

MARKET FINANCE FOR DEVELOPMENT

Taking stock

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Multilateral Investment
Guarantee Agency
WORLD BANK

This report provides an analysis of long-term trends in private flows to low- and middle-income countries since the turn of the 21st century. The analysis covers foreign direct investment, portfolio debt and equity flows, syndicated lending, remittances, cross-border payments, South-South investments, local currency financing, and climate financial flows to developing countries. Private capital flows to developing countries are in retreat, and indebtedness indicators are worsening, even as more resources are needed for combating poverty, food insecurity, fragility, and climate change. MDBs can play a catalytic role in securing private capital flows to developing countries while avoiding an excessive build up in their indebtedness.

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Foreword

Developing countries today face persistent poverty, food insecurity, fragility and conflict, and the growing existential threat of climate change. Addressing these challenges necessitates an increasing flow of resources to developing countries. However, current trends suggest that more than the efforts of developing countries alone will be needed to attract the level of private financing needed to tackle these serious challenges.

To understand the current state of market finance for development, the report team has developed a comprehensive database on resource flows to low- and middle-income countries to analyze trends since the turn of this century. In addition to private financial flows – FDI, portfolio flows of debt and equity, and bank lending, the database includes ODA, remittances, and cross-border payments. For analyzing South-South flows, the IMF international investment positions data have been augmented by data from the OECD and UNCTAD, with adjustments for offshore financial centers. Data on China’s investments overseas and transaction-level data on bonds and syndicated loans were used to verify the analytical findings of the report.

Private capital flows to developing countries are decreasing. While there was a boom during the first decade of the century, the second decade marked either a stagnation or decline in these private flows. Following a brief recovery from the 2008–2009 global financial crisis, international private capital flows to developing countries have declined sharply. Also, they have become more volatile.

Amid this decline in private flows to developing countries, there have been increasing calls on the multilateral development banks (MDBs) to scale up development finance significantly. This report analyzes the trends in private capital flows since the turn of the century and discusses the specific role MDB guarantees can play in catalyzing these flows. Also, it revisits the progress on remittances, South-South investments, local currency investments, and climate financial flows to developing countries.

While the global economy is still recovering from the effects of the COVID-19 pandemic and grappling with inflationary pressures combined with trade tensions, we hope that this report contributes to the discourse on development finance by providing factual analysis of long-term trends in private flows and putting in perspective the role of the MDBs, in particular, in private capital mobilization.

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Acronyms and abbreviations

ADB	Asian Development Bank
AfDB	African Development Bank
AML	anti-money laundering
BIS	Bank for International Settlements
CFT	countering the financing of terrorism
COMESA	Common Market for Eastern and Southern Africa
COP15	15th Conference of the Parties
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
ESG	environmental, social, and governance
EU	European Union
FDI	foreign direct investment
FX	foreign exchange
GAVI	Global Alliance for Vaccines and Immunization
GDP	gross domestic product
GFC	global financial crisis
GHG	greenhouse gas
G20	Group of Twenty
GVC	global value chain
HIPC	Heavily Indebted Poor Countries
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IFFEd	International Financing Facility for Education
IFFIm	International Financing Facility for Immunization
IGF	International Guarantee Facility
IMF	International Monetary Fund
IsDB	Islamic Development Bank

KYC	know your client
LIC	low-income country
LLMC	low- and lower-middle-income country
LMIC	low- and middle-income country
LMC	lower-middle-income country
MDRI	Multilateral Debt Relief Initiative
MTO	money transfer operator
MDB	multilateral development bank
MIGA	Multilateral Investment Guarantee Agency
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
SWIFT	Society for Worldwide Interbank Financial
SADC	Southern African Development Community
TCX	The Currency Exchange Fund
UMC	upper-middle-income country
UN	United Nation
UNFCCC	United Nations Framework Convention on Climate Change

Overview

Against a backdrop of calls on the multilateral development banks (MDBs) to dramatically scale up development finance, this paper describes long-term shifts in capital flows to developing countries during 2000–2022, the factors driving these trends, and the role of MDBs (and of MDB guarantees in particular) in catalyzing private flows. The analysis covers foreign direct investment, portfolio debt and equity flows, syndicated lending, remittances, cross-border payments, South–South investments, local currency financing, and climate financial flows to developing countries (that is, low- and middle-income countries, but not high-income emerging markets). The paper covers a period from the aftermath of the Asian financial crisis and the start of a new century and ends in 2022 in the aftermath of the COVID-19 crisis, with the global financial crisis of 2008–09 in between. Against this backdrop of long-term trends in flows, the report discusses various innovative financing mechanisms that have been used for development financing, and puts in perspective the role that MDBs can play in catalyzing private flows, in particular through guarantees.

Private capital flows to developing countries are in retreat. The boom in private capital flows – foreign direct investment, portfolio equity, syndicated bank lending and portfolio debt flows – to developing countries in the first decade of this century was followed by stagnation or decline in the second. After a brief recovery from the 2008–09 global financial crisis, private capital flows to developing countries (excluding China) fell sharply, from \$935 billion in 2012–14 to just \$636 billion in 2020–22. All this decline occurred in upper middle-income countries, where private capital flows more than halved over this period. By contrast, private capital flows to low- and lower-middle-income countries (LLMCs) in 2020–22 were 10 percent higher than in 2012–14. In 2022, remittance flows to developing countries (excluding China) amounted to \$596 billion, bank lending \$391 billion, FDI \$364 billion, portfolio equity flows \$-19 billion, and portfolio debt flows \$-72 billion. ODA flows were \$202 billion in 2021, the latest year for which data are available.

FDI stagnated, portfolio debt and equity flows declined, but syndicated bank lending increased. Equity flows to developing countries fell due to the narrowing differential in growth rates between developing and developed countries (which reduced relative return on investment in developing countries), rising labor costs in developing countries, growing global uncertainty and protectionism, and policy restrictions. Flows through bond markets became more volatile during the past decade and dropped to negative territory in 2022 as the U.S. Federal Reserve and other central banks raised interest rates to rein in inflation. By contrast, syndicated bank lending to

developing countries has been significantly higher since the global financial crisis than before. Such substitution of market-based debt by relationship-based loans marks a rather surprising reversal of the disintermediation that took place following the Brady debt restructurings in the late 1980s and the appearance of the emerging markets in the 1990s. Presumably, the rise of syndicated loans reflects the difficult experiences of bond restructurings during the global financial crisis.

Remittance receipts have been growing steadily over the past two decades.

Remittance flows to developing countries (excluding China) reached \$596 billion in 2022, surpassing FDI and official development assistance (ODA). Remittances provide a stable, and often counter-cyclical, source of external finance for developing countries. However, the benefits of remittances are impaired by high transfer costs, on average over 6 percent. Inadequate payments infrastructure, stringent regulations (to combat money laundering), and in many countries, overvalued exchange rates not only contribute to high costs for sending money, but also drive flows to informal channels. In Africa, the most expensive place for money transfers, remittance costs are 8 percent on average, and often higher than 10 percent for remittances within the region – far above the Sustainable Development Goal target of less than 3 percent by 2030. Resolving these challenges toward the efficiency of remittance markets could reduce the cost of other retail cross-border payments associated with small trade, tourism, investments, and philanthropy. Similar inefficiencies also affect the much larger wholesale cross-border payments associated with international trade and investment flows, estimated to be over \$11.4 trillion in the LMICs in 2022.

Developing countries attracted climate finance of around \$80 billion in 2020. This is about a tenth of global climate finance. The United Nations Framework Convention on Climate Change (UNFCCC) estimates that climate finance rose from \$739 billion in 2017 to \$817 billion in 2020. Climate finance would have to increase nine-fold if the implementation costs of achieving the climate goals enunciated in the Paris Agreements (\$7.6 trillion a year through 2050) are to be met. Also, concerns have been raised about the climate relevance of some funds due to limited transparency and overestimation by implementing agencies. Developing countries also have gained resources through selling carbon credits to finance mitigation projects. The total value of carbon credit markets increased from approximately \$216 billion in 2018 to \$926 billion in 2022.

Some developing countries have expanded their access to capital through foreign participation in their local currency bond markets. While data are sparse, it appears that such participation, even in major emerging markets, remains small. Greater reliance on local currency financing as opposed to foreign currency finance may reduce volatility driven by foreign investors and lower interest rates, although these issues remain a subject of dispute in the economic literature. Increased foreign participation may also help to promote domestic financial development. Guarantees could play an important role in increasing local currency financing in poor countries by addressing the risks faced by foreign investors, especially by protecting against convertibility and

transfer risk. There is a need to develop forward markets for hedging exchange rate risks associated with developing country currencies.

South-South FDI as well as South-North FDI are increasing. Developing countries are increasingly becoming a source of investments to the high-income countries as well as other developing countries. In 2020, South-South FDI flows constituted 22 percent of FDI to developing countries (excluding China), compared with 10 percent in 2004. The growing share of developing country investors is even more pronounced for LLMCs. Developing country investors have adopted various mechanisms to mitigate risks in developing country destinations, including using trade and migrant networks in destination markets, and relying on conglomerates to facilitate information diffusion from pioneer investors in the destination and to provide a source of finance and specialized services. Developing country investors also use other regional countries as a springboard to more distant and complex markets in high-income countries. Outward FDI can enhance domestic innovation capacity, create export opportunities, and improve access to technology, production processes, and management practices. Nevertheless, almost half of developing countries in 2015 had restrictions against outward investment, for fear of depleting domestic capital and jobs or consuming foreign exchange reserves.

MDBs can be leveraged for mobilizing private resources for developing countries.

The G20 Capital Adequacy Framework paper (G20 2022) discusses various approaches to maximize MDBs' financing capacity. MDBs channel private sector resources to developing countries through loans and guarantees funded by issuing bonds in the international capital markets. MDBs also encourage greater private sector lending to developing countries through co-financing, signaling the creditworthiness of borrowers through their own lending and guarantees, and providing policy advice to improve the business climate in client countries. Econometric studies confirm that all these efforts can improve the terms on developing countries' borrowing. Substantial reductions in interest charges can be achieved through credit enhancements to upgrade the rating of loans to developing countries. Investors who might naturally have a lower risk perception toward the investment destination country – South-South investors and diaspora organizations, for example – can be supported by the MDBs. Official aid can be used to provide guarantees and enhance the creditworthiness of private investments. Also, market-based approaches that use future revenue of a borrowing entity as collateral can lower the risk of investment projects.

International financing facilities (such as IFFIm and IFFEd and the IBRD's new portfolio guarantee platform) use innovative financing structures and guarantee structures to optimize donor grants and capital contributions. It is plausible that an International Guarantee Facility (IGF) can build on these structures to leverage donors' capital contributions as well as private investments. If necessary, the IGF could front-load aid by issuing bonds backed by future pledges. The IGF could also support nonconventional investors such as sovereign wealth funds and diaspora groups.

Developing countries and the global community face a dilemma. Persistent poverty, food insecurity exacerbated by supply chain problems affecting trade, fragility due to economic shocks and natural disasters, and the existential threat of climate change call for increasing resources to developing countries. However, it is unlikely that developing countries on their own will be able to attract significantly more private investments. Increased global uncertainty and protectionism are likely to restrain equity flows, while rising indebtedness and deteriorating creditworthiness of countries could limit access to lending, especially for low- and lower-middle-income countries. This dilemma underlines the importance of MDBs playing a catalytic role in stabilizing and encouraging private capital flows to developing countries while avoiding an excessive buildup in their indebtedness.

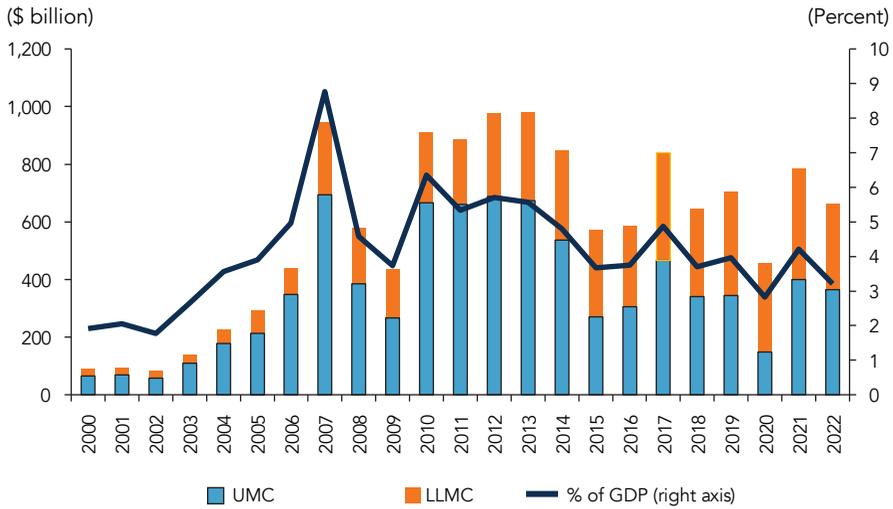
1. The context

Developing countries are in great need of resources, and their ability to address development challenges is critical for the world at large. For many countries, climate change is an existential threat that left unaddressed could severely reduce agricultural productivity, drive massive population movements, and threaten the sustainability of cities. Poverty; food insecurity; scarcity of water and energy; and fragility, conflict and violence continue to affect billions of people on the planet. The COVID-19 pandemic and the disturbances to commodity markets driven by the Russian invasion of Ukraine have confronted developing countries with enormous challenges. Growing protectionism threatens the developmental progress achieved over the past few decades. Overcoming these challenges will require greater resources. The World Bank estimates that the resources needed to address climate change, conflict and pandemics are on the order of \$2.4 trillion per year between 2023 and 2030 (Development Committee 2023). An important lesson of the last few years is that no country can isolate itself from the impact of adverse trends and shocks that affect the global economy. In short, it is very much in the interest of high-income countries to ensure that developing countries have the resources required to confront global challenges.

At the same time, the volume of external financial flows to developing countries is declining. As a share of gross domestic product (GDP), private capital flows to developing countries (excluding China) declined from a peak of 8.8 percent in 2007, the year before the global financial crisis (GFC), to 3.2 percent in 2022 (figure 1). And private flows are likely to remain constrained by limited global liquidity and concerns over creditworthiness and the sustainability of debt in many developing countries. Among a sample of 87 developing countries that have been rated by major international credit rating agencies, 75 were either rated below investment grade or unrated in 2023 (figure 2). Between 2013 and 2023, the rating distribution for developing countries has shifted to the right, implying an increase in country risks. These countries face steep borrowing costs in the international capital markets.

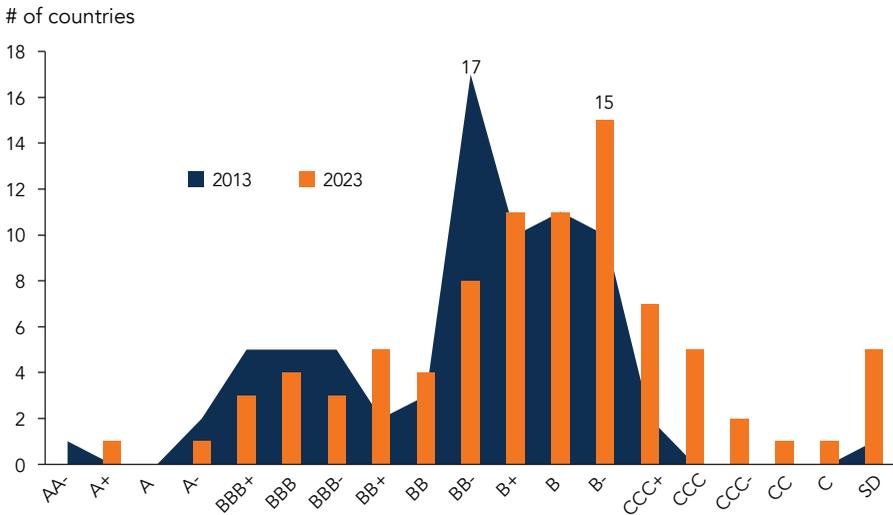
Financial support from multilateral development banks (MDBs) is critical. Perhaps more than direct lending or channeling grants, MDBs can support private capital mobilization (PCM) for economic progress in developing countries and their efforts to address global public goods.¹ PCM is necessary because MDB lending is limited by available capital.

FIGURE 1. Private capital inflows to low- and middle-income countries, excluding China, 2000–22



Source: IMF's Balance of Payment and Authors' calculations.
 Note: UMC refers to upper middle-income countries. LLMC refers to low- and lower-middle-income countries.

FIGURE 2. Most of the low- and middle-income countries are rated below investment grade, more so than 10 years ago



Source: S&P, Moody's and Fitch.
 Note: Number of unrated countries: 60 in 2013, 47 in 2023.

In this context, this paper reviews developments in, and limitations on, resource flows to developing countries and the role of MDBs in mobilizing private finance.

The analysis is focused on low- and middle-income countries and excludes high-income emerging markets. The next section analyzes trends in private capital flows to developing countries over the past two decades, highlighting an overall downward trend and volatility of flows in recent years. The discussion covers all components of private capital flows: foreign direct investment (FDI), portfolio equity and debt flows, and syndicated loans and other investments (see box 1 for definition of capital flows). The third section discusses the rise of remittances, which in 2022 surpassed FDI and official development assistance (ODA) combined. This section also discusses the related theme of wholesale cross border payments, which mostly reflect payments for international trade, and highlights the significance of high foreign exchange mark-ups. The rest of this section is devoted to the hot topic of climate finance and carbon credits, participation by foreign investors in developing countries' local currency bond markets, and South-South FDI. The fourth section considers MDBs' role in mobilizing private finance and offers some tentative ideas on avenues to increasing it. A final section concludes.

BOX 1. Definition and components of private resource flows

The report's data on flows of private capital and other external financing to developing countries come from the international Monetary Fund (IMF)'s Balance of Payment Manual 6th Edition (BPM6). Data on official development assistance (ODA) are taken from the OECD's Development Assistance Committee (OECD DAC) as reported in the World Bank's World Development Indicator database.

The IMF defines *foreign direct investment* (FDI) as an investment made to acquire a lasting management interest (usually of 10 percent of voting stock) in an enterprise operating in a country other than that of the investor. Contrary to popular perception, FDI includes, besides equity capital, reinvested earnings and intercompany debt. Thus, at times there can be an interplay between FDI and portfolio flow data: if at the margin a foreign investor's ownership of a company reaches 10 percent of shares, the entire equity investment would be subtracted from portfolio equity and added to FDI.

Portfolio flows refer to foreign investments in equity or debt securities through the stock or the bond markets.

Syndicated bank loans comprise the bulk of "other debt instruments" that is a sub-category under "other Investment" in the balance of payments (BOP). Other components of "other debt instruments" include *trade credits* related to exports and imports, use of Fund credits and loans from the Fund, bilateral official loans, loans from the MDBs, and currency and deposits.²

Remittance flows are defined as the sum of two components: (a) compensation of employees recorded under the "primary income" sub-category of the current account; and (b) personal transfers which in practice largely reflect money sent home by international migrants and are recorded under the heading "secondary income."

