

The international financial architecture and sustainable prosperity

Kevin P. Gallagher*

March 2025

Abstract: The international financial architecture is misaligned with the goals set out in the UN Sustainable Development Goals and the Paris climate agreement. External financing flows to emerging-market and developing countries (excluding China) need be increasing by at least US\$1 trillion annually from 2030 onwards, but the highest level in the past decade was roughly one-third of what is necessary—with net inflows turning negative since 2021. Not only are the levels of capital too low: they are procyclical, destabilizing, have not been growth enhancing in general, and have not generated necessary structural transformation in particular. At exactly the moment when developing countries should be accelerating investment to meet these goals, the UN estimates that 3.3 billion people are living in countries that spend more on external debt service than on education or health. In addition to the international financial architecture's lack of ability to provide long-run, stable, and countercyclical finance to developing countries, it lacks an adequate 'global financial safety net' to prevent and mitigate increasing levels of external shocks including interest rate hikes, war and sanctions, and climate change. In response, developing nations resort to a mix of self-insuring reserve accumulation, private capital markets with unsustainable interest rates, and austerity—all of which further accentuate global imbalances, debt overhangs, and dim growth prospects. As part of broad reforms, multilateral development banks can play a central role in providing long-run, countercyclical finance to developing countries. Furthermore, the global financial safety net needs to be enlarged, deepened, and reoriented; and developing countries need to be a bigger part of the decision-making process within the international financial architecture. The costs of inaction on these matters far outweigh the relatively small effort that is urgently needed.

Key words: economic development, international organizations, environment, development

JEL classification: O10; O19; Q56

Acknowledgements: This paper has greatly benefited from conversations and collaboration with and comments from Marina Zucker-Marques, Rishikesh Bhandary, Richard Kozul-Wright, Jeronim Capaldo, and the Task Force on Climate, Development, and the International Monetary Fund.

* Boston University Global Development Policy Center and Boston University Frederick S. Pardee School of Global Studies, Boston, USA; UNU-WIDER, Helsinki, Finland; kpg@bu.edu.

This study has been prepared within the UNU-WIDER project [Reforming the international financial architecture](#), which is part of the research area [Creating the fiscal space for development](#). The project is implemented in partnership with The Ministry of Foreign Affairs for Finland and UNU-Centre for Policy Research.

Copyright © UNU-WIDER 2025

UNU-WIDER employs a fair use policy for reasonable reproduction of UNU-WIDER copyrighted content—such as the reproduction of a table or a figure, and/or text not exceeding 400 words—with due acknowledgement of the original source, without requiring explicit permission from the copyright holder.

Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9267-571-4

<https://doi.org/10.35188/UNU-WIDER/2025/571-4>

United Nations University World Institute for Development Economics Research provides economic analysis and policy advice with the aim of promoting sustainable and equitable development. The Institute began operations in 1985 in Helsinki, Finland, as the first research and training centre of the United Nations University. Today it is a unique blend of think tank, research institute, and UN agency—providing a range of services from policy advice to governments as well as freely available original research.

The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland and Sweden, as well as earmarked contributions for specific projects from a variety of donors.

Katajanokanlaituri 6 B, 00160 Helsinki, Finland

The views expressed in this paper are those of the author(s), and do not necessarily reflect the views of the Institute or the United Nations University, nor the programme/project donors.

1 Falling behind and running out of time

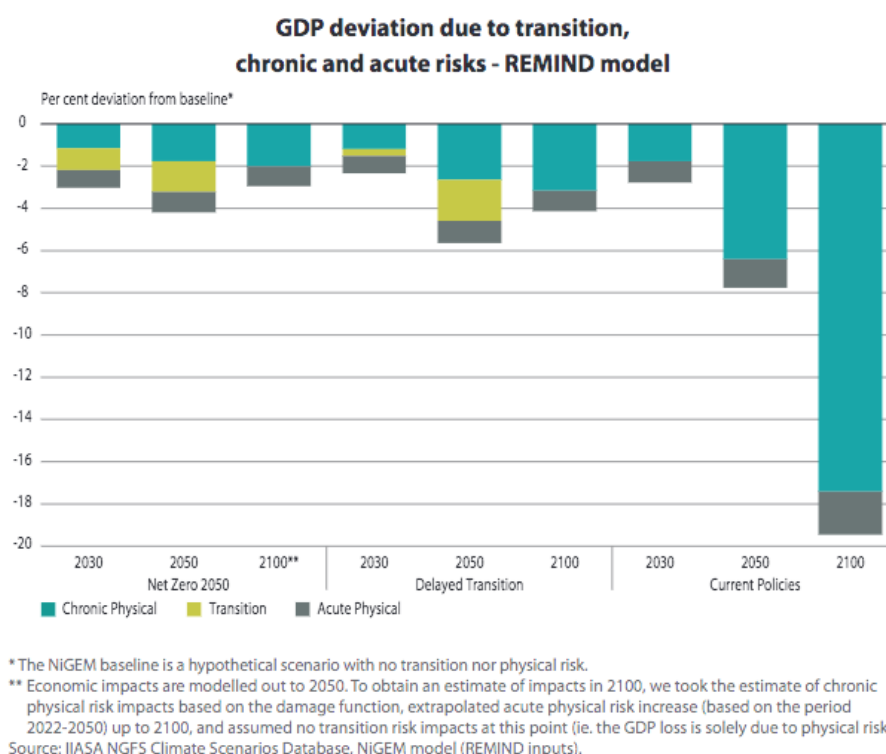
The global community is falling behind and running out of time to reach our collective development and climate goals, and therefore economic prospects are becoming less stable, less equal, and less resilient. This backsliding is in large part due to the lack of the international financial architecture (IFA) needed to provide key global public goods in the world economy. The lack of provision of public goods has begun to result in severe economic, human, and political damage that is reaching a tipping point. A reformed IFA has a central role in providing an enabling environment for such investment, and in preventing and mitigating the inevitable risks associated with an increasingly interconnected, warming, and unequal world.

In its most recent stocktake of progress towards the Sustainable Development Goals (SDGs), the UN estimated that 85 per cent of SDGs are off track, stagnating, or regressing (UNDESA 2024).

According to the study, chronic hunger has increased from 7.9 per cent to 9.2 per cent—or by 750 million people—since 2020. One-third of the world's people, 2.4 billion, now face food insecurity (UN 2023). The Pact for the Future recently reaffirmed a commitment to closing the SDG financing gap, which the UN (2024) has estimated to be US\$4 trillion per year.

The year 2024 was the warmest on record and part of an alarming trend (Gaffney 2024). In its last assessment, the Intergovernmental Panel on Climate Change (IPCC 2023: 35–115) estimated that global surface temperature had already increased by 1.1 degrees Celsius. Based on the policies announced thus far, it concluded that it is likely that warming will exceed 1.5 degrees in the twenty-first century and predicted a global temperature increase of 2.8 degrees by 2100 (Rhodium Group 2023). The costs of inaction on climate and development are staggering and potentially catastrophic. The literature is in strong agreement about this cost, although the precise estimates vary due to methodological differences. The Network for Greening the Financial System—a network of 142 central banks and financial supervisors—finds that the economic impact of transition risks and physical risks could be as high as 20 per cent by 2100 if current policies, which are inconsistent with net-zero pathways, are maintained (NGFS 2022; see Figure 1). Over half of global GDP is dependent on nature. The main driver of biodiversity loss remains humans' use of land, while climate change is playing an increasingly important role (Ranger et al. 2023). At the same time, more finance is going to the causes of climate and environmental degradations, with implicit and explicit fossil fuel subsidies surging to a record US\$7 trillion in 2023, according to the International Monetary Fund (IMF) (Black et al. 2024).

Figure 1: Climate risks and impact on GDP



Source: reproduced from NGFS (2022), under the terms of the license [CC BY 4.0](#).

The modern IFA was originally built so that nation states would have the autonomy to invest in employment-enhancing growth paths and maintain stability, but it has proven unfit for purpose in the twenty-first century. Kindleberger (1984) identified five essential global public goods that were necessary in order for the global economy to be stable and growth enhancing: stable exchange rates; a lender of last resort; institutions to provide long-run, countercyclical financing; open markets during recessions; and macroeconomic co-ordination. The failure to erect institutions to provide these public goods globalized the Great Depression in 1933 and played a key role in instigating the Second World War. A set of institutions was later built between 1944 and 1947 that served to provide these goods. Allied victors in the war decided on a fixed but adjustable gold standard to stabilize exchange rates, the IMF as somewhat of a lender of last resort, the International Bank for Reconstruction and Development (or World Bank) for long-run countercyclical financing, the General Agreement on Tariffs and Trade (GATT) to work towards rules for trade, and a series of co-ordinating summits.

Over time this system has evolved into a fiat-based currency system; a network of multilateral development banks (MDBs) in addition to the World Bank; the so-called global financial safety net (GFSN), which includes the IMF, currency swap networks, and regional financial arrangements; a World Trade Organization and thousands of trade and investment treaties; and bodies for macroeconomic co-ordination such as the G7 and the G20. Limited to emerging-market and developing countries, not including China, with a special emphasis on lower-income, least-developed, vulnerable states, this essay will focus largely on the IFAs' lack of ability to evolve with respect to the public goods of longer-run countercyclical financing, and lenders of last resort or the GFSN, while noting relationships and implications for exchange rates, macro co-ordination, and, to a lesser extent, the trade regime.

2 The lack of long-run, countercyclical financing

Emerging-market and developing countries require a stepwise and sustained increase in investment levels by 2030 in order to meet shared development and climate goals and avoid the social and economic costs of inaction. While the bulk of such investment will need to be through domestic resource mobilization, at least one-third of it will need to be in the form of external financing. However, levels of external capital flows are too low, procyclical, and destabilizing and do not generate adequate growth prospects. A major boost in MDB lending is necessary—and such financing needs to be countercyclical and affordable and to enable green structural transformation.

Estimates of the levels of additional investment needed in emerging-market and developing countries (not including China) to meet our shared development and climate goals are in the range US\$3–4 trillion annually by 2030—amounting to roughly an additional 3.5 per cent of GDP annually. This investment amounts roughly to a tripling of current levels and is necessary to generate low-carbon, socially equitable, and more resilient development, as well as to avoid the costs of not acting in time (G20-IEG 2023; Songwe et al. 2022; Summers and Singh 2023). Grossman and Krueger (1995) have demonstrated that accelerating growth while reducing environmental impact can be achieved only through changing the structure of economies and investing in technological change. If carbon emissions per unit of output are constant, economic growth will increase carbon emissions (what the authors refer to as the ‘scale’ effect). However, if the composition or structure of an economy is shifted from carbon-intensive to less carbon-intensive sectors (the ‘composition effect’) and when carbon emissions per unit of output are actually reduced through technological innovation or policy change (the ‘technique effect’) in low-carbon and climate-resilient/adaptation strategies, then growth can accelerate.

However, climate-aligned growth paths will need to take different forms. Gallagher et al. (2023) outline five different pathways for such structural transformation (see Table 1), as not all countries face the same constraints. Some countries (large emitters and future large emitters) need to replace a fossil-fuel-intensive capital stock with another. Others (fossil fuel exporters) need to change the composition of their exports. Some countries that have poor energy access to begin with can be ‘leapfroggers’ by generating greenfield growth paths from the start and not starting with fossil fuels as others did. Some countries have ‘transition minerals’ that allow them to be ‘new winners’ in the sense their natural resources have new value from which to build on. And ‘climate-vulnerable economies’ need growth paths based on adaptation and resilience. Of course, many countries face several or all five of these constraints at the same time. Each pathway implies different investment and development strategies.

