocks. Certain instruments have insurance-type features, such as the Deferred Drawdown Option (DDO) in the World Bank's Development Policy Loan (DPL-DDO), which allows borrowing countries to access a contingent credit line to rapidly meet its financing requirements in the event of triggered adverse economic events or significant climate- and health-related shocks (see World Bank, 2021a, 2021b). Some financing facilities also extend insurance for loss of assets and investment resulting from pre-determined triggers of weather, health or catastrophic shocks. Such facilities include the World Bank Global Index Insurance Facility (GIFF)⁵ for extreme weather and climate change, the Caribbean Catastrophe Risk Insurance Facility⁶ and the Pacific Catastrophe Risk Insurance Facility.⁷

These insurance-type instruments may have some value in relation to providing precautionary financing against specific kinds of shocks that

5 Funded by the EU and the governments of Germany, Japan and the Netherlands, the GIFF has facilitated approximately 10.5 million contracts, covering close to 50 million people, primarily in Sub-Saharan Africa, Asia and Latin America and the Caribbean. See www.indexinsuranceforum.org

6 Funded by the World Bank, the EU, the governments of Bermuda, Canada, France, Germany, Ireland, Japan, Mexico, the UK and the US, the Caribbean Development Bank and the German Development Bank, and covering Caribbean and Central American countries. See www.ccrif.org

7 Major donors and partners include the World Bank Group, the Asian Development Bank (ADB), the Pacific Forum Islands Secretariat, the Pacific Community and the governments of Germany, the US, the UK, Japan and Canada. See <https://pcric.org>

affect individual countries. However, they have proven less effective in relation to global systemic shocks. One case in point is the World Bank's Pandemic Emergency Facility (PEF) insurance window, launched during the Ebola outbreak in 2016 and continued during the COVID-19 pandemic until April 2021. The PEF insurance window activated pay-outs after pre-determined criteria for the outbreak were met but criticisms on its effectiveness, in terms of the timeliness of pay-outs, were raised because it takes time to meet some criteria, such as on the growth rate of the outbreak or the number of deaths (official numbers may be lower than unrecorded numbers). This undermined the capacity of the pay-out to finance outbreak containment efforts and save lives (McVeigh, 2020; Ritchie and Plant, 2020).

3.3 Shock response financing

Shock response financing broadly refers to international financing flows intended to mitigate the impact of actual shocks and promote economic stabilisation. Crisis response can cover financing through specific lending facilities, crisis-triggered financing and debt instruments, debt relief, activated precautionary lines and RFAs, front-loading of multi-year resources and overall institution-wide fund mobilisation and disbursement in response to global shocks.

The Bretton Woods agreement initially envisaged the IMF playing a central role in using financing to limit lasting damage from shocks. The IMF's Articles of Agreement state the IMF's role, *'To give confidence to members by making the general resources of the Fund temporarily available to them under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity.'*

Meanwhile, the International Bank for Reconstruction and Development (IBRD when created in 1944, now known as the World Bank) would play a complementary role focusing more on recovery from the shock of war and long-term investment in development. Over time, there has been a blurring of roles and a proliferation of new actors providing shock response financing.

The IMF continues to play its role of providing financing for macroeconomic stabilisation. During the two recent global systemic crises (the GFC and COVID-19), the IMF oversaw the issuance of SDRs that provided members with the option to permanently 'borrow' additional hard currency. The IMF also institutionalised rapid financing facilities to address urgent BoP problems, designed to be quickly disbursed, with minimal conditionalities and medium-term repayment periods, subject to access limits.

However, there is a whole array of other actors also involved in the provision of shock response financing. MDBs have increasingly played an important role. For instance, two decades ago, the World Bank rarely extended budget support through its development policy financing instrument; since 2019, it has deployed more in this way, to be able to rapidly channel support to economies in fragile contexts, and during the pandemic crisis and the Russia-Ukraine war (Chelsky, 2023). During the COVID-19 pandemic, the New Development Bank (NDB) and the Asian Infrastructure Investment Bank (AIIB) also financed emergency programme loans. MDBs can typically offer more generous terms than the IMF. This is especially the case for the World Bank's International Development Association (IDA), which is funded through regular resource replenishments.

Crisis response financing can also include temporary measures to ease the burden of debt servicing during crises. For instance, the IMF has its donor-funded Catastrophe and Containment Relief Trust Fund (CCRT), which provides grants to temporarily pay for the debt servicing of the poorest and most vulnerable countries hit by natural and public health disasters. Through the G20 Debt Service Suspension Initiative (DSSI), \$12.9 billion in debt service payments owed to creditors (official creditors and one private creditor) by 48 out of 73 eligible countries was suspended between May 2020 and December 2021.

There are also active policy debates on the role of state-contingent debt instruments, which could have automatically prompted debt standstills under global crisis conditions such as those of COVID-19 (Cohen et al., 2020). In June 2023, the World Bank announced that it would start providing pause clauses on debt repayments for the most vulnerable countries in times of climate crisis or catastrophe (World Bank, 2023). The UK also announced that it would incorporate pause clauses during climate shocks for its sovereign lending to LICs and small island developing states (UK Export Finance, 2022).

Another potential source of shock financing is activated precautionary and bilateral swap lines and RFAs. For instance, Colombia and Morocco drew resources under their precautionary arrangement with the IMF in 2020 to cope with the impacts of COVID-19. In terms of BSLs, Japan, the EU, the UK and Switzerland drew a total of \$403 billion from their BSL arrangement with the US Fed in May 2020 (Perks et al., 2021). Drawing from Chinese BSLs stood at \$8 billion by the end

of 2020, dominated by drawings from Mongolia, Pakistan and Turkey (ibid.). Between 2000 and 2021, there were drawings worth \$170 billion from BSLs with the People's Bank of China and \$70 billion in Chinese loans was extended for BoP support (mainly to debtors of the Belt and Road Initiative), with the total amount representing 20% of IMF lending during the same period (Horn et al, 2023).

Similarly, activated RFAs in the form of paid-in capital or currency swaps can augment countries' financing needs during shocks. However, deployed RFA resources during the onset of the pandemic have been limited – between February and July 2020, only \$2 billion of \$330 billion in available resources (or 0.62%) from seven RFAs was deployed/activated (Stubbs et al., 2021b).

The shock financing instruments described above are intended to support sovereign governments. In certain cases, international support to respond to specific shocks is provided directly to non-state actors. This might include financing channelled via humanitarian agencies that provide direct support to non-governmental organisations, communities and individuals. Life-saving assistance (e.g., rescue, food aid, clean water, basic health services, etc.) resulting from external and internal shocks is often led by UN programmes and funds, which are largely financed by voluntary contributions from governments, inter-governmental organisations, the private sector (e.g., foundations, corporations) and the general public.⁸ The World Food Programme, through voluntary contributions, is the largest humanitarian organisation extending food assistance to people recovering from conflict, disasters and climate change impacts.⁹

⁸ See www.un.org/en/about-us/un-system and www.unhcr.org/uk/figures-at-a-glance.html

⁹ www.wfp.org/who-we-are

Similarly, development finance institutions (DFIs) can provide financing support to the private sector. During the COVID-19 pandemic, for example, DFIs increased their investment by 7% in 2020, by providing working capital support, repayment holidays, technical advice, liquidity support to domestic financial institutions and expanded trade finance facilities (Attridge, 2022).

3.4 Post-shock reconstruction financing and investment

Post-shock reconstruction financing and investment generally entail medium- to long-term support aimed at economic recovery and building resilience against future shocks. This can come in the form of extended financing support over the medium term in cases when the initial shock is rooted and/or may result in more difficult structural problems.

Historically, there was a clear division of labour in the Bretton Woods architecture, whereby the IMF would provide temporary finance to correct maladjustments in borrowing countries' BoP while the IBRD would provide longer-term financing support.

While the IMF is expected to provide temporary finance, some of its financing allows for higher-limit access and offers a longer-term repayment period, designed to address protracted BoP imbalances and structural impediments in a manner consistent with growth and sustainable development. The IMF's Extended Fund Facility (EFF) arrangements of up to four years have

conditionalities focusing on structural reforms to address institutional or economic weaknesses; Extended Credit Facility (ECF) arrangements of up to five years for LICs require reforms that deliver strong and durable poverty reduction and growth.

Meanwhile, the World Bank and other development banks continue to finance needs for longer-term economic development. After the establishment of the IBRD in 1944, regional development banks followed in the 1960s, partly in response to disappointment around the lack of attention by the IBRD to developing countries or changes in the global order (Engen and Prizzon, 2018).¹⁰ The mandates of MDBs have evolved over the years, from supporting members in reconstruction in the aftermath of wars, to stepping up efforts to achieve the Millennium Development Goals by 2015 and the SDGs by 2030, to catalysing private sector financing, to addressing global challenges (e.g., climate change, protracted crises, pandemics) (ibid.).

The current landscape of multiple crises is blurring lines on the type of financing various actors offer. For example, the IMF recently established its Resilience and Sustainability Facility (RSF), with a long-term repayment arrangement (e.g., 20 years) to address risks related to climate change, an area that is usually within the World Bank and other MDBs' remit.

Another emerging focus of resilience-building financing facilities is oriented towards anticipated overlapping shocks (e.g., financial crises, global commodity price hikes, pandemics, fragility and

¹⁰ The Inter-American Development Bank, African Development Bank and ADB were established in the 1960s; sub-regional development banks were established in the 1960s and 1970s during the decolonisation period in Africa and the rise of oil-producing Arab states; the European Bank for Reconstruction and Development was established in 1991 to support transition economies after the Soviet Union collapse; and the China-based NDB and AIIB were established in 1991, reflecting the rising economic power of China (Prizzon, 2018).

conflict) and challenges from natural disasters and climate change. Examples include the Loss and Damage Fund proposed during the 27th Conference of the Parties (November 2022) to compensate for losses arising from adverse climate change effects in developing countries and the World Bank Global Shield Financing Facility to recover from natural disasters and shocks (November 2022).

Debt restructuring¹¹ also plays a role in longer-term post-shock financing. When external shocks lead countries to face high rollover risks or an excessively high debt service burden, such countries may not be able to meet their financial obligations. In these conditions, fiscal consolidations and financing assistance may not be sufficient, and longer-term debt restructuring may be necessary to restore market access and long-term macroeconomic stability. This is one motivation behind the G20 Common Framework for Debt Treatment launched during the COVID-19 crisis, to go beyond temporary debt service suspension

and help countries restructure their debt and deal with insolvency and protracted liquidity problems. A study by Reinhart and Trebesch (2016) suggests that countries that implemented sweep and deep restructuring (e.g., debt reductions) experienced rapid and sustained economic recovery.

In the past, multilateral organisations such as the IMF and the World Bank were part of debt reduction efforts under the Heavily Indebted Poor Countries Initiative launched in 1996 and the Multilateral Debt Relief Initiative set up in 2005 with the aim of helping the poorest countries reallocate their debt service spending to poverty reduction efforts. Recently, official bilateral creditors and private creditors have participated in debt restructuring but multilateral creditors (e.g., the IMF, the World Bank) are less likely to do so. This is based on the latter's preferred creditor status and to safeguard their resources for countercyclical lending in times of crisis (see Ams et al., 2020; Humphrey and Mustapha, 2020) – although this status is widely debated.

11 Debt restructuring can be implemented in different forms, such as through reduction on the face value of debt, extension of maturity or reduction coupon payments, and involves complex processes between debtors and negotiators (Ando et al., 2023).

4 Performance of external shock financing during recent crises

The previous sections presented evidence on the adverse impact of external shocks, especially in lower-income countries, and the external shock financing mechanisms and the major financial institutions that govern them. If shock financing is available, the key question relates to the challenges involved in accessing it, and what can make it more effective in addressing external shocks.

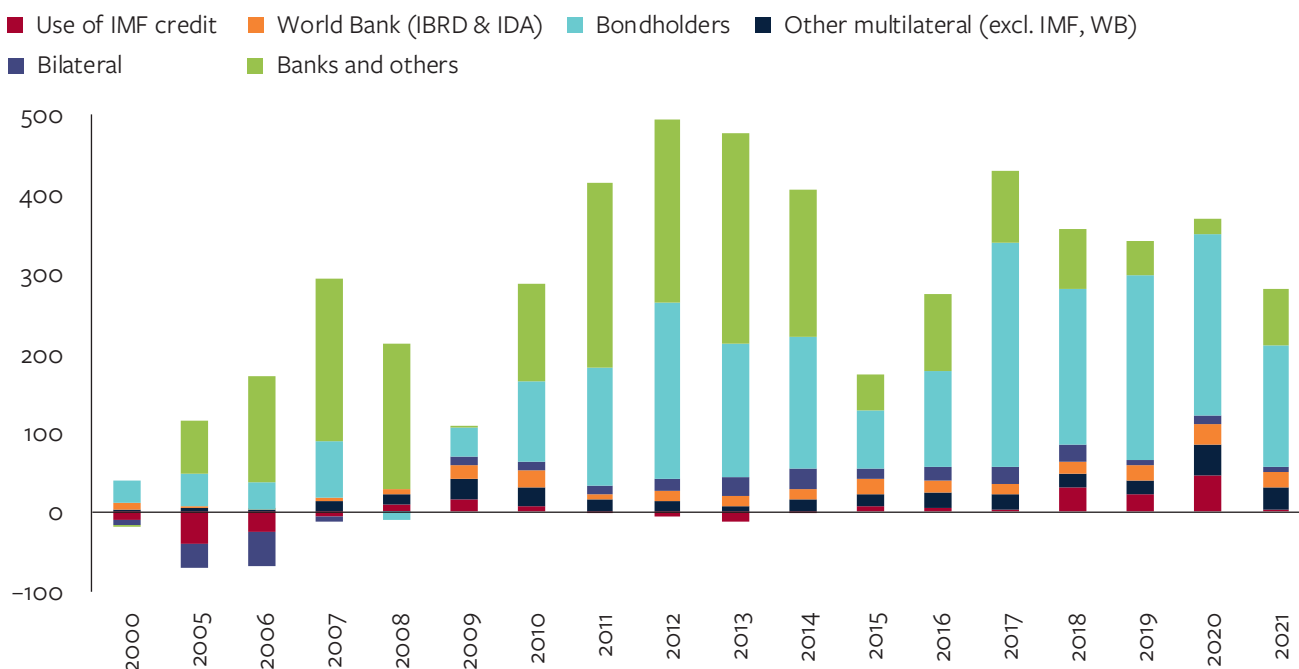
This section aims to answer the above questions. It assesses the performance of IMF and World Bank shock financing during COVID-19 and up to the Russia–Ukraine war (2020–2022) against several criteria (e.g., speed, scale, eligibility, take-up, conditionality). Where relevant, and where data are available, performance between 2020 and 2022 is compared with that during the GFC of 2008–2009.

The choice of institutions and period for assessment was motivated by (i) the scale of documented financing assistance to a wide country membership, which allows for disaggregated analysis of data and issues by the characteristics of the recipients; and (ii) the availability of general and specialised financing facilities and instruments, which allows for analysis of effectiveness by facility/instrument.

4.1 The scale of financing

IFIs typically increase lending commitments to enable borrowing countries to enact countercyclical measures in times of shock. The scale of financing can be measured in terms of the increase in the overall volume and of net lending during the shock period compared with the previous, non-shock, period. The scale-up of shock financing can also be observed against the expected economic losses (e.g., BoP needs, GDP growth reductions) from the shock.

Scaling-up of countercyclical multilateral financing is critical during shock periods, given the procyclical nature of other sources of financing. Figure 5 shows that commercial flows have dwarfed net financing from official sources, including the IMF and the World Bank, and other multilateral and bilateral funding, since the early 2000s. However, commercial flows declined during the GFC and the COVID-19 crisis. While financing from official sources has made a relatively modest contribution to overall net flows, it exhibited higher net flows in 2008–2009 (GFC) and 2020 (COVID-19) compared with the pre-crisis periods.

Figure 5 L&MICs: net debt flows (\$ billions)

Note: 'Use of IMF credit' covers all IMF facilities and SDR allocations.

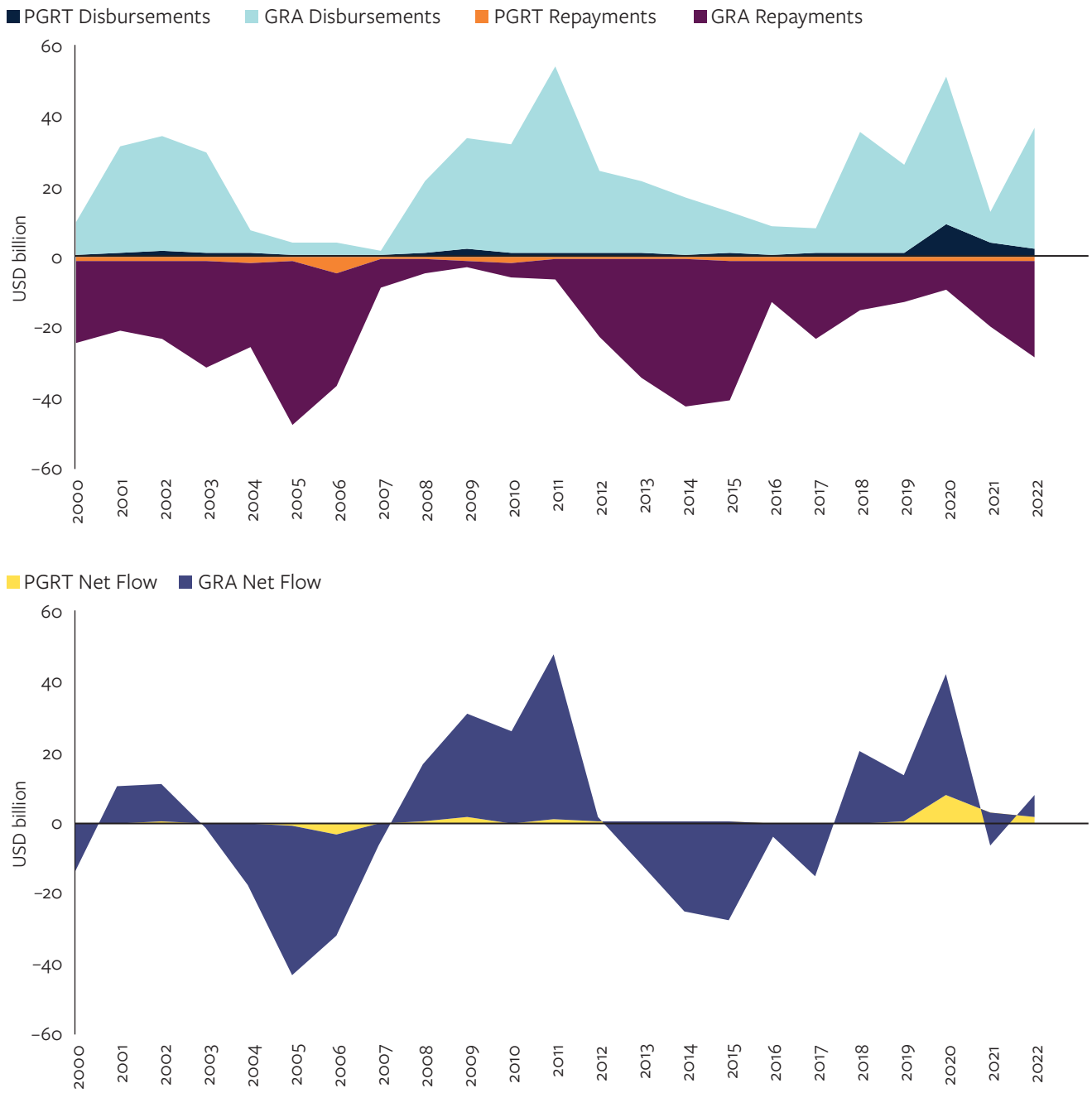
Source: Author based on data from World Bank IDS database

Figure 6 confirms the increase in positive net financing from the IMF during the GFC and COVID-19, and negative net flows in between, indicating periods of repayment to the IMF. A large share of financing during the crises was disbursed to General Resources Account (GRA)-eligible countries (mostly upper-middle-income countries, UMICs, and HICs), although Poverty Reduction and Growth Trust (PRGT) net disbursements to LICs during COVID-19 were higher than during the GFC, reflecting the relatively broad-based shock impact of the pandemic across countries. Nevertheless, overall net IMF financing flows from

all facilities and the SDR allocation to its member countries amounted to only \$45 billion in 2020, significantly lower in proportion to the \$1 trillion IMF lending capacity during the pandemic in 2020.