(Continued)

Official development assistance (ODA) consists of disbursements of grants and concessional loans to countries and territories on the Development Assistance Committee (DAC) list of ODA Recipients and to multilateral development institutions that are made on concessional terms, as defined by the OECD, and have as their main objective the economic development and welfare of the countries. In these data, ODA includes flows from both DAC and non-DAC countries.

A schematic representation of these flows in the balance of payments is as follows:

Current account (credit side)

Exports of goods and services

Primary income

Of which compensation of employees

Secondary income

Of which personal transfers

Financial Account

FDI

Of which equity (with 10% or more ownership)

intercompany loan

reinvested earnings

Portfolio equity

Portfolio debt

Other investments (bank loans mostly, also official loans)

Errors and omissions

Change in international reserves

In this paper FDI and other investment flows are reported as net of disinvestments. There is also a *debit* side, not shown here for clarity, to this schematic representation of residents' investments abroad, payments for imports, and outward remittances. The balancing items (errors and omissions and change in reserves) reflect all the credit items net of all the debit items.

Source: IMF Balance of Payments Manual, World Bank World Development Indicators, OECD DAC

2. Trends and drivers of private capital flows to developing countries

The boom in private capital flows to developing countries ended about a decade ago. Private capital flows (foreign direct investment [FDI], portfolio equity, syndicated loans, and portfolio debt) to developing countries have experienced distinct boom and bust cycles since the 1973 oil crisis (box 2). The latest boom, the increase in capital flows following recovery from the 1997–98 Asian financial crisis, reached a peak just before the 2008–09 global financial crisis (figure 1). A brief recovery in (the nominal volume of) flows after the global financial crisis was not sustained. The proximate cause of the decline was the “taper tantrum,” namely the spike in Treasury yields following the U.S. Federal Reserve’s announcement of its plan to reduce purchases under its quantitative easing program. But this period also marked a turning point in the evolution of private capital flows to developing countries that persists to this day. This period has been marked by three key trends:

- Private capital flows to developing countries (excluding China) fell by 32 percent, from a peak of \$935 billion in 2012–14 to just over \$636 billion in 2020–22 (figure 1). Private capital flows to upper-middle-income countries (UMCs) excluding China fell sharply, while flows to low- and lower-middle-income countries (LLMCs) rose somewhat (figure 1).³
- There is a switch, reminiscent of the 1980s, from market-based flows to relationship-based investments. FDI flows fell while syndicated bank lending increased (figure 3). Portfolio flows, both equity and debt, showed considerable variability and collapsed by 2022.
- Remittance flows to developing countries rose steadily during the past two decades to reach \$596 billion in 2022, larger than the sum of FDI and ODA combined.

In 2022, remittance flows to developing countries (excluding China) amounted to \$596 billion, compared to bank lending (\$391 billion), FDI (\$364 billion), portfolio equity flows (\$-19 billion) and portfolio debt flows (\$-72 billion). ODA flows were \$202 billion in 2021, the latest year for which data are available (figure 3).

BOX 2. A historical perspective on private capital flows to developing countries

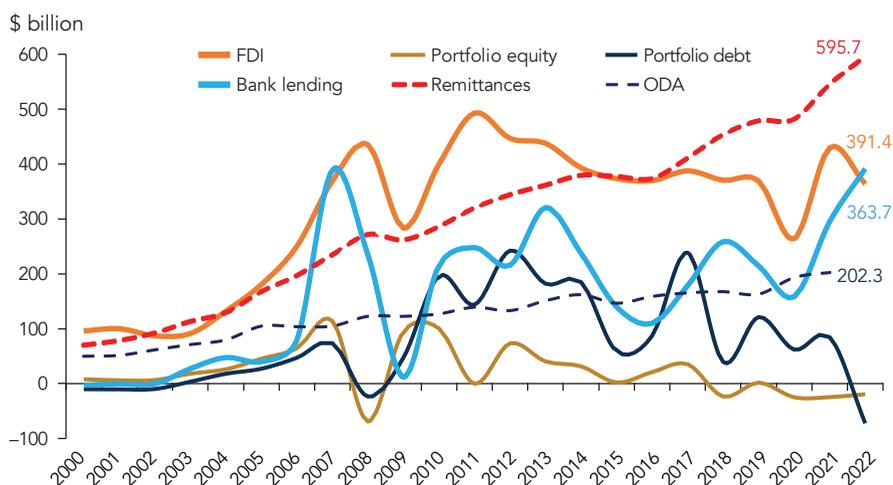
The past 50 years have seen at least four major boom-and-bust cycles in private capital flows to emerging markets. The first was the surge in cross-border bank lending to developing-country governments from the 1973 oil price shock until the 1982 Mexican crisis. The second was the 1990s boom in portfolio flows and foreign direct investment to developing-country economies that eventually ended in economic crisis in East Asia and other countries. The third was the surge in private capital flows from 2003–07, which ended with the global financial crisis in 2008. Private capital flows recovered following the crisis until the 2013 taper tantrum, after which flows downshifted.⁴

The surge of capital flows in the 1970s was driven by bank loans, as the international bond market had remained dormant since World War II.⁵ Deregulation of the banks' international activities allowed them to expand into new territories even before the first oil shock. The flood of petrodollars then provided them with resources to lend. The boom in bank lending came to an end with the sharp tightening in U.S. monetary policy at the end of 1970s, slower global demand, and plunging commodity prices (World Bank 2000). In the wake of the Mexican default in 1982, many debtor countries entered into a series of agreements with commercial banks to restructure debt (for example, Mexico had eight in the 1980s; Argentina, Brazil, and Venezuela each had four). Finally, the Brady initiative provided the framework for a reduction of the debt burden. From 1989 to 1995, under the plan, 13 countries converted \$191 billion in bank loans into sovereign bonds. The nominal value of the debt was reduced by nearly 20 percent.

Capital flows boomed once again in the 1990s as the Cold War ended, and several developing countries implemented policies that strengthened the environment for foreign investment, loosened regulation of financial markets and reduced or removed capital controls. Whereas bank lending dominated the 1970s, equity flows (direct and portfolio) were the dominant form of capital flows to developing countries, with foreign direct investment becoming by far the largest source of external financing. Bond financing also rebounded from the 1980s debt crisis. As in the previous episode, however, the expansion of the 1990s was punctuated by a series of economic and financial crises. Mexico (1994–95), East Asia (1997–98), the Russian Federation (1998), Brazil (1999), Türkiye (briefly in 1994 and 2000–01), and Argentina (2001–02) all suffered massive economic disruptions (World Bank 2003).

The global financial crisis in 2008 once again halted a surge of private capital flows, seen in 2003–07. The collapse of several major financial institutions in the wake of the subprime mortgage crisis drove investors and financial institutions toward what they perceived to be safer assets, leading to a sharp withdrawal of capital flows from developing countries. The Great Recession caused by this crisis affected emerging markets through trade and financial linkages amid the growing integration of developing-country economies into the global economy. The plunge in commodity prices weighed on commodity-exporting countries, while emerging markets that were heavily dependent on short-term capital flows suffered severe credit crunches in the wake of reversals of financial flows. A surge in global liquidity fueled by near-zero interest rates and asset purchases by central banks in key industrial countries drove robust capital flows to emerging markets after the 2008 financial crisis. However, the 2013 taper tantrum interrupted the surge in private capital flows to developing countries again, and flows have shifted downward since then.

FIGURE 3. Breakdown of external resource flows to developing countries, excluding China, 2004–22

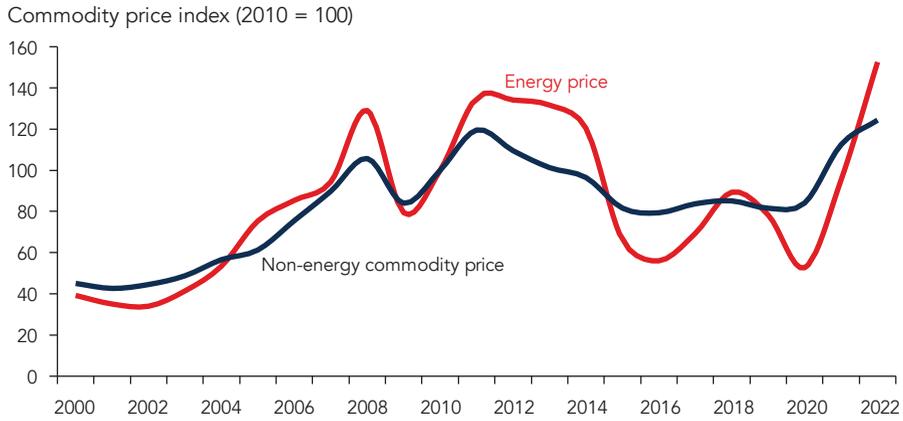


Source: IMF's Balance of Payment and Authors' calculations

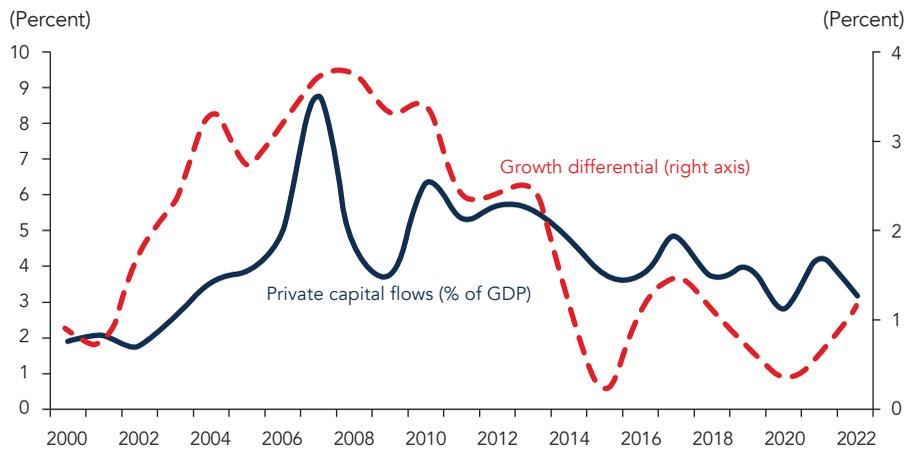
2.1 FDI flows

FDI flows to developing countries over the past decade have been restrained by reduced return on investment, rising labor costs, growing uncertainty, and policy restrictions (World Bank 2020b). FDI flows to developing countries excluding China fell by a quarter, from a peak of \$493 billion in 2011 to \$364 billion in 2022:⁶

- (i) The global average rate of return on FDI decreased from 8.0 percent in 2010 to 6.8 percent in 2018 (UNCTAD 2019). Investments in developing countries probably fetched lower returns, as commodity-dependent markets experienced a sharp decline due to drops in commodity prices (figure 4). Moreover, unlike during the FDI boom following the turn of the 21st century when developing countries began growing faster than developed countries, the growth differential has been falling over the past decade (figure 5).⁷ Slowing relative growth rates in developing countries may have reduced the interest of global investors (Koepke 2019).
- (ii) The labor cost advantages enjoyed by many developing countries have fallen due to increases in labor costs and the rise of advanced manufacturing technologies (World Bank 2020a). For example, the significant rise in wages in recent years has reduced the attractiveness of China for FDI in low-cost, labor-intensive production (Donaubauer and Dreger, 2016).
- (iii) Increased uncertainty resulting from global economic, geopolitical, technological, and social shifts may have depressed FDI flows. A survey carried out for the 2020

FIGURE 4. Trends in commodity prices, 2000–22

Source: World Bank Commodity Price Index

FIGURE 5. Growth differential between advanced and developing economies (excluding China), versus private flows as a share of GDP

Source: IMF's Balance of Payment and Authors' calculations

Global Investment Competitiveness Report (World Bank 2020a) found that two out of three investors, especially larger firms, cited policy uncertainty as being “important” or “critically important” in their investment decisions in the past year.⁸

- (iv) Finally, rising anti-globalization sentiment is giving rise to economic nationalism and protectionism. The share of restrictive and regulatory measures against FDI is at its highest level in more than two decades (World Bank 2020a). At the same time, the rapid expansion of global value chains (GVCs) in the 1990s and 2000s slowed following the global financial crisis, due to lower global growth rates and the absence of major trade liberalization agreements (World Bank 2020b). Slower growth of GVCs likely contributed to the slowdown in FDI flows to developing countries.

2.2 Portfolio equity and debt flows

In 2022, portfolio flows through equity markets to developing countries (excluding China) were a negative \$19 billion. This followed two years of negative outflows of about \$25 billion a year. Like FDI flows, these flows also followed an inverted U-shaped pattern over the past two decades. Unlike FDI flows, however, portfolio equity flows have been volatile, falling from \$73 billion in 2012 to \$2 billion in 2015, then rising to \$35 billion in 2017, before dropping into negative territory for most of 2018–22.

Portfolio debt flows (through international bond markets) to developing countries (excluding China) have fallen sharply. These flows averaged \$203 billion in 2012–14, then fell to \$25 billion in 2020–22. This reflected a net repayment to debt holders of \$72 billion in 2022 with the rise in interest rates, but even in 2020–21 net flows were well below levels reached earlier in the decade.

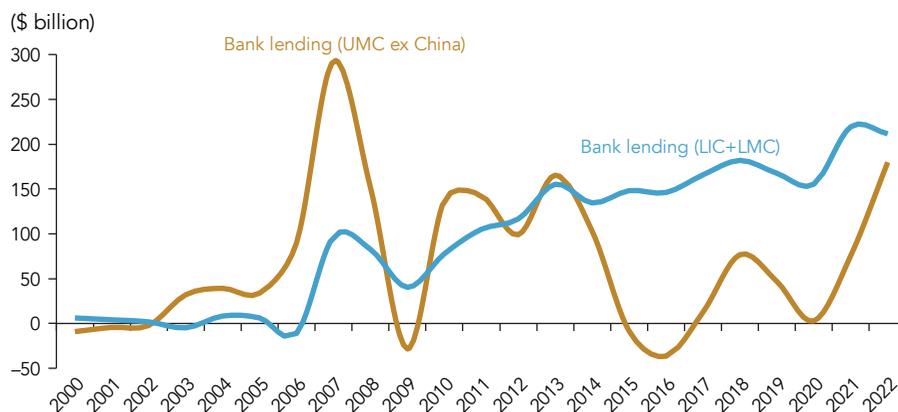
The decline of portfolio debt flows in the 2010s may have been linked in part to the experience of the debt rescheduling episodes of the 2000s. Some developing countries lost access to the bond market due to previous debt restructurings. In addition, differences in the costs of restructuring syndicated loans versus bonds may have influenced the participation of institutional investors. In the 2000s, investors may have devoted more funds to bonds, on the theory that restructuring bonds was less likely than restructuring loans. Indeed, Bolton and Jeanne (2007) find that bonds may have enjoyed an implicit seniority over international bank loans during this period. The addition of collective action clauses in the early 2000s to address the problem of many bondholders was followed by a reduction in the median duration of debt restructurings and a decline in the share of debt restructurings taking place after default (Asonuma and Trebesch 2016). It is possible that the greater ease of restructuring of bonds led to some erosion in their implicit seniority over loans, leading some institutional investors to switch their funding to syndicated bank lending during the 2010s. Also, the global financial crisis in 2008–09 saw major bond restructurings (mostly in the developed markets) raising risk perceptions about investment in bonds.

2.3 Syndicated bank lending

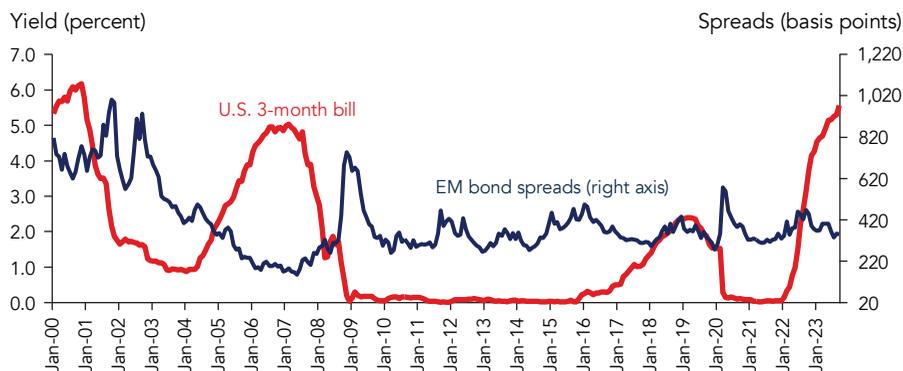
Syndicated lending fluctuated in response to global trends. In 2020–22, syndicated loans to developing countries (excluding China) averaged \$282 billion, compared to \$258 billion in 2012–14.⁹ The U.S. Treasury rates, especially the 3-month rate, dropped sharply after the global financial crisis and did not quite recover to the levels of 2000–05 until the recent efforts by the U.S. Federal Reserve to raise interest rates to curb inflation. The low return on safe securities encouraged banks to search for yield by lending to developing countries. Changes in Basel III and IV imposed restrictions on banks purchasing bonds on their own account, so a greater share of their assets was devoted to syndicated loans, along with greater funding from institutional investors. Finally, the share of project finance in total long-term loans (original maturity greater than a year) to developing countries rose from about 5 percent in 2011–12 to over 13 percent in 2021–22. Given the complexity of these kinds of deals, they are more often transacted through lending rather than the purchase of bonds.

Syndicated lending showed different trends for low- and lower middle-income countries (LLMCs) versus upper middle-income countries (UMCs). Syndicated lending to LLMCs has increased steadily since the early 2010s, from \$135 billion in 2012–14 to \$195 billion in 2020–22 (figure 6). Many low-income countries experienced a decline in debt indicators by 2010–15 due to debt relief under the Heavily Indebted Poor Countries (HIPC) initiative and the Multilateral Debt Relief Initiative (MDRI). This increased headroom enabled an expansion of syndicated lending to this group.¹⁰ By contrast, bank lending to UMCs (excluding China) fell moderately, from \$122 billion in 2012–14 to \$86 billion from 2020–22, with a large drop in the last half of the previous decade followed by some recovery in 2021–22.

