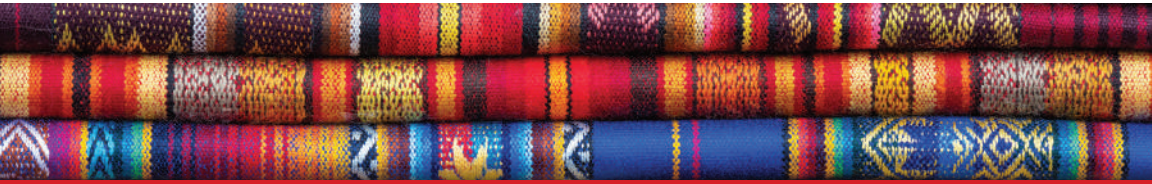
REBALANCING GLOBALIZATION

PERSPECTIVES *from the* GLOBAL SOUTH



Edited by ANIT MUKHERJEE *and* DHRUVA JAISHANKAR

REBALANCING GLOBALIZATION

Perspectives from the Global South

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ONE

Rebalanced Globalization and the Global South

ANIT MUKHERJEE *and* DHRUVA JAISHANKAR

1.1 Introduction: After the Washington Consensus

The phase of globalization that began after the Cold War and continued until at least the global financial crisis of 2008-09 might now be over. The operational framework for this period involved free markets, free trade, and the freer movement of capital and labor, facilitated by an open Internet-enabled information environment. Globalization of this kind was supposed to allow for an agglomeration of market economies that would remove barriers, thereby allocating resources more efficiently, stimulating economic growth, generating employment, and improving incomes and the standard of living globally.

This paradigm, sometimes described as the "Washington Consensus," is being challenged not only by the rising economic giant that is China and developing countries, collectively known as the Global South, but also by the very developed economies that spearheaded the globalization agenda. From the utopian vision of shared economic growth and prosperity that globalization was supposed to deliver, the prevailing sentiment is one of revisiting the terms of engagement, revising the rules, and refocusing on national priorities

such as securing access to basic commodities, upgrading skills, creating jobs, improving tax collection, increasing public investment, dealing with external shocks such as pandemics and climate change, and managing digital transformations. Indeed, concepts such as "deglobalization," "degrowth," and "geoeconomic fragmentation" are now central to discussions about the future of the global economy.[1]

How did this happen? One reason for the pushback is the realization that globalization created winners and losers, both within and across countries. Most of the world's poor today live in South Asia and Sub-Saharan Africa and the latter has seen an *increase* in the number of poor between 1990 and 2020. Indeed, the development agenda, currently encapsulated in the Sustainable Development Goals (SDGs), appears to have slowed. For example, life expectancy rose from 64 years to 69 around the world between 1990 and 2008 but have inched up to only 71 years since.[2] Similarly, global literacy increased from 68 percent for adults in 1990 to 83 percent in 2008 but has subsequently grown by just 4 percent.[3] While the liberalization of trade, investment, and markets created opportunities for many countries, some were left further behind.

At the same time, while international inequality might have declined, inequality *within* countries appears to have risen. Even in countries considered "winners" from globalization, some individuals and groups proved better able to take advantage of the new opportunities that a globalized world offered. This has contributed to a plateauing of globalizing trends, especially after the 2008-09 financial crisis. Global trade grew from 38 percent of the world econ-

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1. Shekhar Aiyar et al., "Geoeconomic Fragmentation and the Future of Multilateralism," International Monetary Fund, January 15, 2023, https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2023/01/11/Geo-Economic-Fragmentation-and-the-Future-of-Multilateralism-527266.

2. The World Bank, "World Development Indicators: Life expectancy at birth, total (years)," The World Bank, accessed on October 31, 2024, https://databank.worldbank.org/indicator/SP.DYN.LE00.IN/1ff4a498/Popular-Indicator.

3. The World Bank, "World Development Indicators: Literacy rate, adult total (% of people ages 15 and above)," The World Bank, accessed on October 31, 2024, https://databank.worldbank.org/source/world-development-indicators/Series/SE.ADT.LITR.ZS.

omy in 1990 to 61 percent in 2008 but only to 63 percent since.[4] Net foreign direct investment inflows surged from $239 billion to $2.4 trillion between 1990 and 2008 but declined to $1.79 trillion.[5] In addition, international migrants grew from 2.9 percent of the world's population to 3.2 percent over the same period then struggled to 3.3 percent.[6]

Moreover, markets alone proved unable to deal with disruptive challenges. These included climate change and its observable effects, especially on vulnerable populations; unsustainable debt and public finances; demographic crises; and the risks associated with unregulated digital transformations.[7] These were compounded by a return of geopolitical tensions. The U.S.-China trade war that followed Donald Trump's election as U.S. president and the Brexit referendum of 2016 were political in nature. But the added shocks of the COVID-19 pandemic after 2020 and Russia's invasion of Ukraine in 2022 also underscored the natural and security vulnerabilities of an interdependent world.

To be fair, the last three decades have seen a significant reduction in global poverty, increase in per capita incomes, improvement in school enrollment rates, and reduced infant and maternal mortality. Overall, there are an estimated 717 million people living in poverty in 2022 compared with over 2 billion in 1990.[8] There are some other upsides to globalization that are often less appreciated. Overall growth in the global economy has repeatedly rebounded, even if some of the benefits have escaped taxation, oversight, and

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4. The World Bank, "Trade (% of GDP)," The World Bank, accessed on October 31, 2024, https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS.

5. International Monetary Fund, "Foreign direct investment, net inflows (BoP, current US$)," International Monetary Fund, accessed on October 31, 2024, https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?end=2023&start=1990.

6. The World Bank, "International migrant stock (% of population)," The World Bank, accessed on October 31, 2024, https://databank.worldbank.org/source/jobs/Series/SM.POP.TOTL.ZS.

7. Mariana Mazzucato, "Governing the economics of the common good: from correcting market failures to shaping collective goals," Journal of Economic Policy Reform, December 4, 2023, https://doi.org/10.1080/17487870.2023.2280969.

8. The World Bank, "Poverty and Inequality Platform," The World Bank, accessed on October 30, 2024, https://pip.worldbank.org/home.

redistributive mechanisms: the world's per capita GDP has increased from about $13,600 to $17,500 since the global financial crisis.[9] Foreign direct investment to developing countries increased from $34 billion in 1990 to $916 billion in 2015.[10] There have also been dramatic increases in flows of information and communications technologies and know-how, facilitated by the remarkable diffusion of digital technologies globally. Breakthroughs in the commercialization and deployment of clean and green energy technologies have made some climate solutions—previously considered unviable—within reach. Global per capita emissions have remained mostly constant during the past fifteen years.[11]

While the recent sentiment around globalization is one of pessimism, there is an opportunity to build on the advances made over the last three decades. The world of today is much different from the early 1990s. The next phase of globalization needs to internalize the changing geo-economic as well as geopolitical realities. Much of the globalization over the last three decades was overseen by legacy institutions such as the United Nations, multilateral development banks, and bilateral aid, trade, and investment agencies dominated by developed economies. But now, China plays an increasingly important role in capital flows and foreign direct investment. Furthermore, others such as India and Brazil are increasingly demanding a greater role in defining the terms of globalization. With the emergence of technology as a driver for economic integration over the last two decades, global platforms originating in the United States and Europe have dominated the digital transformation. At the same time, the vast majority of users of digital technology live in the developing world, and the benefits of digital transformation will need to be shared globally.

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9. The World Bank, "GDP per capita, PPP (current international $)," The World Bank, accessed on October 31, 2024, https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD.

10. United Nations Trade & Development, "Global foreign direct investment flows over the last 30 years," United Nations Trade & Development, accessed on October 30, 2024, https://unctad.org/data-visualization/global-foreign-direct-investment-flows-over-last-30-years.

11. Emissions Database for Global Atmospheric Research, "Global Greenhouse Gas Emissions," Emissions Database for Global Atmospheric Research, accessed on October 31, 2024, https://edgar.jrc.ec.europa.eu/dataset_ghg80.

This volume is an attempt to provide a framework for the next phase of globalization, one that is rebalanced and sustainable and can address issues that matter for the Global South. The term "Global South" is a contested one but applies to countries with a historical experience of colonialism and belated economic development, which contributed to their underrepresentation at international governing institutions. With the rise of this diverse group of countries that represent the aspirations of the majority of the world's population, there is a need to rebalance the power dynamics and rules of engagement in global policy making. While the Global South represents a wide variety of political regimes and countries with very different levels of economic development today, they have shared concerns. These include inadequate institutional representation, which in turn affects solutions to debt management; dissatisfaction with climate finance and technology transfer; and insufficient attention paid by the international community to their energy, food, and health security concerns. Among many challenges, this volume focuses on three key policy objectives and three enabling instruments that can help rebalance—and thus further strengthen—globalization in the future.

1.2 Rebalancing Globalization: Objectives and Instruments

Proponents of globalization have sometimes conflated the *objectives* of globalization with the *instruments* to achieve them. For example, they have often argued for markets to take a leading role, effectively limiting the role of the government to macro-fiscal stability and addressing market failures when they arose. Similarly, reducing or removing barriers to trade was put forward as a way to allocate resources more efficiently to sectors where countries had comparative advantage, but proponents were often not clear as to whether free trade was an instrument to increase growth and employment or an objective in itself. In a similar vein, facilitating the free flow of capital, it was argued, would be instrumental to attracting foreign direct investment but sometimes without considering macroeconomic risks and limited payoffs.

As globalization progressed, these ideas became more entrenched in multilateral development banks, within multinational corporations, and among global financial investors. Warning signs of imbalances in the globalization framework—increased income inequality, deindustrialization, concentrations of trade and investment flows, skewed sources of greenhouse gases emissions—were sometimes ignored. The concerns of developing countries

were not always addressed by global institutions tasked with setting the rules and ensuring their compliance, such as the World Trade Organization (WTO).

But some of the objectives of globalization are still relevant for the Global South. These include 1) the need to foster economic growth and create quality employment with strong social protections, 2) greater export and investment opportunities, and 3) a transition to cleaner and greener energy sources to address climate change and increase energy security. To achieve these objectives, a business-as-usual approach will not work. The *instruments* of globalization will need to be reformed or replaced by new ones. These instruments include global institutions that are often holdovers from an earlier era, a reorientation of capital markets towards sustainable financing and investment flows, and policies that ensure that rapid technological advances and the ongoing digital transformation are inclusive and equitable.

Rebalancing the objectives and instruments of globalization, therefore, is essential to devise a pathway that would preserve and build upon the progress made over the last three decades while confronting the challenges facing the world today. The analytical framework of this edited volume addresses these objectives and instruments to arrive at recommendations to rebalance globalization from the perspective of the Global South. It is also an attempt to identify linkages between these instruments and objectives: for example, between growth and employment on the one hand and sustainable financing and investment on the other. Similarly, the reform of global institutions—and the possible creation of new ones—could be an instrument to focus more strongly on outcomes such as higher growth and employment generation, balanced trade, and secure supply chains.

1.3 A Summary of This Volume

This volume is intended to stimulate discussion by focusing on the three objectives and three instruments of rebalancing globalization, with particular emphasis on perspectives reflecting the Global South, including, but not limited to, India, Brazil, and South Africa. In Chapter 2, Alan Gelb and Pamla Gopaul address the need to refocus on growth, jobs, equity, and social protections. They note important income gains and declines in global poverty but also the unequal distribution and major imbalances across several dimensions of globalization, including incomes and living standards, demographics and jobs, emissions, technology, and financial flows. Multilateralism, they argue,

		Objectives		
		Economic growth, jobs, and social protections	**Trade and secure supply chains**	**Climate action and the energy transition**
Instruments	**Reform of global institutions**	Multilateral, regional, and sub-regional development banks, development cooperation	WTO reform, regional and bilateral trade and supply chain agreements, tariffs and subsidy coordination	Enforcement of global agreements (e.g., United Nations Framework Convention on Climate Change), multilateral development banks reform
	Sustainable financing and investment	Domestic resource mobilization, public investment, access to private capital, global tax and investment rules	New industrial policy, nearshoring, friendshoring	Fiscal policies, just energy transition partnerships, private capital flows
	Inclusive digitalization and technology	Connectivity; digital public infrastructure; Digital governance	Tech alliances, principles on digitalization of trade	Unified energy interface, energy subsidy reform through digital cash transfers

has emerged as an essential complement to globalization. Rebalancing globalization offers a powerful unifying theme for the Global South, countering the potential fracturing caused by powerful geopolitical forces. They consider how multilateral forums, particularly the G20, can promote more equitable and sustainable development by offering a platform for a unified voice from the Global South.

Marta Bengoa, in Chapter 3, examines new theories and trends around trade and supply chains. She argues that global trade faces significant challenges amid rising inflation, high interest rates, and geopolitical tensions. Growth in trade will, in the near term, be driven by emerging economies and sectors like solar panels, batteries, and artificial intelligence (AI) technology. The risk of de-globalization looms as countries implement industrial policies and trade restrictions, potentially further fragmenting the global economy.

In this context, the Global South must balance local resource development with global market participation, and in this new environment, the services sector emerges as a promising avenue for the Global South, representing almost 70 percent of the global gross domestic product on average. The services sector can offer opportunities for export-led growth and integration into global supply chains. For these opportunities to materialize, countries in the Global South need to strengthen local value chains and leverage regional trade agreements to enhance economic resilience and competitiveness. At the same time, developing economies will have to continue investing in education, improving infrastructure, encouraging technology transfers, and developing export-oriented industries that build on local strengths while meeting global demand.

In Chapter 4, Shayak Sengupta examines the massive climate and energy transition underway, including the role of finance and technology. Efforts to decarbonize energy systems and mitigate climate change hinge on the delivery of adequate finance to emerging markets and developing countries, where greenhouse gas emissions are set to rise. The prevailing paradigm to increase international climate finance, especially for large middle-income countries, has been to de-risk private investment, thereby reducing the cost of finance. Multilateral negotiations since the 1990s have codified agreements for poorer countries to access requisite climate technology or technology to mitigate or adapt to climate change.

However, many developing countries remain at a disadvantage in accessing technology needed to transition their economies. Increased high-level

calls for climate finance must have a stronger focus on increasing access to climate technology. Incorporating climate technology into climate finance efforts could help multilateral organizations better recognize and reduce technology risk, thereby increasing commercial viability for private sector investment in emerging markets. Likewise, a tighter coupling of climate finance and technology has the potential to create positive economic spillovers from innovation. This could ameliorate costs associated with increasing geopolitical and geo-economic fragmentation while enabling economic benefits from the energy transition.

Turning to the instruments for rebalancing globalization, Aude Darnal and Elizabeth Sidiropoulos address the need to reform global governance institutions, particularly by amplifying voices from the Global South. The imperative of reforming the global governance system is not new, but the pressure to reform has increased, as the collective strength of the Global South grows. The central precepts of global economic governance privileges traditional economic powers. While some reforms have taken place in recent years, the United States and Europe, which are the dominant powers in the International Monetary Fund and the World Bank, have not supported transformational change.

In its absence therefore, developing countries have explored establishing parallel institutions, such as the New Development Bank and informal groupings, such as BRICS. Moving forward will require either reforming existing institutions, strengthening alternative organizations and forums, or establishing entirely new institutions. In the short to medium term, the strengthening of parallel governance systems will be the most likely. However, to create a more equitable and effective multilateralism, building North-South coalitions among countries with similar principles and interests can be a powerful movement, as can South-South coalitions.

Udaibir Das and Veronica Jijon consider the role of sustainable finance in developing economies in Chapter 6. They delve into the complexities of implementing sustainable finance in low- and middle-income economies (LMIEs), emphasizing the critical need for policy reforms to redirect sustainable finance flows. Sustainable finance has evolved into a powerful movement over the past decade, encompassing investing in green energy and supporting socially responsible businesses and enterprises. While some progress is evident, LMIEs are initiating several sustainable finance measures independently but face significant institutional capacity constraints. A more robust and collec-

tive effort at the international level is urgently required for sustainable finance to effectively aid LMIEs in building resilience to climate change and achieving the SDGs. The chapter concludes with actionable recommendations to guide policy interventions, asserting that the benefits of sustainable finance must be equitably distributed to ensure fairness and social justice.

Finally, in Chapter 7, Anit Mukherjee and Lorrayne Porciuncula examine the possibilities enabled by inclusive digitalization to accelerate cooperation with and within the Global South. They critically examine the intersection of globalization and digitalization, emphasizing both the opportunities and the significant imbalances they create. They also trace the evolution of global communication technologies and the institutional frameworks that govern the digital economy, revealing how developed nations have historically dominated agenda-setting in global digital governance.

In addition, they highlight the rise of powerful private tech giants and the increasing concentration of digital markets. These divides manifest in unequal access to meaningful connectivity, digital skills, and investment, as well as imbalances in data accessibility, quality, and monetization. Countries like India, Brazil, and South Africa are starting to push for frameworks on digital sovereignty, digital public infrastructure, and inclusive AI to reshape the global digital architecture. They conclude by advocating for greater participation from the Global South in shaping global digital policies, including by leveraging international frameworks like the Global Digital Compact and fora such as the G20 to build coalitions and promote an inclusive and equitable digital future.

1.4 Conclusion: Deepening South-South Cooperation

For major global economies and institutions, the path forward will not be easy. It will require carefully navigating politics, geopolitics, growth, inequality, new technologies, and an energy transition, all amid great uncertainty and contested perspectives. As a first step, distinguishing between the objectives of a rebalanced globalization (sustainable economic growth and development, sustainable trade and investment, and sustainable energy policies) and the paths to their achievement (institutional reforms, sustainable finance, and digitalization) can offer greater clarity to policymakers.