Table 1: Green structural transformation pathways for developing countries

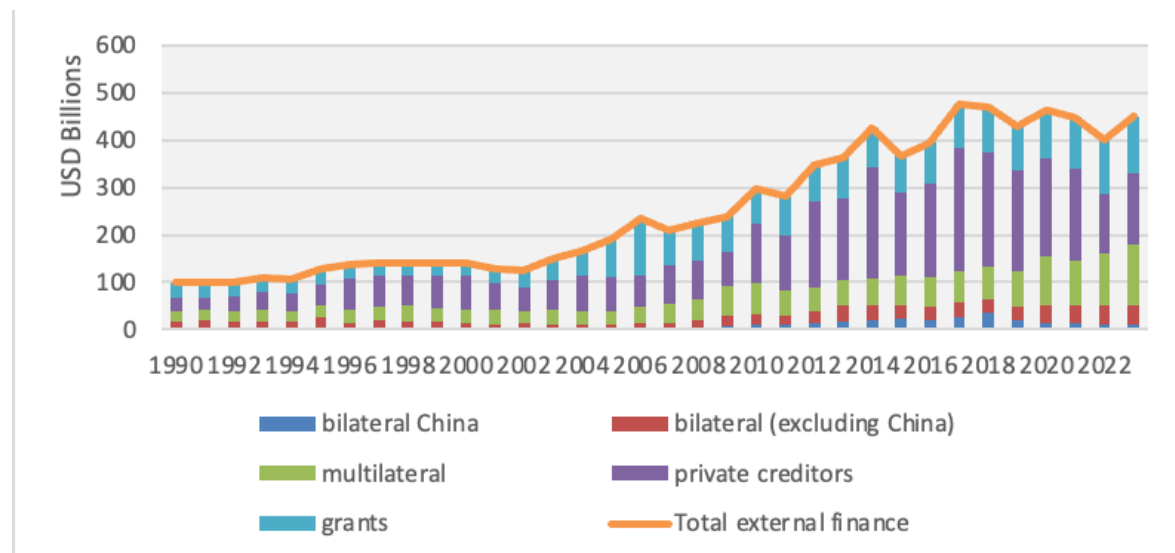
Leapfroggers	These are countries that need to mobilize capital in order to invest in new capital stock where little exists in the first place and can thus leapfrog the experience of large emitters. For instance, much of Sub-Saharan Africa lacks the manufacturing capabilities and appropriate grid connectivity needed to harness the abundance of clean energy sources and the consumer demand of a rapidly growing continent.
New winners	These are states blessed with the vital ‘transition materials’ and industries that form the basis of a new economy, which can work to harness those resources, increase value addition, and strengthen economy-wide linkages in a manner that ensures macroeconomic stability, shared prosperity, and environmental sustainability not only globally but where these materials are generated.
Large emitters and future large emitters	These states need to make massive investments to replace the existing capital stock through structural change away from fossil fuel production and consumption patterns toward clean energy, energy efficiency, and beyond.
Fossil fuel exporters	These states are not high carbon emitters themselves but their economies are dependent on exporting fossil fuels and need to diversify their economic base and change the structure of their economies towards new sources of foreign exchange and exports, while buttressing themselves from ‘transition spillovers’ that arise from the global shift away from fossil fuels.
Climate-vulnerable economies	These states need to mobilize capital in order to reinforce their existing capital stock to adapt to climate change, build a new climate-resilient capital stock, and become more resilient to loss and damage from climate shocks.

Source: author’s construction based on Gallagher et al. (2023).

MDBs, and development finance institutions in particular, have a unique role to play in these transformations because they can address co-ordination failures, have longer time horizons, and provide affordable financing (Gallagher et al. 2024; Xu and Gallagher 2023). However, to date the MDBs (especially the World Bank) think of climate change more in terms of ‘mitigation’ (reducing emissions) and ‘adaptation’ (building resilience and adaptation to climate change) rather than more development-oriented strategies. Moreover, MDBs have focused much more on the mitigation side than on adaptation. An analysis of the 2,554 World Bank-designated climate change projects between 2000 and 2022 found that it had a ‘climate portfolio skewed towards mitigation rather than adaptation’ (Ramachandran and Morris 2023). Indeed, in 2022 the World Bank added climate change to its mission, moving from ‘to end extreme poverty and promote shared prosperity’ to ‘to end extreme poverty and boost shared prosperity on a livable planet’. In so doing, the largest shareholders of the World Bank emphasized mitigation over adaptation and were not willing to increase the lending capacity of the World Bank. Developing-country coalitions at the World Bank (the G11) argued that thus they were being forced to finance climate mitigation over health, educational, and other programmes—whereas they prioritized health, education, and financing for climate adaptation. Developing countries were partially successful in adding climate to the mission rather than replacing it, with the World Bank also making modest moves to optimize its balance sheet in order to provide more lending—though the major shareholders have still resisted increasing the capital base of the MDBs. A bolder focus on low-carbon, socially equal, and more resilient growth paths is necessary (Breakthrough Institute 2024; Gallagher et al. 2023).

Unfortunately, as Figure 2 shows, the overall volume in flows is not on track to reach the upwards of US\$1 trillion annually 2030 in external financing that is needed by 2030.

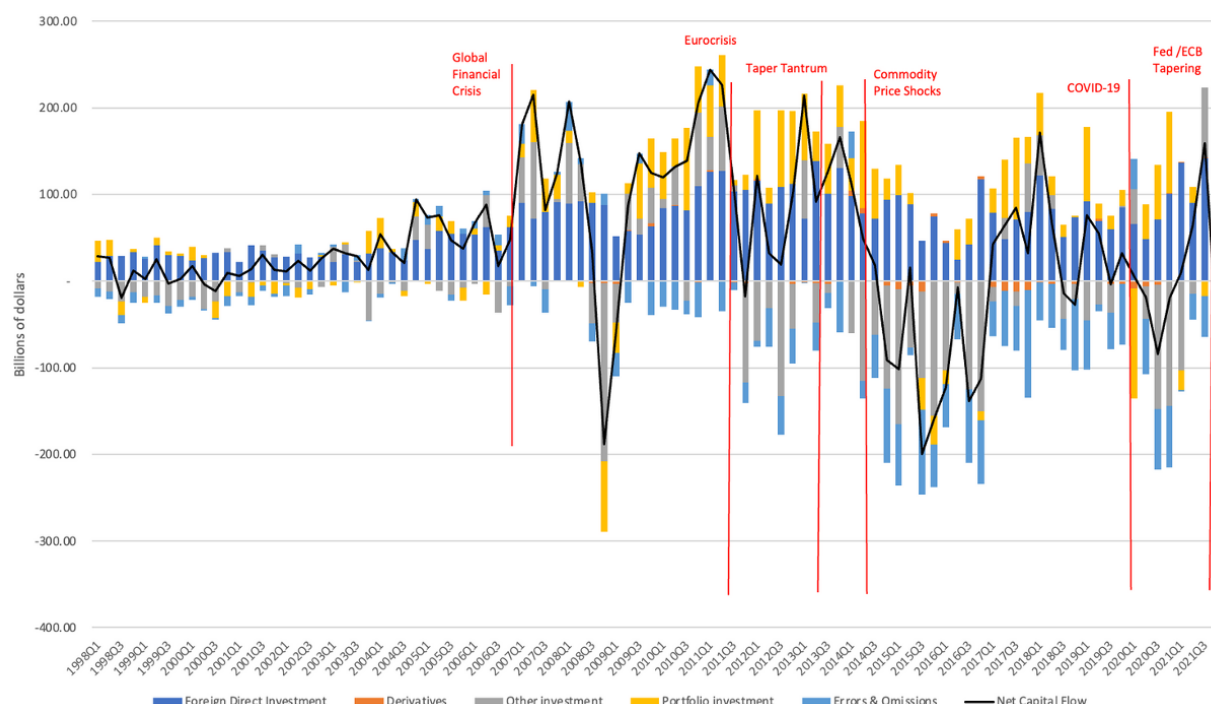
Figure 2: Gross transfers to low- and middle-income countries (excluding China) by debtor type



Source: author's illustration based on OECD (2024); World Bank (2024).

Not only are the levels of external financing far below what is necessary: external capital flows to emerging-market and developing countries are inherently procyclical and destabilizing. Figure 3 exhibits the volatility of capital flows to low- and middle-income countries from 1980 to 2022. Global capital flows 'surge' into emerging-market and developing countries during periods of expansionary monetary policy in the higher-income countries (especially the United States) but then experience 'sudden stops' and often reversals during periods of contractionary policy or other external shocks such as interest rate hikes, climate change, or pandemics (Erten et al. 2021).

Figure 3: Volatility of global capital flows to emerging-market and developing countries, 1980–2022

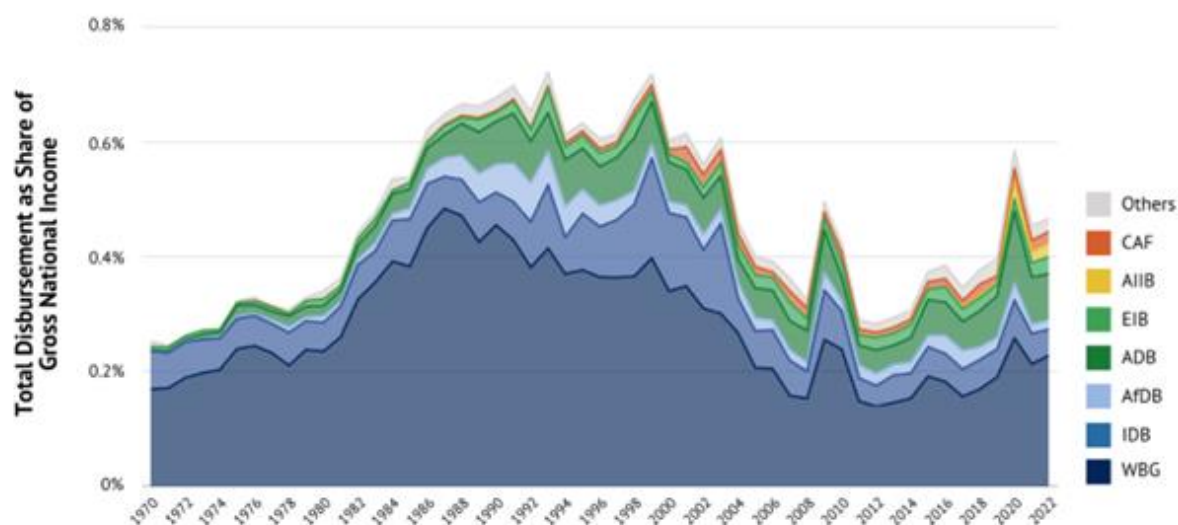


Source: reproduced from Gallagher and Kozul-Wright (2022), with permission, with updates based on World Bank (2024).

Volatile capital flows can be destabilizing in developing countries, derailing development strategies. Korinek (2011) shows that during surges of capital flows, the exchange rate of countries appreciates and thus expands credit expansions as agents seemingly feel that they have stronger collateral from which to borrow, combining to expand aggregate demand and growth. However, during a sudden stop this process reverses, with exchange rate depreciation, ballooning of external debt service due to currency mismatches, and a reduction of aggregate demand. Rey (2015) shows that these dynamics have become so strong that the classic ‘trilemma’, where countries can maintain monetary policy with free capital mobility and a floating exchange rate, no longer exists. Countries now face a ‘dilemma’ whereby autonomous monetary policy is only possible if capital flows are regulated.

As shown earlier, public flows of capital from MDBs and other official sources have not been able to compensate for the procyclicality of private capital flows in volume. Currently, MDBs are providing financing of only US\$160 billion per year. MDBs’ lending has not kept up with income levels and is down from the peaks in the early 1990s. As shown in Figure 4, on average, lending from MDBs to low- and middle-income countries (excluding China) has stood at less than five-tenths of 1 per cent of gross national income (GNI) since 1970. Moreover, MDBs have struggled to catalyse private sector investment for development, which Summers and Singh estimate will have to provide US\$500 billion of the addition \$1 trillion in annual external financing by 2030 (Gallagher et al. 2024; Summers and Singh 2023).

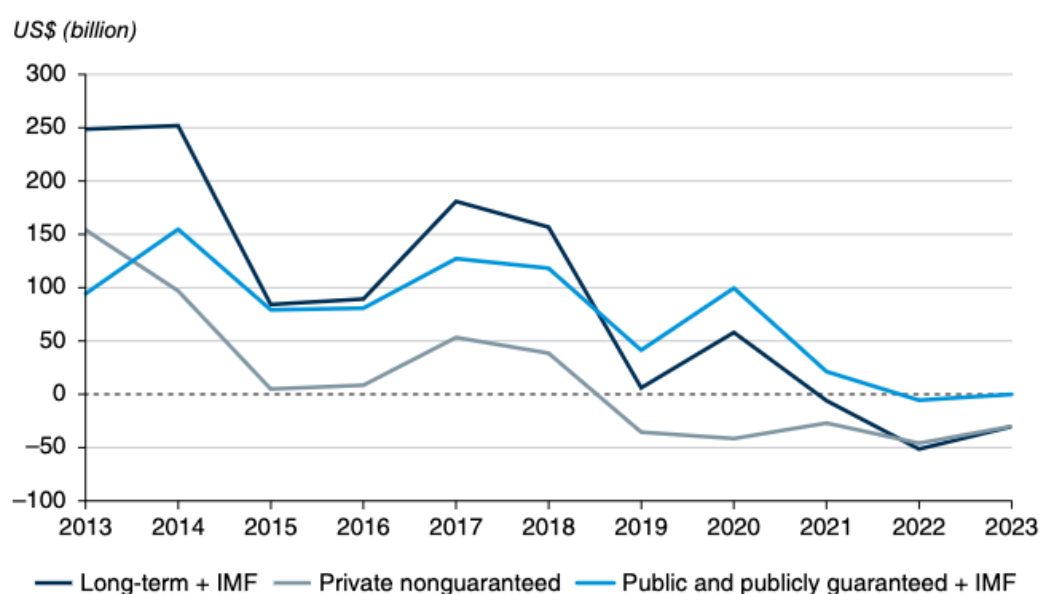
Figure 4: MDB financing has not kept pace with GDP



Source: reproduced from Gallagher et al. (2024), with permission.