Notably, net IMF disbursements for LICs via the PRGT have continued in the aftermath of the recent crises (2021, January–July 2023), in contrast with net IMF repayments by HICs to the GRA (Figure 6). This points to persistent financing needs among LICs, compared with relatively faster rebound rates in HICs.

Figure 6 Financial flows to and from IMF members (\$ billions)



Source: Author based on monthly data from IMF Financial Data Query Tool

Increasing the SDR allocation is a unique financing channel through which the IMF can help its member countries during shocks. SDRs can be used unconditionally – for example as a foreign currency asset, to buy or sell for hard currencies or to use for IMF-authorized financial transactions such as payments of financial obligations, loans, pledges, donations, swaps and forward transactions (IMF, 2023c).

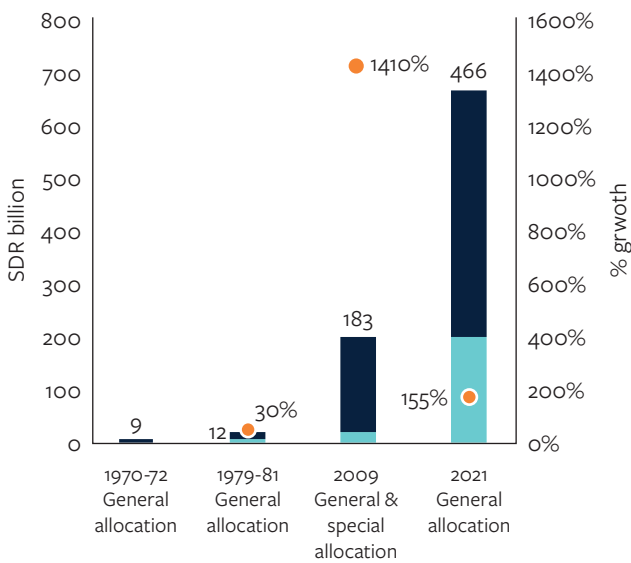
SDR allocation increased during the GFC and COVID-19. In 2021, it expanded to \$650 billion,

the highest value to date. However, the rate of increase was higher during the GFC (15 times the previous level) than during the pandemic (2.5 times the previous level), despite the latter having a greater and broader-based adverse impact among countries (Figure 7). The limitation of the SDR expansion to \$650 billion in 2021 was based on the maximum allowable amount that can be allocated without requiring approval from the US Congress, rather than on financing needs commensurate to the size of the shock.

Figure 7 SDR allocation and growth impact of recent crises

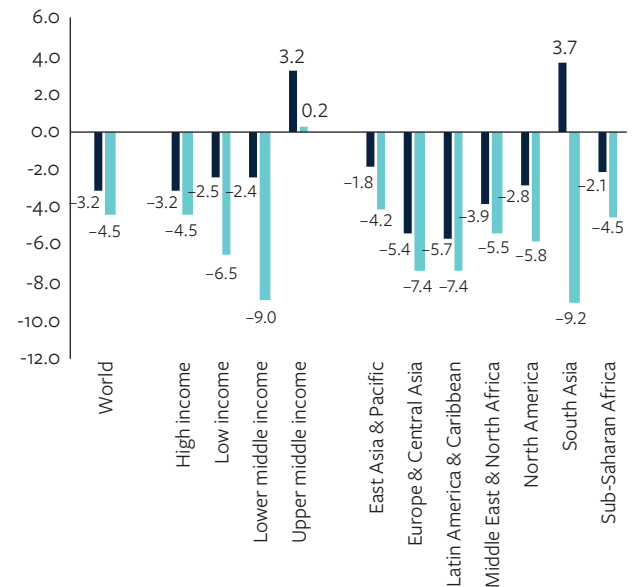
SDR allocation

- Increase per new allocation, SDR bn (LHS)
- Previous level of allocation, SDR bn (LHS)
- % increase from previous allocation (RHS)



GDP growth (%)

- GFC (2009)
- Covid19 (2020)

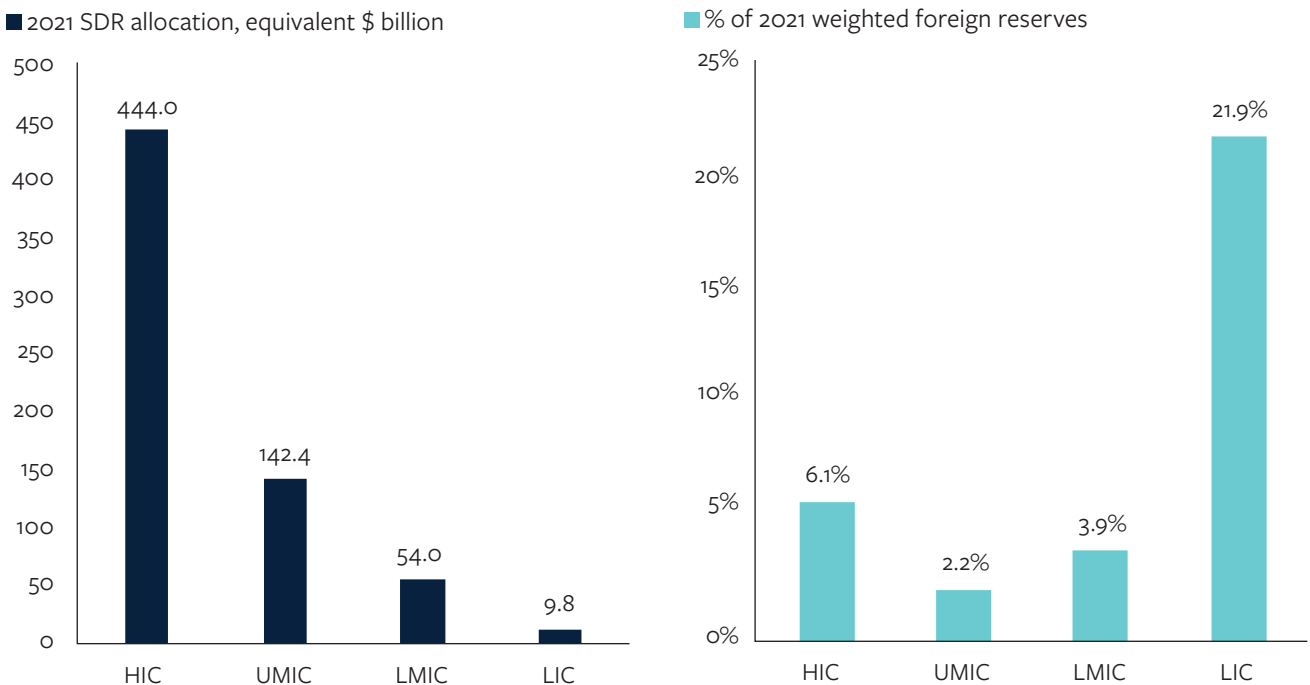


Source: Author based on data on SDR allocation from IMF website and GDP growth data from WDI

In addition, there was no increase in SDR quota shares during the pandemic, unlike the doubling of quotas and the realignment of quota shares towards emerging markets and developing countries committed to in the aftermath of the GFC in December 2010 (taking effect in January 2016) (IMF, 2010, 2016). The quota-based SDR allocation meant that about two-thirds of the expanded \$650 billion SDRs during the pandemic

was allocated to HICs, which may not need the extra liquidity as much as lower-income countries. For instance, Figure 8 shows that the 1.5% share (or \$9.8 billion) of the total 2021 SDR allocation that went to LICs represented 22% of their foreign reserves. In contrast, the SDR allocation for HICs represented only 6% of their reserves as of 2021 (about \$7.3 trillion).

Figure 8 2021 SDR allocation by income group



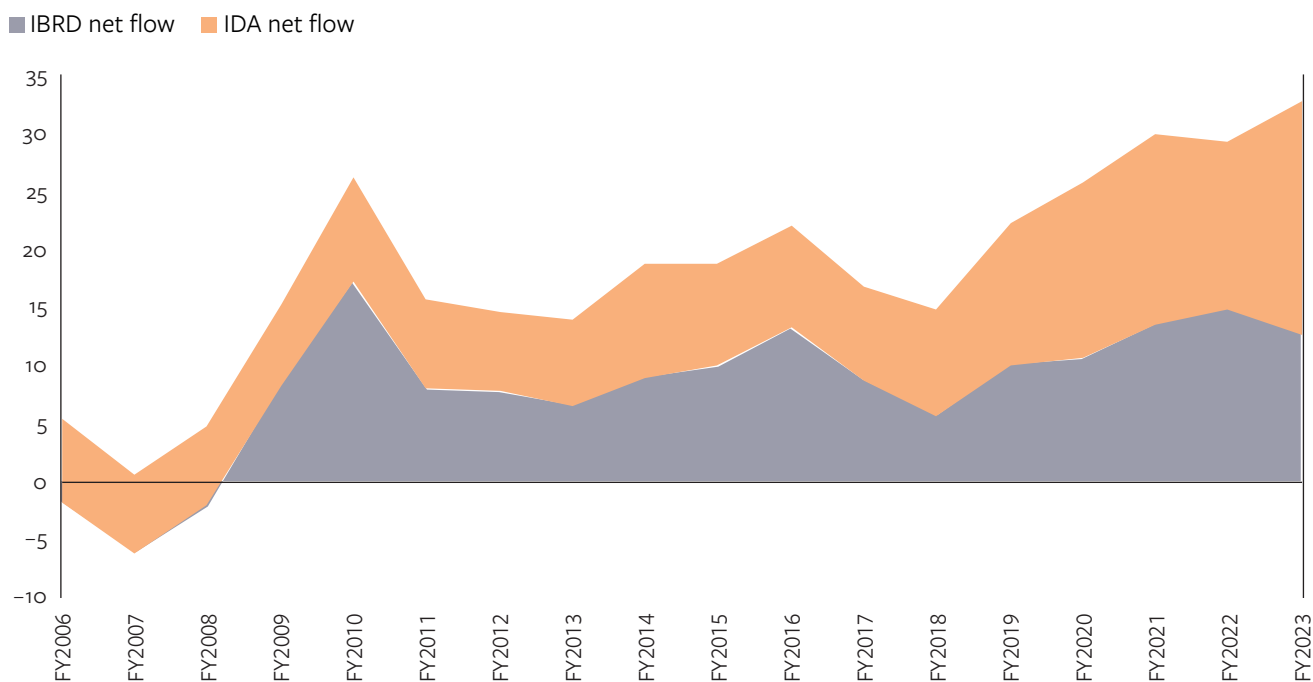
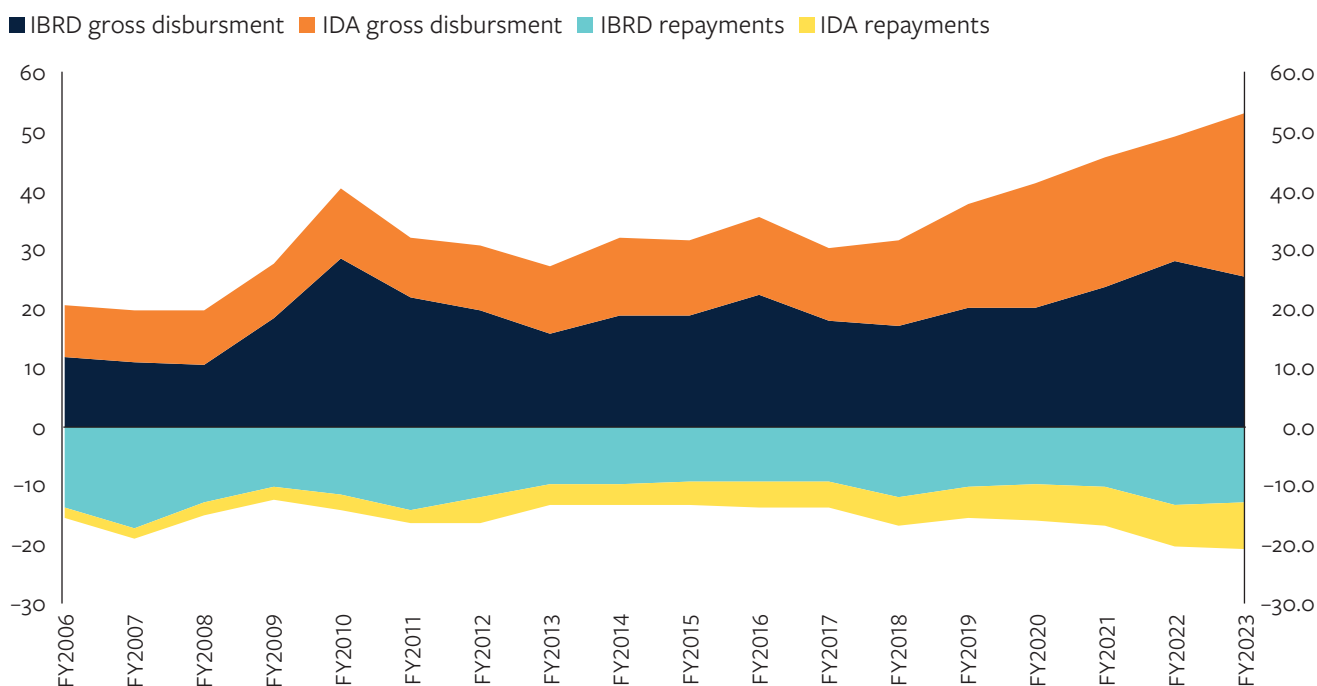
Note: % share of 2021 foreign reserves weighted by countries with available foreign reserves data as of 2021.

Source: Author based on data from IMF Financial Data Query Tool and WDI

Meanwhile, the World Bank has consistently registered net disbursements to country recipients since the GFC (Figure 9). Net disbursements and commitments have been increasing since the pandemic as well (Figures 9 and 10). Notably, World Bank net disbursements

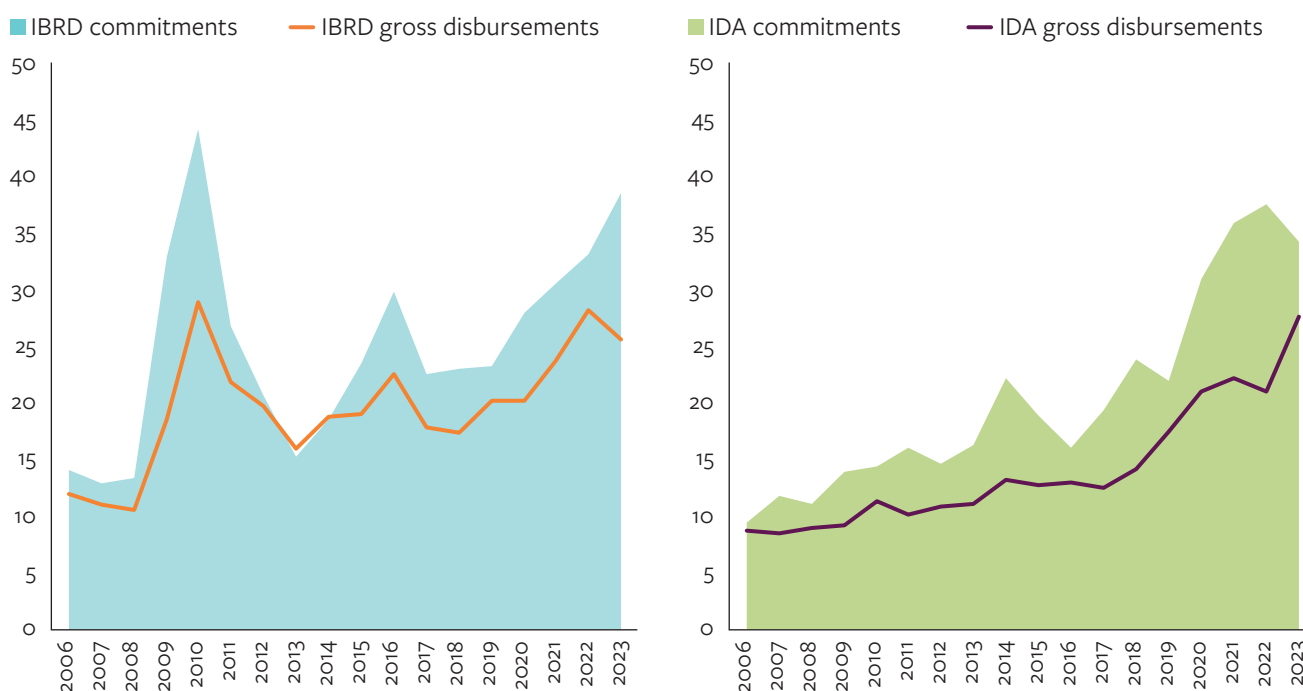
peaked in the fiscal year ending June 2023 (FY 2023) with \$32.8 billion, of which \$20 billion was disbursed via the IDA (Figure 9), reflecting higher financing towards mostly LICs in the context of recent crises.

Figure 9 Financial flows to and from World Bank members (\$ billions)



Notes: Years refer to fiscal years (e.g., FY 2023 = July 2022–June 2023). Net disbursements refer to gross disbursements less repayments and prepayments.

Source: Author using data from 2006–2010 based on IBRD (2010) and IDA (2010) and data from FY 2010–FY 2023 downloaded from World Bank Group Finances database (as of 23 August 2023)

Figure 10 IDA financing: commitments vis-à-vis disbursement

Note: Years refer to fiscal years (e.g., FY 2023 = July 2022–June 2023).

Source: Author using data based on IBRD and IDA financial statements for FYs 2010, 2014, 2018, 2021 and 2023

The scale of shock financing (as a measure of the recipient country's GDP) from the World Bank appears to be more significant for LICs, whereas that from the IMF tends to be more significant for MICs. For instance, Table 4 shows that World Bank net disbursements to LICs were worth nearly 2% of GDP in FY 2020, compared with the IMF's financing of 0.9% of GDP in 2020. FY 2023 suggests an increase in World Bank financing worth 1.6% of LICs' GDP compared with FY 2022, potentially reflecting higher demand for financing amid the Russia–Ukraine war. Meanwhile, for lower-middle-income countries (LMICs), the IMF deployed 0.35% of recipient countries' GDP compared with 0.25% from the World Bank in 2020.

In addition to the IMF's financing facilities, the expanded SDR allocation in 2021 was aimed at providing liquidity buffers to IMF members (Table 4). This SDR allocation to LICs was worth

1.8% of GDP, despite the lowest allocation share going to this group compared with higher-income countries. However, it appears that the SDR allocation was not utilised until 2022, when LICs and LMICs registered SDR drawdowns worth 0.5% and 0.1% of GDP, respectively.

Broadly, at the peak of the pandemic in 2020, IMF and World Bank's net financing was worth 2.8% of LICs' GDP and 0.6% of LMICs' GDP (Table 4), significantly low compared with growth losses of 6 pp and 9 pp by LICs and LMICs, respectively, from pre-COVID forecasts (Figure 7). Since then, the lingering effects of COVID-19 have been compounded by the Russia–Ukraine war spillovers and other macro-fiscal pressures (e.g., climate change events, the inflationary environment, tightening financial conditions, increasing risks to public debt sustainability), indicating continued and potentially higher financing needs of L&MICs.

Table 4 Financing flows to different income groups

	2020		2021		2022	
	\$ billion	% of weighted GDP*	\$ billion	% of weighted GDP	\$ billion	% of weighted GDP
Net flows						
IMF (PRGT & GRA)						
LIC	3.75	0.931	1.24	0.301	0.93	0.197
LMIC	23.00	0.350	1.56	0.021	1.37	0.017
UMIC	15.34	0.064	-5.15	-0.018	7.77	0.026
HIC	0.14	0.000	-4.30	-0.007	-2.04	-0.003
World Bank (IDA & IBRD)						
LIC	7.48	1.855	7.49	1.643	6.847	1.317
LMIC	15.53	0.252	15.28	0.118	15.989	0.114
UMIC	2.68	0.011	5.99	0.012	6.132	0.012
HIC	-0.02	-0.001	0.60	0.038	-0.04	-0.003
Gross disbursements						
IMF (PRGT & GRA)						
LIC	4.49	1.114	3.00	0.728	1.21	0.257
LMIC	27.13	0.412	8.20	0.109	8.07	0.100
UMIC	18.58	0.077	1.82	0.006	27.32	0.091
HIC	1.02	0.002	0.12	0.000	0.06	0.000
World Bank (IDA & IBRD)						
LIC	8.07	2.002	8.77	1.92	7.43	1.43
LMIC	22.32	0.362	22.30	0.17	24.42	0.17
UMIC	10.26	0.043	13.42	0.03	16.29	0.03
HIC	0.71	0.053	1.39	0.09	0.77	0.05
IMF SDR issuance						
Net changes in SDR allocation**						
LIC	0	N/A	8.259	1.803	0	N/A
LMIC	0	N/A	52.627	0.733	0	N/A
UMIC	0	N/A	146.090	0.510	0	N/A
HIC	0	N/A	430.152	0.732	0	N/A
Net changes in SDR holdings (negative = usage of SDR allocation)***						
LIC	0.8	0.177	7.2	1.571	-2.9	-0.546
LMIC	1.3	0.020	47.1	0.656	-7.7	-0.100
UMIC	-1.3	-0.005	138.2	0.483	4.8	0.016
HIC	-1.5	-0.003	439.0	0.748	9.6	0.016

Notes: Years refer to calendar years for the IMF and fiscal years (July–June) for the World Bank.