But more specifically, what can the countries of the Global South do to

advance their shared agenda? First, focus their instruments on core agenda items. These might include fiscal health; climate justice; energy, food, and health security; and education. This can only be done by employing their collective political leverage to mitigate market risk and alter institutional mandates which, in turn, can only be done by increasing South-South cooperation and clustering within regions as blocs. For example, the African Union or Mercosur as a bloc carries much more weight than individual countries in Africa or South America. Even barring such consensus, regional groupings in Southeast Asia, West Africa, or the Caribbean can help create greater leverage. South-South cooperation is also an opportunity to share lessons learned and best practices.

To start, the major G-20 economies of the Global South—India, Brazil, and South Africa (IBSA) and possibly Indonesia, Mexico, and Saudi Arabia—could consider exploring agreements to improve market access, labor mobility, investment, and taxation. The need for such cooperation has been further exacerbated by China's rise, both as an economic competitor for some of these countries and because of its evolution into a major global creditor. In practical terms, China has opposed calls by some developing countries for "decent work" commitments in the G-20, and its initiatives, including the Asian Infrastructure Investment Bank, BRICS, and Belt and Road Initiative, have often prioritized national objectives over collective concerns of the Global South. Even at the United Nations, where China is a permanent member of the Security Council, institutional reform that benefits the Global South has been held up by Beijing. For these reasons, accelerating South-South cooperation, initially through a revitalized IBSA, and possibly involving other large developing economies, represents the best path forward for the Global South to salvage globalization in the 21st century.

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The World Bank, "World Development Indicators, Literacy rate, adult total (% of people ages 15 and above)," The World Bank, accessed on October 31, 2024, https://databank.worldbank.org/source/world-development-indicators/Series/SE.ADT.LITR.ZS.

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TWO

Growth, Jobs, Equity, and Social Protection

ALAN GELB *and* PAMLA GOPAUL

Summary

The world is well into, if not in the wake of, a phase of globalization that traces its origins to World War II. This period has seen important income gains and declines in global poverty, but benefits have been unequally distributed, with major imbalances across several dimensions of globalization, including incomes and living standards, demographics and jobs, emissions, technology, and financial flows. Multilateralism has emerged as an essential complement to globalization: multilateral institutions provide forums and frameworks for countries to cooperate and coordinate policies, thereby reducing the risks of unilateral actions that could undermine the benefits of globalization. Rebalancing globalization offers a powerful unifying theme for the Global South, countering the potential fracturing caused by powerful geopolitical forces. This paper considers how multilateral forums, particularly the G20, can promote more equitable and sustainable development by offering a platform for a unified voice from the Global South.

2.1 The Complementarity of Globalization and Multilateralism

Globalization can be defined as the interdependence of nations and economies, characterized by the trade of goods and services and flows of investment, people, technology, and information. Globalization extends beyond economics, to include social and cultural exchange. In the current phase, numerous independent nations have emerged, and previously isolated China and the successor states of the Soviet Union have joined the global economy. Trade restrictions and limitations on capital movements and business have eased in most areas, strengthening competition and leading to increases in trade openness and foreign direct investment (FDI) flows. Global remittances have soared; there have been dramatic increases in flows of information, technology, and know-how, as well as social and cultural globalization. However, labor mobility has remained relatively restricted compared to earlier phases of globalization, limiting the potential for a truly global labor market and the full realization of economic integration benefits.

Multilateralism, defined as cooperation among multiple countries, has played a crucial complementary role by promoting mutual interests, creating frameworks for trade agreements, and supporting peace and stability. Many organizations have emerged as pillars of cooperation, governance, and standard-setting, including the General Agreement on Tariffs and Trade and World Trade Organization, the International Organization for Standardization, the International Civil Aviation Organization, the International Organization for Migration, and the Multilateral Development Banks (MDBs) and International Monetary Fund. These legacy institutions are vital in our interconnected world. As former United Nations secretary-general Kofi Annan noted, "No State, however powerful, can protect itself on its own."[1] The proliferation of networked global markets, advancements in communications, and the increased role of non-state actors underscore the need for greater international collaboration to tackle global issues. Multilateral institutions provide forums and frameworks for countries to cooperate and coordinate policies,

1. Kofi Annan, "In Larger Freedom: Decision Time at the UN," Report of the Secretary-General, April 25, 2005, https://www.un.org/sg/en/content/sg/articles/2005-04-25/larger-freedom-decision-time-un.

thereby reducing the risks of unilateral actions that could undermine the benefits of globalization.

Globalization is much debated, in particular along the "states versus markets" dimension, although the two should be seen as complementary in its modern version. Supporters highlight the successes of a market-based regime as encouraging competition and efficiency gains, which have underpinned rising global income and falling poverty rates. Indeed, there have been impressive achievements: World gross domestic product (GDP) rose from $10 trillion (2017 international dollars) in 1950 to $97 trillion by 2016 resulting in a 4.4-fold increase in gross national product (GNP) per capita.[2] These are significant gains in historical context. High growth has led to massive poverty reduction, most notably in China. However, global inequality remains very high, with the absolute income gains of the wealthy dwarfing those of the poor.

Critics of globalization point to financial and other market failures, power asymmetries, vulnerable supply chains, environmental degradation and the effect of global competition in spurring a regulatory race to the bottom. They argue that there has been confusion between seeing globalization as an instrument to raise living standards, and seeing it as an end in itself, to the detriment of recognizing the essential and complementary roles of nation-states and the capabilities required to execute them.[3] Even successful globalization may not work in the same way as in the past; advances in labor-saving technology, including prospectively artificial intelligence (AI), suggest that rapid growth of labor-intensive manufactured exports will not provide a robust ladder for today's poor countries. The world is in search of a "new model" to spur rapid economic growth in poor and middle-income countries, likely involving a wider range of resource-based and processed exports, as well as tradeable services.

However, even when recognizing the challenges and limitations of global-

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2. Max Roser, "Which countries achieved economic growth? And why does it matter?" Our World in Data, June 25, 2019, https://ourworldindata.org/economic-growth-since-1950.

3. Dani Rodrik, "The Trouble with Globalization," Milken Institute Review, October 20, 2017, https://www.milkenreview.org/articles/the-trouble-with-globalization.

ization, it is difficult to imagine continued progress in growth and poverty reduction if it were to be substantially reversed. Most countries are heavily dependent on export markets and global capital flows. Considering African countries, for example, Nigeria (hydrocarbons), Kenya (technology and innovation), Ethiopia (resource-based products and garments), or South Africa (minerals and manufactures), a substantial reversal in access to global markets and investment would have serious consequences.

With the rise in strategic competition between major players and populist pressures to protect "good jobs," the risk of reversal is not small. The World Bank reports that trading nations implemented more than 700 restrictions on merchandise trade and nearly 160 barriers to service trade in 2024, with restrictions more than doubled since before the pandemic. It notes that if the world becomes stuck in the slow lane, those especially likely to suffer are the 40 percent of developing countries at risk of a debt crisis, which would also risk losing out on trade gains as larger economies turn inward.[4]

2.2 Emerging Imbalances

The current phase of globalization has indeed been marked by substantial imbalances:

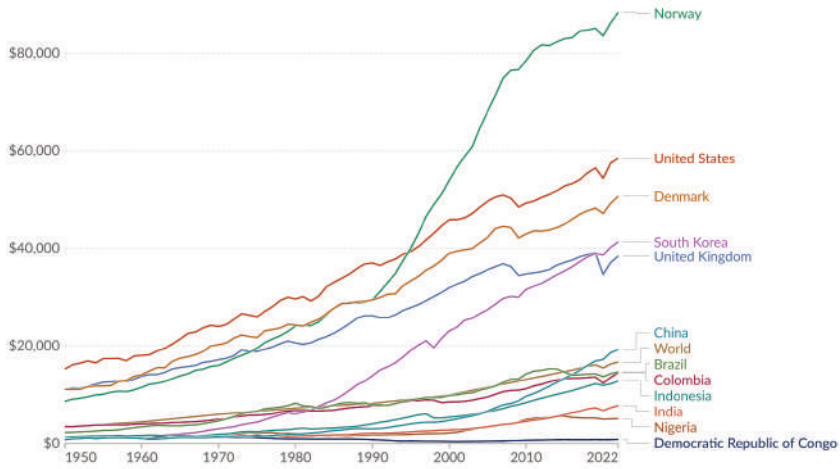
Incomes, Productivity, and Economic Complexity. Countries like South Korea, Taiwan (China), Japan, Singapore, China, Thailand, Romania, Oman, Mongolia, and Equatorial Guinea saw over 15-fold increases in GNP per head in 1950 to 2016, driven by rapid export growth of manufactures or natural resources. In contrast, many African countries experienced low or negative increases in real GNP/head, with persistent income poverty.[5] Most Latin American countries grew around the world average, but those rates have deteriorated in recent years.

Complementing variations in growth, globalization has also seen large cross-country differences in the evolution of economic complexity, a measure

4. David Lynch, "Surprising U.S. economy is powering better global outlook, World Bank says," *Washington Post*, June 11, 2024, https://www.washingtonpost.com/business/2024/06/11/world-bank-us-economy/.

5. Roser, "Which countries achieved economic growth? And why does it matter?"

FIGURE 1 GDP per Capita (1950 to 2022)



Source: Bolt and van Zanden, "GDP per capita - Maddison Project Database," Our World in Data (data adjusted for inflation and difference in the cost of living between countries), accessed on October 2, 2024, https://ourworldindata.org/grapher/gdp-per-capita-maddison.

of the state of productive knowledge.[6] Some, like South Korea, China, and India have made massive gains. Others, like Brazil, South Africa, and Kenya, have fallen behind. Countries have diverged in their capacity to engage in a globalizing world marked by rapid technology advances. Tracking thirty countries, the Africa Transformation Index finds no overall gains over from 2000 to 2020 in diversification and the competitiveness of non-extractive industries—despite the rich potential of these countries.[7]

A focus on growth rates obscures the picture of how actual income levels have diverged. Between 1950 and 2016, average per head income increased by about $11,000 (international dollars). A high-income country like Denmark

6. Harvard Growth Lab, "Country & Product Complexity Rankings," Harvard Growth Lab, accessed on October 2, 2024, https://atlas.cid.harvard.edu/rankings.

7. African Center for Economic Transformation, "African Transformation Index 2023," African Center for Economic Transformation, 2023, https://acetforafrica.org/ati/.

growing at close to the world average saw an increase of $36,500. For India, incomes increased by $4,480. In Rwanda and Ethiopia, the increase was around only $1,100; in Malawi, incomes remained almost unchanged; in the Central African Republic, they fell by $600. With generally modest growth convergence, wealthy countries with initially stronger, better-prepared economies, have typically seen absolute income gains that are multiples of those in low-income countries.

Social Indicators. Social indicators continue to show large disparities, despite some signs of convergence. Globally, life expectancy has increased from 46.5 years in 1950 to 72 years in 2021, but the gap between Europe and Africa still stood at 15.5 years.[8] The percentage of the world's population with at least some formal education rose from 49 percent in 1950 to 86.3 percent by 2020. Nevertheless, of the world's 787 million school-age children, some 58.4 million do not go to school. Many children learn very little even if they have been enrolled in school, especially in low-income countries. The share of 10-year-old children who cannot read and understand a simple text is estimated at 53 percent in low- and middle-income countries and over 80 percent in low-income countries.[9] Cultural differences significantly affect education; language barriers hinder learning, especially if educators are not equipped to support students not fluent in the language of instruction. Cultural biases in curricula can limit the relevance of educational content for students from diverse backgrounds.[10] Culturally competent teaching practices and curricula can help bridge educational gaps and promote more equitable learning outcomes.

Demographics and Jobs. As global GDP growth has been unbalanced in one direction, population growth has been unbalanced in the other. Globally, the

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8. Saloni Dattani et al., "Life Expectancy," Our World in Data, 2023, https://ourworldindata.org/life-expectancy.

9. The World Bank, "The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19," The World Bank, 2021,https://documents1.worldbank.org/curated/en/456901600111156873/pdf/The-Human-Capital-Index-2020-Update-Human-Capital-in-the-Time-of-COVID-19.pdf.

10. Anitre Bell, "How Cultural Differences Impact Education," Cengage, January 6, 2023, https://blog.cengage.com/how-cultural-differences-impact-education/.

total fertility rate has declined from 3.2 in 1990 to 2.3, close to replacement level. Populations are falling more rapidly than expected in many aging high- and middle-income countries, shrinking the working-age cohort; thirty-nine countries and territories are projected to have smaller populations in 2050.[11] Conversely, with still-high birth rates and high demographic momentum, many poor countries continue to see high rates of population growth, particularly in working-age cohorts—a "demographic dividend" for the global economy but only if there are sufficient opportunities to productively employ this growing workforce.

With lagging labor mobility and large labor productivity differences between wealthy and poor countries, international migration, both permanent and through temporary worker visa programs, offers a major potential source of income growth. Estimates in 2016 placed the productivity difference of a worker at over $13,700, indicating a significant productivity gap between workers in Mexico and the United States.[12] This increases the importance of measures to help the global economy to derive win-win benefit from its labor resources.

With continued labor-saving technical change, "good jobs" have emerged as a major concern. Around 60 percent of workers are in the informal economy, typically with little job security or benefits, and their numbers are likely increasing. In addition to the distributional and social implications, high levels of informality are associated with low productivity, posing a threat to continuing growth in the future. Adding to the challenge, the number of forcibly displaced people has increased threefold over the last three decades, rising to 120 million by 2024, including 43 million refugees.[13]

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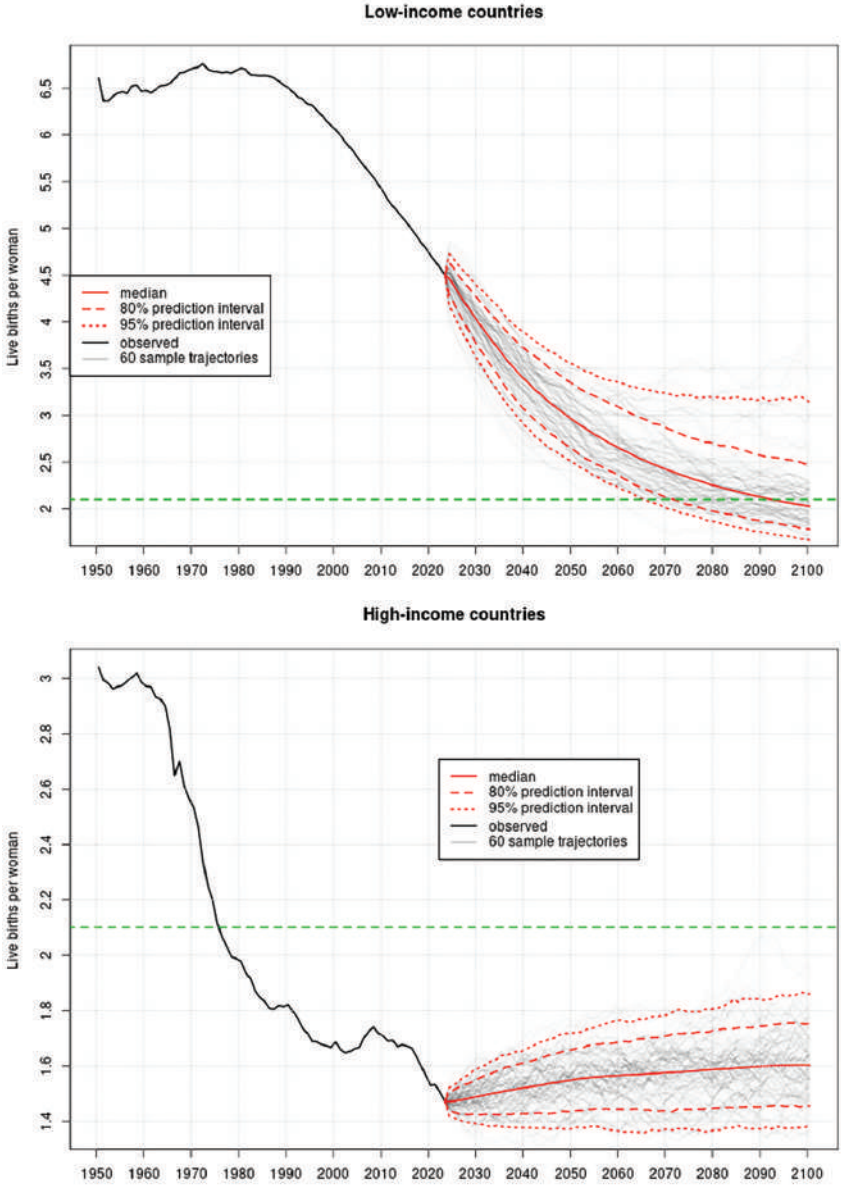
11. Population Reference Bureau, "2021 World Population Data Sheet," Population Reference Bureau, August 2021, https://www.prb.org/wp-content/uploads/2021/08/letter-booklet-2021-world-population.pdf.

12. Michael Clemens, Claudia Montenegro, and Lant Pritchett, "Bounding the Price Equivalent of Migration Barriers," Center for Global Development Working Paper 428, June 2016, https://www.cgdev.org/sites/default/files/Clemens-Montenegro-Pritchett-Price-Equivalent-Migration-Barriers_CGDWP428.pdf.