Encouraged by the G20, MDBs have begun to attempt to do more with their existing balance sheets. Work is underway in beginning to implement recommendations from the G20 Independent Review of MDB Capital Adequacy Frameworks (CAF Review), with the announcement that MDBs plan to mobilize upwards of US\$300–400 billion (in total within ten years, not annually) in new lending from such measures as balance sheet optimization and issuing hybrid capital and guarantees (G20 2022). While these first steps in implementing the CAF Review recommendations are significant, they fall far short of providing the \$250–390 billion in additional financing annually that is needed from MDBs (Gallagher et al. 2024).

Figure 5: Net transfers on external debt in low- and middle-income countries



Source: reproduced from World Bank (2024), under the terms of the license [CC BY 3.0 IGO](https://creativecommons.org/licenses/by/3.0/).

Not only do MDBs not provide the necessary volume of financing: it is not always countercyclical or growth enhancing. Figure 5 shows that when the flows coming from the private sector are lower, the public sector is not providing countercyclical financing to compensate. Galindo and Panizza (2018) find that the World Bank is countercyclical whereas regional development banks are less so (and private capital flows are procyclical which is consistent across the literature). However, there is evidence that during fiscal crises, whereas private capital retrenches (even if there is an IMF programme in place), MDBs increase their support, but only in co-ordination with an IMF programme (Avellán et al. 2021). This can be problematic in periods such as the present, when the retreat of private capital flows is so large that fungible IMF and MDB programmes end up financing external debt rather than leading to structural change that enhances growth and terms of trade, and therefore prolonging and perpetuating crises and their root causes.

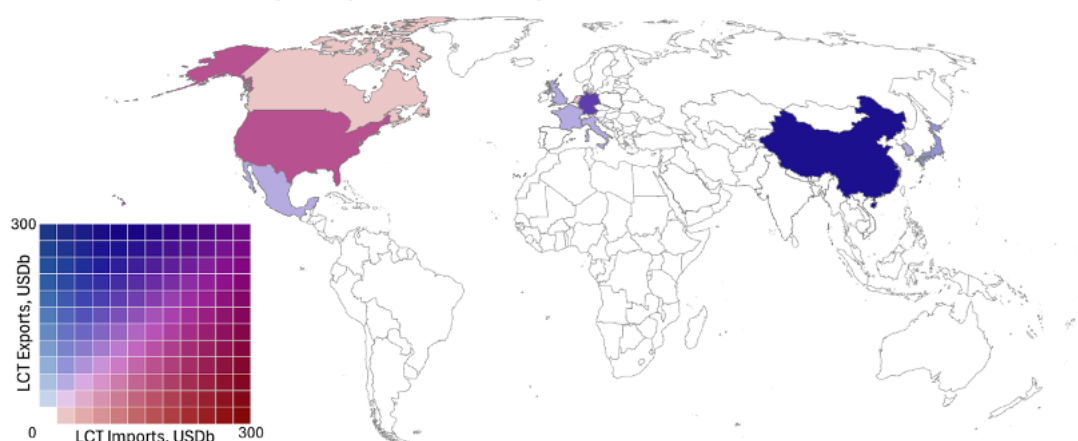
Finally, when investment is countercyclical, it is imperative for it to enhance growth, and to do so in a manner that changes the structure of exports. Figure 6 shows the distribution of low-carbon technology (LCT) trade in the world economy, illustrating that the developing world is largely shut out of the low-carbon economy.

Economists dating back to Kindleberger (1958) have stressed that balance-of-payments problems (discussed in the next section) are frequently misdiagnosed as simply needing liquidity injections, when the deeper issue is the export structure of the economy and the real need is for investment to create more growth-enhancing exportable sectors. Moreover, for the small amount of LCT trade that developing countries do engage in, most are net importers (Figure 6, panel B). These findings reveal that not only are developing countries left out of the production chains for LCT, but their current financial position is such that they will struggle to afford to import these technologies for their transitions. Panel C in Figure 6 builds on Gallagher et al. (2023) to examine the extent to which emerging-market and developing economies' external public and publicly guaranteed (PPG) debt represents an obstacle to necessary climate investments.

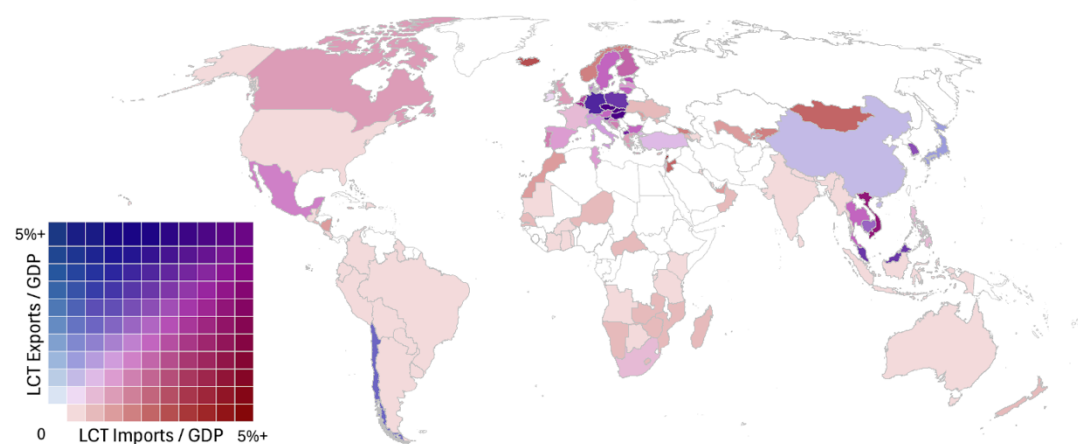
There is very little literature on the impacts of private capitals flows or MDB or IMF programmes on the export structures of economies. However, there is significant literature on the impacts of capital flows on economic growth, which demonstrates that private capital flows have little association with economic growth. Recent work shows that Western MDBs are not associated with economic growth either, though China's development banks do appear to generate growth and help nations to better engage in export value chains (Amendolagine et al. 2024; Dreher et al. 2021; Wang and Xu 2024; Xu et al. 2024).

Figure 6: Developing countries left out of LCT trade

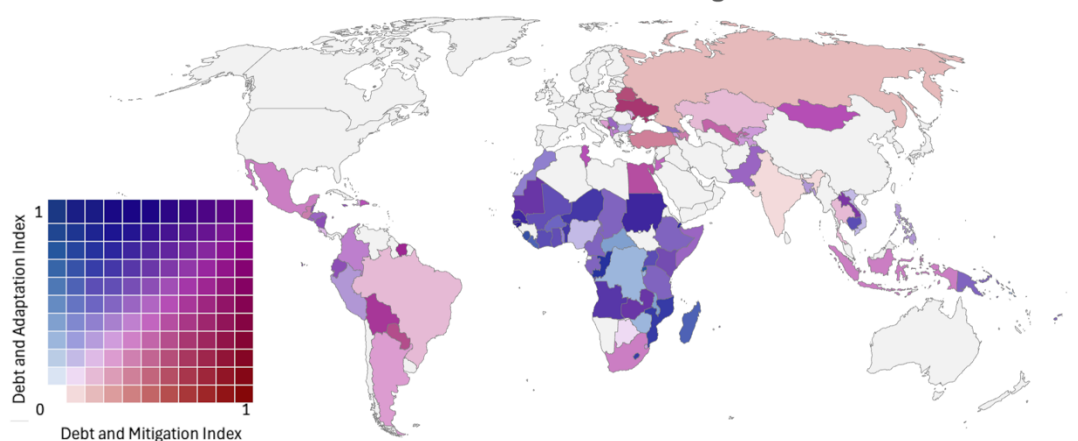
A. Major Exporters and Importers of LCT Goods, 2022



B. 2022 LCT trade balance, percent of GDP



C. Debt and climate burdens among EMDEs



Note: EMDE = emerging-market and developing economies.

Source: author's illustration based on Bandara et al. (2025).

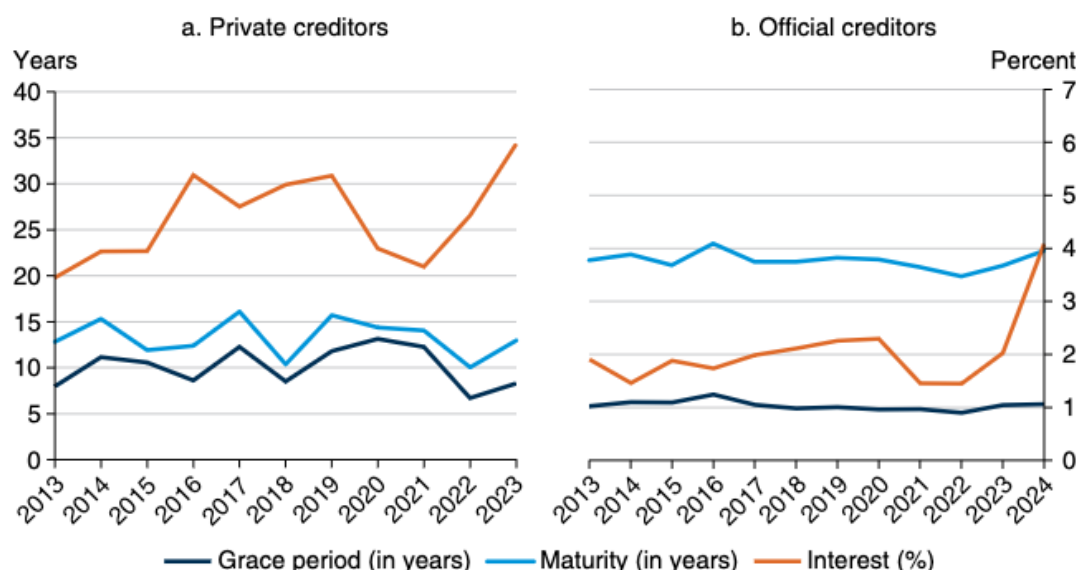
3 Slipping through the global financial safety net

It is imperative that the IFA enable this stepwise increase in resource mobilization in a manner that is fiscally sound and financially stable—while at the same time working to prevent and mitigate new and continuing external shocks such as climate change, pandemics, and interest rate hikes (Task Force 2024). The GFSN has struggled to rise to this challenge, especially at the IMF. IMF and related economic surveillance has fallen short of providing the analytics that are necessary to prevent and mitigate shocks. What is more, the combined and compounded set of challenges has rendered the GFSN too ‘thin’ and too small to prevent and mitigate instability. Finally, the performance of crisis response has been lacklustre at best.

This stepwise increase in resource mobilization should be conducted while maintaining debt sustainability, and therefore must be done in a way that is mindful of the ratio of the growth rate of acquired debt to the growth rate of repayment capacity (Blanchard 2023), which essentially involves comparing the real interest rate with the real economic growth rate. When interest rates exceed growth rates ($r > g$, or when the difference is positive), a scenario of debt overhang may arise in which the government would incur a higher fiscal burden (Aguiar et al. 2009). If the level of external financing is closer to market interest rates, this would threaten the debt sustainability of many emerging-market and developing countries (Songwe et al. 2022). Indeed, the majority of low-income countries are already distressed to the point where they cannot meet their climate and development goals (Zucker-Marques et al. 2024).