FIGURE 6. Bank lending to low-, lower-middle, and upper-middle-income countries, excluding China, 2000–22



Source: IMF's Balance of Payment and Authors' calculations

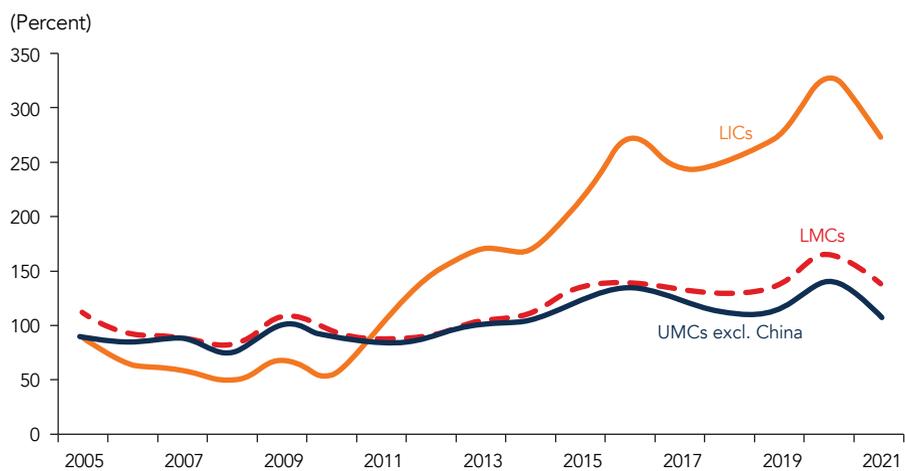
FIGURE 7. U.S. interest rates and developing countries bond spreads

Source: Haver and J.P. Morgan

In many countries, a high level of debt is likely to constrain future flows. Many countries were burdened with high debts prior to the onset of the COVID-19 pandemic: according to World Bank estimates, around half of IDA-eligible countries were in debt distress or at high risk of debt distress by 2019. And debt to export ratios rose sharply in many developing (as well as advanced) countries during the pandemic, as governments boosted expenditures to support vulnerable households and avoid an even deeper recession, while the recession reduced government revenues. The debt to export ratio of developing countries (excluding China) increased from 85 percent in 2011 to 123 percent in 2021. The debt to exports ratio for low-income countries is particularly high, some 185 percentage points more than in 2005 (figure 8). But debt to export ratios in both low- and upper middle-income countries also have increased significantly over the past decade. High debt ratios underline the difficulties that developing countries will face in obtaining the funds necessary for their own development and to contribute to the supply of global public goods (e.g., climate change, dealing with pandemics).

In summary, private capital flows to LLMCs increased from 2012–14 to 2020–22, as FDI flows failed to increase significantly but syndicated loans rose. Private capital flows declined, however, in UMCs. This reflected declines in all four categories of flows, particularly large repayments of portfolio debt by UMCs.

FIGURE 8. The ratio of external debt to exports are high, especially for low-income countries, 2005–21



Sources: IMF, World Bank

Note: LICs = low-income countries; LMCs = lower-middle-income countries; UMCs = upper-middle-income countries.

3. Remittances and other flows to developing countries

This section is devoted to reporting progress on remittances, South-South FDI, and local currency financing, three topics that gained attention in the 2010s, during the period between the Asian financial crisis and the global financial crisis. Also progress on climate finance, a more recent topic that gained attention only in the past few years, is reported in this section.

3.1 Remittances

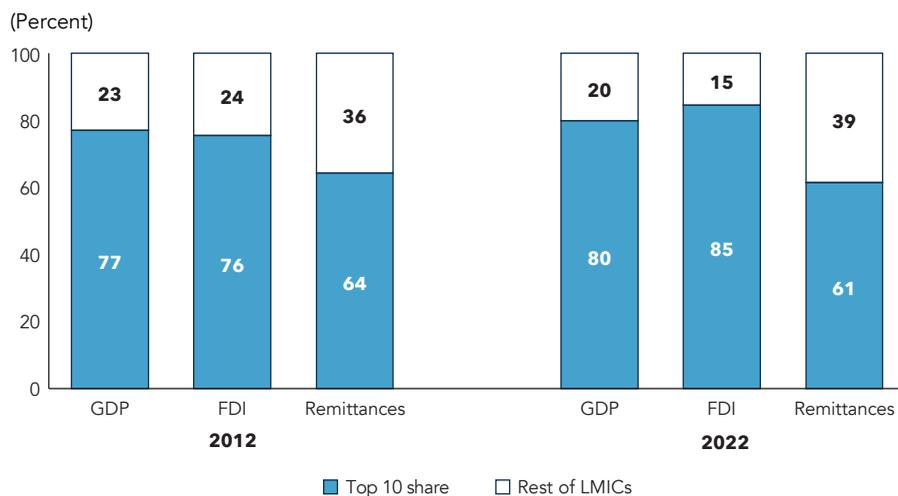
Remittances – money sent by international migrants – to developing countries have grown steadily since 2000, notwithstanding the global financial crisis, the COVID-19 crisis and the Russian invasion of Ukraine.¹¹ According to official statistics, remittances to developing countries (excluding China) reached a record \$596 billion in 2022 (figure 3 above). At this level, remittances were larger than the sum of FDI and ODA. The true size of remittances is even larger when substantial sums sent through informal channels and not captured by official statistics are included.

Remittances receipts are associated with reductions in poverty, improved health and education outcomes, and increased business investments (World Bank 2006). Remittance receipts also tend to be more stable than private capital flows and often act as insurance during crises (Ratha 2023). In low-income countries and small states, remittances can often exceed 20 percent of GDP, serving as a financial lifeline.¹²

Remittances are more evenly distributed among recipient countries than FDI. In 2022, the top 10 remittance-recipient countries accounted for 61 percent of flows to the LMICs (figure 9), significantly lower than the top 10 countries share in GDP, implying that remittances were more evenly distributed than GDP. In contrast, the share of top 10 destinations of FDI was 85 percent of all FDI flows to LMICs. What is more, the concentration of FDI has risen significantly compared to 2012 while that of remittances has declined.

These official statistics on remittances underestimate the true size of these flows. A significant share of remittances flows through informal channels. The World Bank

FIGURE 9. Concentration of FDI and remittances among low- and middle-income countries



Sources: IMF, World Bank

(2006) estimates that as much as 50 percent of remittances may be unrecorded in countries where there is a large difference between the official exchange rate and the parallel market rate.¹³ As of June 2023, such exchange rate premiums were high in 23 countries that officially have dual or multiple exchange rates (table 1).¹⁴ Informal remittances are believed to be large in these countries.

The level of benefits of remittances is reduced by high transfer costs, inadequate financial infrastructure, stringent regulations, and overvalued exchange rates:

- (i) Despite efforts to reduce it, the cost of sending money (remittances) to developing countries has declined only moderately, from 9.7 percent in 2009 to 6.2 percent in 2023, or well above the Sustainable Development Goal target of less than 3 percent by 2030. The poorest region, Africa, is the most expensive place for money transfers, with remittance costs reaching 8 percent (Remittance Prices Worldwide database, World Bank).
- (ii) Low interoperability between payment systems, banks, and money transfer operator (MTO) platforms, and between regional payment systems (despite initiatives by the Common Market for Eastern and Southern Africa [COMESA] and Southern African Development Community [SADC]), a lack of linkages between proprietary domestic payment systems and technology platforms, and a thin network of agents increase the cost and the time required to send remittances.

TABLE 1. Exchange rate premiums (difference between official and parallel market rates, percent)

Country	June 2023	March 2023	December 2022	September 2022
Iran, Islamic Rep.	20–30	37–50	27–37	11–18
Algeria	65	54	51	54
Angola	n/a	11	n/a	11
Argentina	92	87	105	96
Bangladesh	4	7	13	19
Burundi	n/a	n/a	63	n/a
Congo, Dem. Rep.	1	14	n/a	n/a
Ethiopia	88	84	78	n/a
Ghana	5	7	n/a	n/a
Lao PDR (as of April 30, 2023)	8	7	5	17
Lebanon	7–517	19–617	15–2,705	29–2,459
Libya	7	6	8	5
Malawi	54	45	32	32
Mozambique	3	4	0	0
Myanmar	50	36	35	30
Nigeria	0	62	64	79
Sri Lanka	3	3	n/a	n/a
Sudan	1	3	3	1
Syrian Arab Republic	199	150	175	90
Ukraine	1	3	11	14
Venezuela, RB	6	1	9	n/a
Yemen, Rep.	4–124	2–111	1–136	0–144
Zimbabwe	46	72	46	n/a

Source: World Bank (DECDG and EFI) staff estimates based on private and public websites

- (iii) Restrictive anti-money laundering/countering the financing of terrorism (AML/CFT) regulations have reduced the number of correspondent banks (the number of correspondent banking relationships worldwide fell by 20 percent between 2011 and 2018 [FSB, 2020]), impeded money transfers, and diverted flows toward informal channels, which in turn could increase AML/CFT risks.
- (iv) To the extent that the official exchange rate is overvalued, the value of remittances to receiving households is lower. Of course, in many countries with large differences between the official and equilibrium exchange rate, parallel markets exist that will exchange money at a rate closer to equilibrium. Nevertheless, these markets can involve significant transactions costs, particularly if they involve the transfer of cash and if enforcement of currency controls is strict.¹⁵

3.2 Cross-border payments

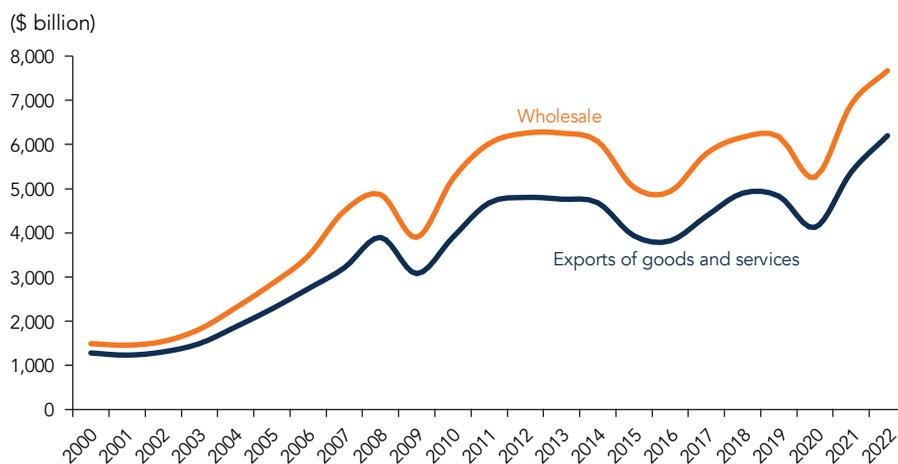
These challenges also affect cross-border payments other than remittances.

Remittance channels are also used by people and businesses for *retail* cross-border payments – of transaction sizes under \$10,000 – for trade, tourism, rent, investments, and philanthropy.¹⁶ There are no estimates available for the size of retail payments, but this is likely to be a multiple of the volume of remittance flows.

Wholesale cross-border payments, mainly for international trade and investments, are an order of magnitude larger, estimated to be between \$150 trillion and \$180 trillion globally. In the absence of data – or even definition – on cross-border payments, and while acknowledging that other types of payment arrangements exist, the sum of exports of goods and services, private capital flows, and ODA can serve as an indicator of overall trends in cross-border payments. By this measure, in 2022 cross-border payments affecting developing countries (excluding China) equaled \$7.7 trillion (figure 10). This is likely to be an underestimate – the gross value of turnover (and hence payment) is likely to be larger than the value of a trade transaction.

Like cross-border retail remittances, wholesale cross-border payments also incur a fee, although the fee is usually a fixed amount (e.g., a \$25–\$50 wire transfer fee via SWIFT and bank transfers). Cross border payments that involve currency exchange also incur the cost of a foreign exchange (FX) mark-up ranging from 80–120 basis points. Once again, estimates of the scale of such fees are scarce. What is clear is that reducing the FX transfer cost and the time it takes to settle cross-border transactions would greatly enhance international trade, e-commerce, and foreign investments.

FIGURE 10. Cross-border payments to developing countries, excluding China

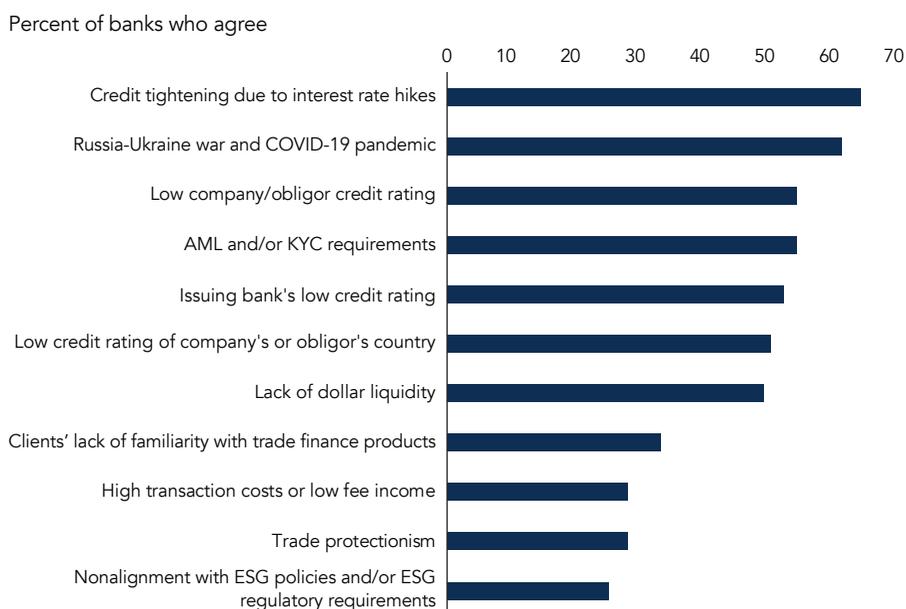


Source: IMF Balance of Payments Statistics

Trade finance is a significant part of cross-border payments. By some estimates trade finance is required for about 80 percent of the value of trade.¹⁷ An Asian Development Bank (ADB 2023) survey of banks providing trade finance services identified several major barriers to trade finance: AML and know your client (KYC) compliance requirements, a low credit rating of the obligor's country, lack of foreign currency liquidity, high transaction costs, and compliance with environmental, social, and governance (ESG) policies (figure 11). Many of these barriers also apply to cross border payments, especially AML requirements, lack of foreign currency liquidity and high transaction costs. Multilateral development banks (MDBs) have a role in addressing these barriers.

A lack of foreign currency liquidity that leads to divergence between official and market exchange rates can also drive flows underground or encourage export under-invoicing and import over-invoicing ("capital flight"). Addressing macroeconomic imbalances and making the exchange rate responsive to market forces must be combined with incentives offered to exporters and diaspora groups to remit foreign exchange to the country. Above all, investing in payment infrastructure and revisiting burdensome regulations, especially the AML/KYC regulations, will facilitate cross border payments in the long run.¹⁸

FIGURE 11. Barriers to trade finance



Source: ADB 2023.

Note: AML = anti-money laundering; KYC = know your client; ESG = environmental, social, and governance.

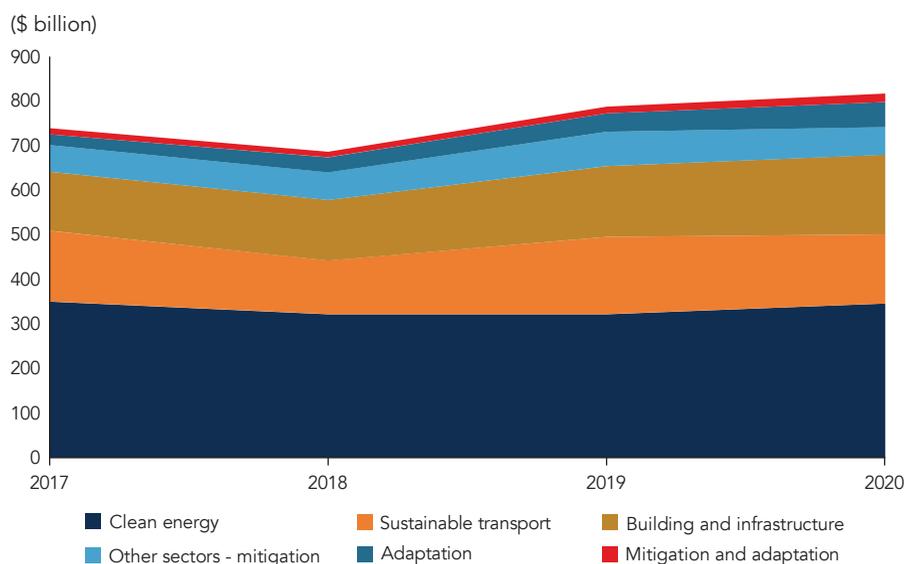
3.3 Climate finance

Global flows of climate finance are increasing. According to the United Nations Framework Convention on Climate Change (UNFCCC), global flows devoted to climate finance (debt or equity flows that contribute to reducing the impact of or the risk of climate change) rose from \$739 billion in 2017 to \$817 billion in 2020 (figure 12).¹⁹ Renewable energy accounted for more than 40 percent of total climate finance in every year from 2017 to 2020. In 2020, the second-largest share of climate finance was devoted to buildings and infrastructure (22 percent), followed by sustainable transport (19 percent) (figure 12).²⁰

Over 90 percent of total climate finance was devoted to mitigation.²¹ Approximately four-fifths of the total represented investments are made with an expectation of a market rate of return (Naran et al., 2022). The bulk of climate finance is provided as debt rather than equity. While grant finance almost tripled in dollar value terms from 2011 to 2020, it still made up less than 5 percent of the total by the end of that period. In 2020, the public sector, including governments and international organizations, provided 36 percent of the climate finance devoted to mitigation.²²

Flows to developing countries account for only a small share of total climate finance. In 2009 (15th Conference of the Parties [COP15] in Copenhagen), developed

FIGURE 12. Global climate finance flows, 2017–20



Source: UNFCCC2022.

Note: Data for 2020 are preliminary and may change once all fifth biennial reports are reflected.

countries committed to a goal of providing \$100 billion annually in climate finance to developing countries by 2020. Based on reports from recipients, climate finance provided from high-income to developing countries averaged about \$40 billion in 2019–20 (UNFCCC 2022). The Organisation for Economic Co-operation and Development-(OECD 2022) estimates that climate finance provided by developed to developing countries totaled \$83.3 billion in 2020 (of which about a half would qualify as ODA).

Developing countries may also obtain financial resources by selling emission reductions to foreign firms seeking carbon offsets.²³ These credits are generated through projects that reduce or eliminate the generation of emissions (e.g., renewable energy projects) or that sequester or store emissions already in the atmosphere (e.g., afforestation). The size of the market fell by about two-thirds from the peak in 2008–17, but then recovered strongly (Donofrio et al. 2019). The total value of carbon credit markets increased from €186 billion in 2018 to €865 billion in 2022, as rising demand for carbon permits boosted prices (Tiseo 2023). Voluntary demand for carbon credits accounted for 80 percent of total carbon retirements through carbon credits, with 20 percent purchased to meet the requirements of compliance programs (World Bank 2023). Nevertheless, the reductions in emissions through voluntary purchase of carbon credits are much smaller than the reductions achieved through mandatory compliance systems (Mendelsohn, Litan, and Fleming, 2021).

Voluntary carbon markets are likely to expand strongly in the coming years. At end-2020, 1565 companies with 3.5 gigatons of annual emissions had set net-zero climate targets, although the timing, scope and coverage of these targets vary (Streck, 2021). Most of these companies rely on offsetting their remaining emissions through the purchase of carbon credits (Kreibich and Hermwille, 2021). There are signs of potential growth in the carbon credit markets.²⁴ The future of voluntary carbon markets will depend, however, on the credibility of the emissions reductions achieved.