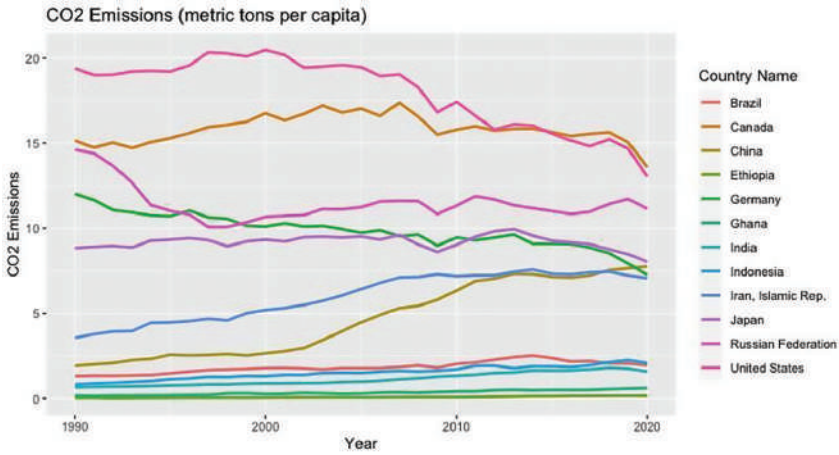
13. European Commission, "Forced Displacement," European Commission, May 2024, https://civil-protection-humanitarian-aid.ec.europa.eu/what/humanitarian-aid/forced-displacement_en.

FIGURE 2 Fertility Rates—Low-Income and High-Income Countries



Source: United Nations Department of Economic and Social Affairs (DESA), Population Division, "World Population Prospects 2024," United Nations, DESA, Population Division, accessed on October 2, 2024, https://population.un.org/wpp/.

FIGURE 3 CO_2 Emissions per Capita (1990 to 2020)



Source: Author's creation using Climate Watch, "Historical GHG Emissions" data, accessed on October 2, 2024, https://www.climatewatchdata.org/ghg-emissions?end_year=2021&start_year=1990.

Emissions. The global community is seriously offtrack in its commitment to contain emissions. Lower-income countries, often in tropical latitudes, are particularly vulnerable. The problem is complicated by the vast imbalance between emissions per head in wealthy and poor countries; the 2021 difference between the United States and Ethiopia was 83 to 1.[14] Global equity demands space for emissions growth as poor countries strive to raise income levels and living standards, which increases the urgency of reducing them in wealthy ones. Poor countries, which have contributed minimally to carbon dioxide (CO_2) buildup, should not bear the financial burden of climate mitigation and can reasonably expect financial assistance to adapt to climate changes they did not cause.

Technology. While digital technology creates new opportunities, it also exacerbates global imbalances. Investments and capabilities are heavily concentrated

14. European Commission, "CO_2 Emissions of all World Countries," EDGAR—Emissions Database for Global Atmospheric Research, 2022, https://edgar.jrc.ec.europa.eu/report_2022.

in a few wealthy countries, and technology increasingly shifts production away from labor, which is the most abundant resource in poor countries. The rise of the "gig" economy disrupts employment patterns, leading to greater informality. Tax equity is challenged as technology-based companies shift their tax bases to low-tax jurisdictions away from poorer countries where they operate. Additionally, emerging AI systems are biased towards the norms and societies of wealthier regions and large countries, which offer easier access to data for training.

Financial Flows. While the world has seen increased FDI, much of this has gone to fewer, relatively established markets, leaving many countries little served, except occasionally for investments in natural resource extraction. Tax havens increase the incentives for profit shifting, and illicit flows from countries that desperately need fiscal space, with financial outflows exceeding inflows for some low-income regions. These countries are, at the same time, often the most vulnerable to reverse flows impelled by tightened monetary policies in wealthy countries seeking to dampen inflation, or food and fertilizer shocks, such as those stemming from the Russia-Ukraine conflict. With fiscal positions weakened by the COVID-19 pandemic, many poor countries are in, or at high risk of, debt distress.

2.3 A Rebalancing Agenda for the Global South

Rebalancing globalization offers a powerful unifying theme for the Global South, countering the potential fracturing caused by powerful geopolitical forces. How well it can build on this agenda is still undetermined, as is the question of which multilateral forums will offer the best platform for this endeavor.

The dimensions of imbalance offer a rich menu of policy objectives for Southern countries.

On trade, developing countries should reaffirm the importance of market access. With the weakening of the traditional growth model based on manufactured exports, this will need to involve a wider range of goods and services than in the past, including agricultural and processed commodities and a range of traditional tradeable services plus others recently facilitated by digital technology. Advocacy for open trade needs to be complemented by the continuing need to support the poorest countries through schemes like the

African Growth and Opportunity Act (AGOA), for example, where concern has been expressed over the erosion of the value of preferences by the general reduction in trade barriers. One approach could involve "aid for trade" by offering a negative tariff on exports from poor countries. In addition, the structure of preferences, notably rules of origin, should consider the aspirations of developing countries to widen and deepen their own economic space, as through the African Continental Free Trade Area.[15]

As affirmed by the 2023 India Summit: "No country should have to choose between fighting poverty and fighting for our planet."[16] Commitments to additional climate finance should not come at the expense of continuing financing for sustainable and equitable development. It is not clear that the overall aid envelope has increased sufficiently to fully fund both priorities, or that climate finance is "new and additional."[17] These areas need to be continually monitored by the Global South.

Looming demographic imbalances increase the importance of avenues for safe and legal migration—a lagging component of globalization and one with major potential to raise global incomes. The Southern agenda should include reforming visa rules and processing, as well as portability of benefits and social security and pension rights.[18] Skill partnerships offer an approach to ensure that migration does not unduly penalize host countries and that

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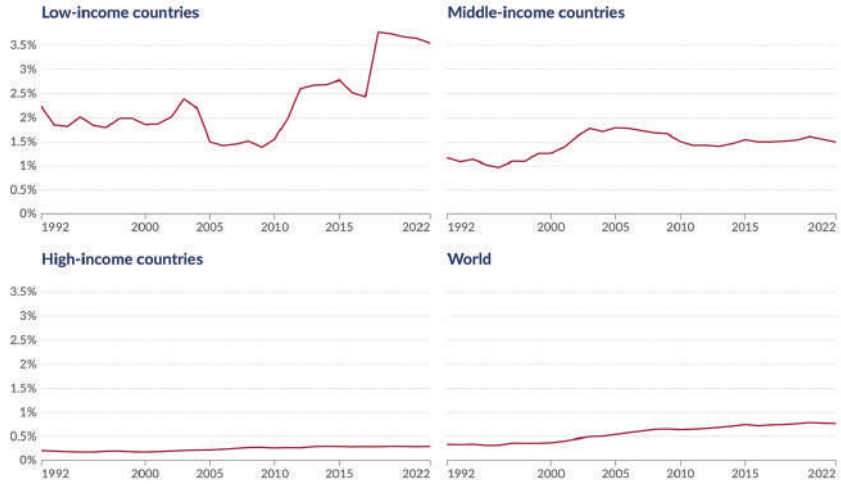
15. Justin Sandefur and Arvind Subramanian, "Long Distance Industrial Policy for Africa," Center for Global Development Working Paper 689, April 2, 2024, https://www.cgdev.org/publication/long-distance-industrial-policy-africa.

16. "G20 New Delhi Leaders' Declaration," Ministry of External Affairs Government of India, September 9-10, 2023, https://www.mea.gov.in/Images/CPV/G20-New-Delhi-Leaders-Declaration.pdf.

17. Mark Miller et al., "Where has the Money Come from to Finance Rising Climate Ambition?" ODI Emerging Analysis, March 2023, https://media.odi.org/documents/DPF_EA_Where_has_the_money_come_from_to_finance_rising_climate_ambition_UEXBuVX.pdf.

18. International Labour Organization and Organization for Economic Co-operation and Development, "Promoting adequate social protection and social security coverage for all workers, including those in non-standard forms of employment," International Labour Organization and Organization for Economic Co-operation and Development, February 2018, https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@dgreports/@inst/documents/publication/wcms_646044.pdf.

FIGURE 4 Remittances Flows as Share of GDP Over the Last 30 Years



Source: Multiple sources compiled by the World Bank, "Migration, Refugees, and Asylum Seekers Data Explorer," Our World in Data, accessed on October 2, 2024, https://ourworldindata.org/explorers/migration?tab=chart&facet=entity&country=OWID_WRL~Low-income+countries~Middle-income+countries~High-income+countries&Metric=Remittances+as+share+of+GDP&Period=Total+number&Sub-Metric=Total&Age=All+ages.

migrant workers can participate productively in their new country of work.[19] Remittances to low- and middle-income countries now exceed FDI and official development assistance flows to these countries; the Southern agenda can include measures to reduce their costs, which are still high for some corridors.

In addition to global financial stability, the Southern agenda can focus on encouraging productive financial flows to poorer countries and reducing reverse flows from illicit transactions and profit shifting. This includes pressing for greater leverage of official finance through guarantees and similar instruments, an area where performance has been disappointing but where major commitments have been made by MDBs and other development agencies. To

19. Michael Clemens, "Global Skill Partnerships: A Proposal for Technical Training in a Mobile World," Center for Global Development, Policy Paper 040, May 2014, https://www.cgdev.org/sites/default/files/clemens%20global%20skill%20partnerships%20cgd%20web.pdf.

reduce unproductive outflows, measures can include following up on commitments to crack down on the use of tax havens and supporting the Organization for Economic Co-operation and Development two-pillar framework for international taxation.[20]

India's G20 presidency marked heightened Southern concern to harness the potential of digital technology for equitable and sustainable economic and social development, including providing digital public infrastructure. This is an area where there is much capability in the Global South.[21] Such efforts are needed to counter the agglomeration forces from economies of scale and network externalities that will otherwise lead to dominance by a few large companies and countries. At the same time, bridging the digital divide includes other steps to increase access and digital literacy, including for women and other marginalized groups. These and related areas need continued and focused attention from the global community.

2.4 Can New Forums Like the G20 "Rebalance Multilateralism"?

As previously noted, many multilateral organizations have emerged during the current phase of globalization. While Southern countries are represented in legacy organizations, there is a continued sense that this has not sufficiently provided for their perspectives and interests. In addition to efforts to improve representation and voice in "legacy institutions," initiatives to "rebalance multilateralism" have included creating new organizations, such as the G20. Can a forum like the G20—in collaboration with other global organizations—play a constructive role in rebalancing both globalization and multilateralism?

The early focus of the G20 was on the coordination of policy to resolve and mitigate financial crises. Following the 2021 Rome Summit, the 2022 Bali Summit, and India's 2023 presidency, all have consolidated its major focus as sustainable and equitable economic and social global development. This focus

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20. Organization for Economic Co-operation and Development, "Base Erosion and Profit Shifting," Organization for Economic Co-operation and Development, July 2022, https://www.oecd.org/tax/beps/faqs-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-july-2022.pdf.

21. Indian G20 Presidency, "G20 New Delhi Leaders' Declaration," Ministry of External Affairs Government of India, September 9-10, 2023, https://www.mea.gov.in/Images/CPV/G20-New-Delhi-Leaders-Declaration.pdf.

will be further buttressed by the 2024 presidencies of Brazil and the 2025 presidency of South Africa. While there is always a trade-off between inclusivity and coherence, African Union (AU) membership has expanded the representation of low-income countries to complement the existing membership of high- and middle-income countries, turning the G20 into a truly global forum and strengthening its ability to seek representative solutions to many global problems.

In the face of serious fragmentation risks from rising strategic competition and tension between major players, the focus on development offers a vital opportunity for the Global South to seek common ground on issues of concern to all its nations—even as it copes with large differences across the developing world. China has emerged as a major creditor to debt-distressed countries, and, together with other Asian countries, constitutes the major competitor for low-income regions, such as Africa, seeking to break into global markets for manufactured goods. Southern G20 members will face complex trade-offs, even as they focus on reducing global imbalances between the traditional "North" and "South."

Another consideration for the G20—recognizing that it is not an implementing organization—is how to approach the relative roles of states and markets. As noted by critics of globalization, nation-states play an essential role in a globalized world economy, providing platforms for people and businesses to participate—including security, rule of law, infrastructure, and social protection.[22] Some aspects of globalization can exacerbate the difficulties of nation-states—such as erosion of the tax base by corporate profit-shifting to low-tax jurisdictions—but many governance and capacity shortcomings derive from internal political dynamics and deeply rooted social legacies.[23] It may not be fair to assign globalization as the prime culprit, but neither is it realistic to consider a revived and rebalanced globalization as the panacea for internal governance, policy, and management failures. National governments cannot shelter behind the failures and limitations of globalization or expect international organizations to resolve all of their problems.

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22. Rodrik, "The Trouble with Globalization."

23. Liliana Rojas-Suarez, "Latin America's Hard-to-Escape Stagnation Trap," Center for Global Development, March, 1, 2023 https://www.cgdev.org/publication/latin-americas-hard-to-escape-stagnation-trap.

The two-pronged perspective of successful globalization requiring both markets and capable states ties in well with the ways in which a deliberative forum like the G20 can assume a central role in rebalancing globalization through a rebalanced multilateralism. First, some issues are inherently multi-country, such as those requiring cooperative approaches to set, or reset, "global rules of the game" in trade, financial regulation, or standards. Cooperative approaches can underpin key projects, such as the recently announced India-Middle-East-Europe Economic Corridor. Multilateral approaches will also be needed if the G20 is to serve as an effective focal point for efforts to rebalance representation in the "legacy" global organizations.

Second, for the many development challenges requiring positive actions at the national level, the G20 can encourage these by facilitating the multilateral exchange of information and good practice and by generating and applying peer pressure—to help poorer countries to help themselves, and create a more efficient, equitable, and sustainable platform for engagement in the global economy. Women still suffer from severe inequities in access to economic opportunities, education, and material resource inputs for their businesses. Their labor participation is still surprisingly low in some countries, including India. Increasing productive opportunities for women—and so boosting global productivity—may not be a major area for cross-country agreements, but attention to this issue, including peer learning and development assistance programs can be helpful.

The exchange of information and experience inherent in working and engagement groups and similar meetings should be a key part of the G20 process—countries arguably learn from each other more readily than from policy diktats handed down by global technocrats. For this to work well, all participants, including representative organizations such as the AU, need to equip themselves to play a substantive role. Some countries have offered financial support for engagement in the G20 process, but it is important that it be used to strengthen substantive engagements rather than simply fund representation at prominent meetings.

2.5 Conclusion

"Rebalancing globalization" provides a crucial framework for guiding the G20's diverse initiatives and working groups in the area of growth, jobs, equity, and social protection. While successive summits and declarations have

addressed many relevant issues, the challenge lies in avoiding fragmentation and the constant pursuit of novelty at the expense of sustained, effective policies. Most rebalancing proposals demand long-term, collaborative efforts by many countries over many years. Forums like the G20 must prioritize continuity and focus, ensuring that evolving priorities are harmonized with ongoing implementable projects. Key discussions should revolve around maintaining balanced assessments of progress and shortcomings, evolving priorities of participating parties, and at the same time enhance focus and continuity. There will need to be strong coordination and commitment as the Global South seeks to fulfill its aspiration to sustainable and equitable global development.

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THREE

Trade and Supply Chains

New Theories, New Trends

MARTA BENGOA

Summary

Global trade faces significant challenges amid rising inflation, high interest rates, and geopolitical tensions. Despite a slowdown in 2023, trade is projected to grow by 2.5 percent in 2024, driven by emerging economies and sectors like solar panels, batteries, and artificial intelligence (AI) technology. The risk of de-globalization looms as countries implement industrial policies and trade restrictions, potentially fragmenting the global economy. This shift could harm international trade growth and innovation at the risk of increasing global inequality. Global value chains are reshaping, benefiting "connector economies" that leverage neutrality to invest in multiple markets.

In this context, the Global South must balance local resource development with global market participation, and in this new environment, the services sector emerges as a promising avenue for the Global South, representing almost 70 percent of the global gross domestic product (GDP) on average. The services sector can offer opportunities for export-led growth and integration

into global supply chains. For these opportunities to materialize, countries in the Global South need to strengthen local value chains and leverage regional trade agreements to enhance economic resilience and competitiveness.

However, countries must also remain open to international trade and investment to access advanced technologies and innovation networks. Key strategies include investing in education, improving infrastructure, encouraging technology transfer, and developing export-oriented industries that build on local strengths while meeting global demand.

3.1 Introduction: Prospects for Global Trade

Emerging economies represent some of the world's fastest-growing economies, with a GDP growth rate of 4.1 percent in 2023 and is projected to be 4 percent in 2024. These economies have evolved from extracting raw materials, oil, and commodities, and producing low-value-added manufacturing to becoming technology exporters and producing more sophisticated manufacturing (Brazil and India have seen an improvement in manufacturing conditions since 2023, compared to other industrialized nations).

However, since the fourth quarter of 2022, the global economy has been fighting the effects of rising inflation and high interest rates. Those had a significant effect on the United States and the European Union (EU). These macroeconomic conditions imposed an added hardship on emerging markets and developing nations. High interest rates and inflation lead to the tightening of their financial markets and an increase in the yields of local currency bonds. High rates harmed capital flows to the developing world, leading to depreciation episodes and added pressure on debt service. In China, property markets have prevented a stronger recovery from taking root. In addition to these ongoing macroeconomic challenges, there is the uncertain geopolitical landscape with two major wars, which have deepened the sentiment of global instability.

All these factors combined translated into a slowdown in trade, which has affected a wide array of goods, such as iron and steel, office and telecom equipment, textiles, and clothing. According to United Nations Conference on Trade and Development (UNCTAD) and the World Trade Organization (WTO), the latest trade data for 2023 recorded a slowdown in trade in goods and services of around 2 percent. Trade in goods fell 5 percent to amount to

$24.01 trillion, which was partially offset by better behavior experienced in commercial services trade ($7.54 trillion).

Figure 1 shows that most of the decline in goods trade volume between 2022 and 2023 was due to the decline in trade in Europe. It subtracted 1.7 percentage points from global import growth and reduced global export growth by 1 percentage point.[1] Since then, the United States and China have been trading at a slower pace, with a decline in bilateral trade close to 30 percent since 2018. First, the trade war with China started when the United States imposed onerous tariffs on Chinese imports of steel and aluminum in 2018. In 2024, imports of electric vehicles (EVs) manufactured in China entering the United States and the EU will be charged with tariffs as large as 35 percent to counterbalance the Chinese subsidies to produce EVs. These measures will harm bilateral trade and have an unclear effect on the competitiveness of the U.S. and EU domestic markets.