Figure 7 shows that the cost of capital is also breaking away from growth rates. On average, the World Bank estimates that both investment-grade and non-investment-grade countries are in situations where bond yields minus growth rates are positive—meaning that the interest rate is higher than projected growth rates. Indeed, the World Bank reckons that non-investment-grade countries are close to seven percentage points above growth rates and investment-grade countries are close to three percentage points higher (Kenworthy et al. 2024). Figure 7 shows that private creditors are charging upwards of 6 per cent on average—and as much as 10.3 per cent in Kenya. Even official creditors such as MDBs average 4 per cent, and in some cases are more expensive than the private sector.

Figure 7: Average terms on new external debt commitments for low- and middle-income countries (excluding China)



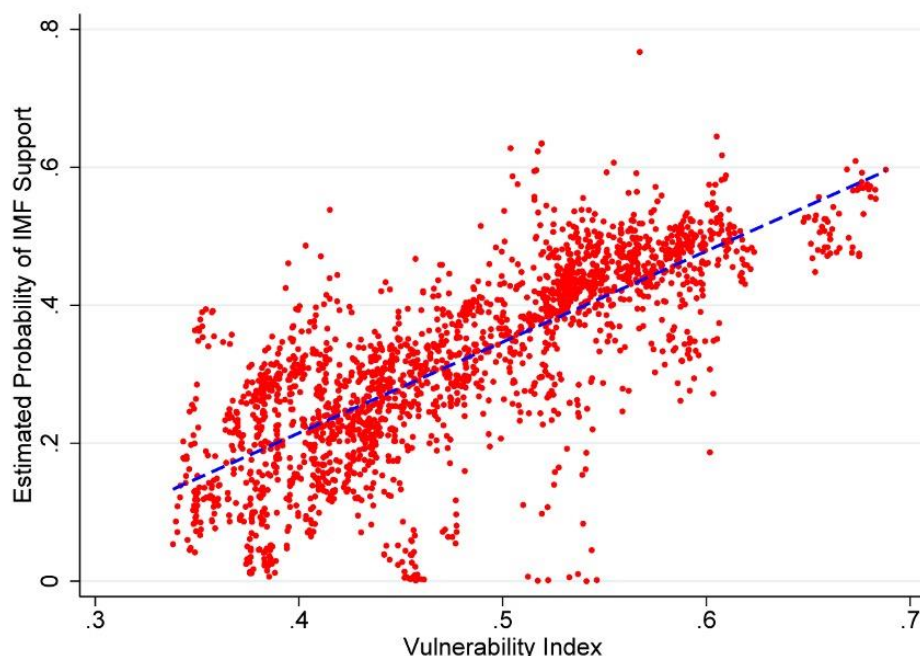
Source: reproduced from World Bank (2024), under the terms of the license [CC BY 3.0 IGO](#).

Currently, IMF and World Bank Debt Sustainability Analyses (DSAs) fall short in incorporating investment needs, the propensity for external shocks, and their subsequent fiscal and financial outcomes (IEG 2024; Maldonado and Gallagher 2022; Raga 2024; Task Force 2024). DSAs are important tools in helping nation states and the international community to understand how to mobilize finance in a manner that is sustainable. These analyses are subsequently used to determine levels of balance-of-payments support and debt restructuring. The baseline scenario for DSAs often maintains a suboptimal level of spending and investment that in part leads to eventual distress. Moreover, when investment is put into DSAs, no fiscal multiplier is put into the estimates and therefore new investment by definition can accentuate debt distress. Rather, DSAs equate significant growth potential with fiscal consolidation, which is contrary to the literature (Guzman and Heyman 2015). DSAs also seldom incorporate external shocks such as those from climate change. Finally, the forecast errors in DSAs have been worrisome. IMF economists published an analysis of 174 countries from 1995 to 2020 and find that realized debt ratios are significantly larger than forecasted ratios and that they increase over time to upwards of 10 per cent of GDP after a five-year time horizon (Estafania-Flores et al. 2023). Raga (2024) analyses the post-COVID-19 period and finds IMF forecasting errors to have significantly widened, with overly optimistic debt forecasts across the board and especially in hard-hit countries such as Chad, Ethiopia, Ghana, Sri Lanka, and Zambia.

One type of external shock that is seldom incorporated into DSAs or IMF Article IV surveillance analysis is the impacts of 'physical' and 'transition' risks from climate change and climate change policy. Physical risk occurs when climate change itself has an impact on the balance of payments or financial stability if the climate shock impacts the capital stock in a certain manner. Transition risks occur when countries rapidly shift away from certain macro-critical sectors to new ones. Transition 'spillover risk' occurs when the climate change policies of one country impact balance of payments or financial stability in another country. Figure 8 shows that the more physical climate risk there is in a country, the more apt it is to demand IMF programmes, controlling for the standard reasons why countries demand such resources (Maldonado and Gallagher 2025). Figure 9 depicts the impacts of climate policy in China on the balance of payments of Indonesia, which relies on exporting coal and

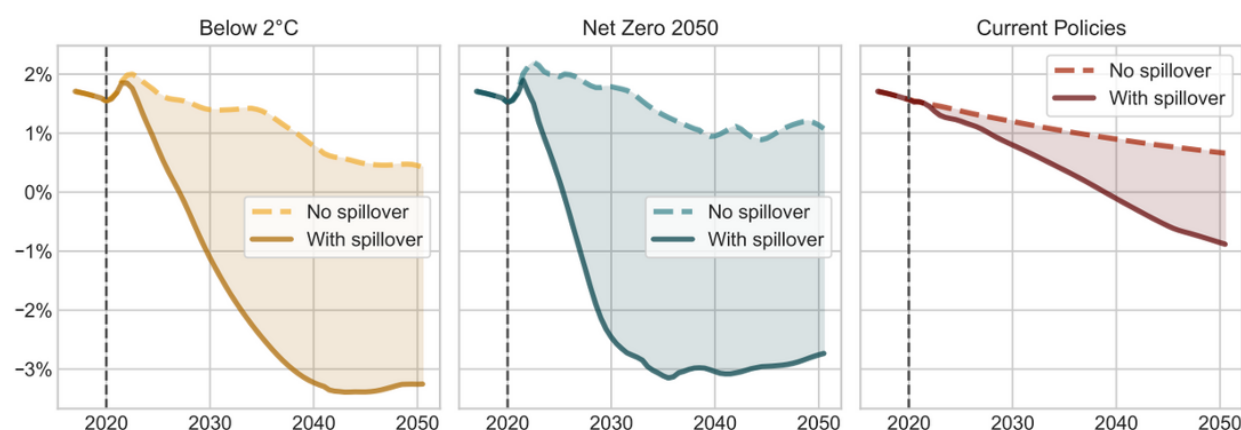
other parts of fossil fuel value chains (Gourdel et al. 2025). An analysis of IMF DSAs and Article IV reports from 2017 to 2022 finds that the IMF has paid minimal and uneven attention to resource mobilization and climate shocks (Ramos et al. 2022).

Figure 8: Climate vulnerability and demand for IMF resources



Source: reproduced from Maldonado and Gallagher (2025), with permission.

Figure 9: Impacts of transition spillover risk for Indonesia

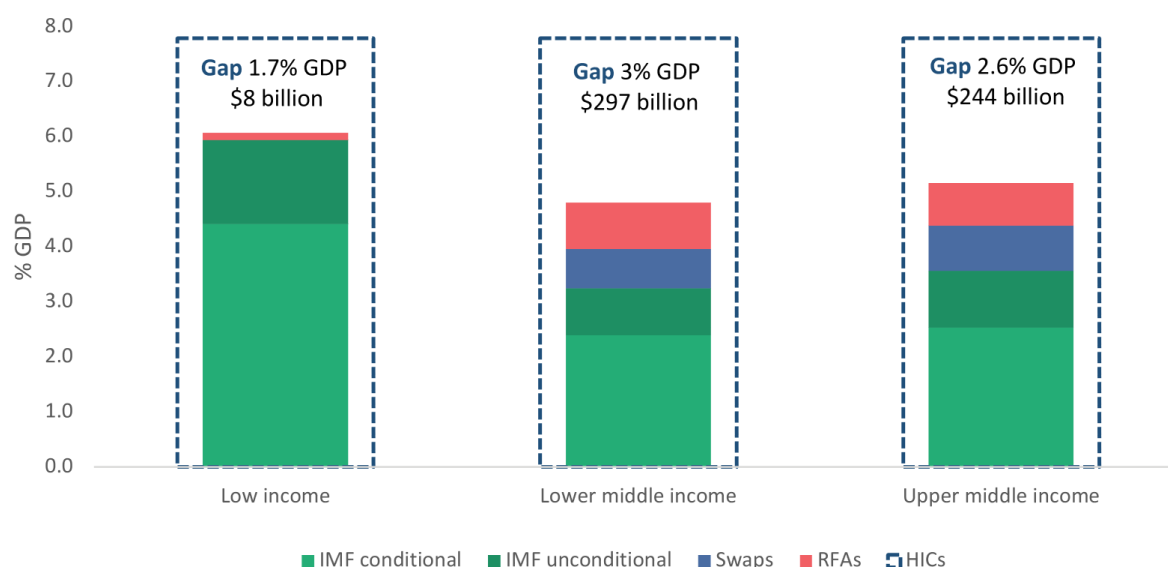


Source: reproduced from Gourdel et al. (2025), under the terms of the license [CC BY-NC 4.0](#).

The GFSN is not large enough to prevent and mitigate the financial instability resulting from the numerous risks that face developing-country economies. Relative to the size of global GDP or global assets and liabilities, it has been shrinking over time for emerging-market and developing countries while the interconnected global economy has become more susceptible to external shocks (Zucker-Marques, Mühlich, and Fritz 2023). Advanced countries have seen an unprecedented increase in

access to the GFSN because of the expansion of central bank currency swaps after the 2008 crisis, as Figure 10 outlines. For access to the GFSN to be equalized among all income groups, low-income countries would need an increase of 5.6 per cent of their GDP, while lower- and middle-income countries would need increases of 4.3 per cent and 7.5 per cent of GDP, respectively. As the figure shows, the GFSN is thinnest for low-income countries (especially in Africa). By and large, low-income countries' only source of liquidity in times of need is IMF conditional programmes. Whereas the upper-middle-income countries have the largest level of need, their sources are more diversified through swaps and regional financial arrangements (RFAs).

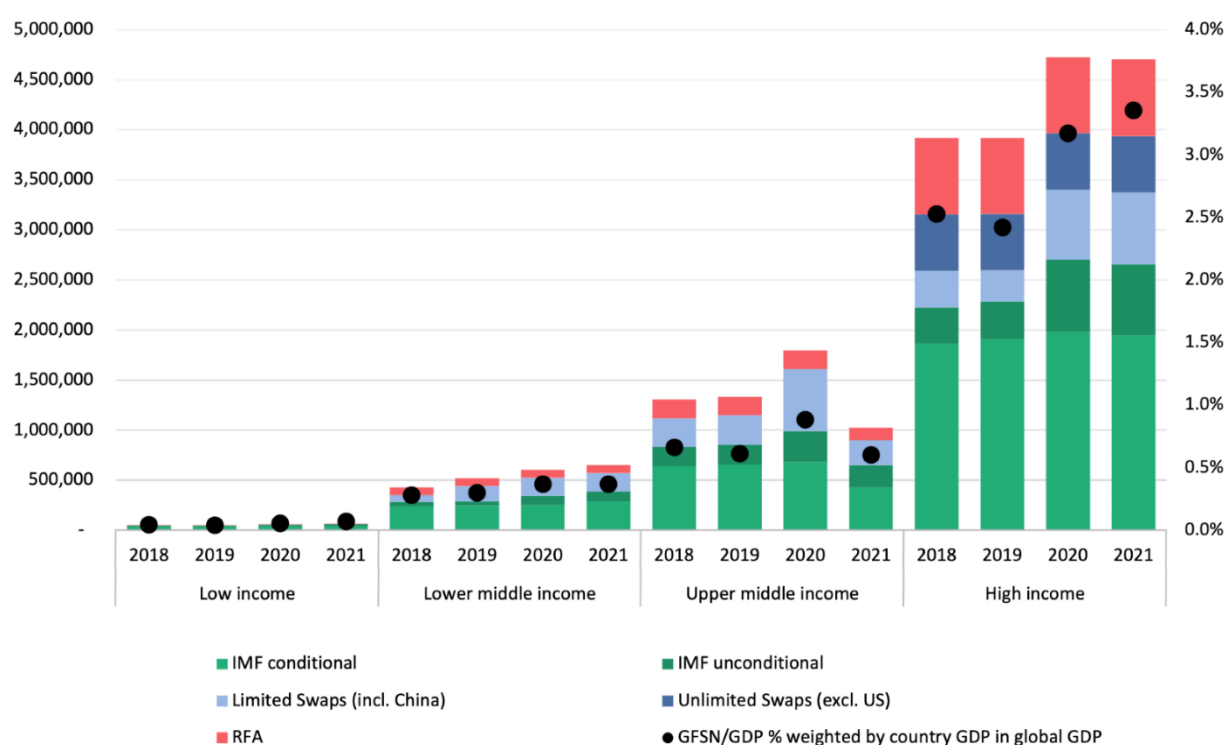
Figure 10: Gaps in the GFSN



Source: reproduced from Mühlich and Zucker-Marques (2023), with permission.