* Weighted by countries with available nominal GDP data. ** SDR issuance is computed based on changes in SDR allocation.

SDR allocation between 2020 and 2023 changed only in 2021, in view of the 2021 SDR allocation. *** Changes in SDR holdings indicate the usage of SDR allocations. For example, in cases where SDR holdings = SDR allocation, the country is not using its SDR allocation. In the table, a negative (positive) net change in SDR holdings from the previous year indicates lower (higher)

SDR holdings, hence representing the proportion of SDRs that has been utilised (held) during the year.

Source: Author based on data from IMF Financial Data Query Tool

4.2 Speed of response

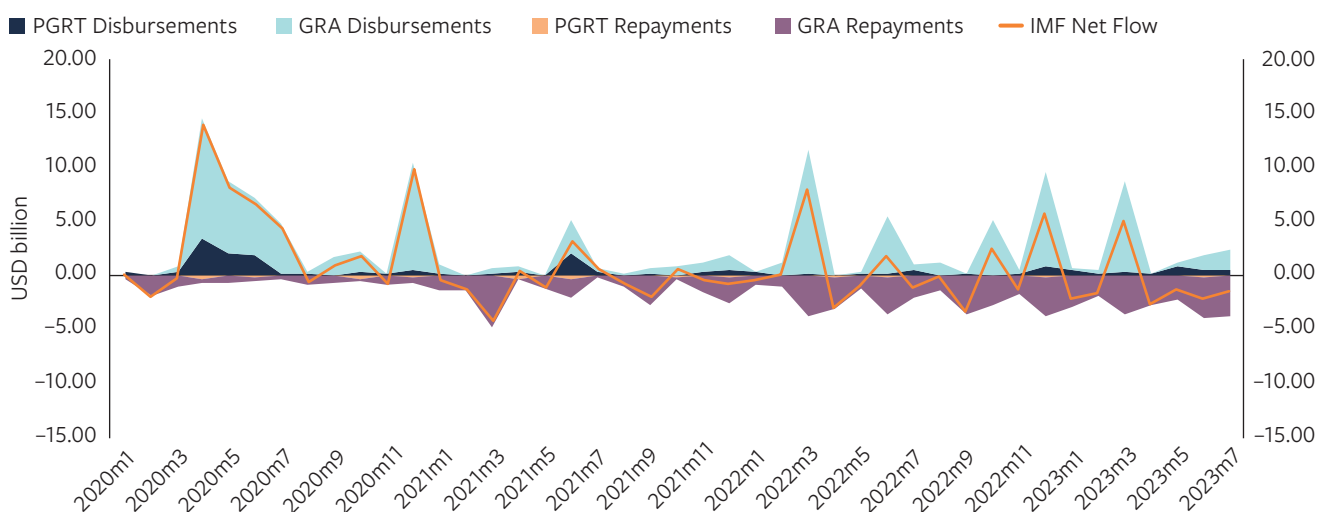
The speed of the response of financing institutions to support borrowing countries is critical in mitigating the immediate and potential long-term impacts of shocks. Several factors drive the speed of the response, including the presence (or absence) of dedicated rapid/crisis lending facilities, internal approval processes and the identification of additional sources of funds (e.g., limitations on existing capital levels, resource mobilisation). The speed of the shock financing response is often observed through the number of financing approvals and disbursements extended to a large set of countries, particularly at the onset of the crisis.

Both the IMF and the World Bank activated internal policies to enable a speedy response during the pandemic. The IMF streamlined internal processes early in the crisis, which allowed it to respond more quickly to members' requests, in many cases within weeks of receiving a request (IMF, 2021b). Meanwhile, the World Bank activated its pre-existing Multiphase Programmatic Approach (MPA) framework, which facilitated the fast-track preparation of similar

COVID-19 projects across countries facing similar emergency needs (World Bank, 2020a). In addition, it released its COVID-19 Response Approach Paper in June 2020, which guided its adjustments, including portfolio actions, reallocation of approved funds to higher-priority activities, new or additional financing, and frontloading of crisis relief in the operations pipeline (World Bank, 2020c).

Streamlined internal processes helped with the speed of the response for the IMF but less so for the World Bank. Figure 11 shows a sharp increase in IMF net disbursements by April 2020, following its initial announcement of \$50 billion and \$150 billion support for COVID-19 in March and April 2020, respectively. IMF net financing flows in April alone comprised 32% and 39% of the total GRA and PRGT for 2020. Net financing flows eased in 2021, as many countries exhibited a rebound from COVID-19. GRA net disbursements began to increase again by March 2022, a month after the first Russian attack in Ukraine. Since November 2022, the PRGT has also started registering net disbursements, potentially reflecting financing needs to mitigate the impact of spillover effects of the Russia–Ukraine war.

Figure 11 Monthly financial flows to and from IMF members (\$ billions)

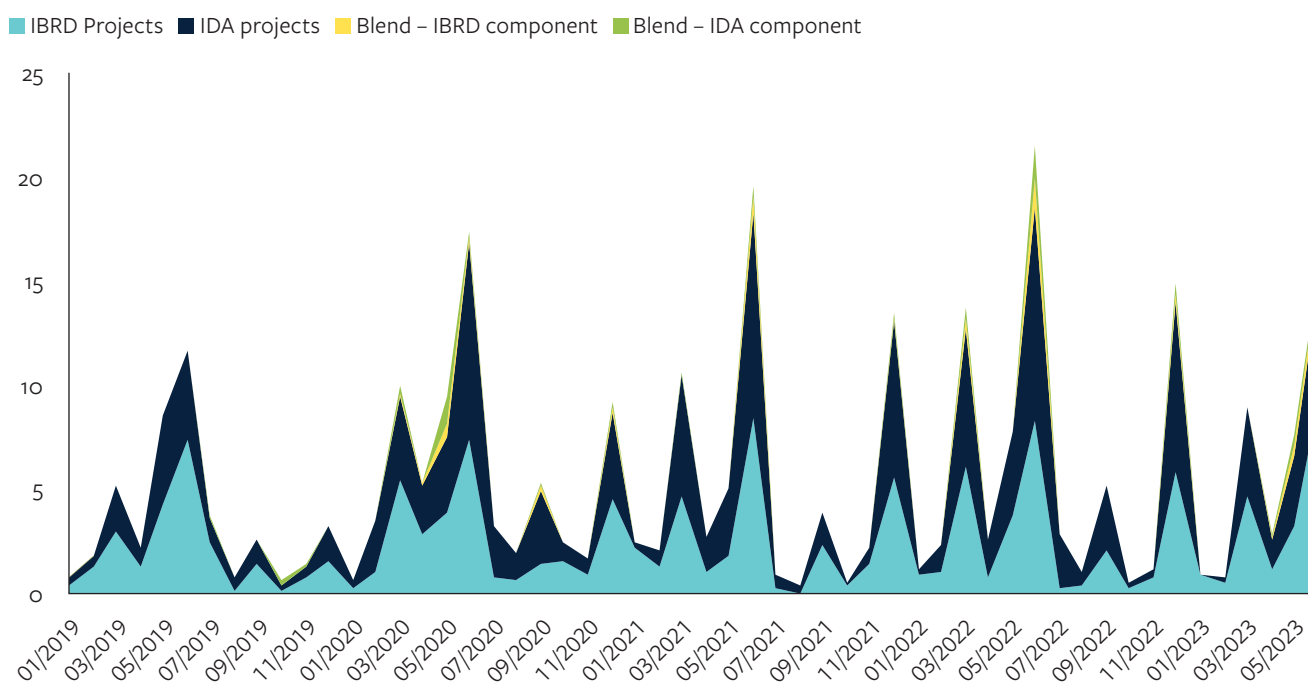


Source: Author based on data from IMF Financial Data Query Tool

The World Bank was quick to announce dedicated financing envelopes for the COVID-19 response. As early as 3 March 2020, the Board of Executive Directors approved the establishment of the \$12 billion Fast Track COVID-19 Facility (FTCF) (World Bank, 2020b). By 2 April 2020, a \$6 billion financing envelope was approved for the COVID-19 Strategic Preparedness and Response Program using an MPA (the SPRP, also known as the Global COVID-19 MPA) under the FTCF (ibid.). The funding of the FTCF expanded to \$12 billion by October 2020, and to \$20 billion by June 2021, mainly to help countries purchase and distribute COVID-19 vaccines (World Bank, 2020a). In addition to the FTCF, the World Bank redirected \$2.5 billion in existing projects in 63 countries in FY 2020.

However, project approvals took longer to get into motion and did not peak until June 2020. While they picked up in March–April 2020, to comprise 22% of project approvals in 2020 compared with 17% and 15% in these months in 2019 and 2018, respectively, project approvals during the pandemic did not increase significantly compared with the seasonal pattern of increasing project approval towards the end of the fiscal year (i.e., May/June) (Figure 12). Notably, the value of project approvals during the early stages of the Russia–Ukraine war was also high and comparable with levels at the peak of the COVID-19 pandemic, reflecting compounding pressures from overlapping shocks for LICs.

Figure 12 Monthly World Bank project approvals (\$ billions)



Source: Author based on World Bank project list/database

4.3 Eligibility for and take-up of shock financing

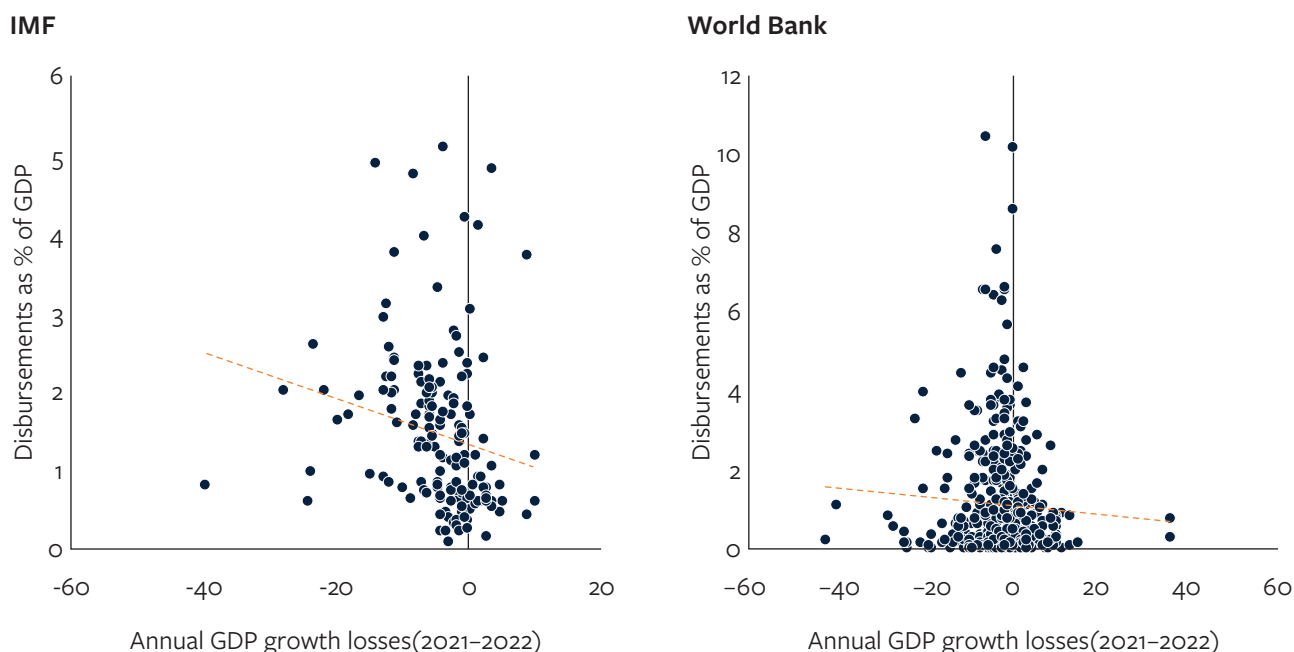
Most shock financing facilities and instruments are tailored based on the eligibility criteria of the countries accessing them, the most common of which are related to a combination of (i) trigger events or indicators (e.g. actual or potential BoP needs, declaration of a natural disaster or health emergency, price shocks, or actual or expected GDP growth losses); (ii) levels of income; and (iii) ex-ante economic conditions (e.g., public debt sustainability).

In recognition of structural issues associated with income levels (e.g., LICs have relatively limited access to international capital markets and weaker capacity for domestic revenue mobilisation compared with MICs and HICs), specific financing

mechanisms, often with concessional rates, are dedicated to LICs. Several assessments highlight the need to further tailor eligibility criteria for fragile and small states, which have specific vulnerabilities (e.g., exposure to climate change impacts, lack of diversification, capacity constraints) that are distinct from those of LICs (see Wilkinson et al., 2021).

During the pandemic, IMF financing tended to be higher in countries that experienced higher GDP growth losses (Figure 13) or that had pre-existing higher levels of export exposure and lower levels of reserves (Figure 14), channels that can increase BoP vulnerabilities. Meanwhile, the World Bank shows some weak correlation between its financing and countries' output losses (Figure 13) but seems to have had a stronger tendency than the IMF to provide higher financing to LICs (Figure 15).

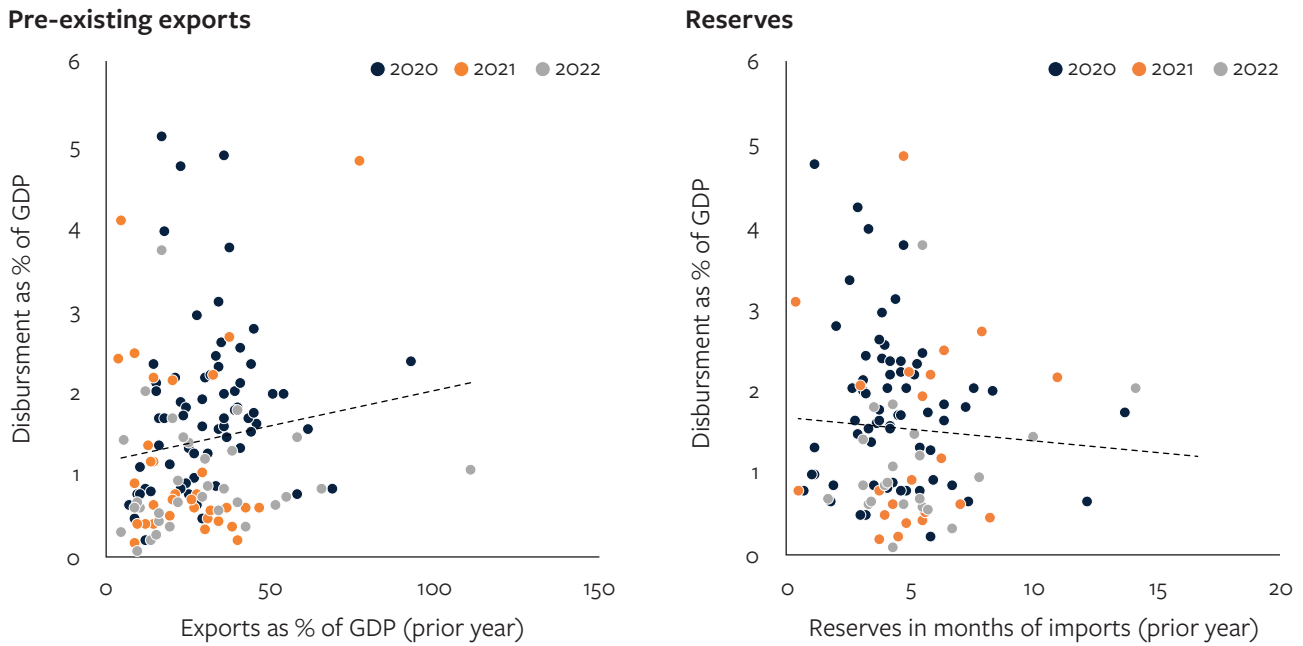
Figure 13 IMF and World Bank disbursements by GDP growth losses from pre-COVID projections



Note: GDP growth losses computed based on October 2019 WEO forecasts and latest actual/estimates from IMF WEO April 2023.

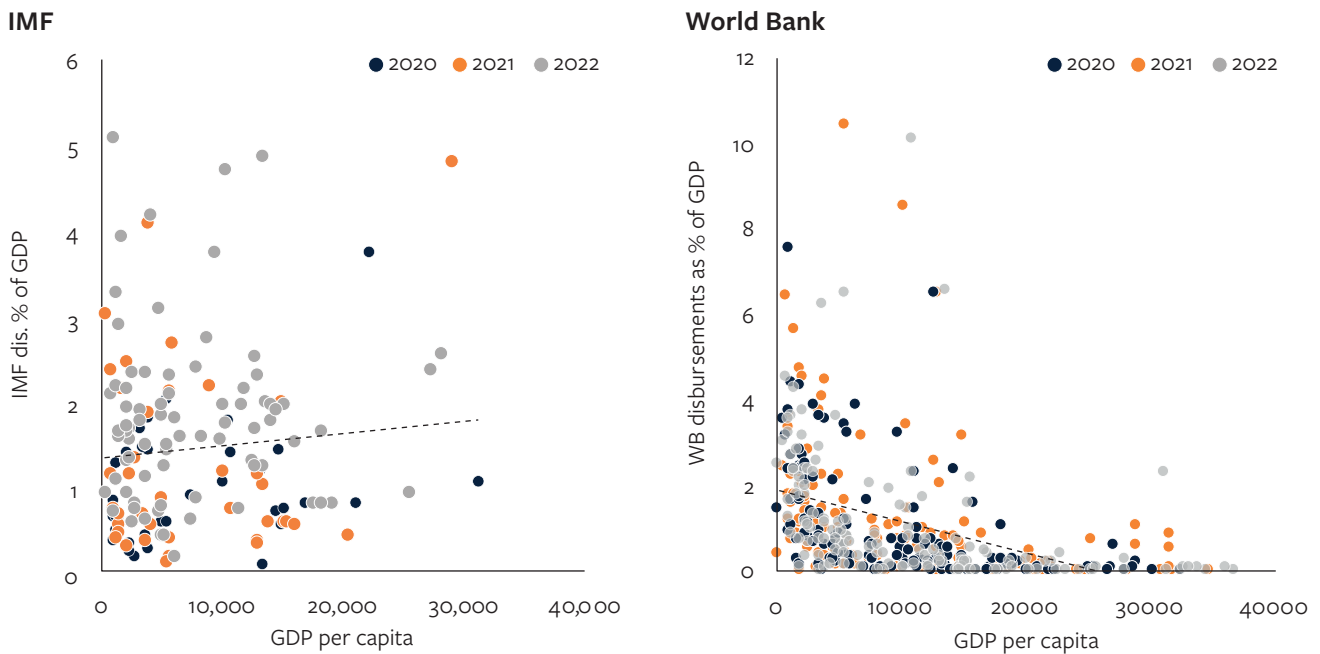
Source: Author based on data from IMF Financial Data Query Tool, World Bank databases, WDI and IMF (2019b, 2023d)

Figure 14 IMF country disbursements by pre-existing exports and reserves



Source: Author based on data from IMF Financial Data Query Tool, World Bank databases, WDI and IMF (2023d)