The trade environment is certainly challenging. Nevertheless, the latest estimations forecast a gradual increase in the volume of world merchandise in 2024 and 2025. It is estimated to be growing approximately by 2.5 percent in 2024. In the first quarter of 2024, the value of trade in goods increased by 1 percent and in services by 1.5 percent. This growth is mainly driven by the dynamism exhibited in China (up by 9 percent), India (7 percent), and the United States (3 percent). Trade among countries in the South-South increased by 2 percent. In contrast, during the first quarter of 2024, EU exports were flat, and exports in Africa declined by 5 percent. Imports in Asia are expected to increase by 1.3 and 1.9 percentage points respectively in 2024.[2] Across sectors, there has been an increasing demand for solar panels, batteries, semiconductors, and artificial intelligence technology. The effect of government policies to curb these exports will be seen by the end of 2024 and 2025.

These estimations are subject to changes, especially if the ongoing geopolitical conflicts worsen, in which case, they could hurt global markets by gen-

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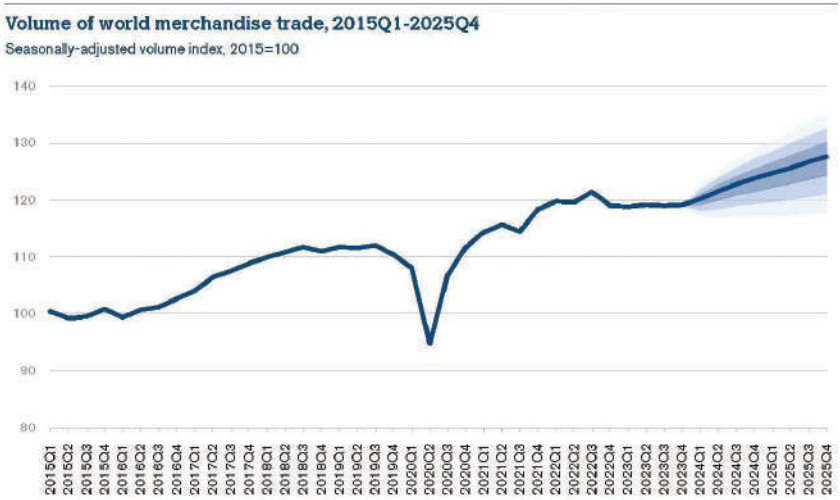
1. Ralph Ossa, "Trade Growth Likely to Pick up in 2024 in Spite of Challenging Environment," WTO Blog, April 12, 2024, https://www.wto.org/english/blogs_e/ce_ralph_ossa_e/blog_ro_11apr24_e.htm.

2. Ibid.

FIGURE 1 World Merchandise Trade, 2015–2025(p)



Note: The shaded region represents both random variation and subjective assessment of risk.
Source: WTO and UNCTAD for historical data, WTO Secretariat estimates for forecasts.

Source: Ralph Ossa, "Trade Growth Likely to Pick up in 2024 in Spite of Challenging Environment," WTO Blog, April 12, 2024. Figures from UNCTAD and WTO statistics. For summary https://www.wto.org/english/blogs_e/ce_ralph_ossa_e/blog_ro_11apr24_e.htm.

erating economic and political instability, inflation pressures, and a possible increase in freight costs.

3.2 Is the Risk of De-Globalization Real? How Could It Affect Trade?

The COVID-19 pandemic tested the resilience of global supply chains, and it created significant disruptions that affected all countries. Countries started sifting global sources of goods and re-thinking offshoring production. As a result, the world is witnessing a fragmentation of the global economy into competing blocs and an accelerating process of rethinking globalization backed by the implementation of industrial policy.

The United States has entered a new era of industrial policy and an inward-looking policy approach, implementing industrial subsidies to compete with

China. The new industrial policy is mainly centered on increasing subsidies to build green industries, to spur manufacturing—greatly focused on electric vehicles—to diversify sources to import and boost the production of chips and other essential commodities to produce advanced technology. A new study by Goldberg et al. found that government support has been vital for the semiconductor industry's growth, with subsidies being the primary support form.[3] Additionally, they found significant economies of scope. This translates into accumulating experience in producing a specific technology, which lends itself to being better at producing a new one. In sum, it generates spillovers in production learning. Lashkaripour and Lugovskyy, in a recent paper published in the American Economic Review, found that industrial policies coordinated internationally are more effective at correcting the misallocation of economic resources.[4]

However, this new wave of industrial policy has been combined with the implementation of trade-restrictive measures (tariffs, quotas, use of rules of origin, and countervailing duties). This division and increasing focus on domestic industries, together with the implementation of trade restrictions, could hinder international trade growth. It might cause tensions in the global supply chains and lead to higher inflation as the cost of manufacturing rises. It could also have unexpected and negative consequences on innovation as international research cooperation becomes scarcer.

It is also the case that some of those targeted subsidies are at odds with the rules of the multilateral and regional trade agreements. Those rules limit discriminatory trade policies intending to prevent a shift from a rules-based trade system to avoid a race to the bottom that will weaken the international trade system. In a wave of significant protectionism, trade partners might respond with retaliation measures in case of discriminatory treatment of their exports, which inevitably increases the cost of doing cross-border business, and harms medium and small firms—which are usually less competitive. Robinson and Thierfelder demonstrate that across-the-board tariffs do not

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3. Pinelopi K. Goldberg et al., "Industrial Policy in the Global Semiconductor Sector," Working Paper, Working Paper Series, National Bureau of Economic Research, July 2024, https://doi.org/10.3386/w32651.

4. Ahmad Lashkaripour and Volodymyr Lugovskyy, "Profits, Scale Economies, and the Gains from Trade and Industrial Policy," American Economic Review, October 2023, 2759–2808, https://doi.org/10.1257/aer.20210419.

protect manufacturing jobs, partly because the cost of imported intermediate goods increases, raising the cost of production.[5]

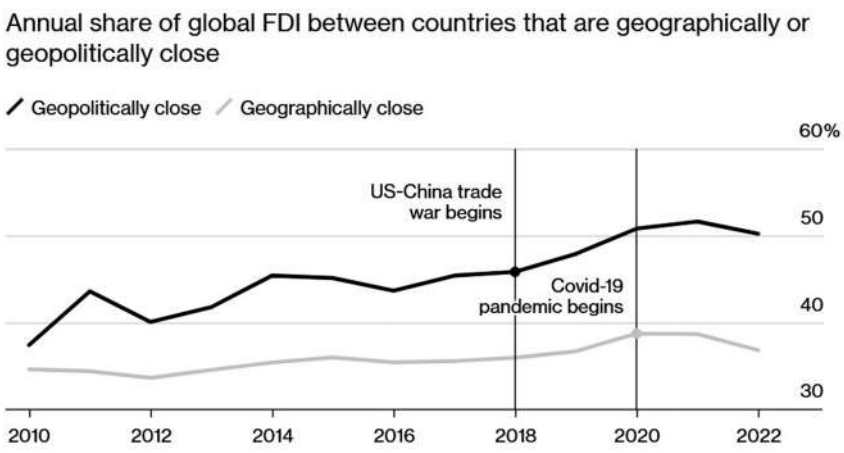
According to the International Monetary Fund (IMF), the extreme fragmentation might result in the erosion of 7 percent of the global GDP. Like-minded wealthy countries investing in one another means less investment for the Global South, which arguably needs it more. In sum, that might lead to more poverty and global inequality as investment in poor countries stalls.

During the recent episode of the trade war with China, Chinese exports to the United States in 2023 fell to their lowest levels since 2006. China is diversifying trade towards nations that are more aligned geopolitically (Singapore, Saudi Arabia, Turkey, and the United Arab Emirates, for example). Trade between Europe and China continues to be solid, but weak spots are emerging. Chinese exports to Germany and the United Kingdom have fallen by almost 7 percent since 2022. The ongoing investigation of subsidies on Chinese-produced electric vehicles has led to the implementation of tariffs on imports of EVs.

Finally, geopolitical conflicts affect foreign direct investment (FDI) flows, and companies are making geopolitical bets. This has translated into $180 billion of greenfield FDI shifted across blocs from countries that failed to condemn Russia's invasion of Ukraine (see Figure 2). Geopolitical competition is now focused on strategic technology (semiconductors or quantum computing, and new-energy projects like solar panel and battery plants and electric vehicle factories), to create more resiliency and diminish the number of nodes in the global value chains.

5. Sherman Robinson and Karen Thierfelder, "US International Trade Policy: Scenarios of Protectionism and Trade Wars," Journal of Policy Modeling, July 2024, 723–39, https://doi.org/10.1016/j.jpolmod.2024.02.010.

FIGURE 2 **FDI—Geopolitics and Geography**



Source: International Monetary Fund. Copyright Bloomberg, 2023, used with permission. All rights reserved. Shawn Donnan and Enda Curran, "The Global Economy Enters an Era of Upheaval," *Bloomberg*, September 18, 2023, https://www.bloomberg.com/graphics/2023-geopolitical-investments-economic-shift.

3.3 Global Value Chains and Integration: Is It Possible to Redefine Integration?

Supply chains are responding to the changing tides of trade policy, geopolitical tensions, and the implementation of industrial policies. Most likely, these policies will lead to a higher concentration of the global supply in fewer economies. Inward-oriented policies, which are backed with generous subsidies, are intended to increase competitiveness in the targeted sectors, which will affect both domestic and global markets. The less industrialized economies will be unable to have the fiscal space to subsidize industries and are going to lose their integration positions in the global supply networks. This global supply reshaping will harm some players but benefit others.

There is a whole network of global trade that rests on the interrelationships between the United States and China for the last thirty years and those interrelationships are not easy to restructure. However, some economies are already reaping the benefits of the global supply chain reshaping. These economies are now defined as "connector economies." They take advantage of their

neutrality and invest in both worlds. UNCTAD remarks that some East Asian and Latin American economies might find opportunities now to become more integrated into the supply chains affected by tensions.[6] Exports from Vietnam to the United States have doubled, and imports from China into Vietnam have risen as well. Poland receives investment from South Korea, China, and U.S. chipmakers to foster the link between Europe and the rest of the world. Indonesia with vast natural resources, brings together U.S. automakers, Chinese investment, and Brazilian miners. Morocco benefits from Free Trade Agreements (FTAs) with the United States and good relations with China.

Mexico is well positioned and steadily becoming the manufacturing hub of America. A process of nearshoring has been in the making, and it is now accelerating. Since 2022, the re-shoring of manufacturing in Mexico has been concentrated in thirteen states (Nuevo Leon, Baja California, Coahuila, Chihuahua, and others). Currently, Nuevo Leon is considered as dynamic as Texas. The world is also observing an increasing trade dependence between Brazil and China, which has increased by 3.3 percent. That dependence on China for Vietnam and India has grown by 1.6 percent and 1.2 percent respectively.[7] Japan, the Republic of Korea, and Malaysia have fostered an increasing dependence on the United States (by 1.5 percent, 1.1percent, and 0.9 percent respectively). The United Kingdom has deepened its dependency with the EU by 2.4 percent, and India has diversified sources of dependency, increasing its ties with the EU by 1 percent. The United States has increased its dependency ratio with the EU by 0.8 percent.

These new connections need to be fed with investment, mainly in infrastructure, (motorways and ports) to improve logistics, and electricity networks for manufacturing. China is investing in major ports in Africa and Latin America. Chinese loans to Africa are at the level of $170 billion directed to 49 African governments. The United States just partnered with India for a major port in Sri Lanka, challenging China's "string of pearls." The United

6. United Nations Conference on Trade and Development, "Global Trade Update: Insight Report on Trade and Industrial Policy," United Nations Conference on Trade and Development, July 2024, 3, https://unctad.org/system/files/official-document/ditcinf2024d2.pdf.

7. Ibid.

States is also renegotiating the U.S.-Africa trade pact, known as the African Growth and Opportunity Act (AGOA), to counterbalance the Chinese influence. Nevertheless, to counterbalance China's influence, both the United States and the EU need a higher level of political commitment, willingness to work with local governments, and significant investment to spur development in the Global South.

3.4 Trade in Services: The Future for the Global South

Manufacturing has seen a decline in total factor productivity and labor productivity since 2010, even in the fastest-growing industries and largest firms.[8] Innovation in the sector has displaced workers in favor of robots and high-skill labor, which has greatly affected development, employment, and growth capacities in the developing world. In contrast, the services sectors have become more dynamic, especially over the last fifteen years. Their economic activity generates close to 70 percent of the global GDP and acts as an engine of employment creation, especially among young people and women.

The services sector's dynamic performance provides a window of opportunity for the developing world and its workers to produce competitive services that promote export-led growth and become integrated into the global supply chains. Such dynamism is shown in trade data. In 2023, global trade in services by 9 percent. The increased dynamism in hospitality and travel services, and a boom in demand for services delivered digitally are the factors behind its success. Sectors such as information technology (IT), finance, environmental services, healthcare, and business services are among the fastest growing. The latest data show that intermediate services are now valued globally at $3.4 trillion and are key to facilitating trade and integration in the global value chains. Services represent 50 percent of global trade (in value-added terms), in contrast with 34 percent for manufacturing and 16 percent for agriculture.

In the developing world, the share of services in GDP has increased since

8. Danial Lashkari and Jeremy Pearce, "The Mysterious Slowdown in U.S. Manufacturing Productivity," *Liberty Street Economics*, July 11, 2024, https://libertystreeteconomics.newyorkfed.org/2024/07/the-mysterious-slowdown-in-u-s-manufacturing-productivity/.

the beginning of the 1970s, although at a slower pace than in high-income countries, from representing 36 percent of the GDP to now achieving a 42 percent share. This is because of the importance of agriculture in developing economies. In terms of employment creation of services, for middle-income economies, services employment represents 53 percent of total employment and 31 percent in low-income economies. The service sector has become a booster for female employment, especially in middle-income countries. Female service employment represents 62 percent approximately, 43 percent in lower-middle-income countries, and 30 percent in low-income countries.[9] According to the International Trade Center (ITC), the employment of young workers in the services sector represented more than 45 percent in 2022, and it is concentrated in small- and medium-level enterprises with fewer than 100 employees.

Services are integrated into manufacturing and the commercialization and production of agricultural products. This "servification" of the economy allows firms to join global supply chains. The services sector's high productivity is due to the capacity to create significant spillovers in other sectors across the economy and between countries. Services embedded in manufacturing accounted for 29 percent of the manufacturing exports in countries outside of the Organisation for Economic Co-operation and Development. Less developed countries have experienced high dynamism in more traditional service industries, such as construction, and transportation. Still, data in 2023 show that telecommunications and computer information services grew by 18 percent in these economies. For example, Bangladesh has seen an increase of 124 percent in exports of computer services, followed by Pakistan with 114 percent growth. The percentage of commercial services exports in Asia has increased to reach levels higher than 25 percent (India and China leading the growth trend).

For the Global South to remain competitive and make its services sector growth sustainable, its economies will need to raise the level and quality of their workforce training programs and incentivize firm research and development to spur innovation.

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9. International Labour Organization, "World Employment and Social Outlook Data Finder," International Labour Organization, accessed on October 2, 2024, https://frontend.weso-dashboard.com/

3.5 Pathways for the Global South in the New Trade Paradigm

The world is immersed in a new globalization era, in transition to perhaps an unknown outcome, in which trade is at the center of the phenomenon. Trade is usually resilient and adapts. As far as China and other countries will need outlets for their surpluses, market integration will follow. The question is what kind of integration reshaping does the Global South need?

Global politics, however, and as of today, remains more fractured. An increase in protectionism will have negative implications for consumers, workers, and suppliers. The world needs broader support for the rules-based trade system and the materialization of plurilateral agreements together. Three major sources of disruptions will affect trade, integration, and the evolution of global supply chains: climate change, the race toward the predominance of digital technology, and geo-economic tensions.

Technology development represents, possibly, a source of optimism. It has the potential to increase productivity, and create more efficiency gains applied to trade, and management of supply chains and reduce its costs. Businesses will likely find a way around this new globalization re-shaping phenomenon—albeit with frictions—as the world remains relatively integrated.

Economies in the Global South need to keep reaping the benefits of their increasing integration in the global supply chains and support the services sectors and entrepreneurial activities in their industries. Governments, as well, need to understand that access to logistics and high-quality transportation services remains key to facilitating the firm's performance, and their access to international markets. In this context, the role of local value chains and regional trade agreements is going to be key to the redefinition of integration that could benefit middle-income countries and lower-income countries.

3.6 Balancing Act: Local Resources Versus Global Market Participation

There is an opportunity to take advantage of the crucial roles that local value chains and regional trade agreements play in the Global South with the aim of leveraging strategies to enhance their economic positions.

One of the primary benefits of developing strong local value chains is the potential for increased economic resilience. By fostering local production and processing capabilities, countries can reduce their vulnerability to external

economic shocks and fluctuations in global commodity prices. This is particularly crucial for nations that have historically been heavily dependent on raw material exports, as it allows them to capture more value from their resources and diversify their economies.

Several countries in the Global South have successfully leveraged local value chains to drive economic growth. One example is Ethiopia, which has made significant strides in developing its leather industry value chain. It has achieved a significant level of export manufacturing based on investing in local tanneries and leather goods making. The country has transformed from a mere exporter of raw hides to a producer of finished leather products, creating jobs and increasing export revenues in the process. Similarly, Bangladesh has built a robust garment manufacturing value chain, evolving from a simple cut-and-sew operation to a more integrated industry that includes textile production and design capabilities.

As established previously, the process of building strong local value chains is challenging. Many countries in the Global South face obstacles such as limited access to technology, insufficient infrastructure, and a lack of skilled labor. Additionally, competing with established global value chains can be difficult, especially in sectors where economies of scale play a significant role.