The difficulties involved in certifying carbon credits and the lack of transparency in some transactions raise the potential for “greenwashing,” or false claims of additionality in emissions reductions to evade compliance with environmental regulations or to convince consumers of a firm’s environmental credentials. Doubts about the real contribution of carbon credits to reducing greenhouse gas (GHG) emissions could undermine the market.

Climate finance remains well below estimates of what is needed. Climate finance is less than a third of the estimated annual investment needed between 2021 and 2025 to set the world on a pathway to limit the increase in global temperatures to below 2 degrees. Annual climate finance flows to developing countries fell well short of the goal of \$100 billion by 2020 enunciated at COP15 in 2009 (and subsequently reiterated) (UNFCCC 2022). The implementation costs of achieving the climate goals enunciated in the Paris Agreements are estimated at \$7.6 trillion a year through 2050, or more than nine times the estimated level of climate finance in 2020 (Naran et al. 2022).²⁵

Policies to improve transparency could increase the use of carbon markets. Carbon prices are subject to considerable volatility, given the widespread reliance on quantitative limits on carbon emissions (so that prices adjust to changes in market conditions) and changes in regulatory policies. Volatile prices increase the uncertainty concerning future incentives for emissions reductions (World Bank, 2018). Data complexity, data quality issues (e.g., insufficient disclosure practices) and the diversity of stakeholders involved tend to be high in carbon markets, raising the potential for market failures due to unequal access to information. Forward-looking approaches to informing consumers, firms, and investors about future carbon prices have been proposed to introduce some price stability (Blanchard, Gollier, and Tirole 2022). Improvements to information quality can help steer investments towards goals consistent with the policy objective of sustainability (World Bank Group, IMF, and OECD 2023).

3.4 Local currency finance

Greater reliance on local currency financing as opposed to foreign currency finance can reduce the threats to financial sustainability and macroeconomic stability. Having large debt service liabilities in foreign currency while the bulk of revenues are denominated in local currency means that a large, sudden depreciation of the currency can drive businesses into insolvency. Park, Shin, and Tian (2021) find that the expansion of local currency bond markets in developing countries from the 2009 global financial crisis to the 2013 taper tantrum was significantly associated with less financial vulnerability. Anderson, Silva, and Velandia-Rubiano (2010) show that access to local currency financing helped some developing countries limit the damage from the global financial crisis by providing a financial buffer. Panizza and Taddei (2020) argue that a mix of foreign and local currency debt is likely to be particularly important for low-income countries.²⁶

The development of local currency bond markets can promote domestic financial development. The improvement in financial architecture required to support foreign finance in local currency can strengthen the stability of financial systems.²⁷ For example, the World Bank (2021) describes how the development of local currency bond markets in Brazil, Colombia, Panama, and Ukraine encouraged improvements in custodial services and clearing and settlement procedures. Attracting a more diversified set of investors, including domestic investors who would otherwise invest abroad, can reduce risks faced by domestic borrowers. The development of local bond markets can also contribute to financial development by providing a pricing benchmark for private sector transactions, facilitating the use of government securities in open market transactions by central banks, and increasing incentives for improvements in institutional quality (Essers et al. 2016).

Increased participation by foreign lenders in local currency bonds may help to reduce interest rates, perhaps at some cost in terms of volatility. Increasing the supply of funds

to government and businesses may lower interest rates in the domestic market. Ebeke and Lu (2015) find for a sample of 13 emerging markets over 2004–13, that larger foreign holdings of local currency bonds were associated with lower bond yields in the domestic market. However, countries with relatively high levels of external or short-term debt did not experience a reduction in yields. Similarly, Peiris (2010) finds that in 10 developing countries over 2000–09, a 1 percent rise in the share of foreign investors in the domestic bond market was associated with a .06 percent fall in bond yields. The greater involvement of foreign investors can also increase the volatility of yields. Compared to foreign investors, domestic investors are likely to be more biased towards investment in the local market and in greater need of returns in domestic currency, which could mean they are less likely to sell in the face of economic volatility. Ebeke and Lu (2015) do find that the volatility of yields was slightly higher in countries with large foreign holdings of local currency bonds (but not in countries with strong economic fundamentals), while Peiris finds no such relationship. However, Beirne, Renzhi, and Volz (2021) find that foreign participation in local currency bond markets from 1999 to 2020 was associated with increased capital flow volatility, particularly in countries with less developed bond markets.

On the other hand, some argue that emerging market governments' shift from foreign currency to local currency debt may not increase resources, lower interest rates or reduce the impact of global economic shocks. Eichengreen, Hausmann and Panizza (2023) describe the implications of increased local currency borrowing from nonresidents by the Peruvian government. To maintain confidence, the government accumulated large external reserves that pay low interest rates and limited its external borrowing. Moreover, nonresident investors hedged their local currency exposure with local pension funds. Thus, the currency risk was shifted from the government to major domestic financial sector institutions.

Foreign investors' participation in developing countries' local currency bond markets remains small. Data on local currency financing from nonresident investors are scarce.²⁸ In a dataset covering 25 emerging market economies, the share of major emerging markets' local currency general government bonds (with original maturity more than one year) held by foreigners increased from 4 percent in 2005 to a little over 8 percent in 2011 (Onen, Shin and von Peter 2023). This increase reflected the sharp reduction in advanced countries' interest rates with the global financial crisis, which drove investors to seek yield in emerging markets (Eichengreen, Hausmann and Panizza 2023). This trend was supported by the inclusion of developing country bonds in local currency bond indices used by investors, for example, JP Morgan's GBI-EM (Arslanalp et al. 2020). Foreign participation rose to almost 12 percent in 2014, but then fell to just under 8 percent by 2021, with most of the decline occurring before the COVID-19 pandemic.

Many researchers view the small size of local financial markets as the principal constraint on emerging market sovereigns' ability to increase their borrowing. The size and depth of the local bond market is important to attract foreign investors. An active secondary market that ensures the liquidity of bonds reduces the risks

investors face (Kohli et al. 2017). Countries where market liquidity and the range of available instruments is limited may face difficulties in attracting foreign investors, according to a survey of asset managers (Sienaert 2012).

In many poor countries, weak macroeconomic frameworks limit the willingness of foreign investors to provide local currency financing. The IMF and World Bank (2020) find that from 2011 to 2018, countries with strong macroeconomic fundamentals (such as low and stable inflation and higher domestic savings) and flexible exchange rates had a larger increase in the size of local currency government bond markets. Burger and Warnock (2006) find that countries with lower past inflation and better creditor rights rely less on foreign-currency-denominated bonds. Berensmann, Dafe, and Volz (2015) emphasize the importance of trade openness, the regulatory framework, and the rule of law in the development of local currency bond markets in Sub-Saharan Africa. Essers et al. (2016) find that the capitalization of local currency bond markets is larger in African countries with lower fiscal balances, lower inflation, common law legal origins, higher institutional quality, and stronger democratic political systems. Foreign investors also may be concerned about the existence of or potential for controls on capital, or limits on convertibility or the transfer of funds abroad.

Poor quality of the regulations and institutions pertaining to domestic financial markets may also deter foreign purchases of local currency debt. The governing legal framework, requirements for disclosure and documentation standards, and market infrastructure (clearing, settlement, and custody integrity) (Jonasson and Williams 2019) would have to meet the standards of foreign investors, which likely were formed in their operations in advanced country markets. Countries with weak market infrastructure have relied on the offshore issuance of credit linked notes or global bonds, so that foreign investors do not have to rely on local clearing and settlement (while receiving a lower interest rate than domestic bond purchasers) or building a bridge with an International Clearing Securities Depository (World Bank 2021).

Guarantees can address the risks faced by foreign investors in providing finance to poor countries in local currencies. There are several kinds of risks involved in emerging markets that tend to be less important in advanced economies (see section 3 on guarantees). These center on the risk of unexpected changes in exchange rates, government interference that prevents the conversion of local currency returns into foreign currency, and poor market infrastructure or limited liquidity in domestic financial markets.²⁹ Guarantees can protect against convertibility and transfer risk. However, providing protection from losses due to currency depreciation among International Development Association (IDA) borrowers can be complicated. In advanced economy markets, lenders can typically purchase protection from adverse, unexpected exchange rate movements through forward exchange markets or various kinds of derivatives. However, such transactions can be difficult to achieve, or may be prohibitively expensive, in many developing countries, particularly IDA borrowers. One solution for development finance institutions has been to provide local currency loans and hedge their exchange rate risk with a market entity that is established to absorb exchange rate risk (Box 3).

BOX 3. The role of the TCX in supporting lending in local currencies

In 2007, a group of development finance institutions, microfinance institutions and donors set up the Currency Exchange Fund (TCX) to use swaps and forward contracts to enable these agencies to provide local currency financing without absorbing exchange rate risk. Their website reports hedging operations in 63 different currencies. The agency provides a loan where repayments are set in local currency, although the borrower is required to convert the local currency repayment amount into foreign currency before transferring funds to the creditor. The agency hedges interest rate and currency risk exposure with TCX through a non-deliverable swap.³⁰ Essentially, the foreign exchange risk, borne by TCX, is separated from the credit risk, borne by the lender. TCX has played a useful role in supporting development loans in local currency, although such loans tend to incur high interest rates, as the cost of the hedge reflects significant depreciation risk. While TCX has generally broken even or shown a small profit, the size of hedging operations is constrained by its limited capital (operations mostly cover small, private entities). Also, tenors are mostly limited to three to five years, undermining the usefulness for projects, such as infrastructure, where payback periods can be quite lengthy.

Sources: TCX website (<https://www.tcxfund.com/about-the-fund/>); Fink et al. 2023.

3.5 South-South FDI

South-South FDI has increased. Not counting FDI from tax havens and offshore financial centers (see box 4), the share of developing country investors in the total FDI stock in developing countries (excluding China) rose from 5 percent in 2002 to 17 percent in 2021 (see figure 13). The average FDI flows (three-year moving average) to developing countries (excluding China as destination) from traditional OECD investors (the so-called North) fell by 77 percent from 2004–12 to 2013–20, compared to a decline of only 27 percent for FDI flows from other developing countries.³¹ In 2020, South-South FDI flows constituted 22 percent of FDI to developing countries (excluding China as destination), compared with 11 percent in 2004. The growing share of developing country investors is even more pronounced for LLMCs: the share of developing countries in the inward FDI stock of LLMCs rose from 10 percent in 2002 to 25 percent in 2021.³² China has emerged as the most prominent South-South (and South-North) investor (see next section). Also Russia, India, Malaysia, and South Africa are among the top investor countries.³³

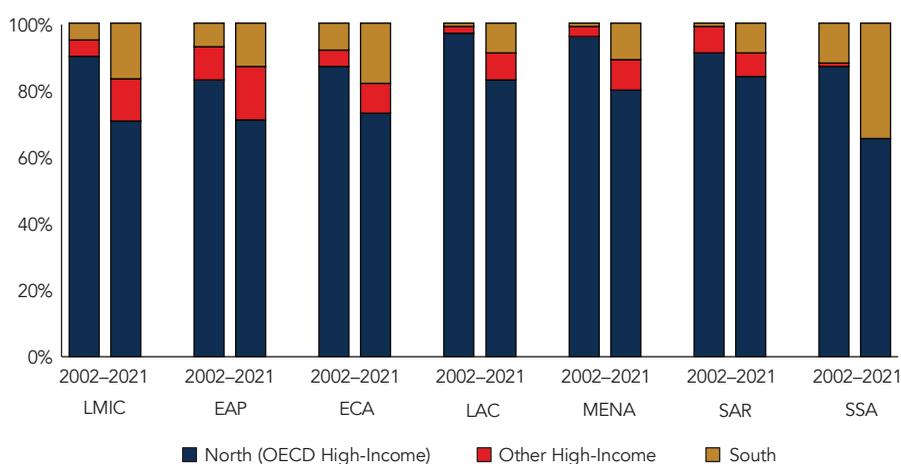
The decline in the share of North-South FDI was more pronounced in Middle-East and North Africa (MENA) region and Sub-Saharan Africa (SSA) than in the other regions. In the case of MENA, there was a corresponding increase in investments from “other high-income” countries, notably, the GCC countries. In the case of Sub-Saharan Africa, the increase was in FDI from other developing countries.

BOX 4. Foreign direct investment from tax havens and offshore financial centers

An increasing share of foreign direct investment (FDI) to developing countries is channeled through tax havens and offshore financial centers. In 2002, 2 percent of inward FDI stocks in developing countries (excluding China) originated from tax havens,³⁴ 12 percent from offshore financial centers (Hong Kong SAR, China; Luxembourg; Singapore; the United Arab Emirates; and the Netherlands) and 86 percent from the rest of the world. By 2021, 14 percent of FDI stocks originated from tax havens, 28 percent from the offshore financial centers, and 57 percent from the rest of the world. Tax havens and offshore financial centers are low-tax territories, replete with bilateral preferential tax and investment agreements, and offering sophisticated financial and legal services. They are frequently utilized for tax optimization purposes, whether by domestic sources engaging in roundtripping or third-country investors. While concerns regarding revenue erosion persist, proponents argue that the financial services offered by these investment hubs have legitimate applications in investment planning (Hong and Smart 2010).

Investors from the developing countries have adopted mechanisms to mitigate the relatively high risks in developing country destinations. Developing country business environments are often characterized by challenges such as low contract enforcement, high information asymmetry, and low economic and political stability, all of which increase transaction costs and can deter FDI (Kathuria, Yatawara and Zhu, 2021). Developing country investors can reduce these transactions costs through

FIGURE 13. North-South and South-South foreign direct investment stock in LMICs, excluding China as destination (% share)



Source: MIGA Augmented Bilateral FDI Statistics, sourced from IMF, UNCTAD and OECD.

Note: UMC = upper-middle-income country; LLMC = low- and lower-middle-income country; OECD = member country of the Organisation for Economic Co-operation and Development.

forming ties with migrant and trade networks. Transaction costs can be particularly high in lower-income countries, and multinational corporations from developing countries are more frequently present in the least developed countries (Cuervo-Cazurra and Genc 2008). FDI from developing countries also relies more on conglomerates or business groups than do investors in developed markets. These groups facilitate information diffusion from pioneer investors in the destination and provide a source of finance and specialized services that can address “institutional voids” or market failures, often characterized by the absence of public services.

Investors from developing countries use other regional countries as a springboard.

Many such investors face challenges when attempting to compete in larger, more distant, and highly competitive markets, particularly when they lack established networks in such destinations. Research (Cuervo-Cazurra and Genc 2008; Gao 2005; Hiratsuka 2006) focusing on Asia and Latin America has shown that investors tend to expand first into smaller, lower-income regional economies before venturing into larger and more complex markets. Surveys conducted in South Asian countries indicate that 65 percent of investors initially direct their investments within the region, with 28 percent subsequently expanding their investments beyond the regional borders (Kathuria, Yatawara and Zhu 2021). This regional bias may be attributed to greater familiarity with regional markets due to cultural affinities, geographical proximity, and the existence of trade and investment linkages. For multinationals in small and landlocked regions, investing in nearby destinations enables them to improve their access to international markets and services.

Developing country investors have tapped into newly developed market potentials and comparative advantage (Aykut and Ratha 2004). The rising demand for goods and services from the expanding middle classes in developing countries has created significant opportunities for trade and investment expansion and diversification. Many developing countries now have greater incomes and funds than two decades back and have gained comparative advantages in a varied set of goods and services. Many countries also have a set of globally competitive firms.

Outward FDI holds the potential to catalyze significant development at home

(World Bank 2018). Outward FDI can enhance domestic innovation capacity at home; improve access to technology, production processes, and management practices that can subsequently be absorbed in the domestic economy (Amann and Virmani 2014; Driffield and Love 2003, 2007); and create opportunities for exports of intermediaries or final products. In 2002, 49 percent of the FDI stock owned by developing country investors was in traditional OECD markets and 39 percent in other developing countries. Outward FDI from developing countries is now split roughly evenly between other developing countries and OECD markets, even excluding China as outward investor.

Despite the long-term developmental benefits of outward FDI flows, many developing-country policy makers are concerned about the potential costs.

In 2015, almost half of developing countries had restrictions against outward investment

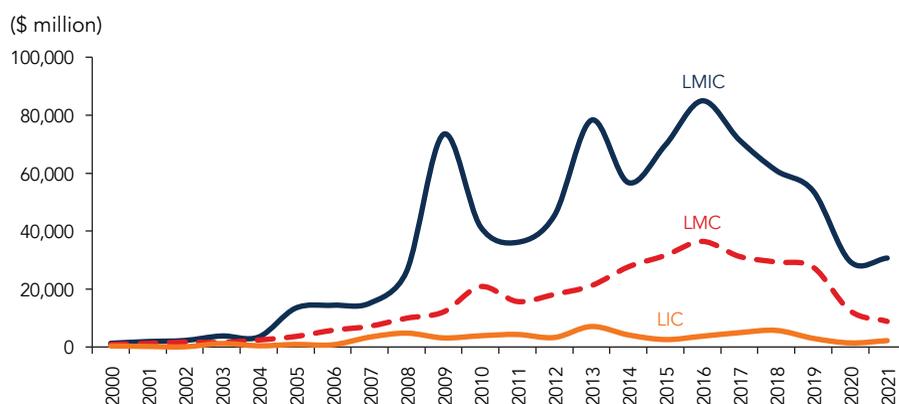
(World Bank 2018). Some view outward investment as depleting domestic capital and jobs, or consuming foreign reserves. In the absence of tangible outcomes from outward investment and South-South FDI, policy makers encounter difficulties in initiating reform efforts. In this context, global financial services can play a pivotal role by providing services that facilitate entry, survival and upgrading of South investors.