Moreover, as shown in Figure 11, the GFSN is highly asymmetrical, with higher-income economies having access to the strongest and most diverse forms of liquidity support whereas the most vulnerable countries have access only to the IMF (Muehlich et al. 2023). Countries in the Global North and a very select group of upper-middle-income countries have been granted access to swap arrangements with the major central banks in the Global North—without any conditionalities for fiscal consolidation. In fact, such arrangements are usually associated with the ability of such countries to engage in expansionary monetary and fiscal policy (Aizenman et al. 2022).

Figure 11: Asymmetric coverage of the GFSN



Source: reproduced from Muehlich and Zucker-Marques (2023), with permission.

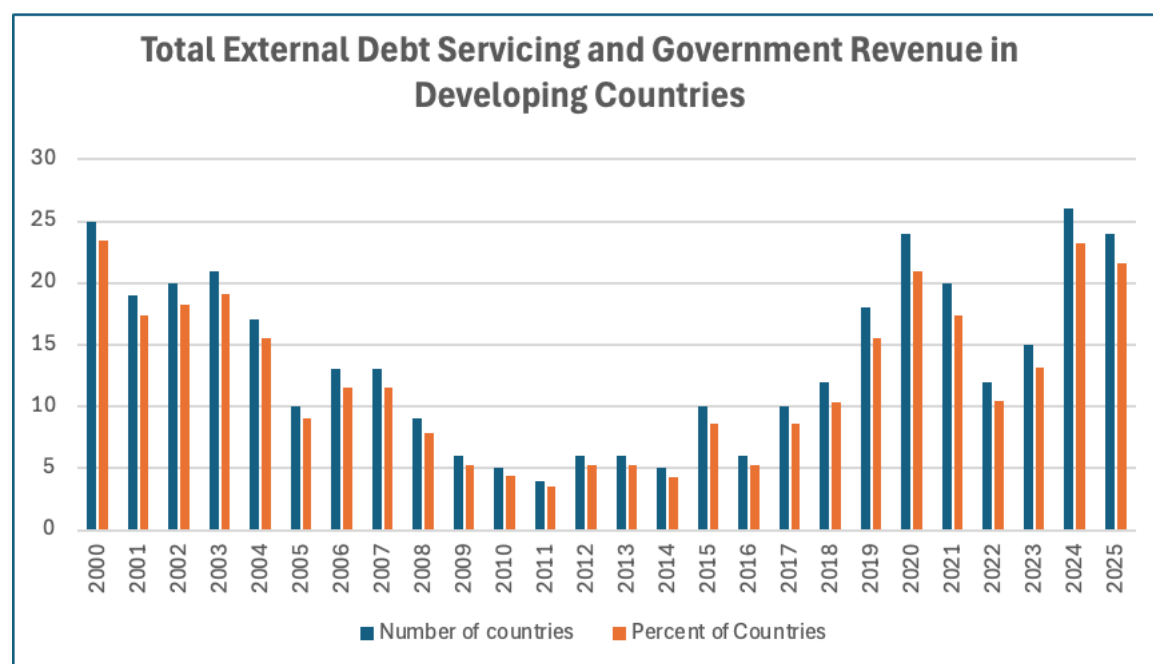
Most lower- and middle-income countries can resort only to IMF programmes for GFSN financing, and fiscal consolidation is imposed as a condition of accessing IMF resources. This is highly problematic given that fiscal consolidation in general and IMF programmes in particular are not associated with economic growth and can have deep-seated negative impacts on longer-run growth prospects and therefore on debt-to-GDP ratios too (Blanchard and Leigh 2013; Fatás and Summers 2018). Moreover, IMF fiscal consolidation programmes also accentuate inequality, poverty, and public health problems while collectively putting a drag on global growth (Kentikelenis and Stubbs 2023; Ocampo 2017).

The weak coverage, low level, and poor performance of the GFSN has forced many emerging-market and developing countries to resort to suboptimal measures that accentuate the current flaws in the system. Some developing countries, especially countries with current account surpluses, compensate for the weakness of the GFSN through the over-accumulation of foreign exchange reserves, which has high opportunity costs for those countries and contributes to global imbalances (Gallagher and Shrestha 2012). Countries that lack reserves resort to private capital markets that do not have fiscal consolidation requirements but are much costlier at interest rates that are often higher than projected growth rates (Cormier 2023). The UN calculates that there are now 3.3 billion people living in a country that is paying more on debt service than on health or education investments (UNCTAD 2023). Least-developed countries (LDCs) spent US\$33 billion servicing debts in 2021—but received just \$20 billion in climate finance (IIED 2023).

At present, an increasing number of low- and middle-income countries are experiencing an external debt payments wall that is crowding out their ability to invest in sustainable development. According to the UN and as shown in Figure 12, the percentage and number of countries spending more than 20

per cent of government revenue on external debt payments has reached similar levels as during the last major developing-country debt crises at the turn of the century (UNDP 2024). The World Bank is now referring to a ‘silent debt crisis’—silent because it is not being addressed by the global system (World Bank 2024).

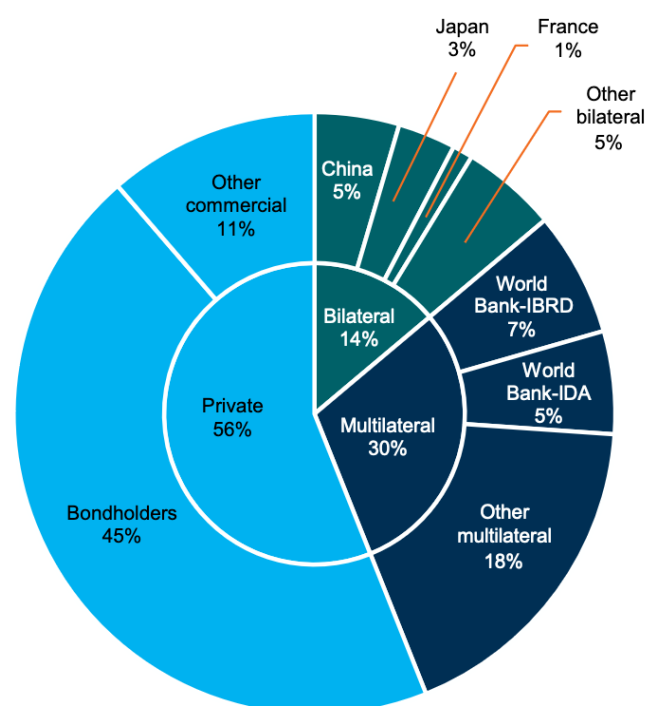
Figure 12: Number and percentage of developing countries spending more than 20% of government revenue on external debt service, 2000–25



Source: author's illustration based on UNDP (2024).

The largest hole in the GFSN is the lack of a predictable, rule-based way to address countries with sovereign debt problems. An evolving sequence of ad hoc arrangements has occurred in the absence of such a regime, where debtor countries face asymmetric bargaining power with a growing number of creditors that are hard to co-ordinate (Michener and Trebesch 2023; Panizza et al. 2009). As shown in Figure 13, the number of creditors engaged in sovereign debt is at an all-time high and has proven difficult to co-ordinate in the absence of a compulsory regime. In response to recent debt distress, the G20 established two mechanisms—a Debt Service Suspension Initiative (DSSI) and a Common Framework Beyond the DSSI (Common Framework).

Figure 13: Composition of PPG debt, low- and middle-income countries



Source: reproduced from World Bank (2024), under the terms of the license [CC BY 3.0 IGO](#).

The DSSI was an attempt to provide external debt service suspension just for low-income countries. However, only bilateral creditors (especially China) agreed to participate in the scheme, which was sunsetted after 18 months. The Common Framework is also only applicable only for low-income countries and calls on eligible countries to come forth and ask for debt relief on a case-by-case basis. In such an event, the IMF performs a DSA (with the limitations described earlier) and negotiates with official bilateral creditors, after which the borrower is required to seek commensurate treatment from other creditors. Getting diverse creditors to agree has been a difficult task. Moreover, multilateral creditors have been exempt from the Common Framework, despite the fact that for 16 countries, exposure to official multilateral creditors is between 50 per cent and 75 per cent of their total external PPG debt and for 11 countries it is above 75 per cent (Zucker-Marques, Volz and Gallagher 2023). In the small number of countries that have received restructurings, the level of restructuring has not been enough to enable investments in development and climate, and private bondholders have granted the least amount of debt relief despite the fact that they have reaped the largest level of payments due to their higher *ex ante* interest rates (Zucker-Marques et al. 2023; 2024).

4 No voice for the vulnerable

The lack of scale and efficacy across the IFA is in part a function of the fact that the countries that most rely on the IFA have the least amount of voice and representation in the governance of it. Materially, the currencies of developing countries have little standing in the global economy. Moreover, the institutions for global economic governance do not provide adequate voice and representation to emerging-market and developing countries and their citizens.

Of course, the currencies of most emerging-market and developing countries are very low in ‘the hierarchy of money’. The US dollar sits at the top of the hierarchy and is what the majority of international trade and finance is conducted in. As indicated earlier, this ‘original sin’ of not having a key currency puts developing countries at a particular disadvantage given the ‘dilemma’ of floating exchange rates and international capital flows whereby sudden stops and reversals of global capital flows put downward pressure on exchange rates and accentuate external debt service. This is one structurally inherent component of the IFA where developing countries have little say (Cohen 2004; Mehrling 2013).

Furthermore, the institutions for global economic governance of the IFA are inherently ‘hegemonic’. These asymmetries are manifest in the ‘gentleman’s agreement’ whereby the heads of the World Bank and the IMF are citizens of the US and Europe, respectively. These institutions also grant veto power to a small handful of advanced economies that dominate decision-making (Dreher et al. 2015), despite the fact that the Articles of Agreement at the IMF state that the institution must follow a ‘doctrine of economic neutrality’ (Swedberg 1986) in which decisions are made on economic grounds alone. A vast quantitative and qualitative literature has also concluded that economic conditions in borrower countries alone are not enough to explain the determinants of the level and composition of IMF programmes (Barro and Lee 2005; Copelovich 2010; Thacker 1999). Rather, IMF programmes are equally a function of political factors such as the geopolitical and economic interests of those IMF member states with the largest amount of voting power in the organisation. A definitive literature review finds ‘substantial evidence of the influence of major IMF shareholders, of the Fund’s own organizational imperative, and of domestic politics within borrowing countries’ (Steinwand and Stone 2008). Moreover, those countries that were granted relatively more relaxed fiscal conditionality were found to be countries with broader voting rights in the IMF, with more overseas development assistance from non-traditional sources, and with strong export and UN voting alignments with Western Europe (Ray and Kring 2022).

Developing countries thus have little voice and representation in the IFA despite being the major recipients of the financing from the system’s major institutions. Figure 14 exhibits how stark these asymmetries are in the IMF and across the MDB system. The most vulnerable economies could be classified as the low-income countries (LICs), the LDCs, or the 70 climate-vulnerable countries that are members of the V20. Figure 14 shows that LICs have just 2 per cent of the voting power across the MDBs, LDCs 3.5 per cent, and the V20 7.6 per cent. Some progress has been made in recent years, most notably with the addition of a third Executive Board chair for Sub-Saharan African countries at the IMF and the inclusion of the African Union in the G20. However, there have been missed opportunities too, such as with the 2023 IMF quota increase that did not include a realignment of voting shares.