The development of local value chains can have positive spillover effects on other sectors of the economy and interact with broader regional trade agreements (RTAs). On that front, regional trade agreements, which can range from simple preferential arrangements to complex free trade areas or customs unions, play a crucial role in shaping the landscape of global trade, particularly in fostering South-South cooperation.

One of the most notable RTAs in the Global South is the African Continental Free Trade Area (AfCFTA), which came into effect in 2021. This ambitious agreement aims to create a single market for goods and services across 54 African countries, potentially becoming the world's largest free trade area by number of participating countries. The AfCFTA is expected to boost intra-African trade, which has historically been low compared to other regions, and to stimulate economic diversification and industrialization across the continent.

In South America, the Southern Common Market (MERCOSUR) has been a significant driver of regional integration since its establishment in 1991. Comprising Argentina, Brazil, Paraguay, and Uruguay as full members, MERCOSUR has facilitated increased trade and economic cooperation

among its member states, although it has faced challenges in recent years because of political and economic tensions. Currently, MERCOSUR is in negotiation with the EU to establish a free trade agreement. However, negotiations regarding the agriculture sector, together with a changing political landscape in Latin America seem to have stalled the process.

The Association of Southeast Asian Nations (ASEAN) provides another example of successful regional integration in the Global South. Through various initiatives, including the ASEAN Free Trade Area (AFTA), the bloc has significantly reduced tariffs among member states and worked towards creating a more integrated regional economy.

These regional trade agreements offer several benefits to participating countries. Firstly, they provide access to larger markets, allowing businesses to achieve economies of scale and become more competitive. This is particularly important for smaller economies that might struggle to compete globally on their own.

Secondly, RTAs can stimulate FDI both from within the region and from external sources. Investors are often attracted by the prospect of accessing multiple markets through a single-entry point, leading to increased capital flows and technology transfer. Furthermore, RTAs can serve as a stepping-stone for countries to integrate into the global economy. Their firms can start competing within a regional context, to build capacity and experience before venturing into global markets. The effect of regional trade agreements on intra-regional trade and economic integration in the Global South has been largely positive. For instance, intra-ASEAN trade has grown significantly since the implementation of AFTA, with the share of intra-ASEAN trade to total ASEAN trade increasing from about 19 percent in 1993 to around 23 percent in 2023.

It must be emphasized that local production at the expense of global market participation can lead to inefficiencies and reduced access to advanced technologies and global innovation networks. Therefore, countries in the Global South must strike a delicate balance between nurturing local industries and remaining open to international trade and investment.

To achieve synergy between local production and global trade participation involves strategic policy choices. These might include:

1. Targeted investment in education and skills development to build human capital capable of supporting higher value-added industries.

2. Improving infrastructure and logistics to reduce the costs of participating in global value chains.

3. Implementing policies that encourage technology transfer and local innovation, such as joint venture requirements or local content rules in certain sectors.

4. Developing export-oriented industries that build on local strengths while meeting global demand.

5. Strategically using trade agreements to secure market access for local products while gradually exposing domestic industries to international competition.

Vietnam has successfully applied these principles and became one of the global players in the coffee industry. The country has leveraged its favorable climate for coffee production and has also invested in processing capabilities and brand development. This has allowed the country to move beyond bulk exports of green coffee beans to producing and exporting higher value roasted and instant coffee products, thereby participating more profitably in the global coffee market. Brazil and Argentina, through MERCOSUR, run a very integrated regional market in the automotive industry. Both countries have developed a complementary automotive production network, with components and finished vehicles moving freely across borders. This arrangement has allowed both countries to develop robust local automotive industries while benefiting from regional specialization and economies of scale.

Another illustrative case is the East African Community, where the regional agreement has facilitated the development of a dairy value chain spanning multiple countries. Kenya, with its more developed dairy industry, has invested in milk collection and processing facilities in Uganda and Rwanda, creating a regional dairy value chain that benefits farmers and consumers across the bloc.

The challenges come from balancing tensions between the desire to protect and nurture nascent local industries and the commitments required by regional trade agreements. Moreover, disparities in development levels among member countries of an RTA can lead to uneven distribution of benefits, potentially exacerbating regional inequalities.

3.7 Conclusion

Despite these challenges, there are several promising prospects for local value chains and regional trade. The rapid advancement of digital technologies offers new opportunities for countries to leapfrog traditional development stages. E-commerce platforms, for instance, can help local producers reach global markets more easily. On the green economy transition, the upcoming shift towards sustainable and low-carbon economies presents opportunities for countries in the Global South to develop new industries and value chains around renewable energy, sustainable agriculture, and ecotourism. Services trade offers growing opportunities for Global South countries to participate in global services value chains, particularly in areas like IT services, business process outsourcing, and creative industries.

At the same time, it can promote a South-South technology transfer effect through increased cooperation among developing countries to facilitate technology transfer and knowledge sharing. This has the potential to build technological capabilities across developing regions. Finally, the Global South has a demographic dividend. They have young, growing populations, which can provide a demographic dividend if properly harnessed through education and job creation.

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FOUR

Climate and Energy Transition

The Role of Finance and Technology

SHAYAK SENGUPTA

Summary

Efforts to decarbonize energy systems and mitigate climate change hinge on the delivery of adequate finance to emerging markets and developing countries, where greenhouse gas emissions are set to rise. The prevailing paradigm to increase international climate finance, especially for large middle-income countries, has been to de-risk private investment, thereby reducing the cost of finance. Along with finance and the intended role of the private sector is the crucial role of technology. Multilateral negotiations since the 1990s have codified agreements for poorer countries to access requisite climate technology or technology to mitigate or adapt to climate change.

However, many developing countries remain at a disadvantage at accessing technology needed to transition their economies. Increased high-level calls for climate finance must have a stronger focus on increasing access to climate technology. Incorporating climate technology into climate finance efforts could help multilateral organizations better recognize and reduce technology

risk, thereby increasing commercial viability for private sector investment in emerging markets. Likewise, a tighter coupling of climate finance and technology has the potential to create positive economic spillovers from innovation. This could ameliorate costs associated with increasing geopolitical and geo-economic fragmentation while simultaneously addressing desires to reap the economic benefits of the energy transition.

4.1 Introduction

Efforts to decarbonize energy systems and mitigate climate change hinge on the delivery of adequate financial resources to emerging markets and developing countries, where greenhouse gas emissions are set to rise.[1] However, these financial resources are currently lacking. Developing countries, excluding China, need an additional $1.3-1.7 trillion annually by 2030 to successfully transition their energy systems.[2] Large emerging markets and developing economies, and middle-income countries increasingly integrated into the world economy, are especially important because their economic and geopolitical influence is increasing with emissions.[3, 4] While much of this climate

1. Jingwen Huo et al., "Achieving decent living standards in emerging economies challenges national mitigation goals for CO_2 emissions," Nature Communications, October 10, 2023, 6342, https://doi.org/10.1038/s41467-023-42079-8.

2. Vera Songwe, Nicholas Stern, and Amar Bhattacharya, "Finance for climate action: Scaling up investment for climate and development," Grantham Research Institute on Climate Change and the Environment, The London School of Economics and Political Science, November 2022, 22, https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/11/IHLEG-Finance-for-Climate-Action-1.pdf.

3. Kemal Dervis and Sebastian Strauss, "The Key to Global Climate Success," *Project Syndicate*, July 15, 2021, https://www.project-syndicate.org/commentary/emerging-and-developing-economies-are-key-to-reaching-net-zero-by-kemal-dervis-and-sebastian-strauss-2021-07; "Emerging Market Economy: Definition, How It Works, and Examples," Investopedia, accessed on October 1, 2024, https://www.investopedia.com/terms/e/emergingmarketeconomy.asp.

4. I focus on large middle-income countries as opposed to smaller, low-income countries which contribute a small share to current and future greenhouse gas emissions, even under ambitious scenarios of emissions-intensive, economic growth. See International Energy Agency, "Africa Energy Outlook 2022," International Energy Agency, June 2022, https://www.iea.org/reports/africa-energy-outlook-2022.

finance is expected from domestic sources, a significant portion is expected to come from international sources, especially the private sector.[5, 6]

The prevailing paradigm, especially for these large middle-income countries, to increase international climate finance, has been to de-risk private investment, thereby reducing the cost of finance. Multilateral and bilateral development finance institutions must mobilize cross-border private sector investment through strategic public funds. The mechanisms to do this include a mix of grants, guarantees, concessional finance, loans, and equity investments to reduce the litany of real or perceived risks international private investors face in developing countries.[7]

Coupled with the stark financing gap and the intended role of the private sector is the crucial role of technology. Global climate negotiations since the 1990s have codified agreements for poorer countries to access requisite climate technology, or technology to mitigate or adapt to climate change, such as renewable energy. However, many developing countries remain at a disadvantage at accessing technology needed to transition their economies. Clean energy technologies generally require higher upfront capital costs, and developed countries remain a locus of technological innovation.[8] There is also technological risk: Many technologies needed to fully transition the energy

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5. Here the term "climate finance" refers to finance for energy transition, reducing greenhouse gas emissions from fossil fuel-based energy systems. A broader definition encompasses finance for nature, mitigation (reducing all sources of greenhouse gas emissions), and adaptation (activities that increase society's ability to cope with effects of a changing climate).

6. Songwe, Stern, and Bhattacharya, "Finance for climate action: Scaling up investment for climate and development," 30.

7. Songwe, Stern, and Bhattacharya, 44–54; Advait Arun, "The Investment Climate," *Phenomenal World*, August 26, 2023, https://www.phenomenalworld.org/analysis/the-investment-climate; Esther Choi and Valerie Laxton, "Mobilizing Private Investment in Climate Solutions: De-risking Strategies of Multilateral Development Banks," World Resources Institute, July 24, 2023, https://doi.org/10.46830/wriwp.22.00091.

8. Miria Pigato et al., "Technology Transfer and Innovation for Low-Carbon Development," The World Bank, March 24, 2020, 10–14, https://doi.org/10.1596/978-1-4648-1500-3; Ambuj Sagar, "Managing the Climate Technology Transition," Oxford University Press Delhi, November 2019, 399–424, https://doi.org/10.1093/oso/9780199498734.003.0023.

system have yet to reach commercial viability.[9] Moreover, foreign direct investment remains a significant way for poorer countries to access climate technological innovation, putting even greater importance on reducing risks for private investors.[10]

Consequently, there are both concerted, high-level global efforts to increase climate finance for emerging markets and developing countries and ongoing multilateral frameworks to deliver technology to these regions. However, these increased calls for climate finance must have a stronger focus on increasing access to climate technology, particularly for middle-income, emerging markets and developing economies.

Incorporating climate technology into climate finance efforts could help multilateral organizations better recognize and reduce technology risk, thereby increasing commercial viability for private sector investment. Moreover, given the high-level attention to climate finance, this stronger focus can improve current multilateral programs to deliver climate technology. Likewise, a tighter coupling of climate finance and technology has the potential to create positive spillovers from innovation.[11] This could ameliorate the increasing costs associated with increasing geopolitical and geoeconomic fragmentation while simultaneously addressing middle-income country desires to reap the economic benefits of the energy transition.[12]

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9. International Energy Agency, "Energy Technology Perspectives 2020: Special Report on Clean Energy Innovation," International Energy Agency, July 2020, https://www.iea.org/reports/clean-energy-innovation.

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11. Pigato et al., "Technology Transfer and Innovation for Low-Carbon Development."

12. Benjamin H. Bradlow and Alexandros Kentikelenis, "Globalizing green industrial policy through technology transfers," Nature Sustainability, April 26, 2024, 685–87, https://doi.org/10.1038/s41893-024-01336-4; Bentley Allan, Noah Gordon, and Jonas Goldman, "Building a Net-Zero World: How U.S. Finance Can Strengthen Clean Energy Manufacturing Abroad," Carnegie Endowment for International Peace, September 2023, https://carnegieendowment.org/files/AGG_Building_Net_Zero_World_final3.pdf.

4.2 Technology Risk and Climate Change

Global efforts to mitigate and adapt to climate change will depend on technology at various levels of commercialization and adoption. Generally new technologies sit in stages of "readiness," i.e., maturity for full commercial use. Typically, this readiness is defined on a scale known as the "technology readiness level" (TRL). Developed and used by agencies like the United States Department of Energy and the International Energy Agency (IEA), these levels range from 1 to 11, with 1 being an initial idea that is physically proven, 5 to 9 being in demonstration phases, and 11 where a technology is commercially viable and market-driven (Figure 1). The TRL is inversely proportional to technological risk, and the general goal of technology development is to help technologies reach TRL 11. Lower TRLs generally mean more risk for a technology to fail. Consequently, technologies at each TRL need policy and financial support to move onto the next TRL and eventually full commercialization.

Though technologies like solar and wind energy and electric vehicles are fully commercialized, they are the tip of the iceberg. Many climate technologies needed to reduce greenhouse gas emissions or adapt to a warmer world are far from TRLs of 10 or 11. The IEA rates the TRLs of various technologies, and those especially related to heavy industry, heat, and transportation require further financial and policy support to reach commercial scale. Consequently, sectors like chemicals, steel, cement, aviation, and shipping have yet to adopt credible technological alternatives to fossil fuels.[13] Without decarbonizing these sectors, emissions-free or emissions-friendly industrialization is not possible.

Given the additional policy and financial support needed for many climate technologies, high-income, developed countries remain the locus for this support and associated technology development. In these wealthier countries, the private sector looks to government and public support to reduce technology risk by providing conducive policy environments and finance to move from

13. International Energy Agency, "Energy Technology Perspectives 2020: Special Report on Clean Energy Innovation." International Energy Agency, July 2020, https://www.iea.org/reports/clean-energy-innovation.

FIGURE 1 Technology Readiness Levels (TRL) Along with Policy and Finance Requirements Needed at Each Level

Broad Stage	TRL	Narrow Stage	Policy and Financial Requirement Implications
Conceptual or research phase	1	Initial idea, basic principles observed	At scale of researcher, small company or individual; broad R&D support sufficient
	2	Application formulated; technology concept formulated	At scale of researcher, small company or individual; broad R&D support sufficient
	3	Concept needs validation, experimental proof of concept	Moderate funds may be needed
Small prototype (development phase)	4	Early prototype, technology validated in lab	Moderate: 2 TW globally, but highly regional
Large prototype (development phase)	5	Large prototype, technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)	Moderate costs, no revenue, significant support needed; realm of ARPA-style funding
	6	Full prototype at scale, technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)	Large costs, no revenue, significant support needed. Realm of ARPA-style funding
Demonstration (deployment phase)	7	Pre-commercial demonstration, system prototype demonstration in operational environment	Very large costs, no revenue, significant support needed. Funding needed beyond typical ARPA funding, large firm, venture or state capital investment
	8	First-of-a-kind commercial, system complete and qualified	Strong natural or created lead market necessary, makes compensating revenue generation to balance costs possible
	9	Commercial operation in relevant environment, actual system proven in operational environment	Strong natural or created lead market necessary
Early adoption	10	Integration needed at scale	Moderate natural or lead market support necessary
Mature	11	Proof of stability reached	Natural or created lead market no longer necessary

ARPA = American Rescue Plan Act, R&D = research and development, TRL = Technology Readiness Level.
Note: This table uses the definitions of TRLs from the International Energy Agency (IEA) and National Aeronautics and Space Administration (NASA).
Source: Asian Development Bank using data from the IEA, NASA, and the United Nations Framework Convention on Climate Change.

Source: Asian Development Bank, "Policy Measures and Financial Instruments for Catalysing the Rapid Development and Deployment of Green and Low Carbon Technologies," Asian Development Bank, June 2023, https://g20sfwg.org/wp-content/uploads/2023/06/G20-ADB-Input-Paper-climatetech.pdf. Contains information from the International Energy Agency (IEA), NASA, and the United Nations Framework Convention on Climate Change, © ADB 2023, which is made available under a CC BY 3.0 IGO license.

lower TRLs to higher TRLs. This is especially relevant for climate technologies, which remain capital-intensive relative to their conventional alternatives.[14]

Consequently, middle-income countries and emerging markets often lack the relative capacity and resources to reduce technology risk for the private sector to invest and deploy climate technologies. Private investment, espe-

14. Pigato et al., "Technology Transfer and Innovation for Low-Carbon Development," 9.

cially foreign direct investment, is a notable conduit for poorer countries to access climate technology.[15] While attractive to foreign investors and playing significant roles in the global economy, emerging markets and developing economies must still address a myriad of other risks in addition to technology risk when looking to increase adoption of climate technologies through private investment.[16] These risks include political and regulatory risk from changing laws or policy and currency risk, fluctuating exchange rates reducing the ability of foreign investors to repatriate capital.

4.3 Dedicated Multilateral Efforts to Deliver Climate Technology

Given the distinct challenges to increase uptake of climate technologies in developing countries, particularly emerging markets and middle-income countries, various multilateral efforts have focused on greater climate technology adoption in developing countries. Technology has been at the heart of the global climate negotiations since the beginnings of the United Nations Framework Convention on Climate Change (UNFCCC). In 1992, during the establishment of the UNFCCC, text of the agreement explicitly cited the need to adopt greenhouse gas-reducing technologies and the need to deliver these technologies to developing countries.[17]

Since 1992, national governments have established several multilateral bodies to facilitate climate technology uptake in poorer countries[18]:

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15. Pigato et al., "Technology Transfer and Innovation for Low-Carbon Development," 27–60.

16. Dervis and Strauss, "The Key to Global Climate Success"; Nicolas Fernandez-Arias et al., "Emerging Markets Are Exercising Greater Global Sway," IMF Blog, April 9, 2024, https://www.imf.org/en/Blogs/Articles/2024/04/09/emerging-markets-are-exercising-greater-global-sway.

17. United Nations Climate Change, "What Is Technology Development and Transfer?," United Nations Climate Change, accessed on August 22, 2024, https://unfccc.int/topics/what-is-technology-development-and-transfer.