3.6 China's outward investments

A similar trend of rising South-South investments is observed in international portfolio investments and bank lending (Broner et al., 2022). In particular, China through its Belt and Road Initiative (BRI) has made large infrastructure investments – both FDI and bank lending – around the world. Consistent data on China's overseas investments are difficult to obtain.³⁵ According to available data, **China's investments in developing countries peaked in 2016-2018; since then, China's FDI to LMICs has decreased by 24 percent to \$29 billion in 2022, and bank lending has decreased by 63 percent to \$31 billion (figure 14).**³⁶

Nevertheless, China remained the major source of bank lending flows in LMICs, constituting a substantial 47 percent of the total inflows of bank lending in the Middle East and North Africa, and as high as 23 percent in Europe and Central Asia. This share was 13 percent in Sub-Saharan Africa. While China's investments span 115 countries in this dataset, in 2021, nearly 77 percent of its lending was directed to Russia, Türkiye, Iraq, Pakistan, Sierra Leone, Brazil, Bangladesh, Malaysia, Egypt, and Benin. The

FIGURE 14. China's bank lending to developing countries, 2000–21



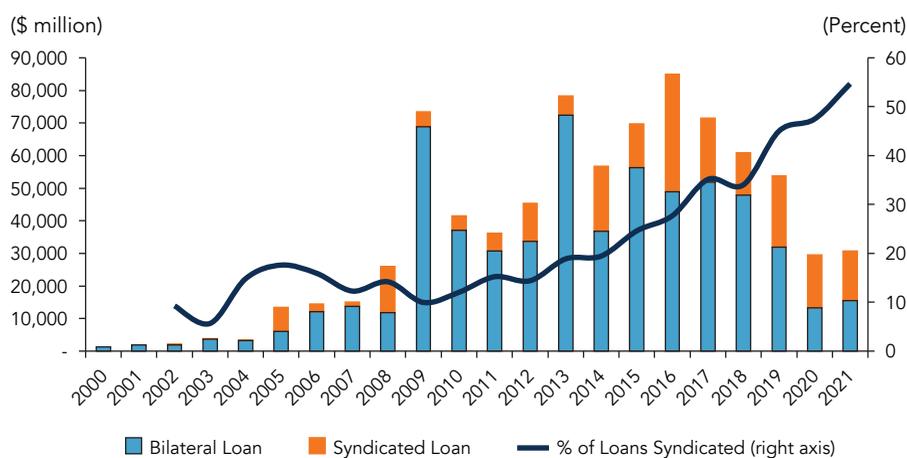
Source: AidData, Authors' calculation

Note: Includes non-rescue loans for approved, active, and completed projects. Projects in the pledged, suspended, or canceled status are excluded. Additionally, to prevent any duplication, records related to debt rescheduling or forgiveness are also omitted.

destination of China's FDI seems to have changed during the past five years, with an increasing share going to Asia's developing countries.

A notable trend in BRI investment strategy is a steady increase in China's participation in private and multilateral loan syndications. The share of syndicated loan projects increased from less than 10 percent in 2002 to 55 percent in 2021 (figure 15). Such collaborative lending reduces China's exposure to financial risk (Wilkins and Donnan 2023).

FIGURE 15. Composition of China's bank loan portfolio, 2000–21



Source: AidData, Authors' calculation

4. Increasing MDB financial support for developing countries

4.1 MDB lending

MDBs leverage their limited capital resources by issuing bonds in the international capital markets and lending these funds to developing countries. Table 2 shows the original paid-in capital, the current usable equity, and the size of the loan portfolio for the major MDBs. The leverage ratio (that is, the ratio of loan to equity) ranges from 1.7 in the case of the European Bank for Reconstruction and Development (EBRD) and Islamic Development Bank (IsDB) to 5.0 in the case of the European Investment Bank (EIB). In the case of the Multilateral Investment Guarantee Agency (MIGA), the ratio of

TABLE 2. Paid-in capital, shareholders' equity, loan portfolio of major MDBs (\$billion)

		Paid-in (A)	Shareholders' usable equity (B)	Outstanding loans/ Guarantees/assets (C)	Leverage ratio (=C/B)
IBRD	FY23	20.5	53.1	241.0	4.5
IFC	FY23	22.6	35.0	[110.5]	3.2
IDA	FY23		185.8	187.7	1.0
MIGA (net exposure)*	FY23	0.4	1.7	9.5	5.5
MIGA (gross exposure)	FY23	0.4	1.7	27.9	16.3
ADB	FY22	7.0	54.2	144.3	2.7
AfDB	FY22	8.9	14.0	29.2	2.1
EIB	FY22	23.6	92.4	464.9	5.0
EBRD	FY22	6.6	20.5	33.3	1.7
IDB	FY22	11.9	36.4	112.8	3.1
IsDB	FY22	8.5	13.4	22.6	1.7

Sources: Annual Reports of the respective MDBs, and International Financial Statistics.

Note: For IBRD, IFC, IDA, and MIGA, FY23 refers to end of June 2023. For ADB, AfDB, EIB, EBRD, IDB, and IsDB, FY22 refers to end of December 2022. For currency conversion, the following exchange rates were used: 1 Unit of Account = \$1.41129 is used for AfDB; 1 Euro = \$1.06383 (as of December 31, 2022) is used for EIB & EBRD; and 1 Islamic Dinar = \$1.3291 is used for IsDB.

*Net exposure equals gross exposure less reinsurance.

outstanding guarantees net of reinsurance to equity is 5.5, and the ratio with respect to gross exposure is 16.3 (box 5).³⁷

Besides direct lending, MDBs help mobilize private capital flows to developing countries by improving lending terms, through partnering with private lenders, improving the information available to potential lenders, and helping governments to strengthen the overall framework for private investments. MDBs' engagement with a client country can provide information or signal about the risks and returns of investing in that country.³⁸ Private investors might take advantage of MDBs' detailed information on country creditworthiness through allocating a portion of the portfolio to co-financing MDB loans or participating in syndicated lending where one of the syndicate members is an MDB. This can generate additional benefits to the lender: MDB's ongoing interactions with the borrower may facilitate monitoring of progress, and in the case of joint participation in loan syndications, private lenders may benefit from MDBs' preferred creditor status, as their loans often are not subject to restructuring agreements (Arezki et al. 2017). According to the MDB Task Force on Mobilization, the MDBs mobilized \$63.3 billion in private finance to developing countries in 2021, of which \$5.2 billion went to low-income countries (MDB Task Force, 2023). The total volume of private flows was little different from the amount mobilized in 2019, although flows to low-income countries declined from \$6.3 billion in 2019 (MDB Task Force, 2021).³⁹

MDBs' participation in syndicated loans reduces borrowing costs and lengthens loan maturity. Gurara, Presbitero and Sarmiento (2018) find that with MDB participation in a syndicated loan, the premium on loans to leveraged and highly leveraged borrowers is about a third lower, and that borrowing costs for companies

BOX 5. Multilateral Investment Guarantee Agency

The Multilateral Investment Guarantee Agency (MIGA) was established in 1988 to promote foreign direct investment into developing countries by issuing political risk insurance to private investors. Its operations have evolved in recent years to provide guarantee against the non-honoring of financial obligations of sovereign, sub-sovereign and state-owned enterprises. Most recently, MIGA is also providing trade finance guarantees. MIGA's guarantees are provided at commercial prices, and about two-thirds of its portfolio is sold in the reinsurance market to free up capital for providing even more guarantees. As of end-June 2023, MIGA's gross portfolio exceeded \$27 billion and its net portfolio was just over \$9 billion.

Besides MIGA, the International Bank for Reconstruction and Development offers partial risk guarantees to cover public sector payment obligations to the private sector. The International Finance Corporation also offers guarantees covering commercial risks to private sector clients.

headquartered in riskier countries is about 41 basis points lower.⁴⁰ They also find that MDB infrastructure financing tends to go to higher-risk projects than those financed by commercial banks alone. Similarly, Hainz and Kleimeier (2012) find that development banks are more likely to participate in a syndicate if political risks are higher.

Some authors have argued that multilateral loans could have no effect, or be negatively associated, with private lending. Easterly (2000) contends that the provision of financing could enable countries to delay adjustment, thus reducing incentives for private lending. Devarajaran and Swaroop (1999) note that resources are fungible, so that lending, even for specific projects, could simply enable governments to finance low-return projects. Non-concessional lending from MDBs that results in inefficient expenditures could worsen the debt burden of highly indebted countries, hardly an incentive for increased private lending. Borrowing from MDBs, particularly for adjustment lending, also could provide a signal of macroeconomic difficulties that discourages private lending. Eichengreen and Mody (2001) make this argument in the context of IMF programs, and Broccolini et al. (2019) do for MDB lending.

Empirical studies find quite disparate results when testing for the catalytic role of MDB lending. Several researchers have attempted to test the hypothesis that MDB lending to developing countries encourages greater private lending. Rodrik (1995) finds that there is no significant relationship between net transfers to a country from multilateral sources and subsequent increases in net private capital flows, controlling for past private capital flows. Bird and Rowlands (2000) also find a significant, negative correlation between World Bank lending and the volume of private capital inflows in the following year. Clemens (2002) finds that World Bank lending neither substituted for, nor encouraged subsequent, private lending to developing countries. By contrast, several studies do find a significant, positive association between lending by multilaterals and increased lending from private sources. For example, Dasgupta and Ratha (2001) find that World Bank lending is positively related to the next year's level of private non-FDI net lending. Ratha (2001) finds that multilateral lending is associated with subsequent private flows, although the contemporaneous correlation is negative, indicating that multilateral loans may play a role in substituting for private flows during downturns. Broccolini et al. (2019) find a positive and significant relationship between multilateral lending and the number of loans and lending banks, total size of bank lending and the average maturity of syndicated loans in a sample of developing countries from 1993 to 2017. Differences in the time periods examined and in the modeling approaches make it difficult to reconcile these contradictory results.

MDBs may also affect the volume of private flows through policy advice that improves incentives for private lending. MDBs have considerable technical expertise that can contribute to improving the design of individual projects, can help countries to strengthen overall project management, and can support improvements to the policy and regulatory environment facing private investment (Chelsky, Morel, and Kabor 2013). All these functions may play a role in increasing the attractiveness of developing countries to private lenders.

4.2 MDB guarantees

Guarantees can encourage greater investment in developing countries by protecting investors from a variety of risks (box 6). The resources mobilized through MDB guarantees are small compared to their own lending, despite their rarely resulting in actual claims on MDB resources (Bandura and Ramanujan, 2019). Only 13 of the 30 members of the Development Assistance Committee of the OECD use guarantees to assist developing countries, and most guarantees are provided for investments in the upper middle-income countries.

Guarantees can increase the willingness to invest in developing countries by ensuring that investors are paid for losses due to the realization of specific risks or

BOX 6. Types of risks addressed by MDB guarantees

Investors face a variety of types of risks in emerging markets. A first distinction is between *commercial risks*, which pertain to the state of the market, business operations, and technical issues, and *non-commercial risks*, which refer to aspects of the overall economy or government policy that may be beyond the control of the investor. MDBs generally do not cover commercial risks, which are best judged by the private firm. The following noncommercial risks may be subjects of MDB guarantees:

Contractual risk. Investors who have entered into a contract with a government could face delays or absence of scheduled payments, or in the case of public private partnerships, the government's failure to perform its operational obligations satisfactorily.

Regulatory risk. Even in the absence of a contractual obligation, government actions can affect business operations through a multitude of ways. For example, changes in law can determine the ability to carry out certain investments. Governments can revoke, or refuse to approve, licenses; bring changes in price controls, and trade policy; or set new charges for public services (e.g., electricity, water, etc.) – all of which can radically alter profitability.⁴¹

Political risk. Actions by governments (e.g., expropriation) or the failure to maintain stability (resulting in war or civil disturbance) can disrupt business operations.

Macroeconomic risk. Given the higher degree of instability in many emerging markets, investors may be deterred by the potential for sharp changes in relative prices that can dramatically alter profitability.

Currency risks. Foreign investors in particular need to worry about government decisions to limit purchases of domestic currency or restrict the ability to transfer money to other countries. Even in the absence of government restrictions, the limited liquidity of domestic exchange rate markets could result in considerable delays and high prices for currency conversion.⁴²

Source: World Bank Guarantee Programs (<https://www.worldbank.org/en/programs/guarantees-program>).

a portion of losses regardless of the source of risk (Pereira dos Santos 2018). Partial risk guarantees, offered by several MDBs, ensure payment to private investors for a share of losses arising from the realization of specific risks identified in the guarantee agreement. By contrast, partial credit guarantees cover losses due to default on a specific portion of debt due to any cause. One common approach is to extend a guarantee covering the later maturities on a loan. Such guarantees can make it more feasible to achieve the extended maturities consistent with the long payback times inherent in many infrastructure projects.

MDB guarantee reduces borrowing costs and lengthens maturity of syndicated loans. An econometric analysis of 12,314 syndicated loans extended to the LMICs during 2000–22, similar to the analysis of Gurara, Presbitero, and Sarmiento (2018), confirms that MDBs self-select to participate in relatively higher-risk loans (with presumably high economic and social returns), and their participation reduces the borrowing spread and lengthens debt maturity (annex 3). These impacts are even stronger when an MDB acts as a guarantor of the syndicated loan – the loan spread is reduced on average by 113 basis points, equal to around 46 percent of the average spread. The spread reduction is higher for riskier (leveraged) loans. Also, MDB participation extends the loan maturity by 3.6 years on average. The loan maturity is extended by an additional 4 years (that is, 7.6 years in total) if the loan has a Multilateral Investment Guarantee Agency guarantee.

Guarantees can facilitate investment in developing countries by expanding the range of investors. Depending on the guarantees provided, a debt security issued where the sovereign is rated below investment grade may be raised to investment grade. This makes it eligible for inclusion in the portfolios of institutions, such as pension funds or insurance companies, that either prefer, or are restricted by regulation, to purchase only investment grade securities. For international commercial banks providing loans to government and public sector entities in developing countries, a guarantee by a supranational agency (e.g., MIGA) could lower risk capital requirements recommended by the Basel Committee.

Guarantees can help build markets. High levels of volatility in emerging markets (the macroeconomic risk mentioned above) can deter foreign investors. Guarantees can be used to encourage the entrance of new investors as a catalyst to market change. Such use of guarantees can improve the familiarity of new investors with a market and encourage the investment of government resources in strengthening market infrastructure and the regulatory framework, thus leading to further investments without guarantees.

Guarantees have their limitations. Guarantees do not address the underlying drivers of risk (Bandura and Ramanujam 2019). This underlines the importance of complementary efforts to improve the business environment in developing countries benefiting from guarantees. Guarantees can be more complex and difficult to structure than loans,

particularly for infrastructure projects, placing a greater administrative burden on both the guarantor and the developing-country beneficiary. Finally, guarantees can induce moral hazard. For example, banks whose loans are guaranteed in the case of default may expend less effort and resources to ensure repayment or to screen out very risky borrowers. There is some evidence that default rates can be higher for loans protected by guarantee schemes (Cowan, Drexler, and Yañez 2015). Guarantors can limit moral hazard by providing a partial guarantee, so that the lender retains significant incentive to extract repayments. Guarantors can also include requirements on the behavior of the beneficiary to ensure appropriate conduct.

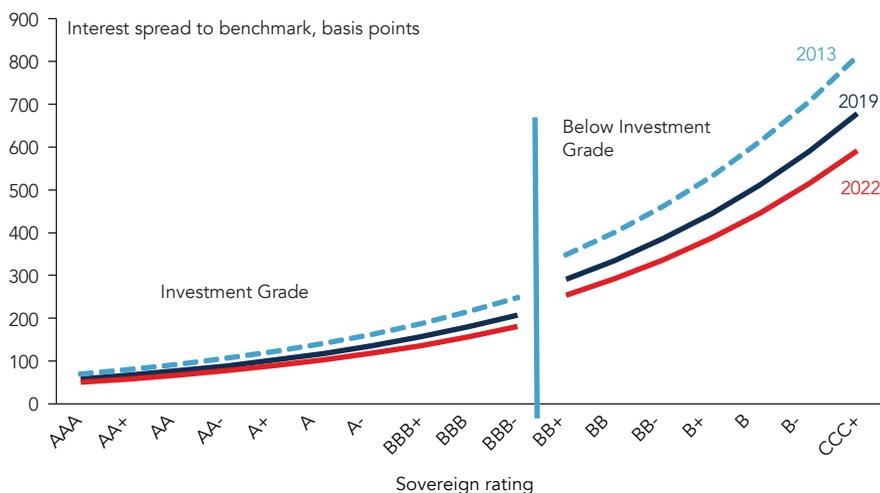
MDBs should try to improve the tradability of bonds to channel greater private flows to developing countries. Bonds benefiting from partial credit guarantees can be difficult to value in the market or to be included in market indexes. This limits their liquidity and thus their attractiveness to investors. Most MDB guarantee transactions are customized to the specific needs of the clients, which also limits tradability. Also, the preparation of MDB guarantee transactions can be long and arduous.

4.3 Scaling up MDB financing

MDB are being called upon to scale up their financing and catalyze private financing for addressing the global challenges of poverty, conflict, and climate change. The G20 Capital Adequacy Framework paper (G20 2022) highlighted the financial strength of the MDBs due to their preferred creditor status and access to callable capital. The same paper also called for expanding the uses of financial innovations to “create more usable capital or shift loan risks to willing counterparties.” The World Bank has initiated an evolution roadmap to follow up on these recommendations (World Bank 2023).

A useful risk-return framework can be illustrative in considering innovations in private capital mobilization. Borrowing cost rises exponentially along the rating spectrum with a sharp jump at the investment grade threshold (figure 16). For a borrower with B- or C rating, the interest spread can be higher than 500 basis points.⁴³ A one-notch improvement in rating in such cases can translate into an interest cost reduction of over 100 basis points. The rate reduction can be higher if the rating improved beyond the investment grade threshold (from BB+ to BBB-).⁴⁴

Thus, private capital mobilization could be supported by: (1) engaging with investors who may be naturally less risk averse toward investing in developing countries – for example, South-South investors and diaspora organizations; (2) the use of credit enhancement by MDBs; and (3) market-based structuring – the use of existing assets or future flows as collateral – to improve the creditworthiness of a transaction. It is also possible to combine these three options. Below we describe diaspora bonds as an example of the first option, and international financing facilities as examples of a combination of the second and third options.

FIGURE 16. Borrowing cost rises exponentially as credit rating deteriorates

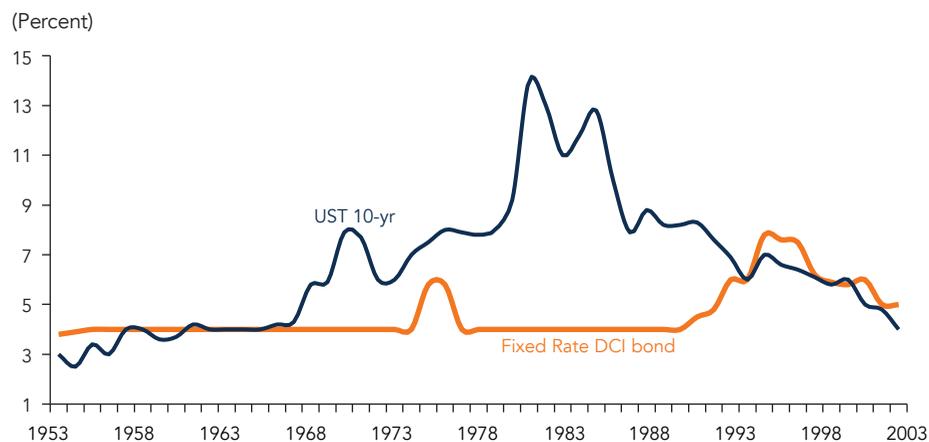
Source: Authors' estimates drawing on the methodology of Ratha, De and Mohapatra (2009).

Data are from Dealogic, Bloomberg, World Development Indicators, and FRED.