Figure 14 Voice and representation in the IMF and MDB system

	Number of Countries	IMF		MDB system		Population	GDP (PPP Adjusted)
		Quotas	Voting Power	Paid-in capital	Voting Power*		
Group of 20 (w/ African Union)	96	86.0%	84.1%	82.0%	85.8%	79.7%	86.8%
Group of 20 (w/o African Union)	44	81.5%	78.4%	74.0%	75.1%	62.2%	82.0%
BRICS+	10	18.6%	17.9%	24.1%	18.4%	45.7%	37.5%
BRICS (original formation)	5	14.8%	14.1%	16.8%	13.4%	41.0%	33.7%
Group of 24	29	20.7%	20.2%	27.8%	25.1%	58.3%	39.7%
Vulnerable 20	70	5.0%	6.8%	7.6%	8.6%	22.4%	6.7%
Low-income Countries	26	1.5%	2.0%	1.1%	1.7%	9.1%	0.9%
Least Developed Countries	45	2.4%	3.5%	2.6%	3.6%	14.6%	2.7%
Group of 7	7	43.4%	41.2%	30.8%	36.3%	9.8%	30.0%

Note: MDB voting power is estimated using each country's individual share in each MDB and a weighted average based on total capital (paid-in and callable); the analysis covers the 15 largest MDBs, following Gallagher et al. (2024).

Source: author's illustration based on IMF (2025), World Bank (2025), and information available at MDBs/ IMF reports and webpages.

One avenue that developing countries have attempted to pursue to increase their voice and representation across the IFA has been coalition building (Boughton 2017; Chin and Gallagher 2025). The BRICS coalition played an important role in getting the advanced economies to agree on earlier IMF quota increases and the incremental changes that the IMF has made on capital account liberalization and capital controls (Gallagher 2015). Figure 14 shows that they now have 14.1 and 13.4 per cent of the vote in the IMF and MDBs respectively. The longest-standing developing-country coalition within the IFA is the Group of 24, which is officially recognized by the IMF and World Bank, with offices in the IMF. Despite having almost six times the population of the Group of 7, however, the Group of 24 holds only half as many quotas and votes as the G7. The V20—the most climate-vulnerable group of countries—has only 5 per cent of quotas and votes despite the fact that those 70 countries have a significantly larger population than the G7. While basic votes—votes distributed equally to all members—amounted to 11 per cent of all votes at the IMF's formation, they now account for only 5.5 per cent (Merling 2022).

Finally, whereas the MDBs have independent accountability mechanisms for citizens of borrowing nations to monitor MDBs and hold them accountable, the IMF does not have such a body with meaningful clout (Bradlow 2021). To provide greater accountability, an independent ombudsman could be created to report directly to the IMF Board of Executive Directors and be mandated to investigate complaints about IMF staff's compliance with the IMF's own policies and procedures (Bradlow 2022). This would promote confidence in the IMF, provide it with new knowledge from communities and other non-state actors that currently have no formal channels through which to provide information, and improve IMF learning over time. Because this ombudsman's work would be initiated by external complaints, it would not duplicate the work of the Independent Evaluation Office.

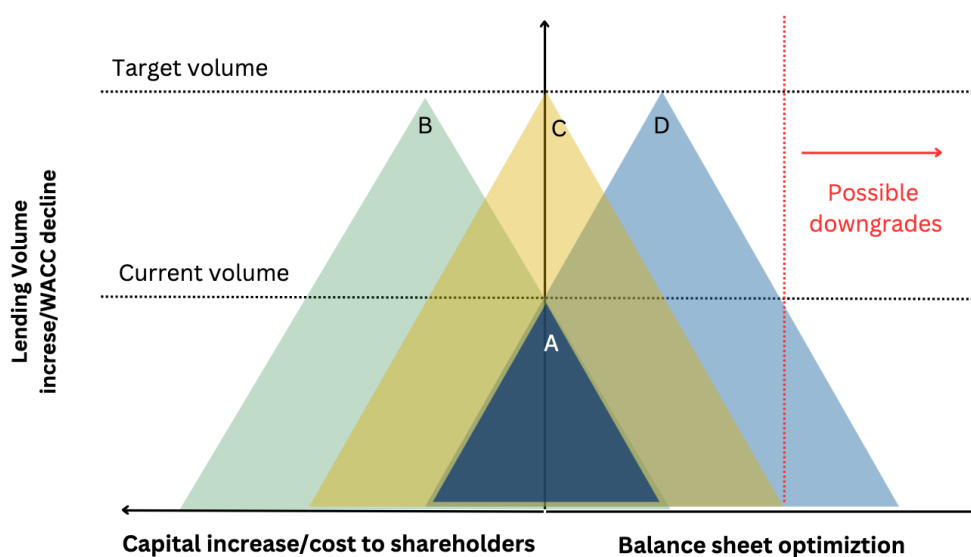
5 A framework and agenda for reform

The IFA needs to deliver long-run countercyclical financing at levels that it is estimated would trigger the structural transformation necessary for sustainable development, alongside an adequate and expanded GFSN to prevent and mitigate the inevitable increase in external shocks to the development process. In a nutshell, this entails enlarging the level of MDB financing and calibrating its pricing and growth potential during periods when private flows are procyclical, such that the weighted average of the cost of capital for a country is lower than the projected growth rate of the economy under treatment. However, a second and no less difficult task is to ensure that such investments flow into growth-enhancing green structural transformations. To that end, three key objectives should be: making MDBs bigger and better, enlarging and filling the gaps in the GFSN, and expanding voice and representation for the vulnerable in the Global South.

5.1 Boost and bend the MDBs

MDBs have a central role to play in these reforms. Due to their unique business model, they are equipped to provide long-run, countercyclical financing towards development and climate goals (Humphrey 2022). As shown earlier in this paper, however, the level of lending by MDBs has not kept up with the overall size of the financial system, nor have they been able to be countercyclical enough to maintain the sustained levels of investment that are needed. Gallagher et al. (2024) outline a framework in which MDBs could design a mix of balance sheet optimization measures and capital increases in order to meet target volumes of investment in the developing world (Figure 15). The increases in MDB lending have to be calibrated such that when private interest rates are high and private capital flows are retrenching, MDBs will increase their financing and lower their interest rate such that the weighted average of the cost of capital is lower than the project growth rate of the economy.

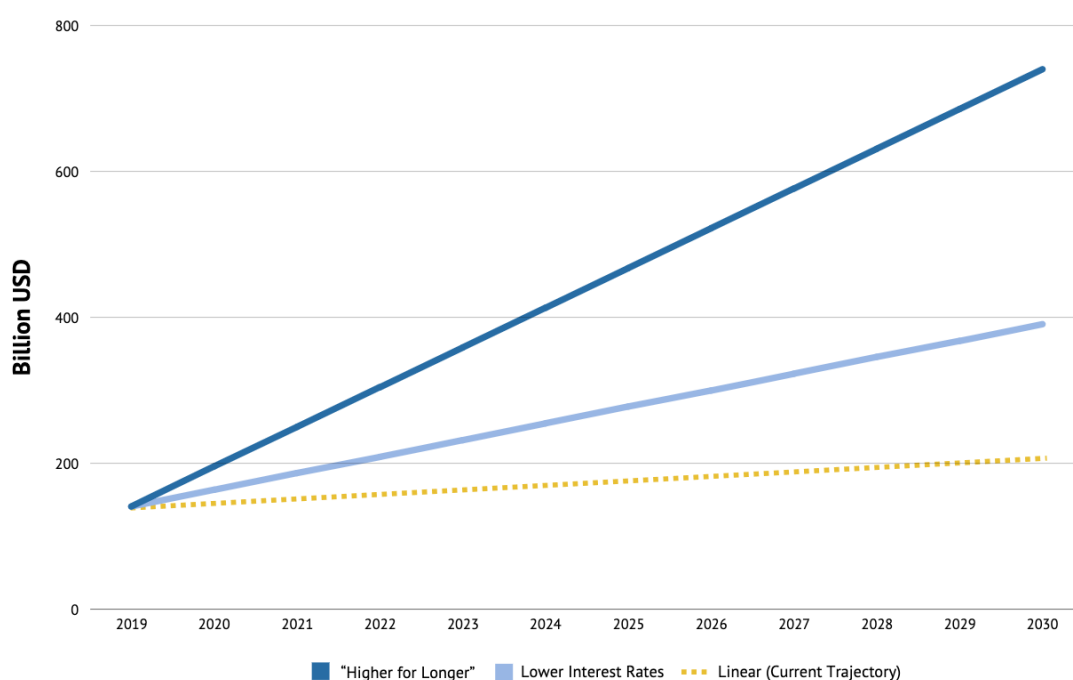
Figure 15: Mobilizing finance and providing debt sustainability: the role of MDBs



Source: reproduced from Gallagher et al. (2024), with permission.

Figure 16 shows the level of MDB lending that would need to occur by 2030 under higher, lower, and current interest rates. MDBs will also need to scale up their partnerships with other development finance institutions, such as regional and national development banks (NDBs). Mariotti et al. (2025) identify five major complementarities between MDBs and NDBs that have been under-utilized, and how enhanced and scaled MDB–NDB collaboration could further enable countries to marshal resources for their development strategies.

Figure 16: MDB lending needs under various interest rate scenarios



Source: reproduced from Gallagher et al. (2024), with permission.

In 2024, the G20 and the heads of the MDBs agreed to conduct resource needs reviews of the extent to which they have the resources to meet the strategic objectives of their shareholders and shared global development and climate goals. Boosting MDB lending capacity will necessitate the following (Gallagher et al. 2024; Zucker-Marques and Gallagher 2024):

- work as a system and link with networks of national development banks to leverage balance sheets;
- reform efforts towards private capital mobilization in a manner that maintains debt sustainability and more equally distributes the benefits;
- ambitious implementation of the CAF Review recommendations to maximize the use of current and future balance sheets;
- increase the use of hybrid forms of capital including through recycled SDRs (Special Drawing Rights) and sustainable future bonds;
- expand levels of paid-in capital across the MDB system;
- calibrate lending such that the weighted average of the cost of capital is below projected growth rates and to maintain net positive resource mobilization; and
- ensure that investments stimulate productive green structural transformation and changes in the export structure.

It is essential that new financing pays special attention to changing the export structure of economies as part of broader structural transformation efforts. As implied earlier, among the core constraints that countries face for financing are the balance-of-payments constraint and the lack of export revenue. Structural balance-of-payments problems are the reason why so many countries perpetually have to go to the IMF and other parts of the GFSN for support. That said, building endogenous productive capacity is no easy task (Amsden 2001). While Japan, South Korea, China, and Vietnam are held up as examples of countries that have been able to significantly change the structure of their economies in the past 50 years, many other countries have had much more lacklustre success at best. Neither a business-as-usual full liberalization path nor a state-enhanced project of structural transformation guarantees success. As Rodrik and Hausman (2006) argue:

Industrial policy is hard, but that is no argument against its use. Fiscal policy, say, or education policy is hard too, but few people would argue that governments should just give up on them. Theory and evidence have convinced us that governments need well designed tax and expenditure programs and that they must invest in human resources. And so it is with industrial policy. Governments need well articulated strategies to provide the specific inputs that markets need in order to foster the structural transformation that drives economic development.