18. Institute for Energy Economics and Financial Analysis, "Enhancing Access to Multilateral Climate Funds by Developing Countries: A Way Forward," Institute for Energy Economics and Financial Analysis, March 2024, https://g20sfwg.org/wp-content/uploads/2024/06/G20-SFWG-P1-IEEFA-Enhancing-Access-of-Developing-Countries-to-Climate-Funds-1.pdf.

Global Environment Facility (GEF): This multilateral fund works to channel finance to low and middle-income countries (LMIC) for the UNFCCC since the latter's establishment. GEF works on projects in five areas: biodiversity loss, chemicals and waste, climate change, international waters, and land degradation. The fund has channeled over $23 billion to date.[19] A particular strength of GEF is its explicit emphasis on technology transfer and increasing enabling environments, but its outcomes have been mixed.[20]

Green Climate Fund (GCF): Established in 2010 as the second multilateral fund to channel finance for the UNFCCC, GCF is the largest fund with equal resources to mitigation and adaptation. Distinguished from GEF is its approach to how LMICs can access funds for projects, with more organizations available to prepare and help countries, including those based in the countries themselves. The GCF does engage in technology in its support, and to date has delivered over $14 billion in financing.[21]

Clean Technology Fund (CTF): Established in 2008 and operated by the World Bank in conjunction with other regional development banks, the CTF is a fund within Climate Investment Funds. Its aim is to demonstrate, deploy and transfer low-carbon technologies to developing countries through projects. To date it has handed out $5 billion in funding, but most of its funding has been for commercially proven technologies (TRL 11) like solar energy.[22]

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19. Global Environmental Facility, "The GEF and Climate Change: Catalyzing Transformation," Global Environmental Facility, November 2023, https://www.thegef.org/sites/default/files/documents/2023-11/GEF_Climate_Change_Catalyzing_Transformation_2023_11.pdf.

20. Smita Nakhooda, "The effectiveness of climate finance: a review of the global environment facility," Overseas Development Institute, October 2013, https://media.odi.org/documents/8632.pdf.

21. Institute for Energy Economics and Financial Analysis, "Enhancing Access to Multilateral Climate Funds by Developing Countries: A Way Forward"; Green Climate Fund, "GCF in Brief: Support for Technology," Green Climate Fund, December 2018, https://www.greenclimate.fund/sites/default/files/document/gcf-brief-support-technology_0.pdf.

22. Shane Suksangium et al., "CTF Co-Financing Ratio by Technology," Climate Investment Funds, June 2023, https://www.cif.org/sites/cif_enc/files/knowledge-documents/16-06-2023_deep_dive_cofinance_v3.pdf.

UNFCCC Clean Technology Mechanism: This is a dedicated body within the UNFCCC established in 2010 to guide climate technology transfer policy and to provide technical assistance and knowledge sharing to developing countries.[23] However, its effects have been limited given its limited financial resources.[24]

4.4 Pairing Climate Finance and Technology in Practice

The World Bank has also recently promoted the demonstration and deployment of hydrogen technology in several emerging economies. These efforts best demonstrate pairing climate technology and finance in practice. Markets for hydrogen use and trade are nascent worldwide, and the element could play a role to decarbonize heavy industry like refining, fertilizers, and steel.[25] Through the Hydrogen for Development Partnership, the World Bank offers technical assistance for hydrogen deployment in other developing countries.[26] Moreover with its lending operations at the International Bank for Reconstruction and Development, the bank has offered financing in several emerging markets:

- **India:** Through a combined $3 billion in lending, the World Bank is financing policy and market reforms for India's National Green Hydrogen Mission, an ambitious Government of India plan to create clean hydrogen markets in the country through policy and financial incentives. The lending is structured to tie policy actions and outcomes of the government (e.g., tons of green hydrogen incentivized, hydrogen equipment manufacturing) to lending terms. This provides an outcome-based incentive to deploy climate technology while providing flexibility to suit financing to local needs.[27]

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23. TT:CLEAR, "Technology Mechanism," accessed on August 23, 2024, https://unfccc.int/ttclear/support/technology-mechanism.html.

24. Ambuj Sagar, "Managing the Climate Technology Transition," Oxford University Press Delhi, November 2019, 403–8, https://doi.org/10.1093/oso/9780199498734.003.0023.

25. International Energy Agency, "Global Hydrogen Review 2024," International Energy Agency, October 2024, https://www.iea.org/reports/global-hydrogen-review-2024.

26. The World Bank, "Scaling Hydrogen Financing for Development," The World Bank, February 2024, https://documents1.worldbank.org/curated/en/099022024121527489/pdf/P1809201780da10e518c061a2e73041a6fc.pdf.

27. The World Bank, "First Low-Carbon Energy Programmatic Development Policy Loan," accessed on October 2, 2024, https://projects.worldbank.org/en/projects-opera

- **Brazil:** In an initial tranche of $90 million, the World Bank is supporting port and power infrastructure at the Pecém Port and Industrial Complex in northeastern Brazil. The project envisions supporting future hydrogen production (with additional financing of $500 million to $1 billion), which will include installing equipment to handle hydrogen-derived materials for export. Lending is structured as several tranches each with outcomes and indicators.[28]
- **Chile:** The World Bank is providing $150 million for a green hydrogen financing facility in the country. The sum along with $281 million of commercial lending will provide debt for hydrogen production projects in Chile along with a specific fund to mitigate risk from projects such as underperformance. The project specifically envisions using strategic financing from the World Bank to create markets and instill confidence for future commercial viability for hydrogen technologies.[29]

In these projects, there is not only a recognition of technology risk in demonstration and deployment of hydrogen, but the World Bank with client governments assume that risk to promote private sector engagement and commercial viability. Moreover, there is a recognition that financing for hydrogen is tied to enabling environments for this viability—through risk mitigation, policy reforms, and direct incentives.

4.5 Climate Technology and Finance: A Road Map for Large Global South Countries

Some ongoing multilateral efforts to advance climate technology to middle-income emerging markets have significant finance components, especially

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tions/project-detail/P181032; The World Bank, "Second Low-Carbon Energy Programmatic Development Policy Financing," accessed on October 2, 2024, https://projects.worldbank.org/en/projects-operations/project-detail/P181195.

28. The World Bank, "Expanding Clean Hydrogen in Brazil—Ceara Hydrogen Hub," accessed on October 2, 2024, https://projects.worldbank.org/en/projects-operations/project-detail/P181511.

29. The World Bank, "Chile Green Hydrogen Facility to Support a Green, Resilient and Inclusive Economic Development," accessed on October 2, 2024, https://projects.worldbank.org/en/projects-operations/project-detail/P177533.

those housed at MDBs and development finance institutions (DFIs). However, global calls to increase climate finance for these countries, which will see the bulk of emissions increases (as opposed to small, low-income countries), must have a stronger focus on increasing access to climate technology. Doing so will increase the likelihood of spillovers from innovation and address developing country desires to incorporate into global supply chains of clean energy technologies amid geopolitical and geoeconomic fragmentation.

MDBs and DFIs can act as a crucial node in the constellation of actors required for climate technology uptake in LMICs. This uptake has the potential for positive knowledge spillovers into other areas.[30] The process of technology adoption in developing countries, including climate technology, is not linear and requires several actors and institutions: governments, academia, and the private sector, acting in coordination. These actors include those in developing countries, but also developed countries, which are at the forefront of technological innovation.[31] First, as channels for developed country finance, MDBs and DFIs are the "glue" for developing countries to access finance from developed countries at concessional rates or by leveraging private sector financing, thereby reducing risks.[32] Second, as sources of technical expertise, they can bring technical know-how along with financial products for projects. Third, through their lending products, these institutions can influence policy and regulatory environments that allow for greater uptake of climate technologies. The World Bank's recent projects for hydrogen in India, Chile, and Brazil highlight these strengths by offering financing through several instruments: e.g., direct project financing, risk mitigation facilities, and budgetary support for policy reforms.[33]

A stronger coupling of climate finance with climate technology by the DFIs

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30. Pigato et al., Technology Transfer and Innovation for Low-Carbon Development.

31. Sagar, "Managing the Climate Technology Transition," 400–403.

32. Charles Kenny, "Technology and Cheap Finance in the Global Fight against Climate Change," Center for Global Development, December 6, 2023, https://www.cgdev.org/publication/technology-and-cheap-finance-global-fight-against-climate-change.

33. The World Bank, "First Low-Carbon Energy Programmatic Development Policy Loan"; The World Bank, "Second Low-Carbon Energy Programmatic Development Policy Financing"; The World Bank, "Chile Green Hydrogen Facility to Support a Green, Resilient and Inclusive Economic Development"; The World Bank, "Expanding Clean Hydrogen in Brazil—Ceara Hydrogen Hub."

and MDBs also comes at a time with increasing geopolitical and geoeconomic fragmentation, which will likely increase costs for the energy transition.[34] However, this fragmentation also is an opportunity for emerging economies to capture the economic benefits of decarbonization by occupying segments of clean energy manufacturing supply chains. Countries look to capture these benefits by introducing subsidies for green technologies along with tariff and nontariff barriers. These inhibit the free flow of raw and input materials required for clean energy manufacturing, and consequently, the energy transition. For example, Indonesia announced the ban of raw nickel to encourage domestic processing of this mineral crucial in many clean energy applications.[35] By increasing access to climate technology and finance, emerging economies may be better equipped to face this fragmentation and the slowing of global economic integration by reaping some benefit.

The crucial role of multilateral finance for climate technology amid global fragmentation is not lost among national governments. In 2023, the G20 Sustainable Finance Working Group recommended that MDBs and DFIs play a more active role in reducing technology risk.[36] Likewise, the 20 largest economies agreed to localize clean energy manufacturing and technology by stating the desire to diversify clean energy supply chains.[37] While these high-level efforts have elevated the importance of technology in energy transitions, more concerted attention and messaging through priorities across multiple years at multilateral forums like the G20 and Conference of the Parties will provide the signaling required for multilateral actors.

At the operational level, the World Bank's efforts in hydrogen are a start-

34. Shekhar Aiyar et al., "Geoeconomic Fragmentation and the Future of Multilateralism," Staff Discussion Notes 2023, January 15, 2023, 1, https://doi.org/10.5089/9798400229046.006.

35. Allan, Gordon, and Goldman, "Building a Net-Zero World: How U.S. Finance Can Strengthen Clean Energy Manufacturing Abroad."

36. G20 Sustainable Finance Working Group, "G20 Sustainable Finance Working Group Deliverables, 2023," G20 Sustainable Finance Working Group, 2023, https://www.g20.in/content/dam/gtwenty/gtwenty_new/document/G20_SFWG_Deliverables_2023.pdf.

37. Indian G20 Presidency, "G20 New Delhi Leaders' Declaration," Ministry of External Affairs Government of India, September 9-10, 2023, https://www.mea.gov.in/Images/CPV/G20-New-Delhi-Leaders-Declaration.pdf.

ing point for directing finance to reduce technology risk in emerging clean energy. While small, they provide examples of MDBs and DFIs building the institutional capacity to reduce technology risk using the variety of financial tools their disposal. To improve, they must expand to other clean energy sectors and technologies beyond hydrogen. Like the Hydrogen for Development Partnership, MDBs like the World Bank could create further platforms for technologies and sectors identified as crucial to the energy transition, but have yet to reach commercial viability—carbon capture, for example—and utilize for certain industrial sectors, enhanced geothermal energy, and biofuel-based sustainable aviation fuel. Moreover, an identification, analysis, and prioritization of which technologies and sectors are appropriate for multilateral finance is necessary. Defining this by TRL will give a clear signal to governments and the private sector alike that MDBs are in the business of demonstrating and deploying clean energy technologies to reach market viability.

In sum, while global efforts through multilateral bodies have attempted to deliver climate technology to developing countries, these efforts have yet to meet the scale of the challenge. Renewed calls of increased climate finance, especially through MDBs and DFIs, provide an opportunity to strengthen these efforts given high-level attention by coupling substantial financial resources and implementation.

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FIVE

Reforming Global Governance Institutions

Amplifying Voices of the Global South

AUDE DARNAL *and* ELIZABETH SIDIROPOULOS

Summary

The imperative of reforming the global governance system is not new, but pressure to reform has increased, as Global South actors become emboldened as their own strength grows. This paper focuses on global economic governance, arguing that its central precepts as well as the structure of its institutions privilege the elites and traditional economic powers. Its major challenges are the unequal distribution of power and representation in these institutions, and underlying paradigms. While some reforms have taken place in recent years, the West (and especially the United States), which is the dominant power in the International Monetary Fund and the World Bank, has not supported transformational change. In its absence therefore, developing countries have explored establishing parallel institutions, such as the New Development Bank (NDB) and informal groupings, such as BRICS. The paper identifies three potential paths: (1) reforming existing institutions, (2) strengthening alternative organizations and forums, or (3) establishing entirely new institu-

tions. In the short to medium term, the strengthening of parallel governance systems will be the most likely. However, to create a more equitable and effective multilateralism, building North-South coalitions among countries with similar principles and interests can be a powerful movement, as can Southern-based coalitions.

5.1 Introduction: Rationale for Global Governance Reform

Acknowledging that the global governance system needs to reform to respond to the challenges of the 21st century is at the core of global debates today. It has received renewed impetus because of the shifts in global power and the rise of new actors, but it is not new.

In 1974, "Third World" nations succeeded in getting two resolutions adopted by the United Nations General Assembly: the Declaration on the Establishment of a New International Economic Order (NIEO) and the Programme of Action on the Establishment of a New International Economic Order. [1] As Galant and Darnal state, "The theory behind the initiative was simple: The rules undergirding the global economic system are unfair, and development depends on poorer nations uniting to change them."[2] The Declaration outlined a series of prescriptions to the international community to create an equitable world order, from ensuring the "full permanent sovereignty of every State over its natural resources and all economic activities," to "Securing favorable conditions for the transfer of financial resources to developing countries."[3]

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1. United Nations General Assembly, "3201 (S-VI). Declaration on the Establishment of a New International Economic Order," United Nations General Assembly, May 1, 1974, http://www.un-documents.net/s6r3201.htm; United Nations General Assembly, "3202 (S-VI). Programme of Action on the Establishment of a New International Economic Order," United Nations General Assembly, May 1, 1974, http://www.un-documents.net/s6r3202.htm.

2. Michael Galant and Aude Darnal, "Who's Afraid of the Global South?," *Foreign Policy*, April 14, 2024, https://foreignpolicy.com/2024/04/14/global-south-united-nations-new-international-economic-order.

3. United Nations General Assembly, "3201 (S-VI). Declaration on the Establishment of a New International Economic Order"; United Nations General Assembly, "3202 (S-VI). Programme of Action on the Establishment of a New International Economic Order."

Yet, despite an ambitious program, the momentum behind NIEO faltered under the pressure of dynamics such as international debt, divergences during negotiations—including among Global South leaders—and the loss of political leadership to drive it.[4] In 1981, at the International Meeting on Cooperation and Development in Mexico, also called the North-South Summit, U.S. president Ronald Reagan reaffirmed his commitment to engage with Southern leaders on "the prospect of meaningful progress." The North-South talks he called for would have "a practical orientation toward identifying, on a case by case basis, specific potential for or obstacles to development which cooperative efforts may enhance or remove." But Reagan also brushed aside the idea of creating new global governance institutions, while promoting the continuation of trade liberalization: "We should not seek to create new institutions."[5] That was the death knell of NIEO.

In the intervening period, economic and political power has shifted. The United States remains the world's preeminent power, but in relative terms it is weaker than it was in the 1970s when the NIEO concept was being advanced. China is now the largest economy by purchasing power parity; India is the fifth largest; and many other developing countries are projecting both influence and power. In addition, new transnational challenges have emerged, such as climate change, pandemics, and artificial intelligence, which all require cooperation and rules and institutions to govern them. And the specter of heightened geopolitical competition aggravates the global governance system's inability to recalibrate in response to these challenges.

Furthermore, the economic principles underpinning the global governance institutions that were formed in the aftermath of World War II (the UN and the Bretton Woods institutions) and the Cold War (World Trade Organization), have been exposed as privileging elites, rather than advancing

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4. Adam Sneyd, "The New International Economic Order Stumbled Before. Will It Succeed This Time?," University of Guelph, February 15, 2023, https://news.uoguelph.ca/2023/02/the-new-international-economic-order-stumbled-before-will-it-succeed-this-time.

5. "Statement at the First Plenary Session of the International Meeting on Cooperation and Development in Cancun, Mexico," Ronald Reagan Presidential Library & Museum, October 22, 1981, https://www.reaganlibrary.gov/archives/speech/statement-first-plenary-session-international-meeting-cooperation-and-development.

equity, both inside and across states. Inequitable bilateral relationships between Western and Global South states have contributed to maintaining these countries in a state of maldevelopment, and unable to achieve the Sustainable Development Goals (SDGs). Thus, the global governance system requires a rethinking of the existing institutional architecture and the paradigms that underpin their approaches.

The international system encompasses many institutions; however, this chapter will use global economic governance institutions to elucidate its argument.

5.2 Globalization and Global Governance

For a period in the immediate post-Cold War world, the dominant perspective was that globalization would lift all boats. In the 1990s, the Washington Consensus—a term coined by the British economist John Williamson to describe the set of policy prescriptions the IMF and World Bank advocated to improve the economic performance of Latin American countries in the 1980s, and which was also rolled out in other developing countries, most notably Africa—became synonymous with globalization's discontents.