Note: Assuming that a \$100 million sovereign bond is issued from a AFR country with a 10-year tenor and UK governing law. Suppose the VIX is 15, and 3-year average GDP growth rate is 3.5 percent. The regression equation is given by: $\log(\text{launch spread to benchmark}) = 3.58 - 0.198 \text{ investment grade dummy} + 0.141 \text{ S\&P sovereign rating} + 0.007 \text{ maturity} + 0.027 \text{ VIX} - 0.019 \text{ previous 3-year GDP growth rate} - 0.344 \text{ financial crisis (2008) dummy} - 0.446 \text{ COVID-19 dummy} + 0.227 \text{ AFR dummy} - 0.166 \text{ EAP dummy} + 0.087 \text{ UK law} - 0.364 \text{ year 2006 dummy} - 0.528 \text{ year 2007 dummy} - 0.368 \text{ year 2008 dummy} + 0.213 \text{ year 2009 dummy} - 0.323 \text{ year 2011 dummy} - 0.145 \text{ year 2014 dummy} - 0.219 \text{ year 2017 dummy} - 0.452 \text{ year 2018 dummy} - 0.18 \text{ year 2019 dummy} - 0.317 \text{ year 2022 dummy}$. $N = 537$, Adjusted R-square = 0.76. All the coefficients were significant at 5 percent. A lower numeric value of the sovereign rating represents a better rating.

4.4 Diaspora bonds

Developing countries can attract capital at lower rates than available in the international capital markets through diaspora bonds. Migrants from many developing countries living in higher-income countries have a more favorable perception of risk toward their country of origin compared to institutional investors. Besides sending remittances, these migrants, numbering nearly 300 million, also save a large amount – estimated to be around \$500 billion per year – in their country of destination. These migrants may be interested in purchasing retail diaspora bonds (face value of \$1,000 or so) if the rate of interest is higher than the deposit rate and the financing would be used for projects to their liking. Their benchmark rate tends to be the deposit rate which tends to be significantly lower than the secured overnight financing rate (SOFR) or comparable benchmark rates used by institutional investors. Since migrants' risk perception is more favorable, they would be willing to lend at a lower spread over the benchmark compared to the sovereign spread. It is likely, therefore, that the diaspora bond would carry a ("patriotic") discount (figure 17). From the borrower's viewpoint, besides lower borrowing cost, diaspora bonds present an

FIGURE 17. Diaspora bonds issued by Israel carried a significant “patriotic discount”

Source: Ketkar and Ratha (2009), Development Corporation of Israel, and FRED.

opportunity to diversify their sources of funding. And diaspora funding, like remittances, can be more stable and even counter-cyclical in difficult times.

Israel, India and Nigeria have successfully issued diaspora bonds. Israel has been raising diaspora bonds since 1951. India has raised over \$11 billion on three occasions: in 1991 following the balance of payments crisis, in 1998 when sanctions were imposed after India conducted nuclear tests, and in 2000. In 2017, Nigeria raised \$300 million via a diaspora bond registered in the United States; this five-year bond carried an interest rate similar to Nigeria’s sovereign borrowing rate. The Philippines also issued an overseas foreign workers (OFW) bond in 2010, and is in the process of marketing a new retail dollar bond to the OFWs in October 2023.⁴⁵

MDB support for diaspora bonds has the potential to substantially increase resources to developing countries. MDB credit guarantees and efforts to strengthen the projects to be financed could increase the attractiveness of diaspora bonds and improve the efficiency of the use of funds. Since diaspora bonds already have a relatively low interest rates, MDB guarantees could focus on either high-risk countries that lack bond market access or relatively high-risk instruments, for example issuances in local currency terms (similar to masala bonds issued by India).

4.5 Future-flow securitization and international financing facilities

The use of future flow securitization and guarantees could be enhanced to improve credit terms and the volume of resources to developing countries. Developing countries or their firms that lack collateral to pledge for loans, due to

inadequate foreign currency assets and investors' perception that local currency assets are not sufficiently secure, can use future flows of earnings – from exports, airline ticket sales, credit card vouchers, remittances and other diversified payment rights – as collateral to reduce the borrowing costs and lengthen the maturity of loans. The first future-flow deal was done by Mexico's Telmex in 1987. Since then, more than \$100 billion has been raised by many countries, including Brazil, Türkiye, Egypt, Pakistan, Indonesia and the Philippines.⁴⁶ This asset class can be very creative, allowing for securitization of music and movie rights, sports facilities, and rights to future aid pledges, to name a few.

The **International Financing Facility for Immunization (IFFIm)** is a novel approach to lock in future donor pledges and make funds available immediately for addressing critical development challenges. The IFFIm was founded in 2006 with \$4 billion pledged over 20 years by six sovereign donors. As of November 30, 2022, donors' pledges increased to \$8.9 billion, of which \$3.8 billion will be paid in the future, from 2023 to 2037. IFFIm issues bonds or sukuk that are guaranteed by legally binding pledges from 11 donors. IFFIm then transfers the bond proceeds to the Global Alliance for Vaccines and Immunization (GAVI), minus an amount required to cover debt service payments and provide a reserve. The International Bank for Reconstruction and Development (IBRD) serves as IFFIm's treasury manager.

So far IFFIm has transferred \$5.8 billion to GAVI, which has disbursed \$4.6 billion to provide immunizations in developing countries. IFFIm has been rated AA-/Aa1/AA by FitchRatings, Moody's Investor Service and Standard & Poor's. The rating reflects the lower rating of IFFIm's largest donor countries: the UK (AA-/Negative; 41 percent of pledges on a net present value basis) and France (AA-/Stable; 14 percent). Together with Norway, these three top donors combined account for 77 percent of total outstanding pledges as of end-2022. The rating also considers IFFIm's conservative risk management framework that limits the gearing ratio to 74 percent and prudential liquidity management framework that must cover the debt service. In June 2022, IFFIm's gearing ratio (net debt/adjusted net present value of pledges) was 52.4 percent; its liquid assets totaled \$1 billion, substantially more than the debt service of \$576 million for the upcoming year.

The newly established **International Financing Facility for Education (IFFEd)** will use grants from donors to provide *guarantees* for increasing MDB lending for education, enabling a large volume of loans for the resources pledged.⁴⁷ The IFFEd, operational as of July 2023, takes a somewhat different approach to mobilizing resources for education in LMICs.⁴⁸ The IFFEd uses grants from donors to guarantee (portions of) the education loan portfolios of highly rated MDBs. Donors provide 15 cents in paid-in capital for every \$1 of guarantee made to an MDB, which in turn increases its education loan to a client country by, say, \$4 (using an equity to loan ratio of 20 percent). The structure requires donors to provide callable capital equal to 85 percent of IFFEd's exposure to the MDBs, to cover any default by the latter to their bondholders. Thus, for every \$0.15 of *paid-in* capital received by IFFEd, the finance made available to clients would be \$4, a leverage factor of 27. The

leverage factor would be lower if all or a fraction of the callable guarantee is treated as a part of the denominator in the loan-to-equity ratio.

The IFFEd should represent an increase in resources for education through increasing the leverage of donor contributions. And rather than each bilateral donor establishing its own guarantee facility, the IFFEd has the virtue of combining guarantees into a single organization and working through the education programs of MDBs. Of course, both the MDB and the capital markets will have to have faith in the donors' commitments to honor their guarantees.

The latest balance sheet optimization measure from the IBRD is the creation of a **portfolio guarantee platform**.⁴⁹ This platform builds and expands on the IFFEd structure to provide portfolio-wide coverage: Under the proposed structure, participating shareholders (with a credit rating of AA- to AAA) will commit to covering applicable principal and interest payments to IBRD, up to the maximum guarantee amount, in the event that one or more borrowers enter into non-accrual status with IBRD. The guarantee will have a maturity of minimum 20 years. The leverage ratio of this platform is expected to be 1:6, that is, every \$1 of portfolio guarantee can support \$6 of additional new IBRD commitments over a 10-year period.

It seems plausible that an International Guarantee Facility (IGF) can build on the international financing facilities to further leverage donors' capital contributions to guarantee MDB loans and private investments. Donors would commit to providing grants to the IGF over a 10-to-20-year period. The IGF would have the option, if necessary, of issuing bonds backed by these donor pledges. The grants (and bond proceeds) would be used to provide political risk insurance and credit guarantees covering the non-honoring of financial obligations to private investors. The IGF would work with IDA (private sector window) and other MDBs to de-risk private investments in developing countries.

The structure of the IGF would combine elements of the IFFIm, the IFFEd and the IBRD portfolio guarantee platform. Like the IFFIm, it could raise bond financing from the international capital markets by securitizing future pledges from donors. Like the IFFEd and the portfolio guarantee platform, the IGF would offer guarantees (instead of loans), but its coverage would be broader: besides MDB exposures, it would guarantee private investments including from nontraditional partners such as sovereign wealth funds and diaspora groups.

5. The way forward

Developing countries are in great need of resources. Their ability to confront the challenges of poverty, food insecurity, fragility, conflict and violence, pandemics and climate change is critical for the world at large. While industrial countries are the predominant source of GHGs now in the atmosphere, meeting the Paris Agreement's climate goals will require substantial emission reductions in developing countries. Social dislocations, forced migration, and potential conflicts (for example, over water resources) resulting from climate change will have enormous implications for high-income countries. The potential for another global pandemic also emphasizes the importance of all countries being able to undertake the measures required to prevent the spread of disease. In short, it is in the interest of the global community to increase resource flows to the developing countries.

It is unlikely, however, that developing countries on their own will be able to attract a significant increase in resources from private sector investors and lenders. High interest rates in developed markets (which tend to discourage flows to developing countries), the lingering economic effects of the COVID-19 pandemic, and the problems generated by the Ukraine-Russia war do not augur well for any rapid rebound in private capital flows to developing countries. Equity flows show no sign of picking up, and increased global uncertainty, particularly the challenges facing maintenance of the open multilateral trading system, are likely to continue to restrain FDI and portfolio equity flows to developing countries. Rising debt levels, in part tied to the increase in syndicated bank lending over the past decade, also are likely to limit many countries access to debt flows. Furthermore, private flows have become more volatile, less predictable in recent years.

The massive need for increased resources to finance development and global public goods in the face of declining private flows underlines the importance of leveraging the MDBs for unlocking private finance. A major role of the MDBs remains providing advice, knowledge generation, and the sharing of best practices to support improvements in the economic policy framework. Such improvements serve as the lynchpin for encouraging greater private capital flows and ensuring their productive use. One area where the risks faced by private investors have increased substantially relates to violence, corruption and other noncommercial risks. Some of these risks are addressed through environment, social and corporate governance (ESG) regulations.

A continued expansion of MDB efforts to monitor developments and ensure efficient ESG rules is essential. MDBs should also increase their efforts to work with private investors to boost flows to developing countries.

Mobilization of private capital must be accompanied by prudential liability management. From this viewpoint, investments that generate foreign currency earnings (for example, those in export-oriented sectors) may be preferable. On the other hand, investments in projects with high rates of return (even when they are not export-oriented) can improve economic growth and attract private flows.

This paper has made some small suggestions for increasing the use of guarantees and financial structuring to stabilize and increase private capital flows. These should be seen as elements of a larger effort to mobilize the resources desperately needed by developing countries, both for their own good and for the good of all.

ANNEX 1

Country classifications

This table classifies income groups based on 2022 gross national income (GNI) per capita, calculated using the World Bank Atlas method. The groups are: low income, \$1,135 or less; lower middle income, \$1,136 to \$4,465; upper middle income, \$4,466 to \$13,845; and high income, \$13,845 or more.⁵⁰

Country	Low-income countries (1)	Lower-middle-income countries (2)	Upper-middle-income countries (3)	Low- and middle-income countries (1+2+3)	Advanced economies (5)	Other high-income countries (6)	High-income countries (5+6)
Afghanistan	X			X			
Albania			X	X			
Algeria		X		X			
American Samoa						X	X
Andorra						X	X
Angola		X		X			
Antigua and Barbuda						X	X
Argentina			X	X			
Armenia			X	X			
Aruba						X	X
Australia					X		X
Austria					X		X
Azerbaijan			X	X			
Bahamas, The						X	X
Bahrain						X	X
Bangladesh		X		X			
Barbados						X	X
Belarus			X	X			

(Continued)

Country	Low-income countries (1)	Lower-middle-income countries (2)	Upper-middle-income countries (3)	Low- and middle-income countries (1+2+3)	Advanced economies (5)	Other high-income countries (6)	High-income countries (5+6)
Belgium					X		X
Belize			X	X			
Benin		X		X			
Bermuda						X	X
Bhutan		X		X			
Bolivia		X		X			
Bosnia and Herzegovina			X	X			
Botswana			X	X			
Brazil			X	X			
Brunei Darussalam						X	X
Bulgaria			X	X			
Burkina Faso	X			X			
Burundi	X			X			
Cabo Verde		X		X			
Cambodia		X		X			
Cameroon		X		X			
Canada					X		X
Cayman Islands						X	X
Central African Republic	X			X			
Chad	X			X			
Channel Islands						X	X
Chile					X		X
China			X	X			
Colombia			X	X			
Comoros		X		X			
Congo, Dem. Rep.	X			X			
Congo, Rep.		X		X			
Costa Rica			X	X			
Cote d'Ivoire		X		X			
Croatia						X	X
Cuba			X	X			
Curacao						X	X

(Continued)

Country	Low-income countries (1)	Lower-middle-income countries (2)	Upper-middle-income countries (3)	Low- and middle-income countries (1+2+3)	Advanced economies (5)	Other high-income countries (6)	High-income countries (5+6)
Cyprus						X	X
Czech Republic					X		X
Denmark					X		X
Djibouti		X		X			
Dominica			X	X			
Dominican Republic			X	X			
Ecuador			X	X			
Egypt, Arab Rep.		X		X			
El Salvador			X	X			
Equatorial Guinea			X	X			
Eritrea	X			X			
Estonia					X		X
Eswatini		X		X			
Ethiopia	X			X			
Faroe Islands						X	X
Fiji			X	X			
Finland					X		X
France					X		X
French Polynesia						X	X
Gabon			X	X			
Gambia, The	X			X			
Georgia			X	X			
Germany					X		X
Ghana		X		X			
Greece					X		X
Greenland						X	X
Grenada			X	X			
Guam						X	X
Guatemala			X	X			
Guinea		X		X			
Guinea-Bissau	X			X			
Guyana						X	X

(Continued)

Country	Low-income countries (1)	Lower-middle-income countries (2)	Upper-middle-income countries (3)	Low- and middle-income countries (1+2+3)	Advanced economies (5)	Other high-income countries (6)	High-income countries (5+6)
Haiti		X		X			
Honduras		X		X			
Hong Kong SAR, China						X	X
Hungary					X		X
Iceland					X		X
India		X		X			
Indonesia			X	X			
Iran, Islamic Rep.		X		X			
Iraq			X	X			
Ireland					X		X
Isle of Man						X	X
Israel					X		X
Italy					X		X
Jamaica			X	X			
Japan					X		X
Jordan		X		X			
Kazakhstan			X	X			
Kenya		X		X			
Kiribati		X		X			
Korea, Dem. People's Rep.	X			X			
Korea, Rep.					X		X
Kosovo			X	X			
Kuwait						X	X
Kyrgyz Republic		X		X			
Lao PDR		X		X			
Latvia					X		X
Lebanon		X		X			
Lesotho		X		X			
Liberia	X			X			
Libya			X	X			
Liechtenstein						X	X
Lithuania					X		X

(Continued)

Country	Low-income countries (1)	Lower-middle-income countries (2)	Upper-middle-income countries (3)	Low- and middle-income countries (1+2+3)	Advanced economies (5)	Other high-income countries (6)	High-income countries (5+6)
Luxembourg					X		X
Macao SAR, China						X	X
Madagascar	X			X			
Malawi	X			X			
Malaysia			X	X			
Maldives			X	X			
Mali	X			X			
Malta						X	X
Marshall Islands			X	X			
Mauritania		X		X			
Mauritius			X	X			
Mexico			X	X			
Micronesia, Fed. Sts.		X		X			
Moldova			X	X			
Monaco						X	X
Mongolia		X		X			
Montenegro			X	X			
Morocco		X		X			
Mozambique	X			X			
Myanmar		X		X			
Namibia			X	X			
Nepal	X			X			
Netherlands					X		X
New Caledonia						X	X
New Zealand					X		X
Nicaragua		X		X			
Niger	X			X			
Nigeria		X		X			
North Macedonia			X	X			
Northern Mariana Islands						X	X
Norway					X		X
Oman						X	X

(Continued)

Country	Low-income countries (1)	Lower-middle-income countries (2)	Upper-middle-income countries (3)	Low- and middle-income countries (1+2+3)	Advanced economies (5)	Other high-income countries (6)	High-income countries (5+6)
Pakistan		X		X			
Palau			X	X			
Panama						X	X
Papua New Guinea		X		X			
Paraguay			X	X			
Peru			X	X			
Philippines		X		X			
Poland					X		X
Portugal					X		X
Puerto Rico						X	X
Qatar						X	X
Romania						X	X
Russian Federation			X	X			
Rwanda	X			X			
Samoa		X		X			
San Marino						X	X
Sao Tome and Principe		X		X			
Saudi Arabia						X	X
Senegal		X		X			
Serbia			X	X			
Seychelles						X	X
Sierra Leone	X			X			
Singapore						X	X
Sint Maarten (Dutch part)						X	X
Slovak Republic					X		X
Slovenia					X		X
Solomon Islands		X		X			
Somalia	X			X			
South Africa			X	X			
South Sudan	X			X			

(Continued)

Country	Low-income countries (1)	Lower-middle-income countries (2)	Upper-middle-income countries (3)	Low- and middle-income countries (1+2+3)	Advanced economies (5)	Other high-income countries (6)	High-income countries (5+6)
Spain					X		X
Sri Lanka		X		X			
St. Kitts and Nevis						X	X
St. Lucia			X	X			
St. Martin (French part)						X	X
St. Vincent and the Grenadines			X	X			
Sudan	X			X			
Suriname			X	X			
Sweden					X		X
Switzerland					X		X
Syrian Arab Republic	X			X			
Tajikistan		X		X			
Tanzania		X		X			
Thailand			X	X			
Timor-Leste		X		X			
Togo	X			X			
Tonga			X	X			
Trinidad and Tobago						X	X
Tunisia		X		X			
Türkiye			X	X			
Turkmenistan			X	X			
Turks and Caicos Islands						X	X
Tuvalu			X	X			
Uganda	X			X			
Ukraine		X		X			
United Arab Emirates						X	X
United Kingdom					X		X
United States					X		X

(Continued)

Country	Low-income countries (1)	Lower-middle-income countries (2)	Upper-middle-income countries (3)	Low- and middle-income countries (1+2+3)	Advanced economies (5)	Other high-income countries (6)	High-income countries (5+6)
Uruguay						X	X
Uzbekistan		X		X			
Vanuatu		X		X			
Venezuela, RB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Viet Nam		X		X			
Virgin Islands (U.S.)						X	X
West Bank and Gaza			X	X			
Yemen, Rep.	X			X			
Zambia		X		X			
Zimbabwe		X		X			
Number of countries	27	53	54	134	34	45	79

N/A = not available

Definition of tax havens and other offshore financial centers

This paper uses the list of tax havens from OECD *2000 Progress Report: Towards Global Tax Co-operation: Progress in Identifying and Eliminating Harmful Tax Practices*. The list includes Andorra, Antigua and Barbuda, Aruba, The Bahamas, Belize, Bermuda, British Virgin Island, Cayman Islands, Cyprus, Dominica, Gibraltar, Isle of Man, Liberia, Liechtenstein, Malta, Marshall Islands, Mauritius, Monaco, Nauru, Panama, Samoa, Seychelles, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Turks and Caicos Islands, Vanuatu and (U.S.) Virgin Islands. Some of these jurisdictions are not included in the FDI bilateral statistics.