5.2 Fill the gaps in the global financial safety net

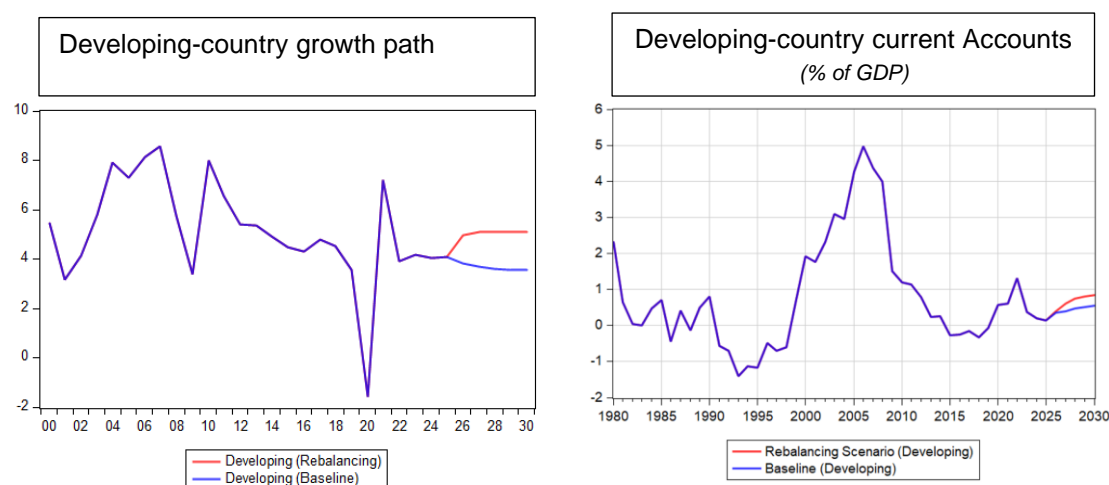
Alongside a stepwise mobilization of long-run, countercyclical, and affordable investment, the GFSN needs reform to better prevent and mitigate the myriad shocks that will inevitably occur in the global economy regardless of the export structure of an economy. To this end:

- analytics such as DSAs and Article IVs need to be reformed;
- issuances of SDRs need to be renewed, with a significant amount re-channelled both for liquidity financing to countries in need and through hybrid capital for MDBs;
- further IMF quota increases need to be enacted by the end of the IMF's 17th general review of quotas;
- IMF financing packages need to be reformed to provide access to adequate volumes of liquidity finance at below market rates to manage the impact of adverse currency moves and climate risks, free from onerous conditionalities of fiscal consolidation (Batini et al. [2022] and Kharas and Rivard [2022] show that expansionary stimulus packages responding to downturns that are aligned with development and climate goals increase growth and improve creditworthiness much more than do fiscal consolidation approaches);
- reform of the Common Framework and the DSSI is paramount, along with negotiation of a more permanent, rules-based approach to solving twenty-first-century debt problems;
- RFAs need to be deepened and expanded, especially on the African continent where the GFSN is most thin; and
- work is needed both unilaterally and co-operatively across countries to regulate capital flows in order to avoid the detrimental impacts of the new 'dilemma' and steer capital flows towards longer-run, countercyclical ends.

New projections exhibited in Figure 17 from the UN Global Policy Model show that the Global South can get on a new growth path that also changes the structure of its exports. UNCTAD models a scenario where there is an annual global investment increase of 2–3 per cent towards green

industrialization in the South which becomes oriented towards more South–South trade (distributed half from the private sector and half from the public, which is similar to the distribution of G20-IEG 2023) and receives a modest level of debt relief. At the same time, there is reduced demand for carbon energy and a rebalancing of income distribution in the Global North alongside investments in environmental upgrading (Capaldo 2025). Similarly to Kharas and Rivard (2024), UNCTAD sees new global growth paths, some rebalancing of the world economy, and a reduction of debt distress in the developing world.

Figure 17: Green structural transformation and global rebalancing in the world economy



Source: reproduced from Capaldo (2025), with permission.

5.3 More voice for the vulnerable

Emerging-market and developing countries should deploy multiple strategies to increase their voice and representation across the system. It will continue to be paramount to invest in collective institutional innovations within and outside the traditional IFA while balancing competition and cohesion (Grabel 2017). Inside the system, the Global South will have to continue to form coalitions, whether on specific issues or as a whole through such forums as the G24, the V20, and the G11. These groups are largely represented by finance ministries and central banks, which will have to improve co-ordination with foreign ministries that engage on these issues in the UN.

Alongside these inside strategies, the Global South should continue to create, co-ordinate, and expand its own versions of development finance institutions and RFAs to not only provide similar services but also exercise countervailing power across the system through the threat of exit in order to create necessary forms of competition to improve the IFA (Chin and Gallagher 2025; Gallagher and Kozul-Wright 2022). There are over 500 public development banks with a balance sheet of US\$23 trillion that have begun global co-ordination efforts through the ‘Finance in Common’ summits (Xu et al. 2021).

In addition to building outside institutions and coalitions, specific proposals to increase voice and representation include:

- advocate for the instatement of a merit-based process for choosing the heads of the IMF and the World Bank that are open to citizens in all membership countries;
- link quota and capital increases with a realignment of voting shares aimed at increasing the voice and representation of developing countries, as well as in the World Bank shareholding review;
- officially recognize the Vulnerable Group of 20 Finance Ministers at the IMF and World Bank; and
- establish an independent ombudsman at the IMF and enhance such functions within the World Bank; the ombudsman should report directly to the board, be independent of management, and limit its mandate to investigating complaints about the institutions' compliance with their own policies and procedures.

None of these proposals are new. They echo a range of governmental, intergovernmental, and non-governmental declarations, including the Pact for the Future, the Bridgetown Initiative, the Nairobi Declaration, the V20 Accra-Marrakech Agenda, G24 communiqués, the Financing for Development Forum, the UN Secretary General's SDG Stimulus Agenda, and the Paris Pact for People and the Planet. The reforms needed to make international financial institutions work for peace, prosperity, and planet are well known—but 2025 must be the year that leaders find the political will to make these reforms a reality. The costs of inaction far outweigh the relatively small investments in the future.

References

- Aguiar, M., M. Amador, and G. Gopinath (2009). 'Investment Cycles and Sovereign Debt Overhang'. *Review of Economic Studies*, 76(1): 1–31. <https://doi.org/10.1111/j.1467-937X.2008.00523.x>
- Aizenman, J., H. Ito, and G. Kaur Pasricha (2022). 'Central Bank Swap Arrangements in the COVID-19 Crisis'. *Journal of International Money and Finance*, 122: 102555. <https://doi.org/10.1016/j.jimonfin.2021.102555>
- Amendolagine, V., A.F. Presbitero, and R. Rabello (2024). 'Chinese Infrastructure Lending in Africa and Participation in Global Value Chains'. *Review of World Economics*, 11 November. <https://doi.org/10.1007/s10290-024-00566-0>
- Amsden, A. (2001). *The Rise of the Rest*. London: Oxford University Press. <https://doi.org/10.1093/0195139690.001.0001>
- Avellán, L., A.J. Galindo, and G. Lotti (2021). 'Sovereign External Borrowing and Multilateral Lending in Crises'. *International Review of Economics & Finance*, 74(C): 206–38. <https://doi.org/10.1016/j.iref.2021.01.010>
- Bandara, P., R. Ray, J. Lu, and K. Gallagher (2025). 'Developing World Largely Shut Out of Low Carbon Trade Markets'. *Science* (forthcoming).
- Barro, R.J., and J.-W. Lee (2005). 'IMF Programs: Who Is Chosen and What Are the Effects?' *Journal of Monetary Economics*, 52(7): 1245–69. <https://doi.org/10.1016/j.jmoneco.2005.04.003>
- Batini, N., M. Di Serio, M. Fragetta, G. Melina, and A. Waldron (2022). 'Building Back Better: How Big Are Green Spending Multipliers?' *Ecological Economics*, 193: 107305. <https://doi.org/10.1016/j.ecolecon.2021.107305>
- Black, S., A. Liu, I. Parry, and N. Vernon (2023). 'IMF Fossil Fuel Subsidies Data: 2023 Update'. Working paper. Washington, DC: IMF. <https://doi.org/10.5089/9798400249006.001>
- Blanchard, O. (2023). *Fiscal Policy under Low Interest Rates*. Cambridge, MA: The MIT Press. <https://doi.org/10.7551/mitpress/14858.001.0001>
- Blanchard, O.J., and D. Leigh (2013). 'Growth Forecast Errors and Fiscal Multipliers'. *American Economic Review*, 103(3): 117–20. <https://doi.org/10.1257/aer.103.3.117>
- Boughton, J. (2017). 'Southern Accents: The Voice of Developing Countries in International Financial Governance'. CIGI Working Paper. Waterloo, Ontario: Centre for International Governance Innovation (CIGI).

- Bradlow, D. (2021). 'The IMF Needs an Ombudsman with Clout'. *Financial Times*, 5 October. Available at: www.ft.com/content/1c4ce23e-15f2-4461-b9f7-48a198276fe1 (accessed 5 February 2025).
- Bradlow, D. (2022). 'The IMF Is Changing and Needs an Independent Ombudsman'. *Bretton Woods Observer*, 18 May. Available at: www.brettonwoodsproject.org/2022/07/the-imf-is-changing-and-needs-an-independent-ombudsman (accessed 5 February 2025).
- Breakthrough Institute (2024). *Adaptation Finance and the Multilateral Development Banks: From Concept to Practice*. Oakland, CA: Breakthrough Institute.
- Capaldo, J. (2025). *Projections based on the Cambridge-Alphametrics Model, Boston University Global Development Policy Center (internal)*.
- Chin, G.T., and K.P. Gallagher (2025). *China and the International Economic Order*. Cambridge: Cambridge University Press.
- Cohen, B.J. (2004). *The future of money*. Ithaca, NY: Cornell University Press.
- Copelovitch, M.S. (2010). 'Master or Servant? Common Agency and the Political Economy of IMF Lending'. *International Studies Quarterly*, 54(1): 49–77. <https://doi.org/10.1111/j.1468-2478.2009.00577.x>
- Cormier, B. (2023). 'Partisan External Borrowing in Middle-Income Countries'. *British Journal of Political Science*, 53(2): 717–27. <https://doi.org/10.1017/S0007123421000697>
- Dreher, A., J.-E. Sturm, and J.R. Vreeland (2015). 'Politics and IMF Conditionality'. *Journal of Conflict Resolution*, 59(1): 120–48. <https://doi.org/10.1177/0022002713499723>
- Dreher, A., A. Fuchs, B. Parks, A. Strange, and M.J. Tierney (2021). 'Aid, China, and Growth: Evidence from a New Global Development Finance Dataset'. *American Economic Journal: Economic Policy*, 13(2): 135–74. <https://doi.org/10.1257/pol.20180631>
- Erten, B., A. Korinek, and J. Antonio Ocampo (2021). 'Capital Controls: Theory and Evidence'. *Journal of Economic Literature*, 59(1): 45–89. <https://doi.org/10.1257/jel.20191457>
- Estefania-Flores, J., D. Furceri, S. Kothari, and J.D. Ostry. (2023). 'Worse Than You Think: Public Debt Forecast Errors in Advanced and Developing Economies'. *Journal of Forecasting*, 42(3): 685–714. <https://doi.org/10.1002/for.2942>
- Fatás, A., and L.H. Summers (2018). 'The Permanent Effects of Fiscal Consolidations'. *Journal of International Economics*, 112: 238–50. <https://doi.org/10.1016/j.jinteco.2017.11.007>
- G20 (2022). 'Capital Adequacy Framework Panel Report. Sito Dipartimento Del Tesoro—MEF Dipartimento Del Tesoro. Available at: www.dt.mef.gov.it/export/sites/sitodt/modules/documenti_it/news/news/CAF-Review-Report.pdf (accessed 10 March 2025).
- G20-IEG (Independent Experts Group) (2023). 'The Triple Agenda: A Roadmap for Better, Bolder and Bigger MDBs'. Center for Global Development, 13 October. Available at: www.cgdev.org/publication/triple-agenda-roadmap-better-bolder-and-bigger-mdbs (accessed 25 February 2025).
- Gaffney, A. (2024). '2024 on Track to be the Hottest Year on Record'. *New York Times*, 8 August.
- Galindo, A.J., and U. Panizza (2018). 'The Cyclicity of International Public Sector Borrowing in Developing Countries: Does the Lender Matter?'. *World Development*, 112(C): 119–35. <https://doi.org/10.1016/j.worlddev.2018.08.007>
- Gallagher, K.P. (2015). *Ruling Capital: Emerging Markets and the Re-regulation of Cross-Border Finance*. Ithaca, NY: Cornell University Press.
- Gallagher, K., and R. Kozul-Wright (2022). *The Case for a New Bretton Woods*. London: Polity.
- Gallagher, K.P., and E. Shrestha (2012). 'The Social Cost of Self-Insurance: Financial Crisis, Reserve Accumulation, and Developing Countries'. *Global Policy*, 3(4): 501–09. <https://doi.org/10.1111/j.1758-5899.2011.00150.x>
- Gallagher, K.P., R.R. Bhandary, R. Ray, and L. Ramos (2023). 'Reforming Bretton Woods Institutions to Achieve Climate Change and Development Goals'. *One Earth*, 6(10): 1291–303. <https://doi.org/10.1016/j.oneear.2023.09.009>
- Gallagher, K.P., M. Zucker-Marques, N. Marins, and R. Bhandary (2024). *Energizing MDB Financing Capacity: Identifying and Filling the Gaps to Raise Ambition for the 2030 Agenda and Beyond*. Report commissioned by the Brazilian Presidency of the G20. Boston, MA: Boston University Global Development Policy Center.
- Gourdel, R., I. Monasterolo, and K.P. Gallagher (2025). 'Climate Transition Spillovers and Sovereign Risk: Evidence from Indonesia'. *Energy Economics*, 143: 108211. <https://doi.org/10.1016/j.eneco.2025.108211>