Its promises were clear. Multilateral institutions' policy prescriptions would help "developing" countries transform into advanced economies and integrate them into global neoliberal economic and political exchanges. Thomas L. Friedman's *The World Is Flat* thesis saw globalization as "flattening forces are empowering more and more individuals . . . to reach farther, faster, deeper, and cheaper than ever before, and that is equalizing power—and equalizing opportunity."[6]

The effects of globalization and the Washington Consensus on developing economies is both mixed and contested. Some argue that from the 1980s to 2008, the model worked. Fiscal austerity, coupled with privatization of companies and liberalization of markets led to economic growth. A 2021 study by the Brookings Institution illustrates that reform adopters in Sub-Saharan Africa did less well in the 1980s and 1990s but much better from 2000 to 2019

6. Thomas L. Friedman, *The World Is Flat: The Globalized World in the Twenty-First Century*, Penguin Books, 2006.

in average per capita GDP.[7] But in economics, one size does not fit all, and the conditionalities that accompanied reforms often ignored the countries' domestic contexts. Most of these countries continued to struggle to translate macroeconomic gains into sustainable dividends for their populations.

The 2008 global financial crisis was a wakeup call to re-evaluate the nature and pace of the prevailing globalization paradigm. In 2015, trendwatcher Adjiedj Bakas published *Capitalism & Slowbalization,* a book in which he analyzes the slowing pace of economic integration. "Slowbalization" is now widely used in policy circles to analyze the shift in globalization that emerged after the 2008 financial crisis, and which ended the third wave of globalization, characterized by the rise of economies in the Global South.[8] After 2008, those left behind, even in developed economies, became more vocal and gave rise to the rejection of more integration and openness. Brexit and the election of Donald Trump in 2016 and in 2024 as U.S. president illustrated this swing.

As the world approaches the deadline for the SDGs, those with the power to make positive change, need to move away from inertia and apathy toward pragmatic solidarity and cooperation, to collectively transform the world order. At a minimum, such a change requires commitment to reforming the existing global financial institutions. At a maximum, new institutions need to be developed, especially for current challenges that lack an institutional home. In a geopolitically fraught world, it is also important to consider the role that regional bodies or minilateral groupings can play in advancing a fairer global governance.

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7. Belinda Archibong, Brahima Sangafowa Coulibaly, and Ngozi Okonjo-Iweala, "How have the Washington Consensus reforms affected economic performance in sub-Saharan Africa?," Brookings, February 19, 2021, https://www.brookings.edu/articles/how-have-the-washington-consensus-reforms-affected-economic-performance-in-sub-saharan-africa.

8. "Globalisation has faltered," *The Economist*, January 24, 2019, https://www.economist.com/briefing/2019/01/24/globalisation-has-faltered; "The New Wave of Globalization and Its Economic Effects," The World Bank, January 2002, https://documents1.worldbank.org/curated/en/954071468778196576/310436360_20050007015044/additional/multi0page.pdf.

5.3 Outdated System and Archaic Institutions

Although in recent years, slowbalization has shed additional light on the limitations of the international financial architecture, many of the objections to the system that were articulated in the calls for a NIEO in 1974 remain relevant.

Global governance and multilateralism are intended to provide a level playing field for all countries. Some argue that to address the structural inequalities and underdevelopment experienced by developing countries, the field need to be tilted in favor of developing economies.[9] Rising climate insecurity, unmet SDGs, and pandemics make reform even more imperative. Rebalancing globalization and ensuring shared dividends for human prosperity, peace, and security, cannot occur without fundamental changes that reflect the realities of the 21st century, where there are also now far more centers of power, not just states.

Of course, none of the global economic governance institutions has stayed static since each was formed, but they represent a dominant (Western) economic model of development, which has not provided the benefits for all people as it could have. The major challenges of global economic governance relate to (1) issues of distribution of power and representation in these institutions, and (2) the paradigms that underpin their policy frameworks. With regard to the former, the voting shares of the IMF and the World Bank have disproportionate representation from Europe and the United States, while in the IMF, the United States, in effect, has a veto over crucial decisions that require 85 percent approval because it holds over 15 percent of the voting shares. The boards of these institutions also reflect a different era, with China, France, Germany, Japan, Saudi Arabia, the United Kingdom, and the United States as the only countries with their own seat on the IMF board. In both the World Bank and the IMF, Africa has three seats on the board, with the IMF agreeing to the third seat only in April 2024. The heads of these institutions are always from Europe (IMF) and the United States (World Bank). Crucially, the allocation of special drawing rights (SDRs) is based on each country's quota share, where African countries received $33 billion of the recently issued $650 billion in new SDRs.

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9. Raphael Kaplinsky, *Globalization, Poverty and Inequality: Between a Rock and a Hard Place*, UK: Polity, 2005, 249, http://www.polity.co.uk/book.asp?ref=9780745635538.

The economic paradigms that underpin these institutions are also not able to respond effectively to the challenges faced by the Global South. The checkered record of the Washington Consensus and neoliberal policies, which are at the core of the Bretton Woods institutions, emphasize austerity when countries experience economic crises and still regard relatively unregulated market forces as benign. In a 2021 article, economics expert Valentin Lang argues that "the implementation of typical IMF conditions concerning social spending, liberalization, and labor-market reform runs the risk of increasing inequality," and "through the threat to withhold loan disbursements, IMF conditionality raises costs for domestic political actors, e.g., parliaments, to block reforms under a program."[10] For instance, in July 2024, Pakistan, which is facing bankruptcy, reached a staff-level agreement with the IMF for a $7 billion loan deal. But according to Murtaza Syed, the deal "will impose unbearable austerity on a population already laid low by stagnant per capita income over the past decade, a historic cost of living crisis and endemic political dysfunction."[11] Illustratively, as Syed underlined, the government "spends almost three times more on interest than on education."[12]

But between demands by vulnerable countries and failed promises by Western leaders, the international community has yet to decide on the path forward. Worse, Western states, which hold the power to make changes to the international financial architecture, whose institutions they dominate, continue not only to fail to support substantial changes, but also to adopt policies that further weaken these governance structures.

In September 2023, U.S. Department of the Treasury's under secretary for international affairs, Jay Shambaugh, announced U.S. support for an equiproportional raise of the IMF quotas—a decision that virtually maintained power

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10. Valentin Lang, "The economics of the democratic deficit: The effect of IMF programs on inequality," The Review of International Organizations, December 2020, https://doi.org/10.1007/s11558-020-09405-x.

11. Murtaza Syed, "Pakistan's latest record-breaking, reality-denying IMF program," *Financial Times*, July 22, 2024, https://www.ft.com/content/cd97e0d7-d93c-4ef5-a8f8-3d1bf2601326?accessToken=zwAGHfDDAu-QkdPNl-DX2TxO9dOo-D0b8mATJg.MEYCIQDzydp73xujBWQrwtwaOy5mc7zeRiuTkN-vPLAW0c42lwIhANTYZJjGGTVJaVUzT-BOLoc61ycn2pc5zcvdBHlNNVhd&sharetype=gift&token=a3d8ac5e-81ef-4575-b7a3-23d81b3a0416.

12. Ibid.

balances within the institution. Moreover, for seven years, the United States has blocked the appointment to the World Trade Organization Appellate Body—its dispute system—stripping the organization of its responsibility to oversee the rules of international trade.[13] Furthermore, the United States and the European Union have enacted green protectionist measures (industrial policies) to boost their green economies and reduce China's power and influence.[14] Yet these same countries opposed the use of industrial policy in developing countries.

In the aftermath of the 2008 crisis, emerging economies, most notably the BRICS nations, attempted to reform the global financial institutions from the inside, specifically through quota reform, voting share calculations, and selection of their heads. They made very little progress, resulting in adopting "outside options," such as the establishment of the NDB, the Contingent Reserve Arrangement, and also China's creation of the Asian Infrastructure Investment Bank (AIIB).[15] Western opposition to structural reforms to the global system runs the risk of encouraging countries in the Global South to explore outside options—parallel institutions and new rules—if their attempts at working inside the system to change it come to naught.[16]

The rising interest in BRICS, with five new members joining in 2024, is a manifestation of a Global South that is frustrated with the lack of movement

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13. "Remarks at the Center for Global Development on the IMF and Support for Developing Countries by Under Secretary for International Affairs Jay Shambaugh," U.S. Department of the Treasury, September 7, 2023, https://home.treasury.gov/news/press-releases/jy1715; Ian Allen, "It's Time for the United States to End its Bipartisan Attack on the WTO," Just Security, March 4, 2024, https://www.justsecurity.org/93024/its-time-for-the-united-states-to-end-its-bipartisan-attack-on-the-wto.

14. Amir Lebdioui, "Survival of the Greenest: Economic Transformation in a Climate-Conscious World," Cambridge University Press, May 2024, https://www.cambridge.org/core/services/aop-cambridge-core/content/view/F0A8EDD3878C262B24FAEC1A9CE1CA18/9781009500517AR.pdf.

15. Elizabeth Sidiropoulos et al., "BRICS, Africa and Global Economic Government: Achievements and the Future," Global Economic Governance Africa, July 2018, https://saiia.org.za/wp-content/uploads/2018/07/BRICS-Africa-and-global-economic-governance-achievements-and-the-future.pdf.

16. Cynthia Roberts, Leslie Armijo, and Saori Katada, *The BRICS and Collective Financial Statecraft*, Oxford University Press, October 19, 2017, https://doi.org/10.1093/oso/9780190697518.001.0001.

in the formal multilateral institutions and the absence of material change to their development challenges.

Thus, in trying to maintain primacy over the global institutions, the West runs the risk of enabling greater institutional fragmentation and polarization. The rising U.S.-China rivalry, to which has been added Russia's re-emergence as a threat to Europe and the broader West, now makes attempts to reform the system more complicated.

The core of the problem, notably for the United States, is not about countering their adversaries but about opposing any momentum that threatens their domination over the international system, the "order of oppression," as expert Tim Murithi frames it.[17]

Such a position, which leads Western states to only favor cosmetic changes to multilateral organizations, not only contributes to global instability and further erodes the relevance of legacy institutions, but also discourages proponents of the reform and revitalization of old governance bodies and further encourages those advocating for the creation of a parallel system, whether through the strengthening of alternative organizations, such as the AIIB and the NDB, or the development of new international and regional bodies.

5.4 Moving Forward: A Global South-led Reform Agenda

In the midst of unprecedented transnational challenges, the world requires a paradigm shift in terms of how it is governed; yet power politics inhibit this. There is no global or regional consensus on what an inclusive and equitable world order should look like, nor strong enough strategic leadership in the Global South to advance changes. The Global South itself is divided. Not only is it characterized by a diversity of interests—only some of which coalesce with regard to global governance reform—but also national interests tend to trump cooperation amid great power competition and increasing geopolitical tensions. There is also no consensus on what values should govern a new system.

However, there is another important dimension: when discussing the

17. Tim Murithi, "Order of Oppression: Africa's Quest for a New International System," *Foreign Affairs*, April 18, 2023, https://www.foreignaffairs.com/africa/global-south-un-order-oppression.

reform of global governance with the Global North, it is not rare to hear them place the onus of presenting a ready-to-be-implemented proposal on Global South countries.[18] This implies that these countries are part of one unique political grouping and infers that Western states should not contribute to efforts to build a new world order. In other words, "if you are not satisfied with the situation, *you should* come up with a plan to change it."

This seemingly conventional thinking fails to integrate in its analysis that globalization-induced dynamics—such as spillover effects of crises, whether in the economic or energy sector, for instance—are not confined to the borders of vulnerable states, but have consequences for Western states' national security and stability, and economic prosperity. Indirectly, the appeal for Global South leaders to diversify their partnerships, multi-align, and turn to alternatives such as China-led financial institutions, also shows how the refusal of Western states to seriously engage on global governance reform affects their soft power, and especially their diplomatic clout, and overall relevance, credibility, and legitimacy as preferred partners. Crucial to this understanding is an appreciation that the West's modernization model was built on extraction and exploitation.

Reforming legacy institutions, strengthening alternative ones, or creating new organizations?

There are three possible paths towards a new world order. The first one focuses on reforming existing multilateral institutions, such as the Bretton Woods organizations, with the goal to modernize and make them fit for the 21st century. The second one is to strengthen alternative organizations and forums, such as BRICS and its NDB, or the China-led AIIB. The third path is built on the premise that the first two options are not viable, and that only entirely new institutions will allow for an equitable world system.

While reforms to existing institutions have not been transformational, there has been progress in recent years. However, the power asymmetry re-

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18. Sylvie Kauffmann, "The Global South defends its interests but does not offer an alternative model to the Western order," *Le Monde*, December 20, 2023, https://www.lemonde.fr/en/opinion/article/2023/12/20/the-global-south-defends-its-interests-but-does-not-offer-an-alternative-model-to-the-western-order_6360972_23.html.

mains. Bar another major conflagration, major paradigm-shifting reforms are unlikely, especially because of growing contestation. What is likely to emerge is continued incremental change. Such incremental change can be seen in the decision of the IMF to allow the rechanneling of SDRs to MDBs and the announcement that it will review IMF surcharges. In the case of the World Bank, the agenda to make it bigger, better, and more efficient holds some promise.

In addition, because the agency of Global South countries has grown, many can push for more inside reforms, while also developing new institutions or mechanisms that enable more options for them. Of course, such mechanisms are not able to fully address global challenges, not least those that face low-income countries and least developed countries, but their emergence has created many more options. As power shifts more, the AIIB for example could become a real alternative (and competitor) to the World Bank. The NDB innovated by giving its five founding members the same number of shares. The AIIB, on the other hand, is more traditional in that regard, but while its shareholders are largely developing economies, they still operate within the traditional Western economic paradigm that defines the current order.

Lastly, the creation of entirely new institutions that are inclusive of the whole world also seems complex and highly improbable in the mid-term in light of the existing international and regional competition, even in the Global South. This does not mean however that actors should not already begin reflecting on the kinds of values and paradigms that should inform such institutions.

A multiplex order

In the short to medium term, the world will likely witness a strengthening of parallel governance systems, or what Amitav Acharya calls a multiplex order: "Global governance in a multiplex world will continue to pluralize with the emergence of regional and plurilateral institutions and various forms of complex and hybrid arrangements among state and nonstate actors, such as corporations, foundations, and social movements."[19]

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19. Amitav Acharya, "A Multiplex World: The Coming World Order," Newlines Institute for Strategy and Policy, March 9, 2023, https://anthologies.newlinesinstitute.org/

This multiplex world certainly raises concerns in conventional circles in the United States and its allies. The United States' actions in the medium term may accelerate this "multiplexation" trend. This scenario presents an opportunity for leaders across the world to step up and fill the void by making more ambitious decisions in the global reform agenda.[20]

Either way, most Southern actors will not wait for the United States to make the right decisions, and will instead continue to pursue pragmatic, multi-alignment strategies. For in a context where Western powers favor the status quo, the rest of the world needs to explore what a post-Western-led governance system should look like and take active steps to achieve it.

Coalitions

Polarization and fragmentation have created reform inertia, especially in the case of transformational change. In an ideal world, all states should embrace the rules and the global institutions. The current reality, however, requires states to be pragmatic about what can be achieved. While the collective action problem will always be present in such circumstances, this should not act as a barrier to actions that can lead to transformation. Working through coalitions based on common interests or on specific issues and that can cut across North-South lines can create momentum over time.

Creating North-South coalitions among countries that have similar commitments to a fairer multilateralism can be a powerful movement that builds consensus around common interests and values.

Equally, Southern coalitions could strengthen South-South cooperation and solidarity, aiming to increase bargaining power and propose concrete reform strategies and action plans for change. Rather than focusing on highly polarizing issues, these coalitions could instead propose targeted measures with potentially high transformative impact.

Coalitions could leverage existing alternative institutions, such as regional

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emerging-world-order-after-the-russia-ukraine-war-category/a-multiplex-world-the-coming-world-order.

20. James M. Lindsay, "Election 2024: Is Donald Trump an Isolationist?," Council on Foreign Relations, April 26, 2024, https://www.cfr.org/blog/election-2024-donald-trump-isolationist.

multilateral development banks, Southern-led minilaterals, Eastern-led bodies, or the G20, to achieve their economic development, climate, and security objectives. Global South leaders could focus on developing their national financing needs through pragmatic strategies, and seek to partner with countries across the Global South with similar contexts.

Finally, even though the creation of new global governance institutions currently appears to be very elusive, Global South countries should nonetheless invest efforts into building their own international policy tools. This includes, for instance, developing international policy think tanks, to elevate the voice of Southern experts beyond their regions, legitimize their knowledge internationally, and promote lesson-sharing among the Global South to inform coalitions' strategies.

5.5 Conclusion

The current world order's limitations are not new, but contemporary crises are accelerating the urgency to radically transform the international system, both in terms of global governance and North-South relations. The inefficiency of current multilateral governance institutions to address these hurdles will continue to worsen their legitimacy crisis.

The continuing unwillingness of Western powers to work with developing countries to reform these institutions undermines their status as reliable and relevant partners for the Global South.

Finally, multiple systems are likely to continue to cohabit in the mid-term. Global South leaders should build their collective bargaining power through coalitions if they hope to leverage them to reach their SDGs and develop a durable system that uplifts all, as the NIEO had envisioned fifty years ago.

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SIX

Sustainable Finance and the Developing Economies

Are We Missing the Forest for the Trees?

UDAIBIR DAS *and* VERONICA JIJON

Summary

This chapter delves into the complexities of implementing sustainable finance (SF) in low- and middle-income economies (LMIEs), emphasizing the critical need for policy reforms to redirect SF flows. It offers an overview of the current state of SF in LMIEs, examining the challenges and their repercussions. This perspective shifts away from the existing SF literature, focusing on developed economies and countries with capital market access. Despite its importance for LMIEs, SF's application and transformative potential remains unexplored. While some progress is evident, LMIEs are initiating several SF measures independently but face significant institutional capacity constraints. Despite their urgent need for financial support to address climate change and foster sustainable development, LMIEs receive a disproportionately small share of SF flows. A more robust and collective effort at the international level is urgently required for SF to effectively aid LMIEs in building resilience to climate change and achieving the Sustainable Development Goals (SDGs).