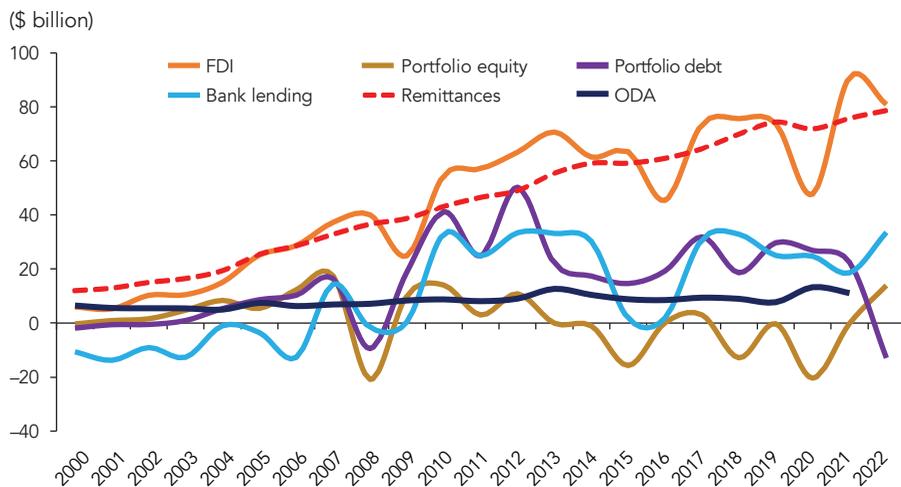
In the literature Hong Kong SAR, China, Netherlands, Singapore, United Arab Emirates and Luxembourg are treated as offshore financial centers.

ANNEX 2

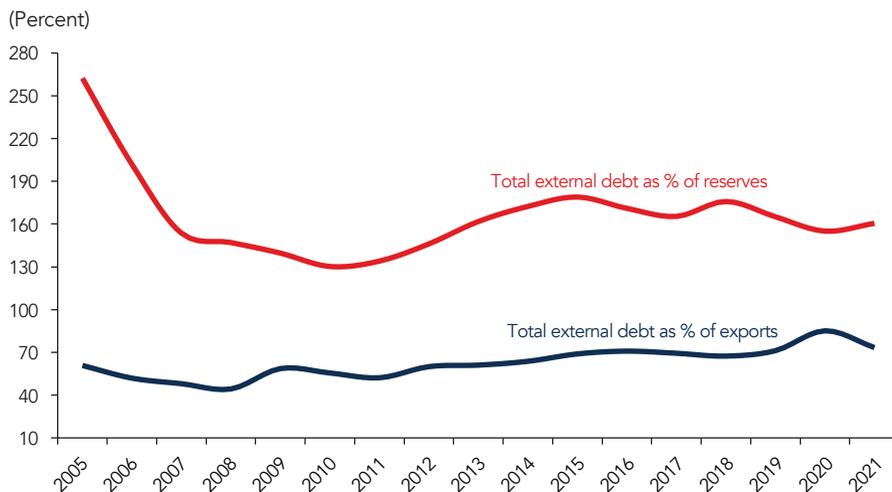
Trends in resource flows and debt indicators by region and income groups

East Asia and Pacific

FIGURE A2.1. Net resource inflows to East Asia and Pacific, excluding China, 2000–22

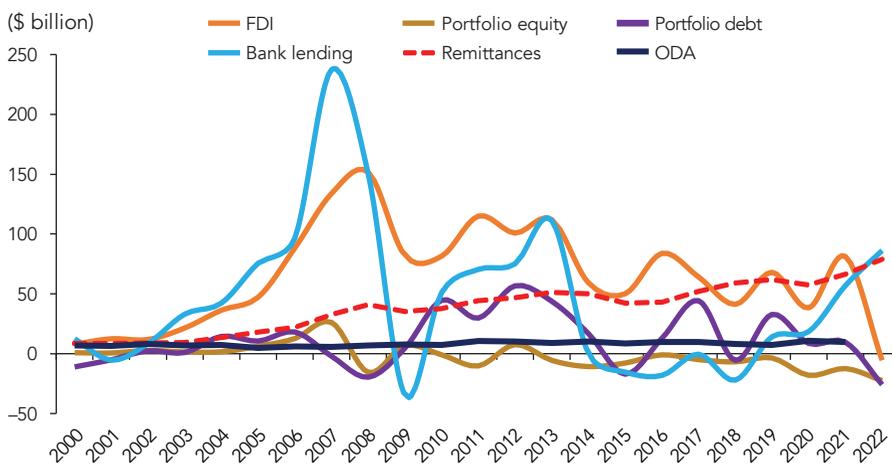


Sources: World Development Indicators; IMF Balance of Payments Statistics, KNOMAD/World Bank
 Note: FDI = foreign direct investment; ODA = official development assistance

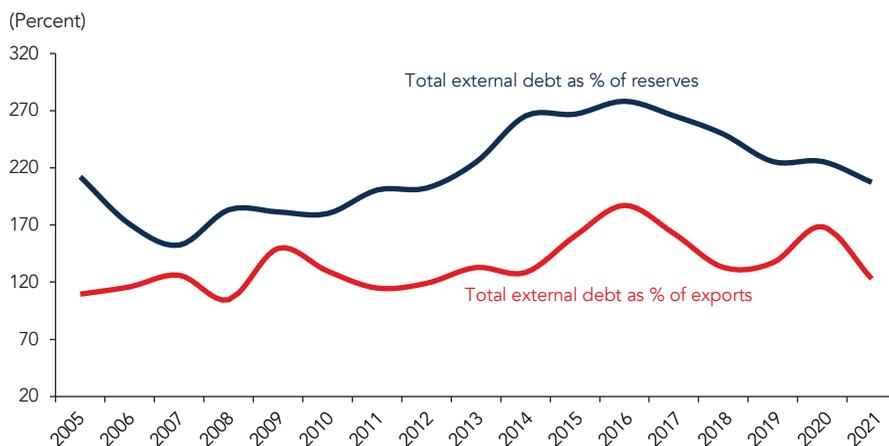
FIGURE A2.2. East Asian and Pacific debt indicators, excluding China, 2005–21

Source: World Bank International Debt Statistics

Europe and Central Asia

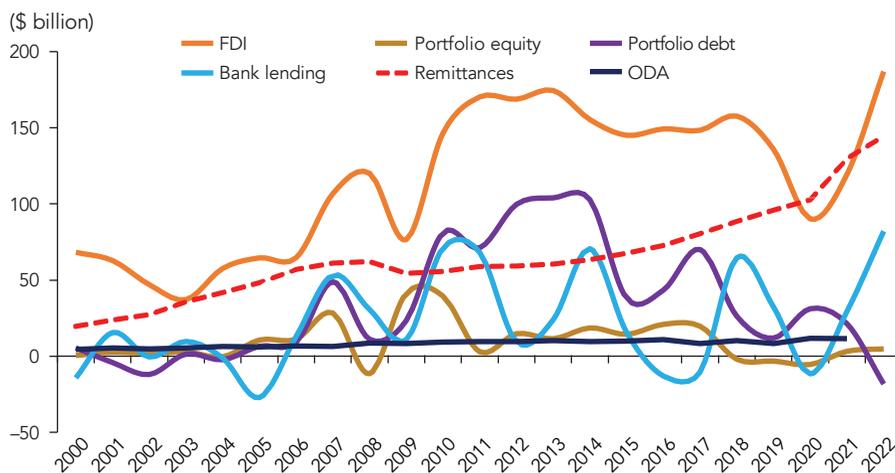
FIGURE A2.3. Net resource inflows to Europe and Central Asia, 2000–22

Sources: World Development Indicators; IMF Balance of Payments Statistics, KNOMAD/World Bank
 Note: FDI = foreign direct investment; ODA = official development assistance

FIGURE A2.4. Europe and Central Asia debt indicators, 2005–21

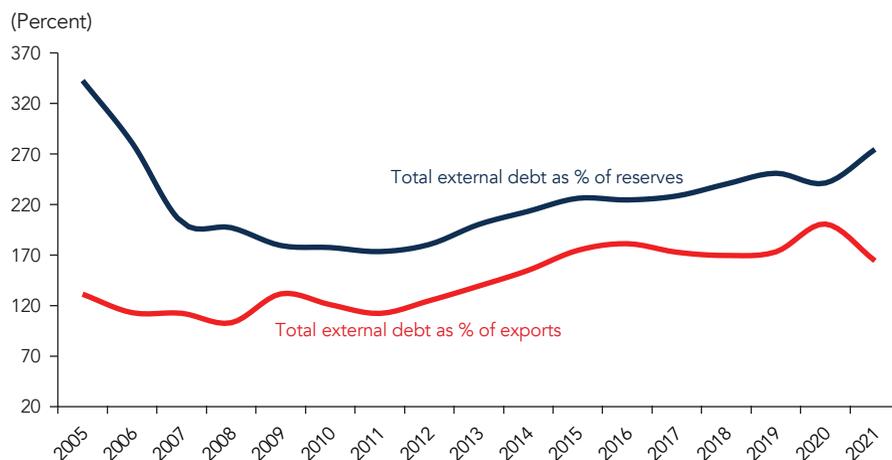
Source: World Bank International Debt Statistics

Latin America and the Caribbean

FIGURE A2.5. Net resource inflows to Latin America and the Caribbean, 2000–22

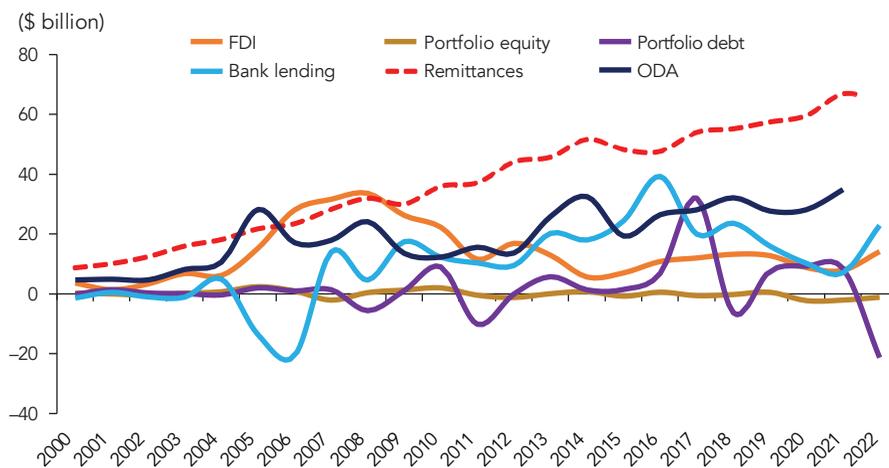
Sources: World Development Indicators; IMF Balance of Payments Statistics, KNOMAD/World Bank

Note: FDI = foreign direct investment; ODA = official development assistance

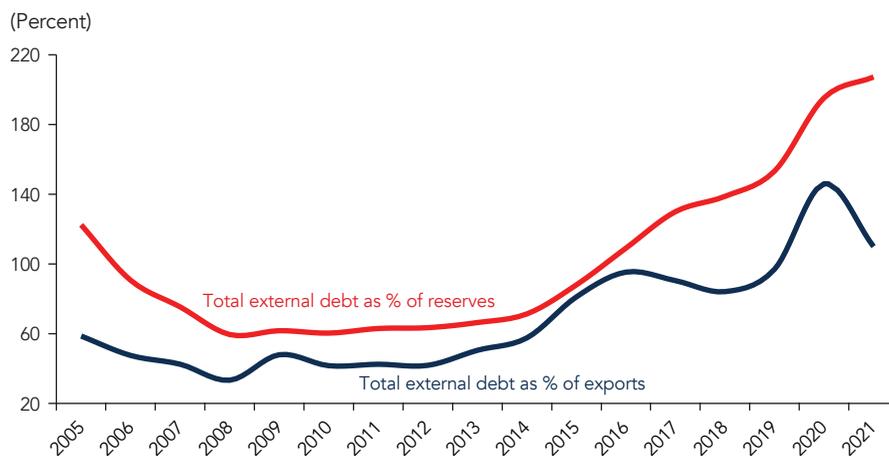
FIGURE A2.6. Latin American and the Caribbean debt indicators, 2005–21

Source: World Bank International Debt Statistics

Middle East and North Africa

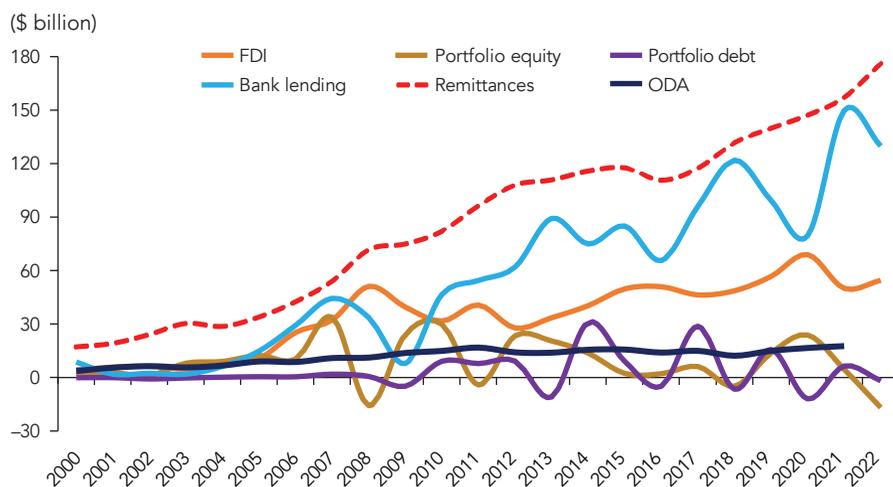
FIGURE A2.7. Net resource inflows to Middle East and North Africa, 2000–22

Sources: World Development Indicators; IMF Balance of Payments Statistics, KNOMAD/World Bank
 Note: FDI = foreign direct investment; ODA = official development assistance

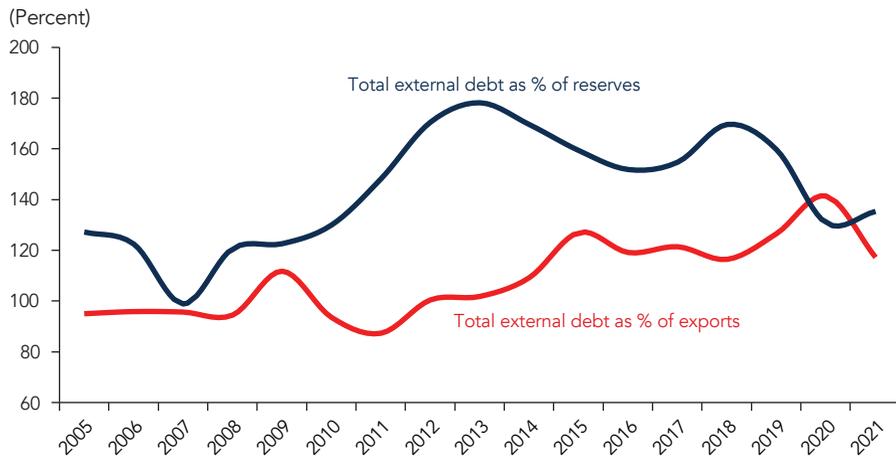
FIGURE A2.8. Middle East and North Africa debt indicators, 2005–21

Source: World Bank International Debt Statistics

South Asia

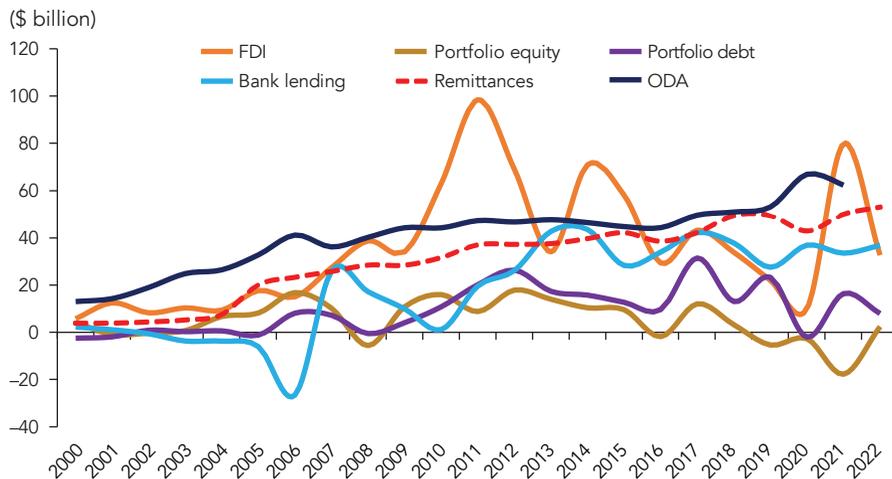
FIGURE A2.9. Net resource inflows to South Asia, 2000–22

Sources: World Development Indicators; IMF Balance of Payments Statistics, KNOMAD/World Bank
 Note: FDI = foreign direct investment; ODA = official development assistance

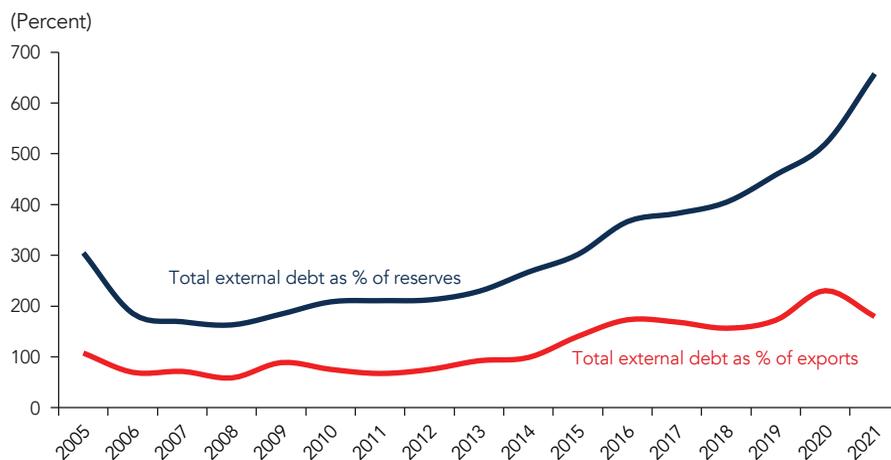
FIGURE A2.10. South Asia debt indicators, 2005–21