Figure 15 IMF and World Bank disbursements by GDP per capita

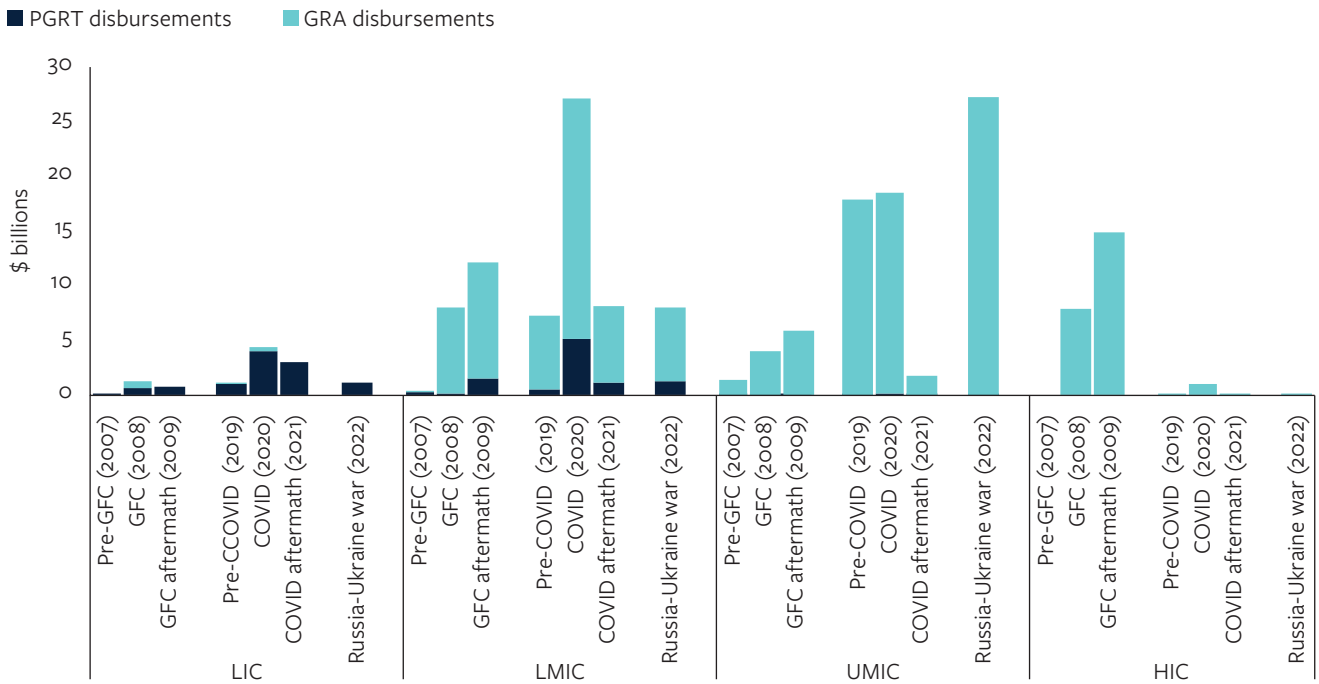


Source: Author based on data from IMF Financial Data Query Tool, World Bank databases, WDI and IMF (2023d)

Eligibility criteria (e.g., trigger crisis events and expected losses, income level) partially explain why most shock financing during the pandemic went to LICs and MICs. For instance, compared with the

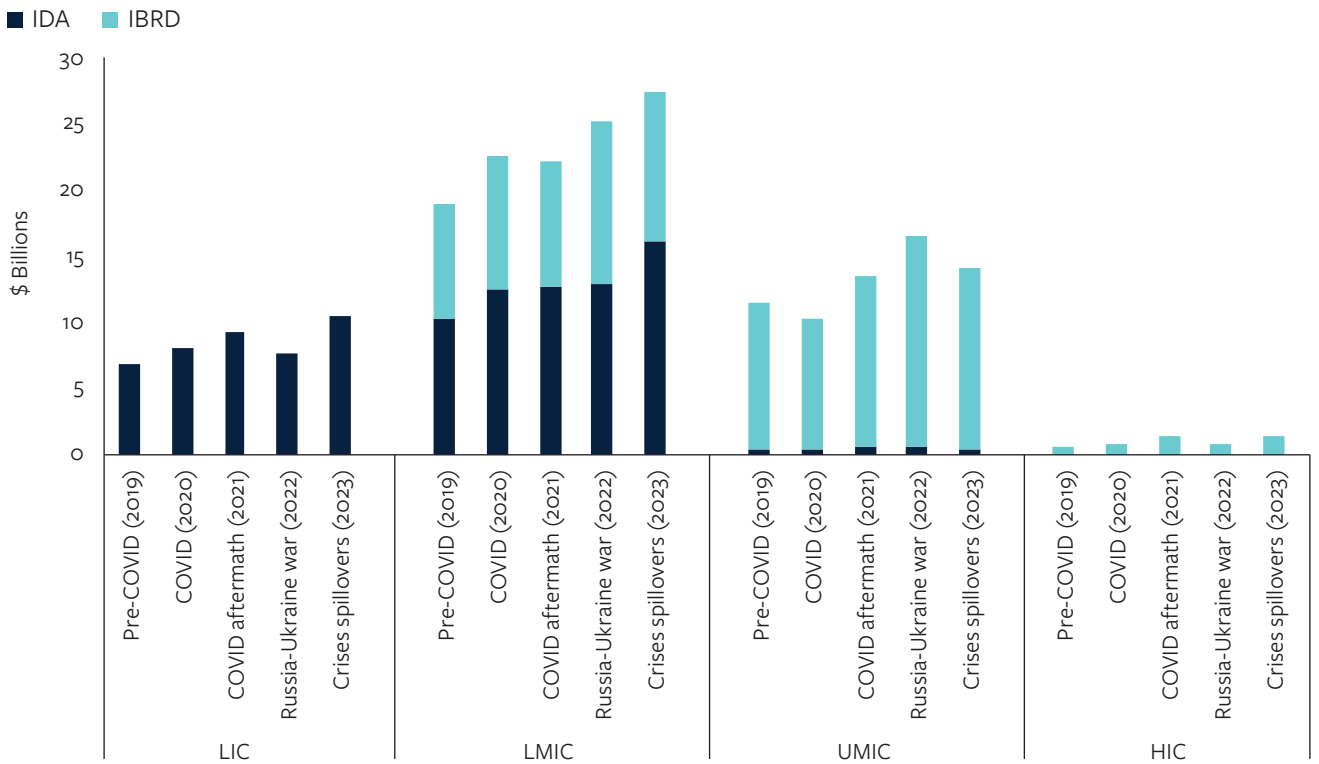
GFC period, when most IMF financing went to HICs, the bulk of the financing (at concessional rates) during the pandemic went to LMICs and MICs (Figures 16, 17).

Figure 16 Volume of IMF lending, PRGT and GRA gross disbursements: pre- and post-crisis (\$ billions)



Source: Author based on data from IMF Financial Data Query Tool

Figure 17 Volume of World Bank lending, IDA and IBRD gross disbursements: pre- and post-crisis (\$ billions)



Source: Author based on data from World Bank Group Finances database

Beyond eligibility, actual take-up of shock financing can be observed through the number of eligible countries that availed themselves of the financing, and the extent to which access limits to this financing were utilised.

Nearly two-thirds of eligible LICs availed themselves of IMF and World Bank COVID-related financing in 2020, with lower take-up rates for MICs. Table 5 shows that, in 2020, more than 70%

of eligible PRGT and IDA/blend countries availed themselves of financing from the IMF and the World Bank, respectively, and the rate remained high through 2021 (at around 60%). The rate of take-up is lower for eligible HICs from the IMF (23%) and the World Bank (38%). Take-up by GRA- and IBRD-eligible countries slowed in 2021, potentially reflecting the faster rebound of some HICs/MICs from COVID-19 compared with LICs.

Table 5 COVID-19-related IMF financing and World Bank projects, 2020-2021

	Eligible countries	2020, no. of countries (% of eligible countries)	2021, no. of countries (% of eligible countries)
IMF-PRGT	69	51 (73.9%)	42 (60.9%)
IMF-GRA	190 (all IMF members)	43 (22.6%)	13 (6.8%)
World Bank-IDA/blend	60 (IDA), 15 (blend)	55 (73.3%)	44 (58.7%)
World Bank-IBRD	69	26 (37.7%)	15 (21.7%)

Notes: IMF-GRA excludes precautionary lines (i.e., FCL, PLL). World Bank projects refer to projects supported by the FTCF, IBRD and IDA projects with components responding to COVID-19 and projects with other forms of finance/redeploying of existing projects. World Bank projects with no explicit information on approved amounts were excluded from the sample.

Source: Author based on 2020-2021 list of COVID-related IMF financing from IMF website (COVID-19 financial assistance and debt relief) and World Bank projects (World Bank Group's operational response to COVID-19)

Some data may also point to countries that have made full use of multilateral financing during the recent crises. Figure 18 shows how PRGT and GRA disbursed amounts were generally below access limits. However, the level of financing moved closer to PRGT and GRA access limits in 2020, especially for LMICs and UMICs, compared with pre-crisis levels. LMICs' PRGT borrowing, for

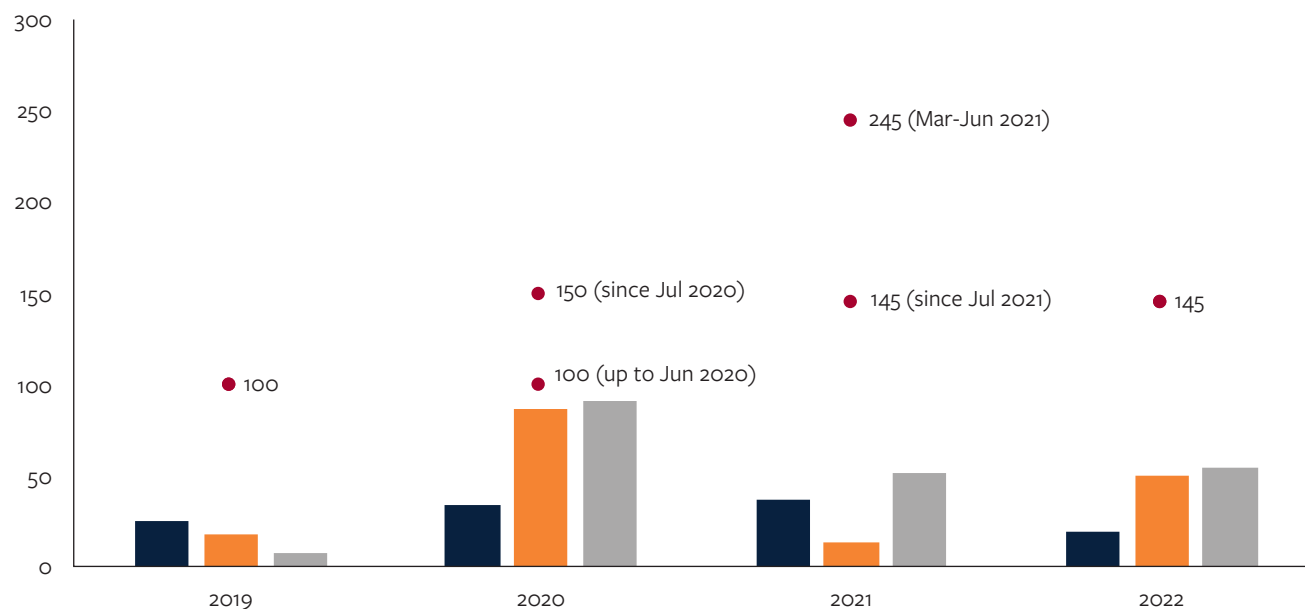
instance, increased from 18% of the quota in 2019 to 85% of the quota in 2020, relative to an access limit¹² equivalent to 100% of the quota in 2019–June 2020. For UMICs, GRA borrowing increased from 34% of the quota in 2019 to 80% of the quota in 2020, relative to an access limit of 145% of the quota in 2019–June 2020.

12 Assessment of annual and cumulative access limits on the PRGT are based on metrics (e.g., borrowing countries' GDP, trade, external financing needs) of potential demand for use of IMF resources and in response to higher financing needs arising from global economic developments, taking into consideration the financing constraints of a self-sustained PRGT (IMF, 2019a, 2021c). Exceptional access above normal access limits is available only to the poorest LICs. In July 2021, one reform includes the increase in PRGT annual and cumulative access limits by 45%, to better support LICs during the pandemic and beyond, and to bring alignment with the GRA access limit (IMF, 2023a). A funding strategy was adopted to ensure coverage of the cost of the PRGT access limit increases (ibid.).

Figure 18 IMF disbursements vis-à-vis annual access limits (median country, % of quota)

PRGT

■ LIC ■ LMIC ■ UMIC ● Annual access limit



GRA

■ LIC (Ethiopia) ■ LMIC ■ UMIC ■ HIC (Barbados) ● Annual access limit



Source: Author computations of median disbursements based on data from IMF Financial Data Query Tool. Access limits data based on IMF (2021d)

SDRs may also be utilised to augment shock financing resources. LICs and LMICs historically utilise SDRs more than higher-income countries do (Figure 19). LICs and LMICs’ utilisation of SDRs

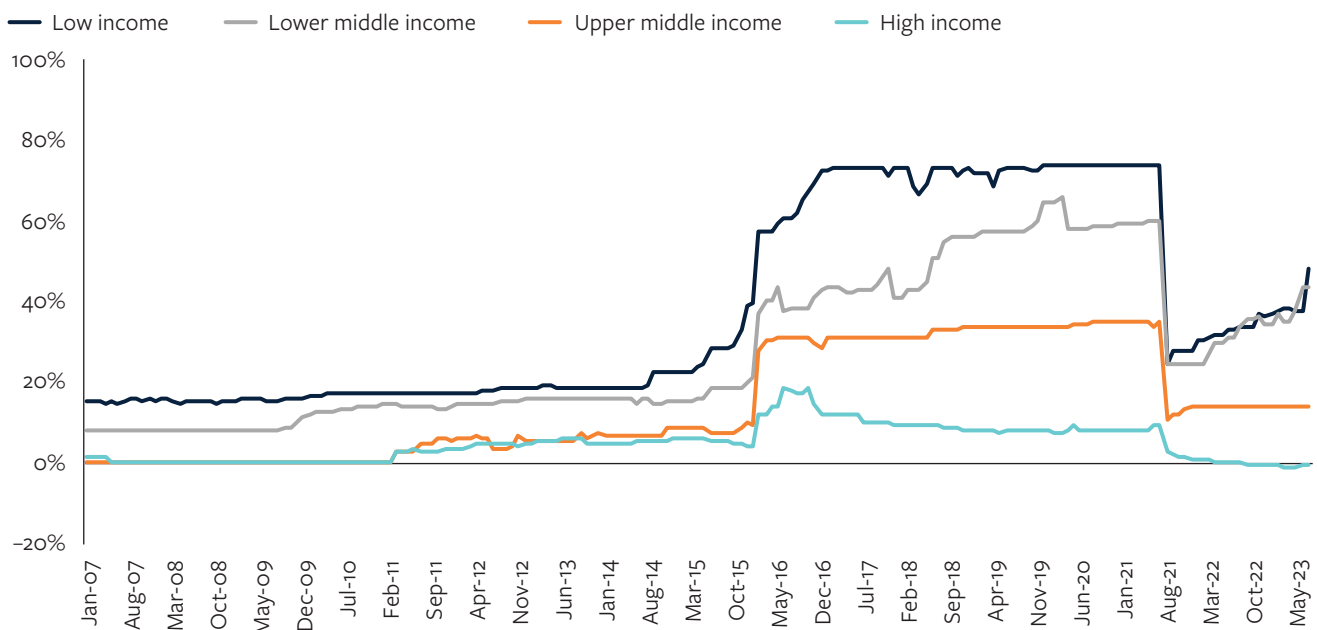
was especially boosted when quota reform in 2009 took effect in 2016, expanding the quota shares for emerging and developing countries. Utilisation also started to pick up from the

last quarter of 2021, when the SDR allocation (not quota shares) expanded as a response to the COVID-19 crisis (Figure 19).

However, the expanded SDR allocation in 2021 was not fully drawn out. In 2022, year-on-year changes (reductions) in SDR holdings of LICs amounted to 0.5% of their GDP, compared with available resources from the SDR expansion in 2021 worth 1.8% of GDP (Table 4). Nevertheless, an ex-post

IMF assessment suggests that the SDR allocation benefited countries with pre-existing higher spreads as they saw large reductions in these (IMF, 2023c). In addition, while most HICs held on to their SDRs and increased their holdings to allow SDR conversions by L&MICs, LICs exchanged a sizeable portion of their SDRs for freely useable currencies, while a large number of LICs and emerging markets used their SDR allocation to settle IMF obligations (ibid.).

Figure 19 SDR utilisation rate



Notes: * SDR utilisation rate (%) = (SDR allocation - SDR holdings) / quota x 100, following Armah and Perez-Caldentey (2022). A positive difference between SDR allocation and holdings means partial utilisation of the SDR allocation. Utilisation rate refers to the median of respective country groups.

Source: Author based on IMF Financial Data Query Tool

Precautionary arrangements were also not fully drawn out during the pandemic. Of the eight countries with existing precautionary lines before and during COVID-19 (2018–2021), only two drew resources to cope with the pandemic. Morocco drew out 100% of available PLL resources (\$3 billion, or 2.6% of GDP) in April 2020, and

Colombia drew out 31% of its available FCL resources (\$5.4 billion, or 2% of GDP).¹³

Multiple factors may influence the take-up of IMF or World Bank financing. These could include a combination of constraints to access limits or compliance with ex-ante eligibility requirements

13 Author computations based on precautionary arrangement data from IMF (2023b) and GDP data from IMF (2023d).

(supply-side factors) and the ‘stigma’¹⁴ associated with ex-post conditionalities from multilateral financing and preference for other resources (e.g., regional, bilateral or private financing) with less strings attached (demand-side factors).

For instance, Zimbabwe was not able to access external finance during the pandemic, since it was classified as in debt distress, with large and long-standing arrears from official and commercial creditors before the pandemic (IMF, 2020b). Tuvalu did not avail itself of financing from the IMF or the World Bank but secured an ADB COVID-related grant worth 7.2% of GDP in 2020.¹⁵ Lao PDR, Türkiye and Sri Lanka did not avail themselves of IMF financing during the pandemic but have drawn resources worth 1.6%, 1.8% and 0.7% of GDP, respectively, from their BSLs with China.¹⁶ Stringent conditionalities attached to financing also play a role in the take-up of multilateral financing. A study of 188 IMF members between 1992 and 2016 by Andone and Scheubel (2019) suggests that, while countries tend to request IMF programming during an acute crisis, outside of extreme crisis episodes, those that have experienced high levels of conditionalities in the past are less likely to ask for IMF assistance again. Conditionalities are discussed in more detail in the next section.

4.4 Conditions of financing

Conditionalities broadly refer to the required policies or reforms that borrowing countries need to implement to secure requested financing. They may come in the form of ex-ante requirements, referring to actions (e.g., policy reform plans) that need to be in place before financing approval, and/or ex-post policy implementation measured against agreed performance thresholds or benchmarks (e.g., levels of fiscal deficit, public debt, foreign reserves), typically aimed at economic stabilisation and enhancing growth.¹⁷

Conditionalities are a prominent feature of IMF financing, evolving from largely macroeconomic policy adjustment in the 1980s to more recognition of structural conditions and the global environment, especially since the GFC (IMF, 2019a). The World Bank’s policy-based lending, largely in the form of budget support, likewise requires ‘prior actions,’ mostly in the areas of public finance management and administration and other relevant themes, that need to be completed before disbursement. Nevertheless, debates have persisted on the appropriateness of conditionalities, especially in the context of significant structural constraints (e.g., LICs, fragile and small states) and uncertainties during multiple shocks that may limit the capacity of borrowing countries to meet such conditionalities.

14 Stigma associated with IMF assistance may refer to the perception that the IMF is impinging on a country’s sovereignty (political stigma), that it may generate negative perceptions of the country’s economic situation that could trigger capital outflows (financial market stigma) and that financing is tied with conditionalities that make it a less desirable source of crisis financing (Andone and Scheubel, 2019).

15 Author computations based on ADB COVID-19 loan and grant commitments from ADB (2021) and GDP data from IMF (2023d).

16 Author computations based on BSL drawdown data from Horn et al. (2023) and GDP data from IMF (2023d).

17 For example, IMF-supported programmes are directed primarily towards the following macroeconomic goals: ‘(i) solving the member’s BoP problem without recourse to measures destructive of national or international prosperity; and (ii) achieving medium-term external viability, while fostering sustainable economic growth’ (IMF, 2019a).

During the pandemic, the IMF increased its access limits and its financing of rapid financing instruments without ex-post conditionalities. During 2020–2021, it doubled from 50% to 100% of the quota the access limits on the Rapid Financing Instrument (RFI) and the Rapid Credit Facility (RCF). Approved loans under the RFI and

RCF comprised 61% of total approved loans in 2020, up from a 3.3% share in 2019. Outside crisis periods, disbursements were mostly through facilities with UCT arrangements (e.g., ECF, EFF, Stand-by Arrangement, Stand-by Credit Facility), which entail programme-based conditionalities (Figure 20).