- Grabel, I. (2017). *When Things Don't Fall Apart: Global Financial Governance and Developmental Finance in an Age of Productive Incoherence*. Cambridge, MA: The MIT Press.
<https://doi.org/10.7551/mitpress/11073.001.0001>
- Grossman, G.M., and A.B. Krueger (1995). 'Economic Growth and the Environment'. *The Quarterly Journal of Economics*, 110(2): 353–77. <https://doi.org/10.2307/2118443>
- Guzman, M., and D. Heymann (2015). 'The IMF Debt Sustainability Analysis: Issues and Problems'. *Journal of Globalization and Development*, 6(2): 387–404. <https://doi.org/10.1515/jgd-2015-0034>
- Humphrey, C. (2022). *Financing the Future: Multilateral Development Banks in the Changing World Order of the 21st Century*. Oxford: Oxford University Press. <https://doi.org/10.1093/oso/9780192871503.001.0001>
- IEG (Independent Expert Group) (2024). *Tackling the Vicious Circle: The Interim Report of the Expert Review on Debt, Nature & Climate*. London: ODI Global.
- IIED (International Institute for Environment and Development) (2023). 'Hidden Handbrakes: Tracking the Invisible Barriers Slowing Climate Action'. Climate Week NYC side event, 22 September. Available at: www.iied.org/hidden-handbrakes-tracking-invisible-barriers-slowing-climate-action (accessed 5 February 2025).
- IMF (2025). *World Economic Outlook Database*. Washington, DC: IMF.
- IPCC (2023). *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Geneva: IPCC.
[10.59327/IPCC/AR6-9789291691647](https://www.ipcc.ch/report/sr15/)
- Kentikelenis, A.E., and T. Stubbs (2023). *A Thousand Cuts: Social Protection in the Age of Austerity*. Oxford: Oxford University Press. <https://doi.org/10.1093/oso/9780190637736.001.0001>
- Kenworthy, P., M.A. Kose, and N. Perevalov (2024b). 'A Silent Debt Crisis Is Engulfing Developing Economies with Weak Credit Ratings'. World Bank Blogs, 8 February. Available at: <https://blogs.worldbank.org/en/voices/silent-debt-crisis-engulfing-developing-economies-weak-credit-ratings> (accessed 10 March 2025).
- Kharas, H., and C. Rivard (2022). 'Debt, Creditworthiness, and Climate: A New Development Dilemma'. Working Paper 180. Washington, DC: Brookings Institution.
- Kindleberger, C. (1958). *International Economics*. Homewood, IL: Richard D. Irwin Publishers.
- Kindleberger, C. (1984). 'An Explanation of the 1929 Depression'. In *The World in Depression*. Berkeley: University of California Press.
- Korinek, A. (2011). 'The New Economics of Prudential Capital Controls: A Research Agenda'. *IMF Economic Review*, 59(3): 523–61. <https://doi.org/10.1057/imfer.2011.19>
- Maldonado, F., and K.P. Gallagher (2025). *Climate Vulnerability and Demand for IMF Resources*. Boston, MA: Boston University Global Development Policy Center.
- Mariotti, C., R.K. Kozul-Wright, R.R. Bhandary, and K.P. Gallagher (2025). *Blending from the Ground Up: Multilateral and National Development Bank Collaboration to Scale Climate Finance*. Boston, MA: Boston University Global Development Policy Center
- Mehrling, P. (2013). 'The Inherent Hierarchy of Money'. In L. Taylor, A. Rezai, and T. Michl (eds), *Social Fairness and Economics: Economic Essays in the Spirit of Duncan Foley*. New York: Routledge.
- Merling, L. (2022). 'No Voice for the Vulnerable: Climate Change and the Need for Quota Reform at the IMF'. GEGI (Global Economic Governance Initiative) Working Paper 057. Boston, MA: Boston University Global Development Policy Center.
- Mitchener, K.J., and C. Trebesch (2023). 'Sovereign Debt in the Twenty-first Century'. *Journal of Economic Literature*, 61(2): 565–623. <https://doi.org/10.1257/jel.20211362>
- Mühlich, L., and M. Zucker-Marques (2023). 'Closing the Global Crisis Finance Gap'. GEGI Policy Brief 025. Boston, MA: Boston University Global Development Policy Center.
- Mühlich, L., B. Fritz, and W. Kring (2023). 'Inequities in Access to Crisis Finance for Low- and Middle-Income Countries Persist: Insights from the Updated Global Financial Safety Net Tracker'. Available at: www.bu.edu/gdp/2023/12/11/inequities-in-access-to-crisis-finance-for-low-and-middle-income-countries-persist-insights-from-the-updated-global-financial-safety-net-tracker (accessed 25 February 2025).
- NGFS (Network for Greening the Financial System) (2022). *NGFS Scenarios for Central Banks and Supervisors*. NGFS. Available at: www.ngfs.net/sites/default/files/medias/documents/ngfs_climate_scenarios_for_central_banks_and_supervisors_.pdf (accessed 25 February 2025).

- Ocampo, J.A. (2017). *Resetting the International Monetary (Non)System*. Oxford: Oxford University Press. <https://doi.org/10.1093/oso/9780198718116.001.0001>
- OECD (2024). 'OECD.Stat'. Available at: <https://data-viewer.oecd.org/?chartId=7bfd1a94-08d5-4aa1-9c0c-225528fc38e7> (accessed 25 February 2025).
- Panizza, U., F. Sturzenegger, and J. Zettelmeyer (2009). 'The Economics and Law of Sovereign Debt and Default'. *Journal of Economic Literature*, 47(3): 651–98. <https://doi.org/10.1257/jel.47.3.651>
- Raga, S. (2024). *An Appraisal of Debt Sustainability Analyses amid Multiple Crises*. London: Overseas Development Institute.
- Ramachandran, V., and S. Morris (2023). *How Does the World Bank Spend Its Climate Money?* Washington, DC: Center for Global Development.
- Ramos, L., K.P. Gallagher, C. Stephenson, and I. Monasterolo (2022). 'Climate Risk and IMF Surveillance Policy: A Baseline Analysis'. *Climate Policy*, 22(3): 371–88. <https://doi.org/10.1080/14693062.2021.2016363>
- Ranger, N., J. Alvarez J., A. Freeman, T. Harwood, M. Obersteiner, E. Paulus, and J. Sabuco (2023). 'The Green Scorpion: The Macro-Criticality of Nature for Finance'. NGFS Occasional Paper, 13 December. Foundations for scenario-based analysis of complex and cascading physical nature-related risks. Oxford: Environmental Change Institute, University of Oxford.
- Ray, R., and W. Kring (2022). "Keep the Receipts": The Political Economy of IMF Austerity during and after the Crisis Years of 2009 and 2020'. *Journal of Globalization and Development*, 13(1). <https://doi.org/10.1515/jgd-2021-0014>
- Rey, H. (2015). 'Dilemma Not Trilemma: The Global Financial Cycle and Monetary Policy Independence'. NBER Working Paper 21162. Cambridge, MA: National Bureau of Economic Research (NBER). <https://doi.org/10.3386/w21162>
- Rhodium Group (2023). 'The Rhodium Climate Outlook'. Available at: <https://climateoutlook.rhg.com> (accessed 25 February 2025).
- Rodrik, D., and R. Hausmann (2006). 'Doomed to Choose: Industrial Policy as Predicament'. Paper prepared for the first Blue Sky seminar, Center for International Development, Harvard University, 9 September. Available at: <https://drodrik.scholar.harvard.edu/sites/scholar.harvard.edu/files/dani-rodrik/files/doomed-to-choose.pdf> (accessed 10 March 2025).
- Songwe, V., N. Stern, and A. Bhattacharya (2022). *Finance for Climate Action: Scaling Up Investment for Climate and Development*. London: London School of Economics. Available at: www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/11/HLEG-Finance-for-Climate-Action-1.pdf (accessed 10 March 2025).
- Steinwand, M.C., and R.W. Stone (2008). 'The International Monetary Fund: A Review of the Recent Evidence'. *The Review of International Organizations*, 3: 123–49. <https://doi.org/10.1007/s11558-007-9026-x>
- Summers, L., and N.K. Singh (2023). *Strengthening Multilateral Development Banks: The Triple Agenda*. G20 Independent Experts Group on Strengthening MDBs. Washington, DC: Centre for Global Development. Available at: www.cgdev.org/publication/strengthening-multilateral-development-banks-triple-agenda (accessed 13 March 2025)
- Swedberg, R. (1986). 'The Doctrine of Economic Neutrality of the IMF and the World Bank'. *Journal of Peace Research*, 23(4): 377–90. <https://doi.org/10.1177/002234338602300406>
- Task Force (Task Force on Climate, Development, and the International Monetary Fund (2024). *Room to Grow: Integrating Climate Change in Debt Sustainability Analyses for Low-Income Countries*. Boston, MA: Boston University Global Development Policy Center.
- Thacker, S. (1999). 'The High Politics of IMF Lending'. *World Politics*, 52(1): 38–75. <https://doi.org/10.1017/S0043887100020025>
- UN (2023). *The State of Food Security and Nutrition in the World 2023*. Available at: <https://data.unicef.org/resources/sofi-2023> (accessed 10 March 2025).
- UN (2024). *Pact for the Future, Global Digital Compact, and Declaration on Future Generations*. New York: UN.
- UNCTAD (UN Trade and Development) (2023). *A World of Debt*. New York: UNCTAD.
- UNDESA (UN Department of Economic and Social Affairs) (2024). *Financing for Sustainable Development Report 2024: Financing for Development at a Crossroads*. Inter-agency Task Force on Financing for Development. New York: United Nations.
- UNDP (UN Development Programme) (2024). 'Debt in Developing Economies'. 27 March. Available at: <https://data.undp.org/insights/debt-in-developing-economies> (accessed 19 September 2024).

- Wang, Y., and Y. Xu (2024). 'Direct Impacts and Spatial Spillovers of Chinese Infrastructure Projects on Economic Activities in Sub-Saharan Africa'. Global China Initiative Working Paper 036. Boston, MA: Boston University Global Development Policy Center.
- World Bank (2024). *International Debt Report, 2024*. Washington, DC: World Bank. <https://doi.org/10.1596/978-1-4648-2148-6>
- World Bank (2025). 'World Development Indicators'. Available at: <https://databank.worldbank.org/source/world-development-indicators> (accessed 31 January 2025).
- Xu, J., and K.P. Gallagher (2022) 'Transformation towards Renewable Energy Systems: Evaluating the Role of Development Financing Institution'. *Studies in Comparative International Development*, 57: 577–601. <https://doi.org/10.1007/s12116-022-09375-8>
- Xu, J., R. Marodon, and X. Ru (2021). 'Mapping 500+ Development Banks: Qualification Criteria, Stylized Facts, and Development Trends'. New Structural Economics Development Financing Research Report 2. Beijing: Institute of New Structural Economics.
- Xu, Q., W. Xiong, J. Sun, Z. Chen, and J. Zhang (2024). *Productive Debt: China's Overseas Lending and Economic Growth in Developing Countries*. Beijing: Institute for World Economics and Politics.
- Zucker-Marques, M., and K.P. Gallagher (2024). 'Sustainable Future Bonds: Boosting Multilateral Development Banks Lending and Improving the Global Reserve System'. *Global Policy*, 15(1): 166–82. <https://doi.org/10.1111/1758-5899.13307>
- Zucker-Marques, M., L. Mühlich, and B. Fritz (2023). 'Unequal Access to the Global Financial Safety Net: An Index for the Quality of Crisis Finance'. Freie Universität Berlin. Available at: <https://refubium.fu-berlin.de/handle/fub188/38600> (accessed 25 February 2025).
- Zucker-Marques, M., U. Volz, and K.P. Gallagher (2023). *Debt Relief By Multilateral Lenders. Why, How and How Much?* Boston, MA: Boston University Global Development Policy Center; London: Centre for Sustainable Finance, SOAS; Berlin: Heinrich-Böll-Stiftung.
- Zucker-Marques, M., K.P. Gallagher, and U. Volz, with S. Akhtar, M.F. Espinosa, J. Haas, P. Njoroge, and B. Kenewendo (2024). *Defaulting on Development and Climate: Debt Sustainability and the Race for the 2030 Agenda and Paris Agreement*. Boston: Boston University Global Development Policy Center; London: Centre for Sustainable Finance, SOAS; Berlin: Heinrich Böll Foundation.