Source: World Bank International Debt Statistics

Sub-Saharan Africa

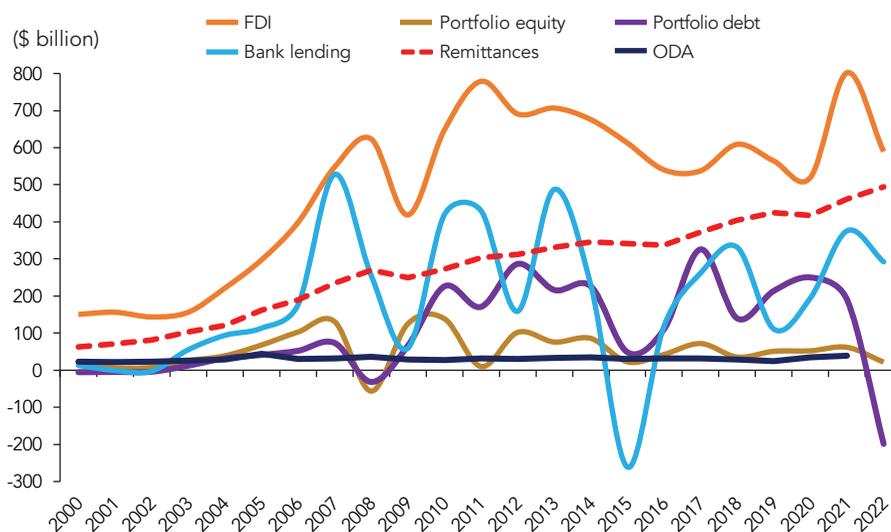
FIGURE A2.11. Net resource inflows to Sub-Saharan Africa, 2000–22

Sources: World Development Indicators; IMF Balance of Payments Statistics, KNOMAD/World Bank
 Note: FDI = foreign direct investment; ODA = official development assistance

FIGURE A2.12. Sub-Saharan Africa debt indicators, 2005–21

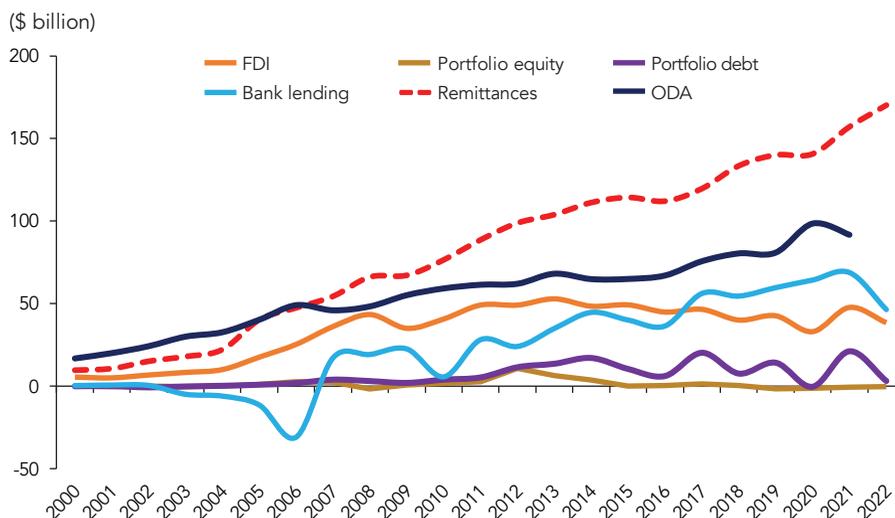
Source: World Bank International Debt Statistics

IBRD countries

FIGURE A2.13. Net resource inflows to IBRD countries, 2000–22

IDA-eligible countries

FIGURE A2.14. Net resource inflows to IDA eligible countries, 2000–22

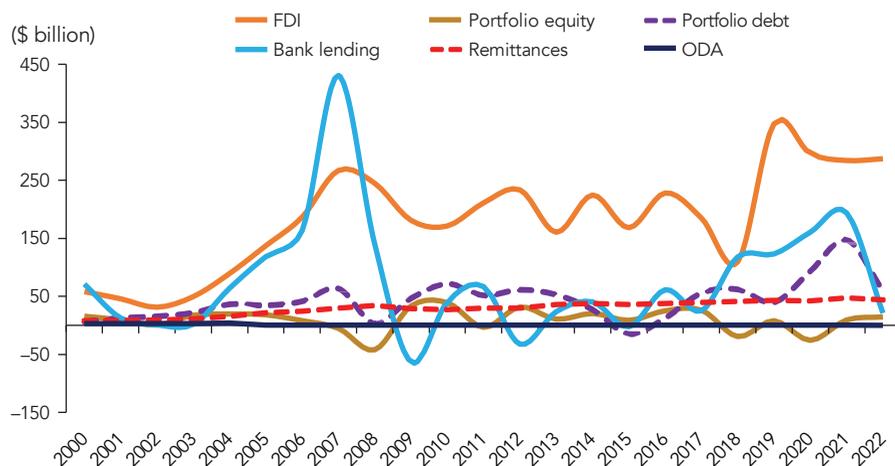


Sources: World Development Indicators; IMF Balance of Payments Statistics, KNOMAD/World Bank

Note: FDI = foreign direct investment; ODA = official development assistance

High-income MIGA member countries

FIGURE A2.15. Net resource flows to high-income MIGA member countries, 2000–22*



Sources: World Development Indicators; IMF Balance of Payments Statistics, KNOMAD/World Bank

Note: FDI = foreign direct investment; ODA = official development assistance

*Includes Antigua and Barbuda, Bahamas, Bahrain, Barbados, Chile, Croatia, Cyprus, Guyana, Hungary, Israel, the Republic of Korea, Kuwait, Malta, Oman, Panama, Poland, Qatar, Romania, Saudi Arabia, Seychelles, Singapore, Slovak Republic, St. Kitts and Nevis, United Arab Emirates, Uruguay.

ANNEX 3

Econometric analysis of MDB effects on borrowing spreads and maturities of syndicated loans

The econometric analysis conducted for this study applies the methodology of Gurara, Presbitero and Sarmiento (2018) to an updated database of syndicated loans contracted by lower-middle-income countries (LMICs) during 2000–22. It extends their analysis not only to cover a more recent period, but also by adding an analysis of multilateral development banks (MDBs) as guarantors. Our database, drawn from Dealogic, includes 11,000 US\$-denominated syndicated loans. In this analysis, first, we regress spreads to benchmark against loan size, maturity, a measure of riskiness, sovereign credit rating, the number of participating banks, the involvement of MDB, various types of guarantors, and market volatility.

TABLE A3.1. Regression summary of spread to benchmark for LMICs, 2000–22

	Dependent variable	
	Spread to benchmark (1)	Years to maturity (2)
S&P Rating	9.810*** (2.086)	
MDB	56.807** (25.900)	3.568*** (0.232)
Leveraged	99.406*** (5.143)	
Highly Leveraged	226.590*** (9.485)	
MDB*Leveraged	-70.639** (33.633)	
MDB*Highly Leveraged	-52.115 (33.155)	
Years to Maturity	1.157 (0.745)	
Log(size)	-2.756 (2.398)	0.641*** (0.037)
VIX	1.922*** (0.419)	
No. of Banks	-2.551*** (0.384)	-0.115*** (0.007)
MDB Guarantor	-112.531*** (25.612)	1.506* (0.776)
Sovereign Guarantor	33.067 (33.544)	1.226* (0.691)

(Continued)

	Dependent variable	
	Spread to benchmark (1)	Years to maturity (2)
Sub-sovereign Guarantor		1.317*** (0.403)
Other Public Guarantor	-60.857*** (10.080)	2.162*** (0.126)
Public Sector	-30.915*** (5.852)	
MIGA		4.011*** (0.759)
Country FE	Yes	Yes
Year FE	Yes	Yes
Industry FE	Yes	Yes
Observations	3,897	10,904
R-squared	0.823	0.317
Adjusted R-squared	0.812	0.297
Residual Std. Error	125.167 (df = 3677)	3.577 (df = 10596)
F-statistic	77.920*** (df = 219; 3677)	16.014*** (df = 307; 10596)

Source: Dealogic, Bloomberg, and FRED.

Note: The regressions account for the fixed effects of country, year, and industry. The regression results presented are preliminary and reflect work in progress.

*p<0.1; **p<0.05; ***p<0.01. Robust standard errors in parentheses.

The results confirm that the participation of an MDB as guarantor reduces the borrowing spread of a syndicated loan by 113 basis points, equal to about 46 percent of the average spread for the sample. The spread reduction is higher for riskier (leveraged) loans. Also, MDB participation extends the loan maturity by 3.6 years on average. The loan maturity is extended by an additional 4 years (that is, 7.6 years in total) if the loan has a Multilateral Investment Guarantee Agency guarantee.

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Endnotes

1. IEG (2023 volume 1) sets out a triple agenda of reform for the MDBs that would triple annual sustainable lending by 2030, and to expand and modernize funding models to broaden the investor base in innovative ways. IEG (2023 volume 2) calls for making the MDBs better, bolder and bigger. MDBs bring together a package of knowledge, affordable financing and efficient risk management.
2. Other investment is a residual category that includes all financial transactions not considered direct investment, portfolio investment, or reserve assets. See IMF Balance of Payments Textbook.
3. Country classifications by income groups are described in annex 1. Regional trends in resource flows and debt indicators are presented in annex 2.
4. The phase “taper tantrum” refers to an increase in U.S. treasury yields after the U.S. Federal Reserve announced a tapering of the quantitative easing program put in place in the aftermath of the global financial crisis of 2008–09.
5. In the aftermath of World War II, the International Bank for Reconstruction and Development (IBRD) was the predominant provider of loans for the reconstruction and development of the post-war economies, including Japan and those of Europe.
6. The share of reinvested earnings in FDI has steadily increased during the past two decades – from 7 percent in 2000 to 41 percent in 2022, whereas that of equity has declined. Reinvested earnings are correlated with national saving (Hansen and Wagner 2022).
7. The difference in growth rates between the two groups increased from 0.9 percentage points in 2000 to 3.7 percentage points in 2008, but then began falling and reached 1.2 percentage points in 2022.
8. The survey, carried out between June and November 2019, covered more than 2,400 global business executives in 10 large middle-income countries.
9. The data on syndicated bank loans are different from the inter-company debt component of FDI. A caveat: these data on syndicated loans are proxied by “other debt instruments” and may include bilateral and multilateral official loans.
10. The aggregate debt to export ratio of LLMCs fell by almost three-quarters from 2000 to 2010. Chuku and others (2023) show that solvency and liquidity indicators in most LICs have steadily worsened in recent years, although they remain substantially better on average than they were on the eve of HIPC in the mid-1990s.
11. Unlike private capital flows, remittances are unrequited transfers that do not create liabilities.
12. At the same time, the rapid growth of remittances in some countries points to a lack of opportunities for productive work.
13. See also Page and Plaza (2006).
14. Anecdotally, Kenya and Pakistan also have black market premiums on exchange rates.
15. Financial Stability Board (2023) reports that for cross-border retail payments globally, the FX cost generally constitutes more than half of the total cost, ranging from 60% for P2P transactions to 97% for P2B transactions. Parallel exchange rates tend to be associated with higher inflation, impede private sector development and foreign investment, and lead to lower growth (Malpass 2023).
16. Financial Stability Board (2023) uses a higher threshold – \$100,000 – for defining retail and wholesale payments. The analysis presented in the report, however, was based on transactions under \$20,000.
17. According to World Trade Organization (2017), about 80 percent of international trade is financed by some form of trade credit. Trade finance is an umbrella term with many financial products utilized in the export-import cycle (Lotte van Wersch 2019). Trade credit and supply chain finance are two main components of trade finance.

18. In 2020 the Financial Stability Board delivered to the G20 a roadmap to enhance cross-border payments. The roadmap calls for faster, cheaper, more transparent and more inclusive cross-border payment services, including for remittances, while maintaining their safety and security. Such services would have widespread benefits for citizens and economies worldwide, supporting economic growth, international trade, global development, and financial inclusion.

19. The MDBs distinguish between adaptation finance, which focuses on how specific project activities would reduce a particular vulnerability to climate change, and mitigation finance. In the European Union (EU) definition, climate finance applies to economic activities that make a substantial contribution to at least one of the six environmental objectives identified in the EU Taxonomy Regulation. These include: climate change mitigation; climate change adaptation; sustainable use and protection of water and marine resources; transition to a circular economy; pollution prevention and control; protection and restoration of biodiversity and ecosystems; and compliance with minimum social safeguards articulated by international institutions. (AfDB et al. 2022; and PRI Association 2022).

20. The Climate Policy Initiative (Naran et al. 2022) shows a similar trend over the 2017–20 period, and also provides a preliminary estimate for 2021 (the lower bound implies a 28 percent increase).

21. Adaptation finance is usually estimated as incremental investment over a business as usual scenario, and is not easily comparable to mitigation finance (Naran et al., 2022).

22. There are little data on private sector finance devoted to adaptation, so we focus on mitigation. It may be noted that these figures underestimate the role of the public sector, since taxes and regulations that raise the cost of, or set limits on, GHG emissions are a major driver of private sector mitigation projects.

23. Carbon credits are transferrable financial instruments certified by international, governmental, or independent certification entities to represent a level of emissions reductions that can be sold in carbon exchange markets (World Bank 2018, 2023).

24. See Bloomberg 2023; DGB 2023; Task Force on Scaling Voluntary Markets (TSVCM) 2021; Morgan Stanley 2023.

25. Note that there are discrepancies between the coverage of the finance needs scenarios and the investment estimates that prevent any precise comparison between the two.

26. With weak institutions, borrowing in foreign currency can reduce incentives for debt monetization (and thus signal a greater commitment to macroeconomic stability), while local currency debt affords protection against external shocks (e.g., appreciation of foreign currencies due to monetary policies in reserve currency countries).

27. See discussion in Garbacz, Vilalta, and Moller (2021) and Berensmann, Dafe, and Volz (2015).

28. In a sample of 13 middle-income countries, the local currency debt of the general government (to both domestic and foreign residents) increased from about 20 percent of GDP in 2012 to almost 40 percent in 2022 (source: BIS)

29. There are, of course, other aspects of political risks, for example the potential for the imposition of controls on repatriating funds held locally, other kinds of political interference in commercial activities and for sovereign lending, the risk of default. However, these issues also affect lending in foreign currency; they are considered in section 3.

30. At settlement, the agency making the loan owes TCX the foreign currency equivalent of the repayment calculated at the spot rate, and TCX owes the agency the foreign currency repayment amount set when the loan was made.

31. Global North or Traditional North is defined as high-income OECD countries of North America, Western Europe, Australia, and New Zealand. Other North includes other high-income countries. Global South is defined as low- and middle-income countries as in Aykut and Ratha (2004) and other LMICs.

32. A similar trend is observed in international portfolio investment (Broner et al., 2022).

33. Since the economic liberalization program of 1991, and fueled by further liberalization in 1999, India's outward FDI stock has increased significantly to reach over \$27 billion in high-income countries in 2021, and over \$16 billion in developing countries. The swift rise of outward FDI into investment hubs was halted after India amended the Double Taxation Avoidance Agreements with Singapore (2005) and Mauritius (2016). See Kathuria et al. (2021), Chaudhry et al. (2018).

34. Tax havens include Andorra, Antigua and Barbuda, Aruba, The Bahamas, Belize, Bermuda, British Virgin Islands, Cayman Islands, Cyprus, Dominica, Gibraltar, Isle of Man, Liberia, Liechtenstein, Malta, Marshall Islands, Mauritius, Monaco, Nauru, Panama, Samoa, Seychelles, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Turks and Caicos Islands, Vanuatu, and Virgin Islands (U.S.). Other offshore financial centers include Hong Kong SAR, China; Netherlands; Singapore; and the United Arab Emirates.

35. Horn and others (2019) argue that about one half of China's overseas loans to the developing world are "hidden." This paper has a useful table indicating sources of data on China's foreign lending. Setser (2023) argues that China's balance of payments data are likely to understate its investments overseas.
36. The source of China's FDI data is the country's Ministry of Commerce. Bank lending data are taken from AidData, a rich dataset compiled by a research lab associated with the College of William & Mary from official news sources, blogs, and media reports. See Parks and others (2023) for the annual report of AidData.
37. According to Mathiasen and Aboneaaj (2023), MIGA should feature heavily in the private sector reform agenda of the World Bank.
38. On the benefits of MDB information in theory, see Hagen (2009) and Rodrik (1995).
39. In the Task Force reports, "MDB" refers to both multilateral development banks and development finance institutions. The estimates include "private investment mobilized by financial products and investments of MDBs," resulting "from the development impact of an activity or multiple activities, of an MDB. It includes investments made because of an operation up to three years after completion." Both finance due to the "active and direct involvement of an MDB" and that "provided in connection with a specific activity for which an MDB is providing financing" are included (MDB Task Force 2023).
40. Gatti, Gorea, and Presbitero (2023) find that episodes of intensified European Investment Bank operations in a developing country are associated with a 9–23 percent increase in the number of syndicated loans, a near doubling of loan volumes, in the following year.
41. A recent survey of 2,400 global business executives in 10 large middle-income countries, conducted by the World Bank Group, finds that "the effect of regulatory risk on FDI is sizable" (World Bank Group 2020).
42. Uncertainty about exchange rate movements adds to the cost of cross-border capital flows when the revenues generated by the investment are in local currency, for example, in the case of most green finance projects. In a recent empirical analysis for a set of industrializing emerging economies, Persaud (2023) argues that such countries often must pay an excess premium when hedging against future currency depreciations since the forward markets for foreign exchange typically predict a greater future depreciation than what actually transpires.
43. On September 20, 2023, the spread on 10-year sovereign bonds was 422 basis points for B+ and 730 basis points for B- ratings.
44. Many institutional investment funds restrict investments in below investment grade assets. The size of investment funds drops significantly if the rating falls below the investment grade. The opposite happens if there is an upgrade to the investment grade.
45. Ethiopia, Nepal and Kenya also tried to sell national bonds to their respective diasporas but with limited success. A key element of success for attracting diaspora investors is trust – diaspora members would like to see their investments used for productive purposes. Diaspora consultations are a key component of the preparation process for a diaspora bond.
46. The global financial crisis in 2008 had its roots in securitized debt in the United States. The main problem, however, was not securitization, it was excessive overvaluation of the underlying assets.
47. Sources: IFFEd, IFFIm, Moody's, S&P, Fitch websites; and Moss 2007
48. The Asian Development Bank recently announced a variation on that concept through the establishment of the Innovative Finance Facility for Climate Change in Asia and the Pacific (IF-CAP) which also uses portfolio guarantees.
49. See Development Committee Paper "Ending Poverty on a Livable Planet: Report to Governors on World Bank Evolution," September 28, 2023.
50. Venezuela has been temporarily unclassified by World Bank since July 2021.



MIGA

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