Figure 20 IMF net financial flows by selected facility* (\$ billions and % share)

\$ Billions

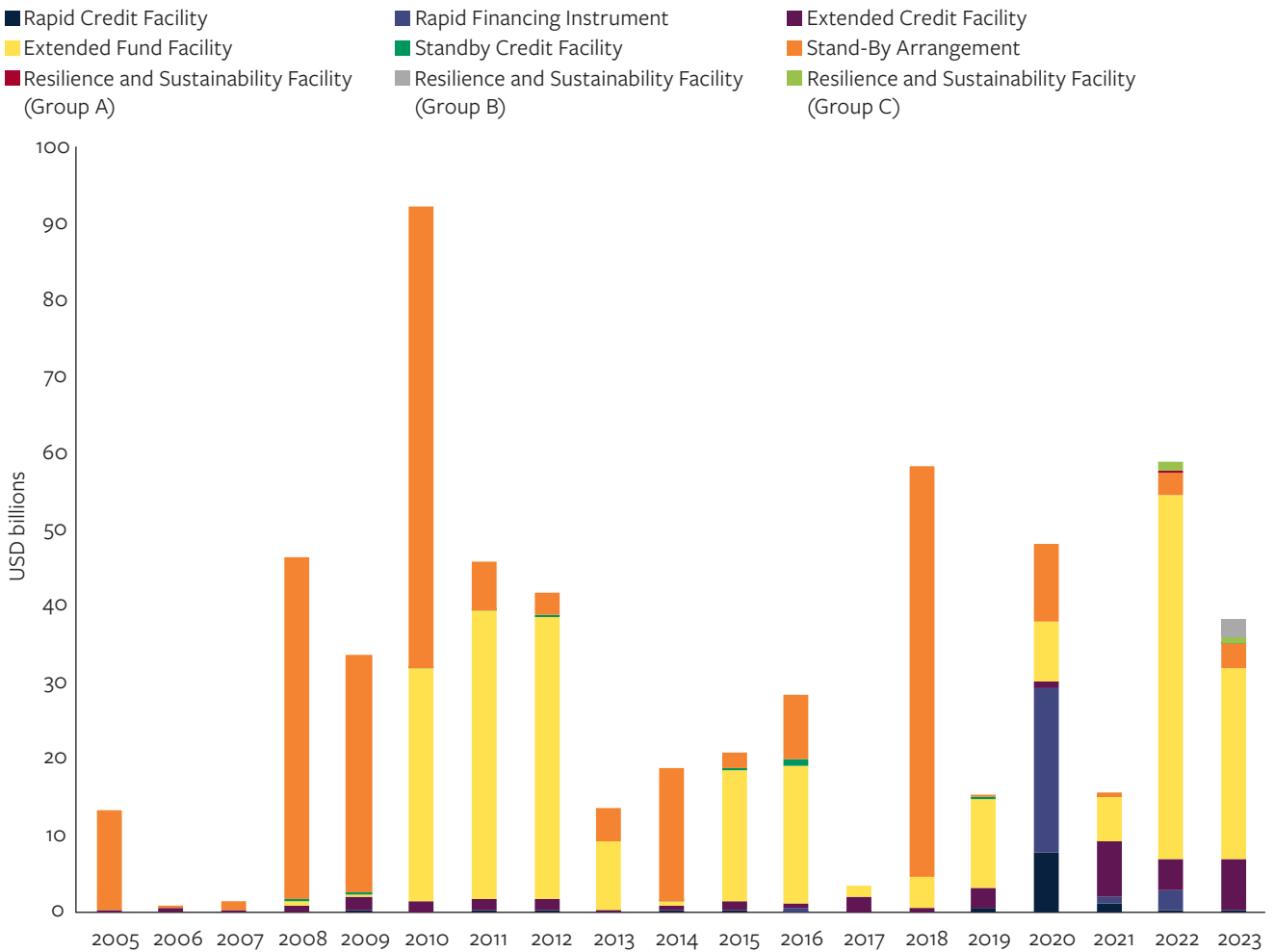
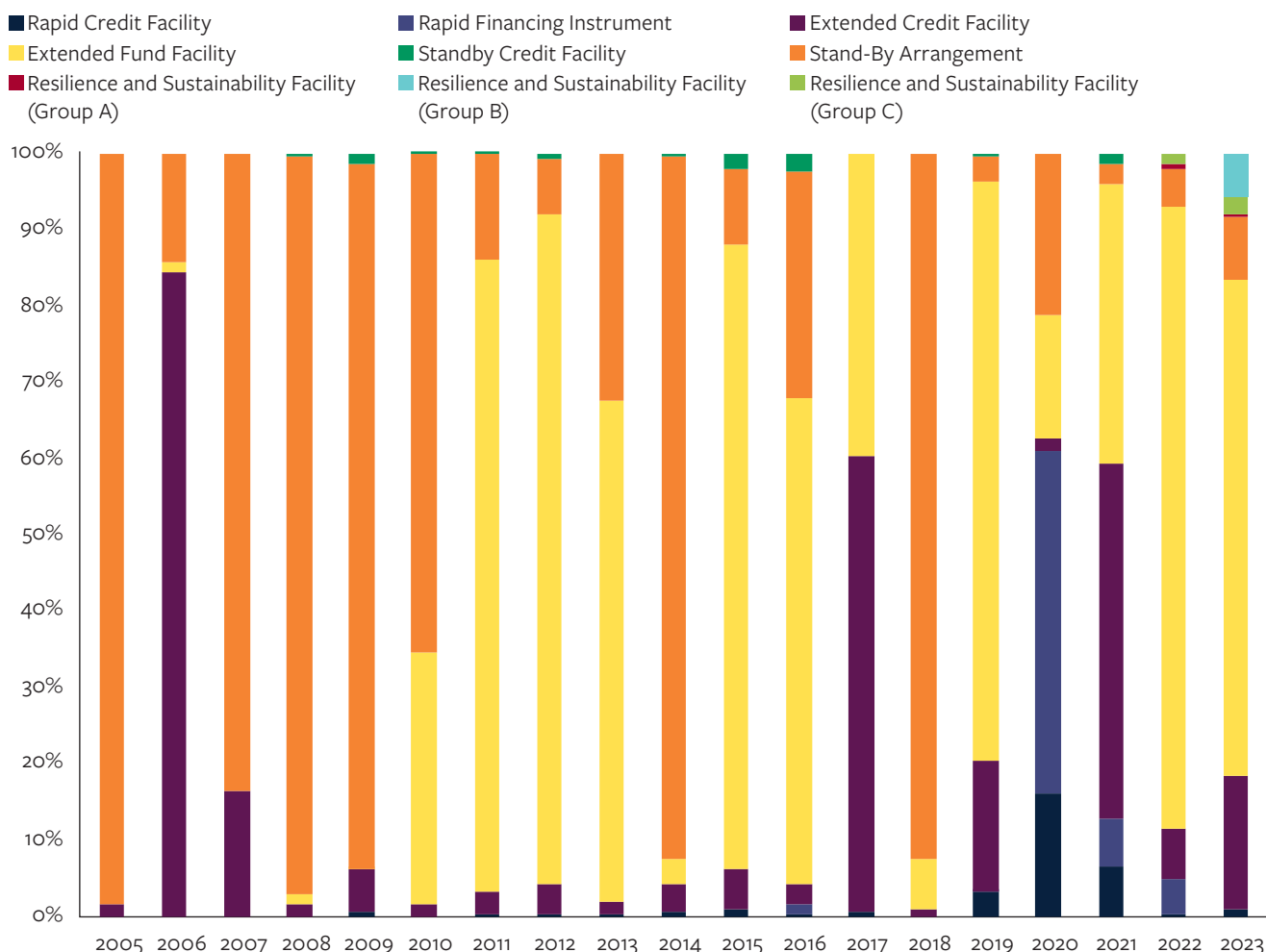


Figure 20 IMF net financial flows by selected facility* (\$ billions and % share) continued**% Share**

Notes: The presentation excludes precautionary arrangements (i.e., FCL, PLL and SLL). RSF Group A refers to PRGT-eligible countries that are not presumed blenders; RSF Group B are presumed blenders and non-PRGT-eligible small states with per capita gross national income below 10 times the IDA operational cut-off; and RSF Group C are all other RSF-eligible countries.

Source: Author based on data from IMF Financial Data Query Tool.

Conditionalities may discourage take-up of IMF financing (Andone and Scheubel, 2019). From January 2022, access limits on rapid financing instruments without ex-post conditionalities were returned to pre-pandemic levels. This may partially explain the lower take-up of IMF financing by LICs, which fell from 0.9% of GDP in 2020 to 0.2% of GDP by 2022 (Table 4), despite the growing

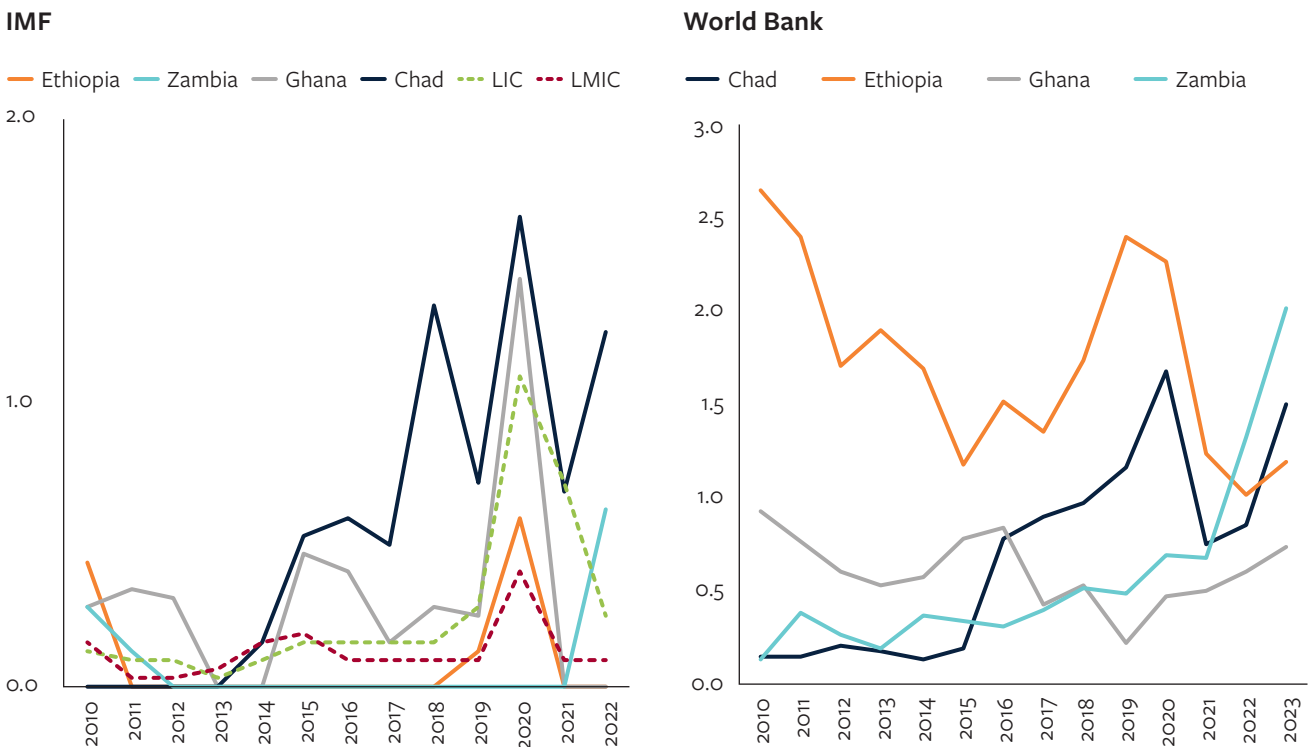
macro-fiscal pressures from the overlapping crises of COVID-19 lingering effects, the Russia-Ukraine war and global financial tightening. Take-up of financing through the RSF also remains low, potentially also partly because of complex climate diagnostics and conditionalities attached to the financing (Miller et al., 2023).

Public debt sustainability is an ex-ante conditionality of the IMF. Under the Lending into Arrears (LIA) policy applicable to all of its financing facilities except the RCF/RFI, the IMF is precluded from lending to countries with unsustainable debt. If countries are to access IMF financing, one requirement of the LIA policy relates to the ‘good faith’ efforts of the debtor to reach a collaborative agreement with its creditors (see ECB, 2021). Figure 21 shows a fall in financing for Chad, Ethiopia and Zambia in 2021 when they applied for the G20 Common Framework for Debt Treatment. Ghana applied later to the Framework, in January 2023. Chad and Zambia were only able to unlock upper tranche financing¹⁸ (i.e., not the RCF/RFI) through an ECF arrangement after they secured

creditor assurances in 2022. Meanwhile, the four countries continued to receive World Bank financing despite being at high risk of or in debt distress, as the IDA allows 100% financing for countries under said debt risk classification.

As for the World Bank, its fast-disbursing instrument, Development Policy Financing (DPF), has grown during crises (Figure 26). DPF’s share in IDA’s total commitment during the GFC (2009), COVID-19 (2020) and the Russia–Ukraine war (FY 2023) has ranged from 19% to 24%, compared with 9% to 14% outside crisis periods. The share of DPF in IBRD’s annual commitment is higher but fluctuates across the years; it peaked at 47% during the GFC (FY 2008).

Figure 21 IMF and World Bank disbursements to current G20 Common Framework applicants (% of GDP)



Source: Author based on data from IMF Financial Data Query Tool and World Bank Group Finances database

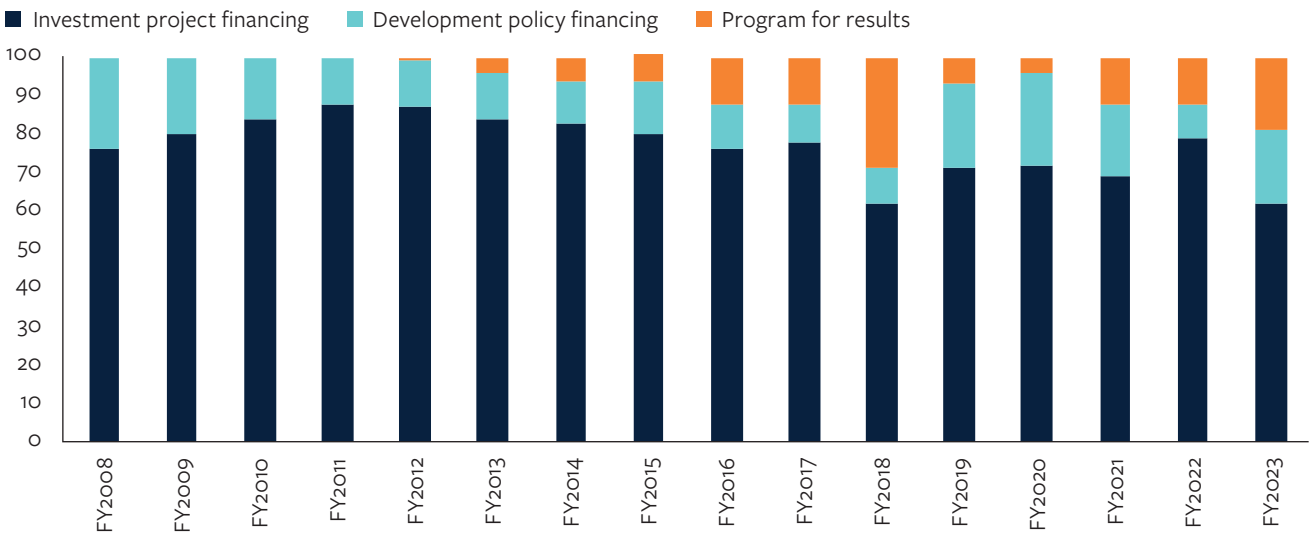
18 ‘Requests for the use of IMF resources in the upper credit tranches or more than 25 percent of quota, require substantial justification for the expectation that the member’s balance of payments difficulties will be resolved within a reasonable period of time’ (www.imf.org/en/About/Glossary).

DPF is not completely without conditionalities, in the sense that it requires ‘prior actions’ that need to be completed (e.g. in public finance management) before disbursement. During the pandemic, the World Bank’s DPF in the form of budget support required recipient countries to implement eight policy reforms, two-thirds of which were not directly relevant to the COVID-19 crisis and were more oriented towards the longer term (Landers

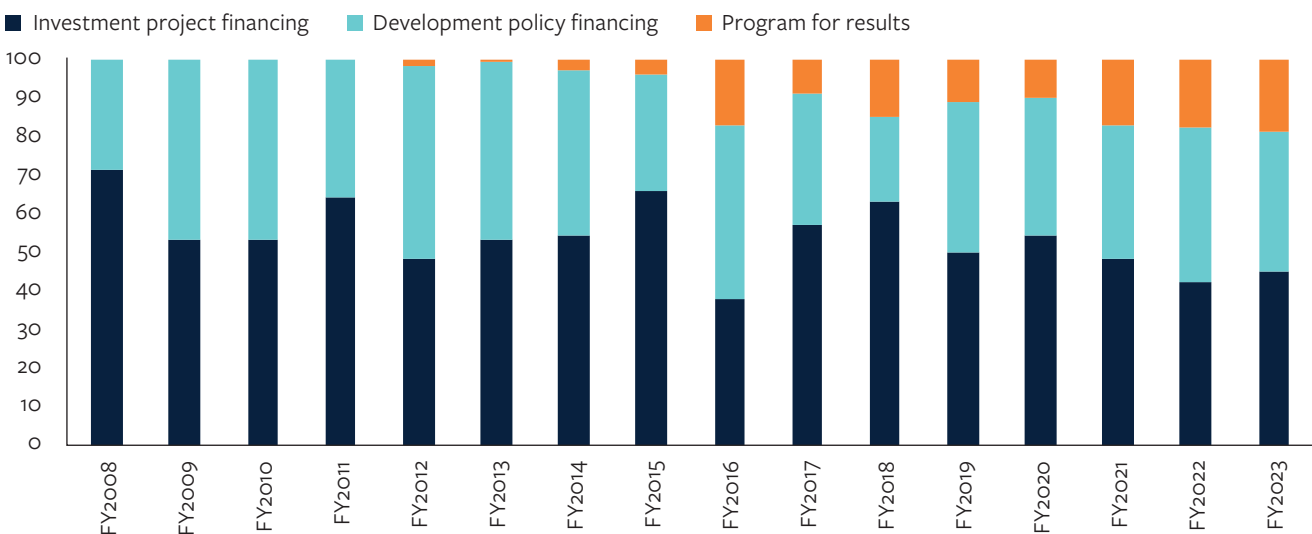
and Aboneaj, 2021). Such DPF conditionalities may impede the aimed-for speedy and flexible financing during crisis periods, and may discourage governments from availing themselves of such instruments (ibid.). This effect is confirmed by a survey by Prizzon et al. (2022), in which four out of five government officials expressed that policy reform conditionalities had affected their decisions about borrowing from MDBs.

Figure 22 World Bank commitment by lending category (% share of annual commitment)

IDA



IBRD



Sources: Author based on data from IBRD and IDA financial statement reports

5 Conclusions and implications for future reforms to the global financial architecture

The overlapping crises of the COVID-19 pandemic, the Russia–Ukraine war and the tightening of global financial conditions have had disproportionate scarring effects on L&MICs. Domestic policies can contribute to addressing these but, where domestic resources are limited and policy space is constrained, affordable external financing plays a significant role in shock management and recovery.

This paper has highlighted **the important role of the global shock financing architecture in preserving growth and development in a shock-prone world**. This architecture can be a source of three types of complementary financing: precautionary lines for quick access to liquidity to prevent a full-blown crisis; shock financing instruments to address governments' financing needs and preserve net financial flows at an affordable cost; and longer-term recovery financing for productive investment and development. However, the responsibilities of actors within the shock financing architecture have become fragmented over time, with some financing facilities (e.g., precautionary arrangements) remaining elusive for many L&MICs.

Evaluation of the performance of IMF and World Bank shock financing in the context of COVID-19 and the Russia–Ukraine war (2020–2022) points to some useful innovations but also persistent challenges:

- **The IMF and World Bank were quick to announce a scale-up of efforts to mobilise finance in response to the pandemic but actual net flows to L&MICs fell short of countries' financing needs.** The combined net financing from the IMF and the World Bank in 2020 stood at 2.8% of LICs' GDP and 0.6% of LMICs' GDP, significantly low compared with their growth losses of 6 pp and 9 pp in 2020, respectively, as a result of the pandemic. IMF net financing during 2020 reached only \$45 billion, representing only 4.5% of its \$1 trillion lending capacity.
- **The IMF exhibited a speedier response than the World Bank at the onset of the pandemic.** The IMF's net financing in April alone made up 32% and 39% of total disbursements in 2020 from the GRA and PRGT accounts, respectively. Meanwhile, project approvals from the World Bank in 2020 did not peak until June 2020 and did not differ significantly from the seasonal patterns of previous years.
- **The take-up of IMF and World Bank financing was much higher in LICs than in MICs at the peak of the pandemic, reflecting the reliance of the former on multilateral financing during crises.** More than 70% of eligible LICs accessed IMF PRGT and World Bank IDA/blend financing in 2020. MICs' take-up rate was lower, at 23% and 38% for IMF GRA and World Bank IBRD financing respectively. In addition, borrowing, particularly by LMICs and UMICs, increased significantly and moved closer to access limits in 2020, before tapering off in 2021.

- **Multiple factors can influence the take-up of shock financing from the IMF and World Bank**, including ex-ante eligibility criteria, availability of alternative resources and conditionalities.
- **The IMF exhibited flexibility by increasing access limits on emergency financing without conditionalities during the pandemic (for the World Bank this was less the case).** More than 60% of approved IMF loans in 2020 were made up of rapid financing instruments without conditionalities, compared with 3.3% in 2019. In contrast, the World Bank's fast-disbursing DPF during the pandemic was observed to have conditionalities oriented towards longer-term reforms, which may be difficult to implement in times of crisis.

The above findings highlight the importance of **treating shock financing as development financing** since multiple and large shocks can have lasting consequences for growth and development. In this context, the following are implications for future reforms to the global shock financing architecture.

- 1. Addressing funding constraints to scale up financing, especially for LICs.** Voluntary contributions, mostly from HICs, are the main funding sources for dedicated IMF PRGT and World Bank IDA facilities for LICs. In recent years, some of the traditional top donors have contributed less than they have historically (e.g., the US, Germany, the UK, France) (see details in Annex 3). Sustained commitment from HICs to these facilities is needed to narrow the gap and enable more equitable shock recovery.
- 2. Automatically activating higher access to emergency funding without conditionality in global shock and protracted crisis scenarios.** The IMF's design and implementation in temporarily increasing access to its rapid financing facilities provided lessons

on how to quickly disburse resources to member countries, especially LICs, at times of crisis. Uptake was also high, given that these instruments do not have attached conditionalities. In the current context of overlapping external shocks, maintaining higher access to emergency funding until the global economy recovers to the pre-crisis growth path may be warranted.

- 3. Extending precautionary arrangements to LICs and LMICs could be a potentially powerful tool to mitigate the escalation of crisis impacts.** However, these arrangements mostly involve only HICs and a few MICs. There is a need to expand access to flexible precautionary arrangements and BSLs to LICs and LMICs, which suffer more from capital outflows and sharp exchange rate volatilities in times of shock and global financial tightening. For the IMF, this may mean a careful review of the extent to which precautionary lending with less strict ex-ante requirements could be extended to more countries in times of shock while safeguarding IMF resources.
- 4. Utilising debt relief mechanisms for crisis management and shock recovery.** At the global level, there is a need to think about automatically extending DSSI-type instruments in the context of protracted crises and addressing the bottlenecks to progressing the G20 Common Framework for Debt Treatment. Financing institutions may also need to innovate in terms of instruments and funding strategies for debt relief during crises. Efforts may include incorporating pause clauses into debt repayments (e.g., the World Bank will start to implement this during climate disasters in vulnerable countries) and expanding the resources of financing facilities (e.g., similar to the IMF's CCRT) that provide grants for debt servicing during growth recessions and prolonged debt restructuring negotiations.

5. Coordinating the efforts of financing institutions to increase the effectiveness of and synergies among shock financing instruments. The current shock financing system is fragmented. HICs have established precautionary arrangements. Multilateral institutions step up shock financing during crises, but efforts are less coordinated on how financing instruments can be more flexible (e.g., in terms of ex-ante requirements and conditionalities) and sustained according to

country recipients' financing needs for lasting recovery. Temporary debt relief is not sufficient but existing debt treatment mechanisms have been extremely slow to progress. Financing institutions need to actively consider funding strategies and design complementary financing instruments to enable countries to prevent and address short-term macro-fiscal imbalances while also safeguarding financing flows for public investment to support productive growth and climate resilience.

Appendix 1 Overview of IMF financing sources, facilities and instruments

IMF financing is funded from three main sources: member quotas and backstops from multilateral and bilateral loan arrangements. Member quotas are the financial resources member countries are obliged to provide to the IMF based on relative importance in the world economy,¹⁹ and comprise the main source of the IMF's funds. The loans extended by the IMF are categorised into two types: non-concessional loans from its General Resources Account (GRA) and concessional loans through its Poverty Reduction and Growth Trust (PRGT).

The GRA is available for all members, subject to quota limits. The GRA contains the IMF holdings of members' currencies, SDRs, gold and other assets. Meanwhile, the PGRT is financed by loans from bilateral loan agreements at market interest rates. These loans are then extended to PGRT-eligible countries at zero interest rates. The difference between market rates by lenders and the below-market rates paid by PGRT borrowers creates subsidy costs. The loans and subsidy costs are funded by the IMF's internal resources (e.g., from gold sales) and largely by voluntary contributions of member countries in a stronger economic position (see IMF, 2021c).

In addition to PRGT resources, the poorest countries and those most vulnerable to natural or health disasters are eligible to access grants from

the IMF's Catastrophe Containment and Relief Trust (CCRT). The CCRT is funded through IMF fundraising efforts. The fact that the financing of the PGRT and CCRT comes through voluntary contributions poses risks to its reliability in the event of broad-based significant shocks across countries (e.g., if donors are also affected by shocks and lower their capacity to fund the PRGT and CCRT).

Specific lending facilities under the GRA and PGRT accounts and corresponding eligibility and access requirements (i.e., conditionalities) are presented in Table A1.1 – wherein most of the IMF's emergency, short-term and medium-term lending facilities have ex-ante access criteria and ex-post conditionality requirements. In April 2022, the IMF Resilience and Sustainability Facility (RSF), with loans of 20-year maturity and a 10.5-year grace period was also established to help L&MICs and small states address long-term structural challenges such as climate change and pandemics (IMF, 2022c).

The IMF can also decide to increase allocations of Special Drawing Rights (SDRs) to members, in proportion to their quota²⁰ shares in the IMF. The SDR allocation is not a loan from nor a claim on the IMF, but a unique form of international reserve asset created by the IMF that the members can hold, use or exchange for currencies (e.g., US dollars) according to their needs for supplementary liquidity.

19 The IMF quota formula = $0.5 \times \text{GDP} + 0.3 \times \text{openness} + 0.15 \times \text{variability} + 0.05 \times \text{reserves}$ compression factor.

20 The current quota formula is a weighted average of GDP (weight of 50%), openness (30%), economic variability (15%) and international reserves (5%). For this purpose, GDP is measured through a blend of GDP – based on market exchange rates (weight of 60%) and on purchasing power parity exchange rates (40%). The formula also includes a 'compression factor' that reduces the dispersion in calculated quota shares across members (IMF, 2016). For example, the US has the highest quota share, of SDR 82.99 billion (17.4% of the total) and Tuvalu has the smallest quota share, of SDR 2.5 million (0.001% of the total) as of 29 September 2022 (www.imf.org/en/About/executive-board/members-quotas).

Table A1.1 IMF lending facilities

Purpose	Financing facility	Eligible countries	Duration	Concessional	Access and conditionality
Present, prospective or potential BoP needs	Stand-by Credit Facility (SCF)	LICs	1–2 years (up to 3 years)	Yes (0%, 4-year grace period, up to 8-year maturity)	<ul style="list-style-type: none"> • Financing size is on case-by-case basis, considering BoP needs, strength of economic programme, capacity to repay
	Stand-by Arrangement (SBA)	All members		No (at SDR rate, with charges, repayment within 3.5–5 years)	<ul style="list-style-type: none"> • 145% of quota per year, can be exceeded under exceptional circumstances • With ex-post conditionality
Medium- to long-term assistance in case of protracted BoP needs	Extended Credit Facility (ECF)	LICs	3 up to 5 years	Yes (0%, 5.5-year grace period, up to 10-year maturity)	<ul style="list-style-type: none"> • Financing size is on case-by-case basis, considering BoP needs, strength of economic programme, capacity to repay
	Extended Fund Facility (EFF)	All members	Up to 4 years	No (at SDR rate, with charges, repayment within 4.5–10 years)	<ul style="list-style-type: none"> • 145% of quota per year, can be exceeded under exceptional circumstances • With ex-post conditionality with strong focus on structural reforms, in addition to maintaining macro stability
Actual and urgent BoP needs, (emergency financing for domestic, external, natural disasters)	Rapid Credit Facility (RCF)	LICs	Outright loan disbursement	Yes (0%, 5.5-year grace period, 10-year maturity)	<ul style="list-style-type: none"> • Access is on case-by-case basis; prior Fund programme not required
	Rapid Financing Instrument (RFI)	All members	Outright loan disbursement	No (at SDR rate, with charges, repayment within 3.5–5 years)	<ul style="list-style-type: none"> • 50% of quota per year; 100% quota on cumulative basis; higher limits for large natural disasters • No ex-post conditionality required; prior actions sometimes apply
Present, prospective, or potential BoP need	Flexible Credit Line (FCL)	Members with very strong fundamentals and policies	1–2 years	No (at SDR rate, with charges, repayment within 3.25–5 years)	<ul style="list-style-type: none"> • Access requires ex-ante qualification criteria (very strong policies and fundamentals) • No access limit • No ex-post conditionality • Annual reviews for 2-year arrangements
	Precautionary and Liquidity Line (PLL)	Members with sound fundamentals and policies	6 months or 1–2 years	No (at SDR rate, with charges)	<ul style="list-style-type: none"> • Ex-ante qualification criteria (sound fundamentals and policies but with remaining vulnerabilities precluding FCL access) • 125% of quota, up to 250% of quota for exogenous regional or global shocks per 6 months; can be exceeded under exceptional circumstances • With ex-post conditionality focusing on reducing remaining vulnerabilities

Purpose	Financing facility	Eligible countries	Duration	Concessional	Access and conditionality
Potential, short-term BoP needs arising from external developments (emergency financing)	Short-term Liquidity Line (SLL), April 2020	Members with very fundamentals and policies	12 months, can be extended	Partly (cheaper cost than FCL terms if used for precautionary basis)	<ul style="list-style-type: none"> • Access requires ex-ante qualification criteria (like in FCL, requires very strong fundamentals and policies) • Access up to 145% of quota • No ex-post conditionality
Long-term resilience-building (supporting structural reforms, increasing policy buffers)	Resilience and Sustainability Fund (RSF), April 2020	143 members comprising LICs, LMICs, vulnerable small states	Minimum of 18 months	Tiered terms, with more concessional terms for LICs; 10.5-year grace period, up to 20-year maturity	<ul style="list-style-type: none"> • Access requires high-quality reforms, concurrent Fund programme and sustainable debt and capacity to repay • 150% of quota or SDR 1 billion, whichever is lower • Streamlined conditionality linked to reform progress
Freeing up resources to meet BoP needs	Catastrophe Containment and Relief Trust (CCRT), with catastrophe containment and post-catastrophe relief windows Raised fund from members: \$0.8 billion	LICs and small states	Grants to pay debt owed to IMF within a period of 2 years from the decision date; full debt stock cancellation possible	N/A	<ul style="list-style-type: none"> • Catastrophe window: life-threatening epidemic or global pandemic; should put in place macro policies to address BoP needs • Post-catastrophe window: catastrophe affected one-third of the population; destroyed more than one-quarter of a country's productive capacity • Debt relief depends on qualifications, and sufficient resources of the CCRT

Source: www.imf.org/en/About/Factsheets

Appendix 2 World Bank shock financing facilities and instruments

The World Bank Group consists of five organisations: the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA) and the International Centre for Settlement of Investment Disputes (ICSID). The World Bank Group's financing is largely through the IBRD and the IDA (together comprising the World Bank) and the IFC. This analysis focuses on the World Bank. The IBRD lends to governments of MICs and creditworthy LICs, while the IDA provides interest-free loans (called 'credits') and grants to governments of the lowest-income countries.

The IBRD raises most of its funds from the international capital markets, while the IDA is largely funded by governments of HICs. The IDA is primarily funded by contributions from partner HICs and MICs, transfers from other World Bank Group institutions, borrowers' repayments of earlier IDA credits and funding raised in the capital markets (World Bank, 2022a).

The World Bank provides financing in three main categories:

- **Development Policy Financing (DPF)** is rapidly disbursing (one to three years) and goes to support actual or anticipated development financing for policy reforms aimed at achieving sustainable growth and poverty reduction. DPF supports such reforms through non-earmarked general budget financing.
- **Investment Project Financing (IPF)** focuses on long-term support (five to 10 years) by providing governments with financing for activities that create physical or social infrastructure for growth and poverty reduction.
- **Program-for-Results (PforR)** links the disbursement of funds directly to the achievement of specific results of government programmes, helping countries improve the design and implementation of their own development programmes.

Conditionalities are more prominent in DPF, in which 'prior actions' deemed critical to achieving the programme to be supported need to be completed before disbursements. Public finance management (e.g., expenditure management, revenue administration, debt management, transparency, etc.) traditionally dominates the types of required prior actions but the share of these fell from 39% in FY 2011–2015 to 26% in FY 2016–2021, with increasing importance of other reforms, particularly targeting environmental and natural resources (World Bank, 2022b).

The disbursement mechanisms for IPF and PforR do not strictly require prior actions but are linked to pre-identified expenditures to support operations, for IPF, and to results/performance indicators, in the case of PforR. As part of the financing approval process, both IPF and PforR follow a project/programme cycle that demands preparatory work from borrowing countries, including the conduct of technical,

fiduciary, environmental and social assessments in collaboration with the World Bank and/or by contracting consultants.²¹

The above policy instruments have been utilised in the World Bank's evolving approach to crisis (external and domestic) management. Some of the milestones in this have been as follows:

- In 2007, the Bank adopted a **framework of rapid response to crises and emergencies**, in view of earlier learnings on the lack of speed in the preparatory stages, slow disbursement and implementation delays that undermined effectiveness in most emergency and crisis periods (World Bank, 2007). **Under this framework, contingency instruments for DPF and IPF were developed**, such as the Catastrophe Deferred Drawdown Option (CAT-DDO, a contingent credit line in the aftermath of disasters) and the Contingent Emergency Response Component (CERC), minimising the number of processing steps and modifying fiduciary and safeguard requirements during emergencies (World Bank, 2009).
- In 2008 (IDA15), the World Bank adopted the **IDA Crisis Response Window (CRW)** as a pilot to address the impact of the GFC on IDA countries; in 2010, IDA16 adopted the CRW as a permanent IDA funding mechanism to extend financing for countries experiencing natural disasters and economic shocks; in 2014 (IDA17), CRW coverage extended to public health emergencies, following the Ebola outbreak (World Bank, 2019a).²²
- **Temporary financing facilities** include the Pandemic Emergency Facility (PEF). The PEF, with cash and insurance windows for IDA countries, was launched in 2016, following learnings about difficulties in rapidly mobilising finance during the Ebola outbreak in 2014. Conditions include the size, growth and coverage of the outbreak. Conditions were met in the context of the Ebola outbreak in 2018 and 2019 and the COVID-19 pandemic in March 2020. The PEF closed in April 2021.
- In 2017, the Bank adopted a **Multiphase Programmatic Approach (MPA)**. The MPA allows for an 'adaptive and programmatic approach,' whereby countries may structure a long, large or complex engagement as a set of smaller linked operations (or phases) with intermediate shorter-term targets. Thus, while the MPA is not directly linked to crisis financing, the framework allows for lending programmes to be adjusted or reallocated depending on lessons learned in the initial phases, or if the country's circumstances change. A global MPA was utilised during the COVID-19 crisis, facilitating streamlined World Bank processes, allowing a commitment of \$8.4 billion for 153 MPA operations and reprioritising \$3.1 billion from existing portfolios to support over 100 countries between April 2020 and June 2021 (World Bank, 2022a).

21 See <https://projects.worldbank.org/en/projects-operations/products-and-services/brief/projectcycle>

22 It might be noted that the IDA has various specialised windows aside from the CRW, including a regional window, a scale-up window, a window for host communities and refugees and a private sector window. However, the financing objectives of windows other than the CRW are targeted at medium- to long-term development projects, as opposed to the crisis/external shock management that is the focus of this paper. For information on various IDA windows, see <https://ida.worldbank.org/en/financing/resource-management>

Table A2.1 World Bank financing facilities and instruments

Purpose	Financing facility/instruments	Source of funding	Eligible countries	Duration	Concessional	Access and conditionality
Providing additional resources in response to major natural disasters, or public health emergencies and severe economic crises	IDA Crisis Response Window (CRW)	IDA resources	<p>IDA-eligible countries under pre-specified trigger natural disaster, health emergency and economic crises event conditions.</p> <p>IDA countries are those with per capita income below \$1,255 in FY 2023, and/ or that lack creditworthiness for IBRD borrowing.</p>	<p>Yes, similar to financing terms from IDA country allocations* but may be adjusted if disaster damages and losses are equivalent to a third of GDP.</p> <p>* IDA resources are highly concessional, for instance:</p> <p>100% grant for countries with high risk of debt distress; 50% grant for countries with medium risk of debt distress.</p> <p>IDA regular credits with 38-year maturity or in blend terms with 30-year maturity.²³</p>		<ul style="list-style-type: none"> • For emergencies and crises • Access is triggered by events related to natural disasters (e.g., declaration of national emergency), public health emergencies (e.g., pathogens, severity thresholds) and economic crises (i.e., resulting in regional GDP growth decline or country GDP decline by 3 pp, or a severe price shock with adverse broad-based or fiscal account impact). • The country's access to alternative sources of financing (including the IBRD) and its ability to use its own resources are also considered. • Limit is determined on a case-to-case basis. • For slower-onset disease outbreaks and food insecurity • Ex-ante requirement of credible preparedness plan in place or to develop such plan (prior to crisis); and to develop a credible costed response plan upon materialisation of disease outbreak and food insecurity. • Aggregate limit for both disease outbreak and food insecurity financing at \$500 million.
Contingent financing line that provides immediate liquidity to countries to address shocks related to natural disasters and/or health-related events	IDA Catastrophe Deferred Drawdown Option (CAT-DDO)	May be financed through concessional IDA core allocation; undistributed balances from ongoing programme; scale-up window (non-concessional)	IDA and blend countries; blend countries are IDA-eligible countries based on income per capita criterion, and are also creditworthy for some IBRD borrowing.	3-year drawdown period; may be renewed once for a maximum of 6 years in total	Available in both concessional and non-concessional terms	<ul style="list-style-type: none"> • Access is triggered by events, typically declaration of a state of emergency. • Ex-ante access criteria require recipients to have an adequate macroeconomic policy framework; and be preparing, or already have, a satisfactory disaster risk management programme. • Country limit at \$250 million or 0.5% of GDP, whichever is lower. IDA clients with limits below \$20 million may request a CAT-DDO up to \$20 million. • Ex-post World Bank monitoring of disaster risk management programme implementation.

23 See general IDA access and terms here: <https://ida.worldbank.org/en/financing>

Purpose	Financing facility/instruments	Source of funding	Eligible countries	Duration	Concessional	Access and conditionality
	IDA Scale-up Window ¹ to finance CAT-DDO (i.e., the window supports transformational development projects but may finance IDA CAT-DDO in emergency circumstances)		IDA and blend countries	Varied, depends on financing categories that would be scaled up (e.g., investment projects, development policy, PforR)	No	<ul style="list-style-type: none"> Ex-ante requirements for recipients to be at low or moderate risk of debt distress (otherwise may be considered on a case-by-case basis). Priority might be given to countries with the capacity to absorb resources. Country limit should not usually exceed its annual country allocation or one-third of the country's indicative IDA19 country allocation, or whatever is larger. However, caps for small countries are flexible.
	IBRD CAT- DDO		IBRD countries	3-year drawdown period; may be renewed up to four times up to a maximum of 15 years	No	<ul style="list-style-type: none"> Access is triggered by natural disasters or health emergencies. Ex-ante access criteria require recipients to have an adequate macroeconomic policy framework; and be preparing, or already have, a satisfactory disaster risk management programme. Country limit at \$500 million or 0.25% of GDP, whichever is lower. Ex-post World Bank monitoring of disaster risk management programme implementation.
	IBRD DDO		IBRD countries	3-year drawdown period; may be renewed for an additional 3 years		<ul style="list-style-type: none"> Access is triggered by adverse economic events such as a downturn in economic growth or unfavourable changes in commodity prices or terms of trade. Ex-ante access criteria require recipients to have an adequate macroeconomic policy framework; and be preparing, or already have, a satisfactory disaster risk management programme.

Purpose	Financing facility/instruments	Source of funding	Eligible countries	Duration	Concessional	Access and conditionality
Ex-ante emergency components in standard investment operations, facilitating rapid loan utilisation following a triggered emergency event	Contingent Emergency Response Component (CERC)	IBRD and IDA (performance-based) allocations, trust funds or 'contingent window' (project component re-allocation without formal project restructuring)	IBRD and IDA countries, depending on loan category with CERC	Not specified but generally supports rapid loan utilisation and implementation, such as through quick-disbursing features (e.g., financing public and private sector expenditures on selected goods; financing for emergency works, goods and services)		
Specific crisis-triggered financing facilities	Pandemic Emergency Facility (PEF), with cash and insurance windows (closed on 30 April 2021)	World Bank resources and donor governments	IDA-eligible countries		Yes (100% grant-based facility)	<ul style="list-style-type: none"> • Trigger event for access to insurance window: outbreak size, spread and growth. • Trigger event for cash window: pathogen type that is currently not endemically transmitted within human population, number of cases and World Health Organization technical assessment. • Submission of pandemic preparedness and response plans along with financing application.
	Fast Track COVID-19 Facility (FTCF), to assist countries' efforts to prevent, detect and respond to the threat posed by COVID-19 and strengthen national systems for public health preparedness	IBRD and IDA resources to component (1) provide health-focused financing support; (2) mobilise financing through new investment project or development policy; restructuring existing operations; and recommitment of cancelled or undischursed amounts from existing operations towards the FTCF	IBRD and IDA-eligible countries that seek help with emergency response following World Health Organization classification of COVID-19 as a pandemic		Concessional for IDA financing; non-concessional for IBRD financing, but with waived/reduced administrative fees	<ul style="list-style-type: none"> • Streamlined processes and/or temporary relaxed access criteria. For instance, management review for emergency operations and project restructuring was reduced from 10–20 days to 5 days. • Each country would have access equivalent to 0.1% of GDP, subject to floors and caps. Allocation caps are calibrated using population size (e.g., 20 million population = \$20 million allocation cap; over 1 billion population = \$350 million allocation cap), with resources extended for regional operations and CERCs to be deducted from country allocation.

Sources: 1/ <https://ida.worldbank.org/en/replenishments/ida19-replenishment/ida19-scale-up-window>; IDA (2020), World Bank (2018, 2019b, 2020a, 2021b)

Appendix 3 IMF PRGT and IDA replenishment funding sources

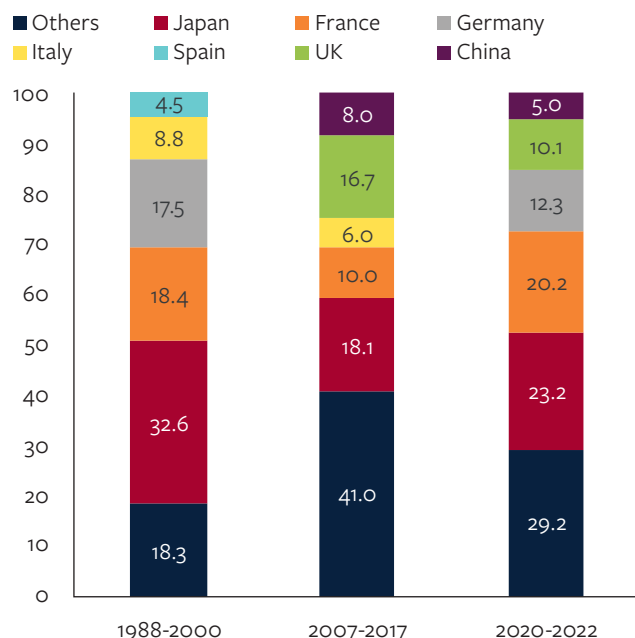
The PRGT and the IDA are the respective IMF and World Bank sources of their concessional financing for LICs and mostly LMICs, such that the scale of financing for these countries depends on the financing envelope of these sources. Notably, PRGT and IDA resources are both largely reliant on the voluntary contributions of HICs.

For the PRGT, Japan, France and Germany were the countries providing the largest loan arrangements (about 70%) in the late 1980s to 2000, while the UK and China contributed a quarter of total loan arrangements for the PRGT between 2007 and 2017 (Figure A3.1).

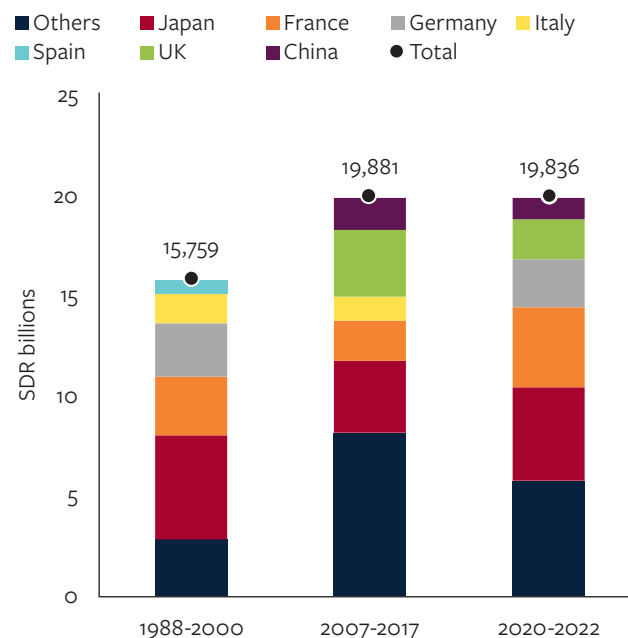
The increased demand for PRGT borrowing combined with increased access limits for LICs during the pandemic resulted in a sizeable shortfall in the necessary resources, prompting the IMF to launch its new funding strategies to support the PRGT by July 2021. The latest fundraising, in 2021, aimed to reach a target of \$16.8 billion and \$3.1 billion loan and subsidy resources, respectively, for the PRGT. The cumulative borrowing arrangements between 2020 and 2022 generated the highest volume of loan resource contributions; 70% came from the top five contributors – that is, Japan, France, Germany, UK and China (Figure A3.1).

Figure A3.1 PRGT borrowing arrangements

% share



SDR billions



Notes: Figures are based on dates of borrowing arrangements and drawing periods cover multiple years. For example, most borrowing arrangements prior to 2000 have been repaid, while most arrangements around 2010 and since 2020 are active up to 2024 and 2029, respectively. US dollar equivalents are computed based on averages of daily SDR to US\$ exchange rates (earliest data available 1994-2000; 2007-2021; 2020-2022).

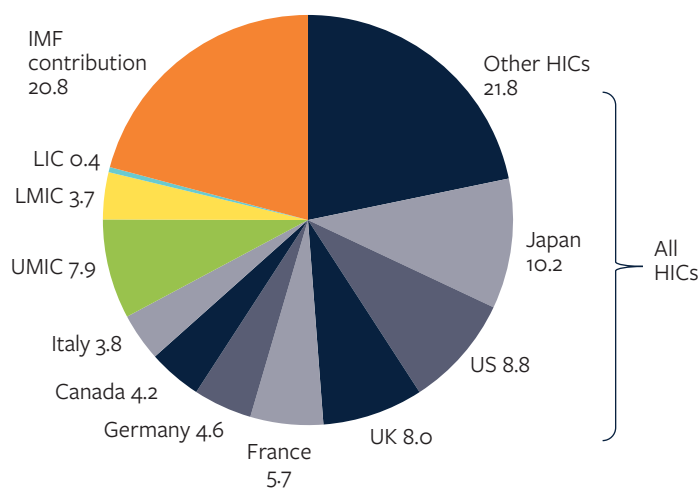
Source: Author based on data in IMF (2022a) and IMF Exchange Rate Query Tool

While the 2021 PRGT loan resource target of \$16.8 billion has been reached, additional pledges worth \$1.2 billion still need to be mobilised as of July 2023. Historically, HICs have also been the main contributors to the PRGT’s subsidy resources

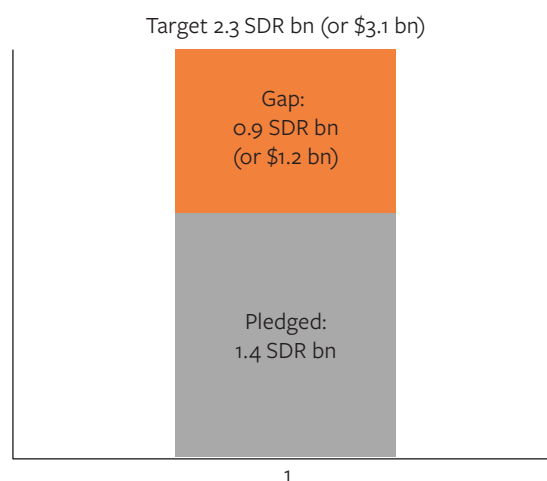
(67%), followed by IMF contributions (21%) (Figure A3.2). Table A3.1 shows that some of the top contributors (e.g., the US, Germany) have contributed less than the IMF’s proposed country contributions based on their quota shares.

Figure A3.2 PRGT subsidy contributions and pledges

PRGT subsidy contributions
(% share of total SDR 6.8 billion as of December 2021)



PRGT subsidy pledges under 2021 fundraising round
(as of July 2023)



Source: Author using data from IMF (2022a) and www.imf.org/en/Topics/PRGT

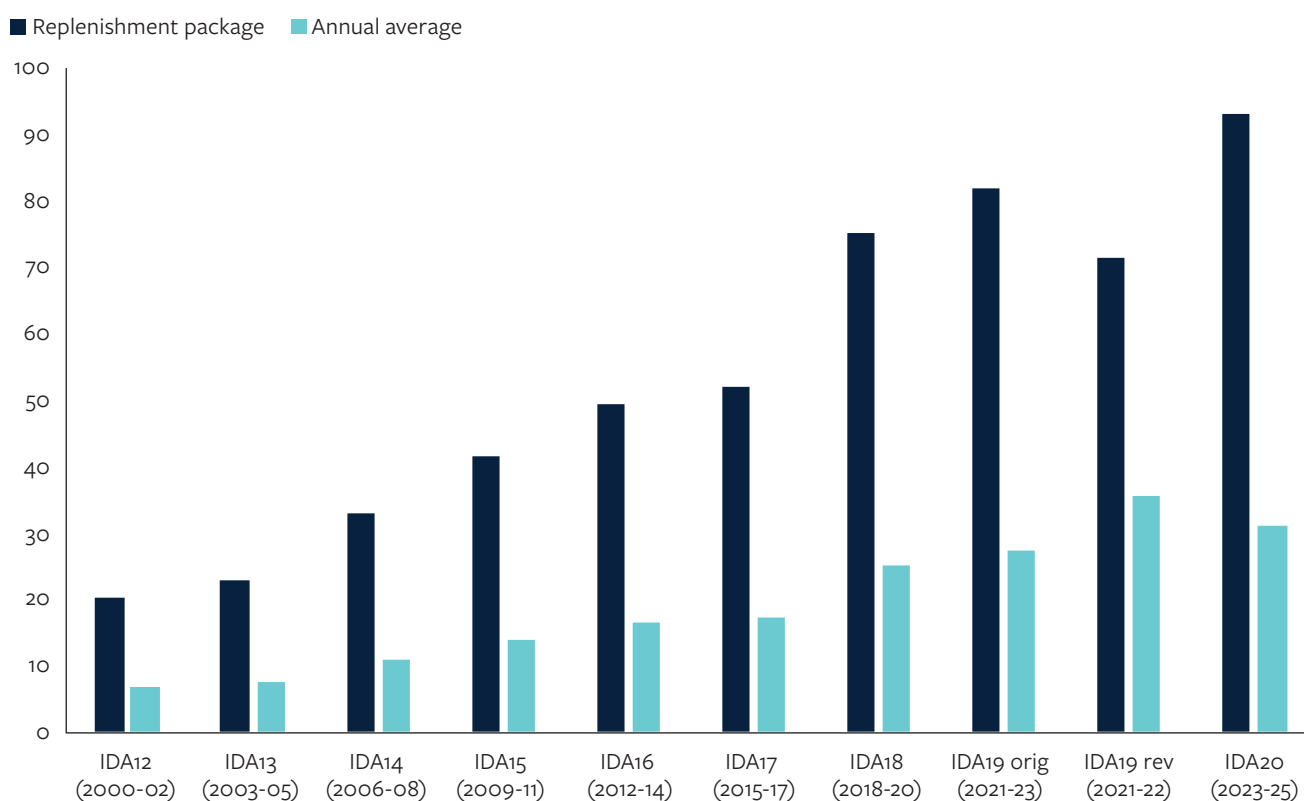
Meanwhile, the World Bank’s IDA resources have historically been dependent on country contributions, with additional funds from IDA internal resources and IBRD and IFC contributions. In 2018, the IDA adopted a new hybrid financing model, by issuing debt in the capital markets against its outstanding loans (equity). In view of the higher financing needs of IDA-eligible

countries, the IDA19 resources were frontloaded, and IDA20 replenishment was conducted one year ahead of schedule. While IDA20 has secured the highest replenishment package ever, worth \$93 billion, the annual average of the package has gone down to \$31 billion, from \$36 billion in the IDA19 replenishment (Figure A3.3).

Table A3.1 2021 PRGT subsidy fundraising target: pledges vs proposed contributions

Proposed top contributors for new subsidy resources target of SDR 2.3 billion				
	Pledged as of July 2023 (A)	Proposed contributions (B)	Gap (A-B)	
Japan	170	169	1	
US	55	456	-401	
UK	250	111	139	
France	106	111	-5	
Germany	82	146	-64	
Canada	60	61	-1	
Italy	82	83	-1	
Total	805	1137	-332	
% of fundraising target	70	49	-14	

Source: Author using data from IMF (2022a) and www.imf.org/en/Topics/PRGT

Figure A3.3 IDA replenishment (\$ billions)

Source: Author based on World Bank reports

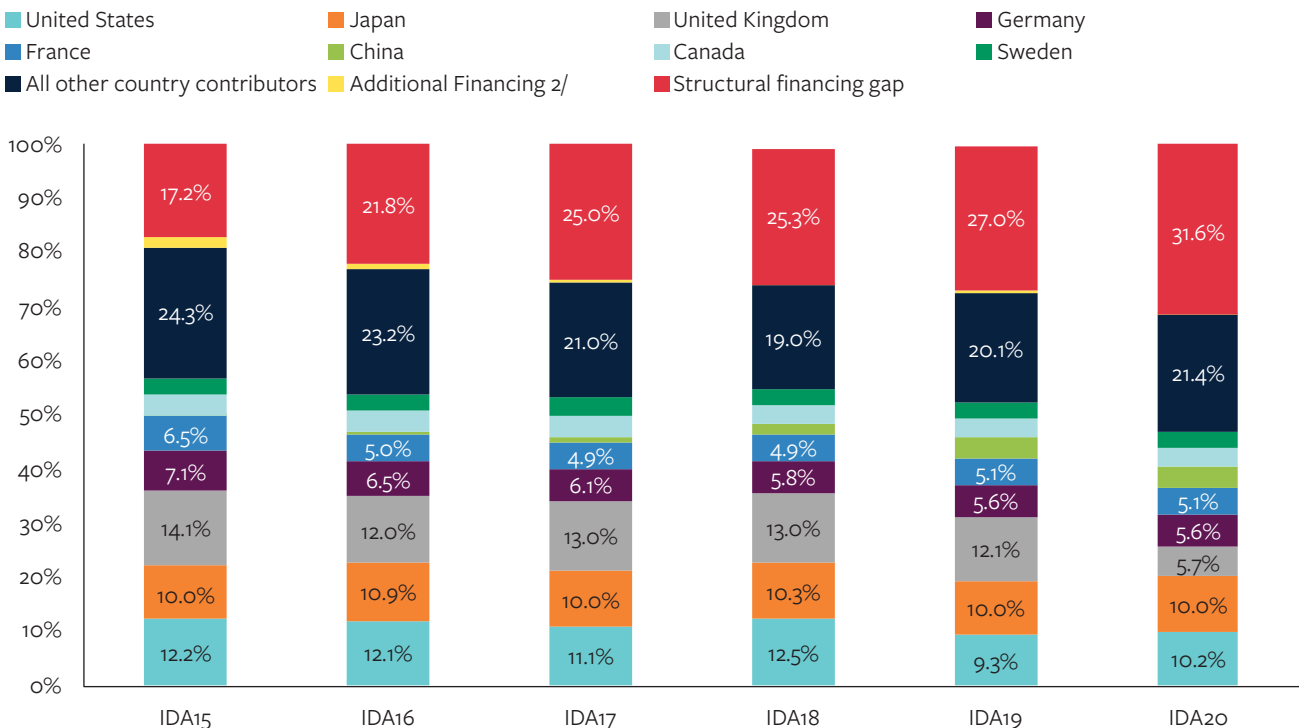
Voluntary contributions are important in the IDA’s financing model. Of the \$93 billion IDA20 package, \$23.5 billion has been mobilised from HIC and MIC contributions.²⁴ This implies that, for every \$1 donor contribution to the IDA, about \$4 is leveraged for financial support for many LICs.

Figure A3.4 shows that the top five contributors to IDA15–18 replenishments were the US, Japan, the UK, Germany and France, making up 45–50% of all country contributions. The shares of these five traditional donors fell to 42% in IDA19 and 36.6% in IDA20, partially offset by China’s higher share of around 3.8% during both replenishments. Specifically, the UK’s contribution fell by half, from SDR 2.8 billion in IDA15 to SDR 1.4 billion during IDA20; Germany and France’s contributions also fell marginally.

In addition, it is notable that the ‘structural financing gap’ has increased from 17.2% in IDA15 to 31.6% in IDA20. The structural financing gap represents the shortfall between the targeted funding volume agreed by donors in a given replenishment and actual donor funding. A widening gap reflects a reduction in the burden share of some donors (basis of contribution) without commensurate increases from other donors and is a reflection of not being able to secure funding to fully meet projected demand (see further discussions in IDA, 2009). For instance, the structural financing gap during the IDA20 replenishment amounted to SDR 7.6 billion (\$10.6 billion), which could potentially be leveraged (through the debt markets) for an additional \$40 billion in funds for the IDA.²⁵

Figure A3.4 IDA donor contributions and the structural financing gap

% share of IDA target contributions

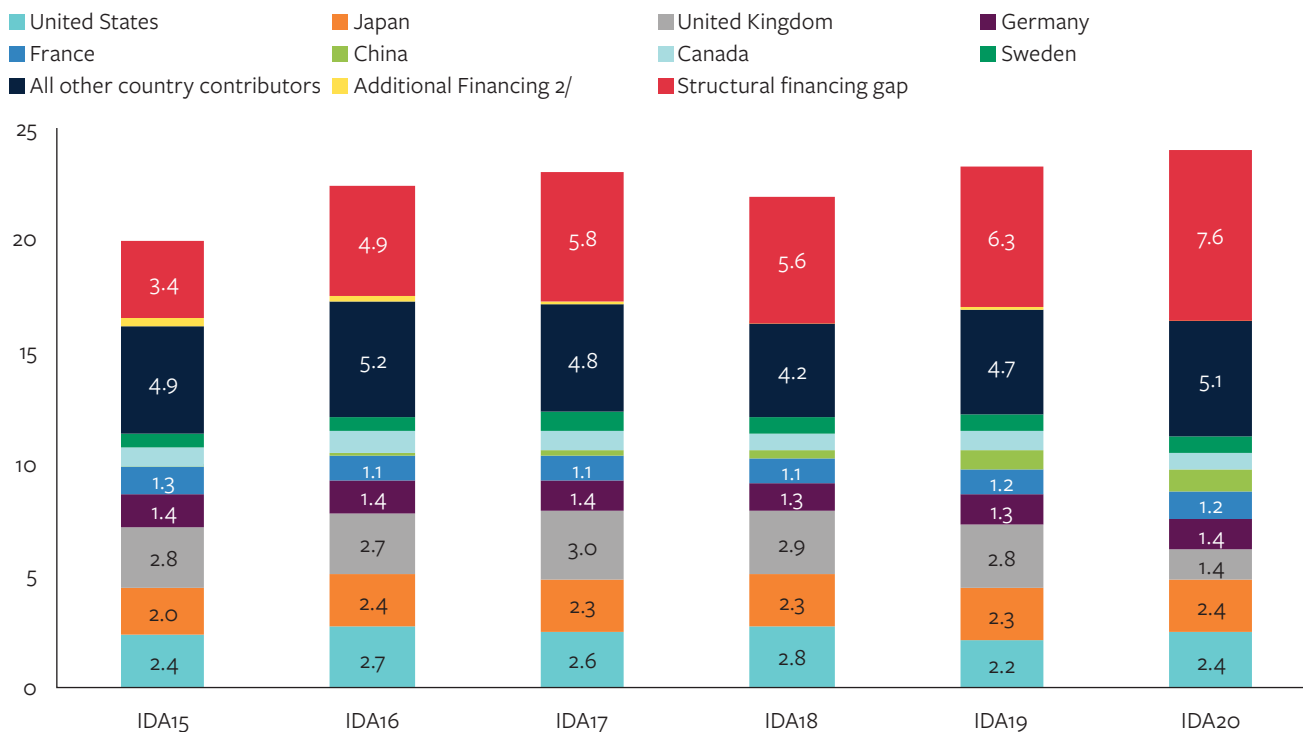


24 Author computations based on data from the IDA20 replenishment report.

25 Rough computations based on the ratio of IDA20 replenishment member contributions (\$23.5 billion) and the overall IDA20 replenishment package (\$93 billion).

Figure A3.4 IDA donor contributions and the structural financing gap continued

IDA contributions (SDR bn)



Source: Author based on IDA replenishment reports

References

- ADB – Asian Development Bank** (2021) *2020 ADB annual report*. Manila: ADB.
- ADB – Asian Development Bank, ESCAP – United Nations Economic and Social Commission for Asia and the Pacific and UNDP – United Nations Development Programme** (2010) *Achieving the Millennium Development Goals in an era of global uncertainty*. Asia Pacific Regional Report 2009/2010. Bangkok: ESCAP.
- Adler, G., Magud, N. and Werner, A.** (2017) ‘Terms-of-trade cycles and external adjustment’. Working Paper 2017/029. Washington, DC: IMF.
- Ams, J., Baqir, R., Gelpern, A. and Trebesch C.** (2020) ‘Sovereign default’ in S. Ali Abbas, A. Pienkowski and K. Rogoff (eds) *Sovereign debt*. Oxford: OUP.
- Ando, T., Asonuma, A., Sollaci, B. et al.** (2023) ‘Coming down to earth: how to tackle soaring public debt’ in IMF World Economic Outlook, April.
- Andone, I. and Scheubel, B.** (2019) ‘Once bitten: new evidence on the link between IMF conditionality and IMF stigma’. Working Paper 2262. Frankfurt: ECB.
- Arabaci, M.C. and Ecer, S.** (2014) ‘The International Monetary Fund (IMF) and the catalytic effect: do IMF agreements improve access of emerging economies to international financial markets?’ *The World Economy* (doi:10.1111/twec.12145).
- Armah, B. and Perez-Caldentey, E.** (2022) ‘Special Drawing Rights (SDRs) and the COVID-19 crisis’. Santiago and Addis Ababa: ECLAC and UNECA.
- Arteta, C., Kamin, S. B. and Ruch, F.U.** (2022) ‘How do rising U.S. interest rates affect emerging and developing economies? It depends’. Policy Research Working Paper 10258. Washington, DC: World Bank.
- Attridge, S.** (2022) ‘Development finance institutions stepped up in times of crisis, but must now step out of their comfort zone’. ODI Insights, 19 April (<https://odi.org/en/insights/development-finance-institutions-stepped-up-in-times-of-crisis-but-must-now-step-out-of-their-comfort-zone/>).
- Beirne, J., Renzhi, N. and Volz, U.** (2021) ‘Feeling the heat: climate risks and the cost of sovereign borrowing’ *International Review of Economics and Finance* 76: 920–936.
- Bird, G. and Rowlands, D.** (2017) ‘The effect of IMF programmes on economic growth in low income countries: an empirical analysis’ *The Journal of Development Studies* 53(12).
- BIS – Bank for International Settlements** (2021) ‘Changing patterns of capital flows’ CGFS Paper 66. Basle: BIS.
- Briguglio, L.** (2016) ‘Building resilience in the Pacific islands’. Chapter 3 in IMF (ed.) *Resilience and growth in the small states of the Pacific*. Washington, DC: IMF.
- Cevik, S. and Jalles, J.T.** (2020) ‘This changes everything: climate shocks and sovereign bonds’. Working Paper 2020/079 9. Washington, DC: IMF.
- Cevik S. and Jalles, J.T.** (2023) ‘Eye of the storm: the impact of climate shocks on inflation and growth’. Working Paper 2023/087. Washington, DC: IMF.
- Chakrabarti, S., Pantuliano, S. and Prizzon, A.** (2022) ‘Independent think tank leaders issue call to action for MDB reform’. ODI Insights, 6 October (<https://odi.org/en/press/independent-think-tank-leaders-issue-call-to-action-for-mdb-reform/>).
- Chelsky, J.** (2023) ‘Evaluating budget support’. Independent Evaluation Group Blog, 20 April (<https://ieg.worldbankgroup.org/blog/evaluating-budget-support>).

- Chun, S., Naidoo, K. and Sobrinho, N.** (2022) 'The impact of the IMF's Covid-19 support to developing and emerging economies'. Working Paper 22/261. Washington, DC: IMF.
- Cohen, C., Abbas, S.A., Anthony, M. et al.** (2020) 'The role of state-contingent debt instruments in sovereign debt restructurings'. Staff Discussion Note 2020/006. Washington, DC: IMF.
- Commonwealth Secretariat** (2021) *The Commonwealth universal vulnerability index. For a global consensus on the definition and measurement of vulnerability*. London: Commonwealth Secretariat.
- Di Pace, F., Juvenal, L. and Petrella, I.** (2020) 'Terms-of-trade shocks are not all alike'. Working Paper 2020/280. Washington, DC: IMF.
- Diop S., Asongu, S.A. and Nnanna, J.** (2021) 'Covid-19 economic vulnerability and resilience indexes: global evidence' *International Social Science Journal* 71: 37–50.
- DRMK – Disaster Risk Management Knowledge Centre** (2023) 'INFORM methodology'. Inter-Agency Standing Committee Reference Group on Risk, Early Warning and Preparedness and the European Commission (<https://drmkc.jrc.ec.europa.eu/inform-index/InDepth/Methodology>).
- ECB – European Central Bank** (2021) 'The IMF's role in sovereign debt restructuring'. ECB Occasional Paper 262. IRC Task Force on IMF and Global Governance Issues.
- Eichengreen, B. and Gupta, P.** (2016) 'Managing sudden stops'. Policy Research Working Paper 7639. Washington, DC: World Bank.
- Eichengreen, B., Gupta, P. and Mody, A.** (2006) 'Sudden stops and IMF-supported programs'. Working Paper WP/06/101. Washington, DC: IMF.
- Engen, L. and Prizzon, A.** (2018) 'A guide to multilateral development banks'. London: ODI.
- Erce, A. and Riera-Crichton, D.** (2015) 'Catalytic IMF? A gross flows approach'. Working Paper 254. Globalization and Monetary Policy Institute, Federal Reserve Bank of Dallas.
- Gourinchas, P.O., Kalemli-Özcan, S., Penciakova, V. and Sander, N.** (2021) 'Fiscal policy in the age of Covid: does it “get in all of the cracks”?' Working Paper 29293. Cambridge, NBER.
- Guillaumont, P. and Wagner, L.** (2021) 'Multidimensional vulnerability index: potential development and uses'. New York: UN-OHRLLS.
- Hobelsberger, K., Kok, C. and Mongell, F.M.** (2023) 'A tale of three crises: synergies between ECB tasks'. Occasional Paper 305. Frankfurt: ECB.
- Horn, S., Parks, B., Reinhart, C. and Trebesch, C.** (2023) 'China as an international lender of last resort'. Working Paper 31105. Cambridge, MA: NBER.
- Horton, M. and El-Ganainy** (nd) 'Fiscal policy: taking and giving away'. IMF Finance and Development (www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/Fiscal-Policy).
- Humphrey, C. and Mustapha, S.** (2020) 'Lend or suspend? Maximising the impact of multilateral bank financing in the Covid-19 crisis'. Working Paper 585. London: ODI.
- Iancu, A., Kim, S. and Miksjuk, A.** (2021) 'The global financial safety net during the COVID-19 crisis: an interim stock-take'. Special Series on COVID-19. Washington, DC: IMF.
- Iacoviello, M. and Navarro, G.** (2019) 'Foreign effects of higher US interest rates' *Journal of International Money and Finance* 95: 232–250.
- IBRD – International Bank for Reconstruction and Development** (2010) 'IBRD management's discussion & analysis and financial statements June 30, 2010' (<https://thedocs.worldbank.org/en/doc/676681586360405509-0040012020/original/IBRDFinancialStatementsJune2010.pdf>).

- IDA – International Development Association** (2009) ‘Analysis of the structural financing gap in IDA replenishments’. Washington, DC: IDA.
- IDA** (2010) ‘IDA management’s discussion & analysis and financial statements June 30, 2010’. Washington, DC: IDA.
- IDA** (2020) ‘Additions to IDA resources: Nineteenth Replenishment. IDA19: ten years to 2030: growth, people, resilience’. Washington, DC: IDA.
- IMF – International Monetary Fund** (2010) ‘IMF Board of Governors approves major quota and governance reforms’. Press Release, 16 December (www.imf.org/en/News/Articles/2015/09/14/01/49/pr10477).
- IMF** (2011) ‘Analytics of systemic crises and the role of global financial safety nets’. Washington, DC: IMF Strategy, Policy and Review Department.
- IMF** (2016) ‘IMF annual report. Finding solutions together’. Washington, DC: IMF.
- IMF** (2019a) ‘2018-19 review of facilities for low-income countries—reform proposals: review of the financing of the Fund’s concessional assistance and debt relief to low-income member countries’. Policy Paper 2019/014. Washington, DC: IMF.
- IMF** (2019b) ‘Global manufacturing downturn, rising trade barriers’. World Economic Outlook, October. Washington, DC: IMF.
- IMF** (2020a) ‘Policy steps to address the corona crisis’. Policy Paper. Washington, DC: IMF.
- IMF** (2020b) ‘Zimbabwe: 2019 Article IV Consultation—press release; staff report; and statement by the executive director for Zimbabwe’. IMF Country Report 2020/082. Washington, DC: IMF.
- IMF** (2021a) ‘Managing divergent recoveries’. World Economic Outlook, April. Washington, DC: IMF.
- IMF** (2021b) *Build forward better*. Annual Report 2021. Washington, DC: IMF.
- IMF** (2021c) ‘Fund concessional financial support for low-income countries—responding to the pandemic’. Policy Paper 2021/053. Washington, DC: IMF.
- IMF** (2021d) ‘Review of temporary modifications to the Fund’s access limits in response to the Covid19 pandemic’. Washington, DC: IMF.
- IMF** (2022a) ‘2022 review of adequacy of Poverty Reduction and Growth Trust finances’. Washington, DC: IMF.
- IMF** (2022b) ‘War sets back the global recovery’. World Economic Outlook, April. Washington, DC: IMF.
- IMF** (2022c) ‘IMF Managing Director Kristalina Georgieva announces operationalization of the Resilience and Sustainability Trust (RST) to help vulnerable countries meet long-term challenges’. Press Release 22/348, 12 October (www.imf.org/en/News/Articles/2022/10/12/pr22348-md-announces-operationalization-of-rst).
- IMF** (2023a) ‘2023 review of resource adequacy of the Poverty Reduction and Growth Trust, Resilience and Sustainability Trust, and Debt Relief Trusts’. Policy Paper 2023/021. Washington, DC: IMF.
- IMF** (2023b) ‘Review of the Flexible Credit Line, the Short Term Liquidity Line and the Precautionary and Liquidity Line, and proposals for reform’. Policy Paper 2023/039. Washington, DC: IMF.
- IMF** (2023c) ‘2021 Special Drawing Rights allocation—ex-post assessment report’. Washington, DC: IMF.
- IMF** (2023d) ‘A rocky recovery’. World Economic Outlook, April. Washington, DC: IMF.

- IMF** (2023e) 'Request for an arrangement under the Extended Credit Facility—press release; staff report; and statement by the executive director for Ghana'. IMF Country Report 23/168. Washington, DC: IMF.
- Khor, H.E., Guinigundo, D. and Kawai, M.** (2022) 'Trauma to triumph: rising from the ashes of the Asian Financial Crisis'. ASEAN+3 Macroeconomic Research Office.
- Kpodar, K., Le Goff, M. and Singh, R.J.** (2019) 'Financial deepening, terms of trade shocks, and growth volatility in low-income countries'. Working Paper WP/19/68. Washington, DC: IMF.
- Krahnke, T.** (2023) 'Doing more with less: the catalytic function of IMF lending and the role of program size' *Journal of International Money and Finance* 135 (102856).
- Landers, C. and Aboneaj, R.** (2021) 'World Bank budget support in the time of Covid: Crisis finance... with strings attached'. CGD Note, 8 July (www.cgdev.org/publication/world-bank-budget-support-time-covid-crisis-finance-strings-attached).
- McVeigh, K.** (2020) 'World Bank's \$500m pandemic scheme accused of "waiting for people to die"'. *The Guardian*, 28 February (www.theguardian.com/global-development/2020/feb/28/world-banks-500m-coronavirus-push-too-late-for-poor-countries-experts-say).
- Miller, M., Pudussery, J. and Rosenfeld, D.** (2023) 'The role of the IMF in a climate-changed world'. ODI insights, 4 October (<https://odi.org/en/insights/the-role-of-imf-financing-in-a-climate-changed-world/>).
- Mumssen, C., Gündüz, Y.B., Ebeke, C. and Kaltani, L.** (2013) 'IMF-supported programs in low income countries: economic impact over the short and longer term'. Working Paper WP/13/273. Washington, DC: IMF.
- Mustapha, S. and Prizzon, A.** (2018) 'Africa's rising debt. How to avoid a new crisis'. Briefing note. London: ODI.
- ODI** (2010) 'Methodological note: update for phase 2 studies'. Paper 23, Global Financial Crisis Discussion Series. London: ODI.
- OECD – Organisation for Economic Co-operation and Development** (2011) 'Future of global shocks: improving risk governance'. OECD Reviews of Risk Management Policies. Paris: OECD.
- Perks, M., Rao, Y., Shin, J. and Tokuoka, K.** (2021) 'Evolution of bilateral swap lines'. Working Paper 21/210. Washington, DC: IMF.
- Prizzon, A., Josten, M. and Gyuzalyan, H.** (2022) 'Country perspectives on MDBs – a survey analysis'. ODI Report. London: ODI.
- Radelet, S. and Sachs, J.** (1998) 'The East Asian financial crisis: diagnosis, remedies, prospects'. Brookings Papers on Economic Activity. Washington, DC: Brookings.
- Rana, P.** (2017) 'The evolving multilayered global financial safety net: the case of the Association of Southeast Asian Nations+3 regional financial safety net and the International Monetary Fund'. Working Paper 733. Manila: ADB Institute.
- Raga, S. and Pettinotti, L.** (2022) 'Economic vulnerability to the Russia-Ukraine War'. Emerging Analysis. London: ODI.
- Raga, S. and te Velde, D.W.** (2020) 'Economic vulnerabilities to health pandemics: which countries are most vulnerable to the impact of Coronavirus'. London: SET, ODI.
- Raga, S., Lemma, A. and Keane, J.** (2023) 'Spillover effects of the Sahel conflict on selected West African countries'. Emerging analysis. London: ODI.

- Raga, S., Bohlmann, H., Lemma, A. et al.** (2024) 'Impact of the Russia–Ukraine war on Africa: policy implications for navigating shocks and building resilience' ODI Synthesis Report. London: ODI.
- Rhee, C., Sumulong, L. and Vallée, S.** (2013) 'Global and regional financial safety nets: lessons from Europe and Asia' in C. Rhee and A. Posen (eds) *Responding to financial crisis: lessons from Asia then, the United States and Europe now*. Manila: Peterson Institute for International Economics and ADB.
- Reinhart, C. and Trebesch, C.** (2016) 'Sovereign debt relief and its aftermath' *Journal of the European Economic Association* 14(1): 215–51.
- Ritchie, E. and Plant, N.** (2020) 'A good idea executed badly: why the World Bank should not renew the Pandemic Emergency Facility Insurance Window'. CGD Blog, 19 April (www.cgdev.org/blog/good-idea-executed-badly-why-world-bank-should-not-renew-pandemic-emergency-facility-insurance).
- Stiglitz, J.** (2002) *Globalization and its discontents*. New York: W.W. Norton & Co.
- Stubbs, T., Kentikelenis, A., Ray, R., and Gallagher, K.** (2021a) 'Poverty, inequality, and the International Monetary Fund. How austerity hurts the poor and widens inequality'. Working Paper 046. Boston, MA: GEGI, Global Development Policy Centre, Boston University.
- Stubbs, T., Kring, W., Laskaridis, C. et al.** (2021b) 'Whatever it takes? The global financial safety net, Covid-19, and developing countries' *World Development* 137: 105171 (<https://doi.org/10.1016/j.worlddev.2020.105171>).
- UK Export Finance** (2022) 'UK Export Finance launches new debt solution to help developing countries with climate shocks'. Press Release, 8 November (www.gov.uk/government/news/uk-export-finance-launches-new-debt-solution-to-help-developing-countries-with-climate-shocks).
- UN – United Nations** (2022) 'High level panel on the development of a multidimensional vulnerability index'. Interim Report. New York: UN.
- UNECA – United Nations Economic Commission for Africa** (2023) 'African Ministers call for reforms of the IMF's Special Drawing Rights system'. UNECA Stories, 22 May (www.uneca.org/stories/african-ministers-call-for-reforms-of-the-imf%E2%80%99s-special-drawing-rights-system).
- Volz, U.** (2016) 'Toward the development of a global financial safety net or a segmentation of the global financial architecture?' SOAS, University of London and German Development Institute.
- Wilkinson, E., Scobie, M., Lindsay, C. et al.** (2021) 'Sustaining development in small island developing states: a reform agenda'. Policy Brief. London: ODI.
- World Bank** (2007) 'Toward a new framework for rapid Bank response to crises and emergencies'. Washington, DC: World Bank Operations and Country Services.
- World Bank** (2009) 'Including Contingent Emergency Response components in standard investment projects'. Guidance Note to Staff. Washington, DC: World Bank Operations and Country Services.
- World Bank** (2014) 'The economic impact of the 2014 Ebola epidemic: short and medium term estimates for West Africa'. Washington, DC: World Bank.
- World Bank** (2017) 'Bank policy: development policy financing'. Washington, DC: World Bank (<https://ppfdocuments.azureedge.net/b98d432b-7471-441b-9f39-36b7c38obdo5.pdf>).
- World Bank** (2018) 'IDA Catastrophe Deferred Drawdown (Cat DDO)'. Product note, October. Washington, DC: World Bank.
- World Bank** (2019a) 'IDA's Crisis Response Window. Lessons from the Independent Evaluation Group Evaluations. A synthesis report'. Washington, DC: World Bank.

World Bank (2019b) 'Pandemic Emergency Financing Facility (PEF). Operational brief for eligible countries'. Washington, DC: World Bank.

World Bank (2020a) 'Proposal for a World Bank Covid-19 response under the Fast Track Covid-19 Facility'. Washington, DC: World Bank.

World Bank (2020b) 'Project paper on proposed additional financing to the Covid-19 Strategic Preparedness and Response Program using the Multiphase Programmatic Approach (Global Covid-19 MPA) with an additional IBRD and IDA financing of up to US\$12 billion (of which up to US\$6 billion from IDA and up to US\$6 billion from IBRD)'. Report PAD4185. Washington, DC: World Bank.

World Bank (2020c) 'Saving lives, scaling-up impact and getting back on track'. COVID-19 Crisis Response Approach Paper. Washington, DC: World Bank.

World Bank (2021a) 'Deferred Drawdown Option: major terms & conditions'. Product Note updated as of December 2021. Washington, DC: World Bank.

World Bank (2021b) 'IBRD Catastrophe Deferred Drawdown Option (Cat DDO)'. Product Note updated as of November 2021. Washington, DC: World Bank.

World Bank (2022a) *Helping countries adapt to a changing world: World Bank annual report 2022*. Washington, DC: World Bank.

World Bank (2022b) *Development policy retrospective 2021*. Washington, DC: World Bank.

World Bank (2023) 'World Bank Group announces comprehensive toolkit to support countries after natural disasters'. Fact Sheet, 22 June (www.worldbank.org/en/news/factsheet/2023/06/22/comprehensive-toolkit-to-support-countries-after-natural-disasters).