The chapter concludes with actionable recommendations ("7 Catalysts") to guide policy interventions, asserting that the benefits of SF must be equitably distributed to ensure fairness and social justice. They must be strategically utilized sequentially to drive local growth and development in LMIEs.

Sustainable finance (SF) has evolved into a powerful movement over the past decade, encompassing investing in green energy and supporting socially responsible businesses and enterprises. Its roots can be traced to the 1970s, with a significant tipping point at the 1992 Earth Summit in Rio de Janeiro. While SF is gaining prominence in developed economies, its potential application in LMIEs is a beacon of hope, yet to be fully explored. The untapped potential of SF in LMIEs not only presents a promising opportunity for positive change and development but also instills a profound sense of hope and optimism for the future.[1] As Stiglitz suggests, the current allocation of capital and foreign direct investment often favors developed countries, leading to inequalities and continuing environmental degradation in the developing world. Therefore, there is an urgent and compelling need to depart from the norm to address the unique needs of LMIEs, ensuring sustainable development focusing on social equity, economic growth, and biodiversity balance. This call for innovation is not essential; seeking a more sustainable and equitable future is crucial, and the time to act is now.[2]

6.1 What Is the State of Play?

Mainstreaming SF necessitates a comprehensive understanding of the "Triad of Environmental Finance," encompassing sustainable, green, and climate finance.[3] While environmental, social, and governance (ESG) factors and green bonds are essential components of sustainable finance, they are only subcomponents of SF, which has a broader perimeter and meaning. It encompasses all financial activities that contribute to sustainable development. In contrast,

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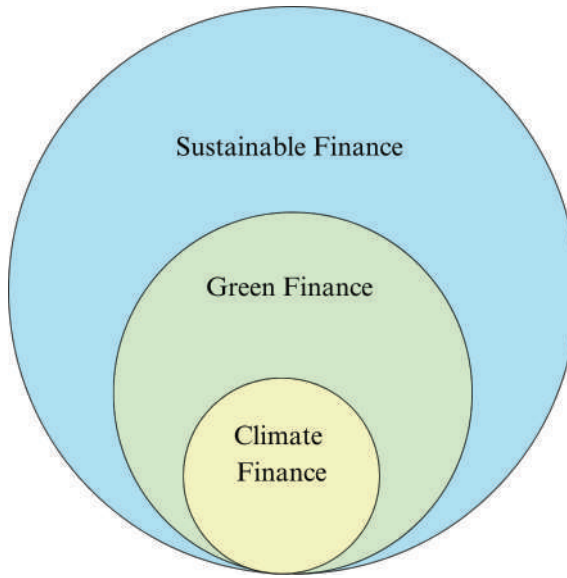
1. The World Bank, "Sustainable Finance," The World Bank, August 5, 2021, https://www.worldbank.org/en/topic/financialsector/brief/sustainable-finance.

2. Stiglitz, Joseph E., Amartya Sen, and Jean-Paul Fitoussi. "Report by the Commission on the Measurement of Economic Performance and Social Progress," European Commission, September 2009, https://ec.europa.eu/eurostat/documents/8131721/8131772/Stiglitz-Sen-Fitoussi-Commission-report.pdf.

3. The World Bank, "Sustainable Finance."

FIGURE 1 **Mainstream Sustainable Finance**



Source: Author's creation.

green finance specifically targets climate finance, biodiversity protection, and conservation, often excluding social and economic factors.[4] Climate finance aims to mitigate and adapt to the effects of climate change. Clearly distinguishing these concepts is crucial for effectively utilizing limited resources in LMIEs and ensuring that financial mechanisms support integrated sustainability approaches.[5] Definitional clarity and proper application are necessary to ensure that financial mechanisms are designed to support a comprehensive approach to sustainability rather than becoming ends in themselves.[6]

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4. Organisation for Economic Co-operation and Development, "Mobilising Bond Markets for a Low-Carbon Transition," Organisation for Economic Co-operation and Development, April 19, 2017, https://www.oecd.org/en/publications/mobilising-bond-markets-for-a-low-carbon-transition_9789264272323-en.html.

5. United Nations Environment Programme, "Green Financing: Supporting Resource Efficiency," United Nations Environment Programme, https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-financing.

6. World Economic Forum, "Sustainable Finance," World Economic Forum, https://initiatives.weforum.org/financing-transition-community/home.

Studies and reports on mainstream SF focus on metrics, reporting standards, and financial instruments aligning with SDGs. [7] There is also a strong emphasis on the systemic changes required to integrate ESG aspects into investments, with policy interventions and regulatory frameworks increasingly incorporating SF into the financial sector.[8]

While sustainable finance (SF) is gaining traction globally, its benefits remain heavily concentrated in advanced economies, leaving low and middle-income economies (LMIEs) at a significant disadvantage. Despite their urgent need for financial support to tackle climate change and foster sustainable development, LMIEs receive a disproportionately small share of SF flows. According to the Global Sustainable Investment Alliance, over 80 percent of the $35.3 trillion in global SF assets were concentrated in North America and Europe as of 2022. In contrast, Sub-Saharan Africa, Latin America, and South Asia collectively attracted less than 5 percent of these flows, underscoring a glaring geographic imbalance.

This disparity is more than just a statistical anomaly—it represents a significant barrier to global efforts in achieving SDGs and fulfilling the Paris Agreement. LMIEs, despite contributing the least to climate change, bear the brunt of its most severe effects. However, these countries are ill-equipped to respond effectively without substantial financial support for climate adaptation and poverty alleviation. This lack of capital is exacerbated by weak institutional frameworks and the perception of higher financial risks in LMIEs, further deterring potential investments.

For LMIEs, accessing sustainable finance and ensuring long-term social and economic value creation remains a considerable challenge. The focus in advanced economies and market-based financial systems on "sustainable finance instruments" often overshadows the broader development goals where SF is most critically needed. The integration of sustainability into national macroeconomic frameworks in LMIEs is progressing slowly because of difficulties in designing policies that support sustainable development while addressing country-specific economic circumstances. A comprehensive strategy that includes sustainable financing for poverty reduction, education, healthcare, and infrastructure is essential for LMIEs to achieve meaningful progress.

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7. The World Bank, "Sustainable Finance."

8. Ibid.

Moreover, a gap persists between SF's rhetoric and the social and economic outcomes anticipated for LMIEs. Many "green" investments fail to deliver long-term benefits in these regions. Furthermore, the absence of standardized metrics and reporting frameworks tailored to LMIEs creates inconsistencies in evaluating SF projects and makes international comparisons challenging.

Contradictions and inconsistencies in the global discourse around SF disproportionately harm LMIEs. Varying frameworks for ESG standards, taxonomies, and bond structures generate confusion and make it difficult for LMIEs to align with global SF expectations. For example, the European Union's sustainable finance taxonomy differs significantly from the United States market-driven approach, leaving LMIEs to navigate incoherent policies and misaligned financial mechanisms. A 2022 International Monetary Fund working paper revealed that this fragmentation reduces capital efficiency for LMIEs by approximately 25 percent.

6.2 Significance of SF for LMIEs

SF is critical for LMIEs as it funds essential infrastructure like transportation, energy, and water systems—crucial drivers of economic growth, poverty reduction, job creation, and improved living standards. SF also supports climate resilience through investments in climate-smart agriculture, robust infrastructure, and community adaptation initiatives. Targeted finance for affordable housing, microfinance, and small-scale agriculture is particularly crucial for marginalized groups. Gender equality and women's empowerment are essential for inclusive development, with SF playing a pivotal role in projects such as reforestation, sustainable forestry, and pollution mitigation, directly benefiting public health. Aligning financial flows with sustainable development priorities fosters inclusive economic growth and advances SDGs.

However, in LMIEs, where economic development is the primary focus, ESG frameworks developed for advanced economies can be perceived as a constraint. Stringent ESG criteria, while suitable for wealthier nations prioritizing carbon reduction, are often misaligned with LMIEs' immediate needs for infrastructure, poverty alleviation, and job creation. Strict ESG compliance can make these countries less attractive to global investors. A 2021 World Bank study found that rigid adherence to ESG standards could reduce investment attractiveness in LMIEs by up to 30 percent. Furthermore, only 12 percent of firms in LMIEs were globally ESG-compliant in 2022, compared to

TABLE 1 Mainstream Sustainable Finance Instruments

Instrument	Description
Green bonds	Fixed-income instruments are used exclusively to fund projects with positive environmental effects. Bond proceeds are earmarked for the financing of climate and environmental-friendly projects.
Social bonds	Bonds where proceeds are directed towards projects that generate positive social outcomes for targeted groups of the population
Sustainability bonds	Debt instruments that finance a mix of green and social projects.
Sustainability-linked loans	Loans with terms that incentivize the borrower to achieve predefined sustainability performance targets. Financial terms adjust based on the borrower's success meeting predefined sustainability objectives.
Impact investing	Investments aimed at generating positive social and environmental effects alongside financial returns.
Green loans	Loans that finance environmentally beneficial projects, adhering to principles ensuring the green credentials of the funded projects.
Carbon market instruments	Financial instruments used in carbon trading markets to reduce greenhouse gas emissions.

Source: Author's compilation and International Finance Corporation (IFC) 2023. International Finance Corporation, "Emerging Market Green Bonds Report 2023," International Finance Corporation, May 2024, https://www.ifc.org/en/insights-reports/2024/emerging-market-green-bonds-2023.

78 percent in high-income countries, according to the United Nations Conference on Trade and Development.

The Sustainable Banking and Finance Network (SBFN) reports that SF initiatives in emerging markets and developing economies are gaining momentum, with total SF investment increasing through domestic and international financing. Brazil, Morocco, and Pakistan have made notable progress in wind and solar energy projects. According to the SBFN's 2024 Global Progress Brief, LMIEs focus on critical sectors such as renewable energy, sustainable agriculture, and climate resilience as they seek crucial resources. Global initiatives like the Green Climate Fund (GCF) and Climate Investment Funds are designed to support LMIEs in climate adaptation, mitigation, and low-emission

development. The United Nations' SDGs and the World Bank's International Development Association (IDA) also provide targeted financial assistance.

However, despite their importance, these initiatives' outcomes have thus far not delivered the desired benefits for LMIEs. A key critique is that SF interventions, particularly through international mechanisms, are not sufficiently tailored to the unique challenges faced by these economies. Improving mechanisms for tracking and ensuring the effective use of funds could significantly enhance LMIEs' ability to achieve sustainable development goals.

A significant challenge lies in how SF is defined for policy purposes and financial markets in advanced economies versus what might be more appropriate for LMIEs. A clear distinction in definitions would help establish practices, standards, regulations, and financial products that are better aligned with the realities of LMIEs (see Box 1).

BOX 1 Changes and Adaptations to SF Suitable for LMIEs:

To make sustainable finance (SF) more relevant and effective for LMIEs, the following adjustments are essential for the policy use of SF:

1. Development priorities: SF in LMIEs should prioritize poverty reduction, economic development, infrastructure, and environmental and social goals.
2. Access to finance: Expanding access to finance for small and medium-sized enterprises, local communities, and marginalized groups is critical for driving inclusive growth and reducing inequality.
3. Capacity building: Enhancing the ability of local institutions to implement ESG principles through training, technical support, and knowledge sharing is essential.
4. Innovative instruments: Leveraging green bonds, social impact bonds, and blended finance will attract private investment and reduce risks in sustainable projects.
5. Local context: SF frameworks must reflect local environmental, social, and economic conditions and recognize the value of traditional practices.
6. International support: LMIEs need financial aid, technology transfer, and capacity-building support from global organizations and developed nations.
7. Regulatory frameworks: Strengthening regulations with clear guidelines and incentives for sustainable investment ensures transparency and accountability.

6.3 What Makes SF Distinctive for LMIEs?

SF in LMIEs presents unique opportunities and challenges shaped by diverse economic conditions. Instruments such as green bonds, sustainability-linked loans, impact investments, debt-for-nature swaps, and blended finance are increasingly being applied, but their success hinges on sound macroeconomic conditions and strong institutions.

LMIEs often face heightened economic volatility, global economic fluctuations, natural disasters, and political instability. Their reliance on a limited number of primary sectors and vulnerability to external shocks underscore the need for financial mechanisms that enhance resilience. Balancing debt sustainability with climate financing remains challenging, even as LMIEs explore options like grants, concessional finance, and debt-for-climate swaps.

Geographic disparities persist within the LMIE group—Asia-Pacific leads in green bond issuance, revealing inequalities in sustainable finance capabilities across the Global South. This diversity reflects the varying economic structures and institutional strengths among LMIEs.

LMIEs must navigate the dual mandate of fostering economic development while aligning with internationally recognized ESG standards. Priorities such as poverty alleviation, infrastructure development, and social inclusion are central to their SF agendas. Despite contributing minimally to global emissions, LMIEs are disproportionately affected by climate change, facing extreme weather events and agricultural disruption. SF is thus critical for financing climate adaptation and resilience projects to safeguard livelihoods and promote sustainable growth.

However, underdeveloped financial markets limit the depth and liquidity necessary for large-scale investments. This necessitates bespoke financial instruments tailored to local needs. Limited access to international capital markets compels LMIEs to focus on domestic resource mobilization and innovative financing to attract necessary investments.

Building effective regulatory frameworks for SF is further complicated by weaker institutional capacities and governance structures. Developing robust regulations supporting SF initiatives is essential, but policymakers face the challenge of balancing immediate economic growth with long-term sustainability. In LMIEs, where developmental needs—such as infrastructure, education, and healthcare—are urgent, SF must address these fundamental issues

alongside environmental sustainability. The social dimension of ESG is particularly critical, given the emphasis on poverty reduction and inclusion.

While LMIEs serve as incubators for innovative financial instruments, tailoring them to the local context remains challenging. LMIEs' urgent developmental needs, such as basic infrastructure, education, and healthcare, require that sustainable finance address these fundamental issues alongside environmental sustainability. The emphasis on poverty reduction and social inclusion makes the social component of ESG factors crucial.

6.4 How Are Various SF Funding Instruments Faring in LMIEs?

Bonds

Bonds are the most prevalent form of sustainable finance, with green, social, sustainable, and sustainability-linked bonds (GSSBs) as the primary instruments. These bonds are categorized into two types: sustainability-linked bonds (SLBs) and proceeds-based bonds, including green, social, and sustainability bonds (GSSs).

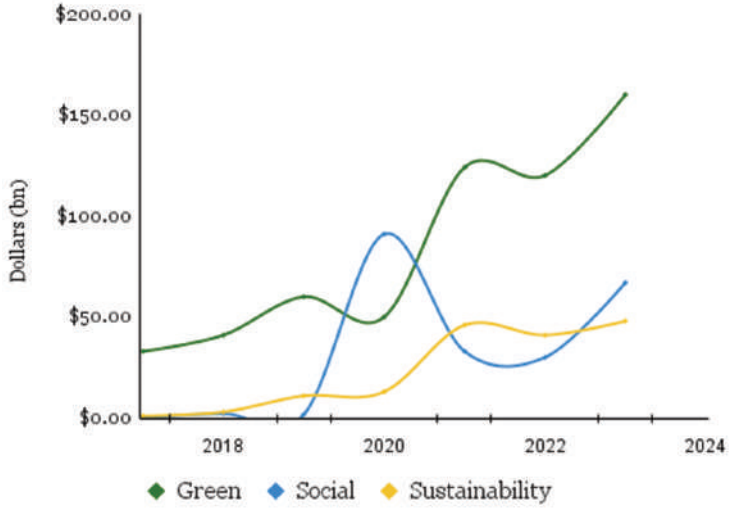
GSS Bonds

Green bonds dominate the GSS bond market. However, sustainable finance efforts in LMIEs differ significantly from those in advanced economies. For example, in 2023, the total number of green, social, and sustainability bonds issued in Latin America and the Caribbean (LAC) was less than Germany's green bond issuance alone. Figures 2 and 3 illustrate the annual change in bond issuance in emerging economies and the distribution across regions.

Green bonds are the most widely used sustainable finance instruments in LMIEs, followed by social and sustainability bonds. This distribution reflects a strong preference for financing environmentally focused projects. As shown in Figure 4, the proceeds from green bonds in emerging economies are primarily allocated to the energy sector, which accounts for 51.3 percent of the total issuance. Transport projects follow at 25.7 percent, with buildings comprising 6.6 percent. This allocation underscores the prioritization of energy and transport sectors in driving sustainability efforts in these economies.

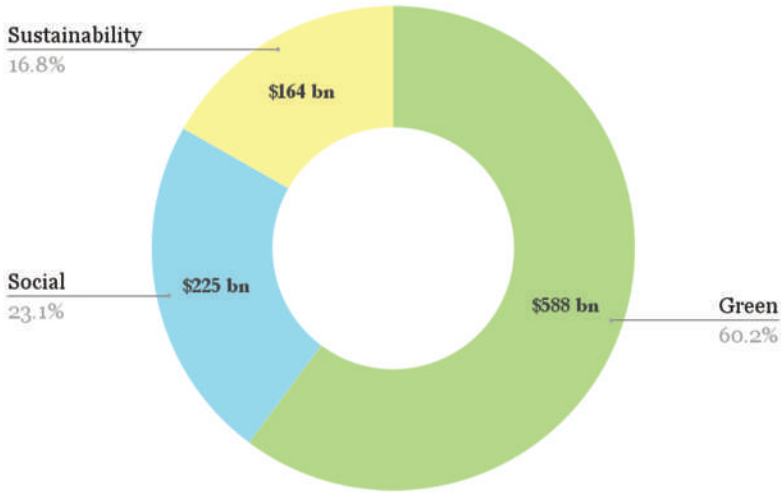
The strategic distribution of green bond proceeds reflects a focused approach to addressing critical environmental challenges. These countries are making substantial progress toward sustainable development by targeting

FIGURE 2 GSS Bond Issuance in Emerging Economies



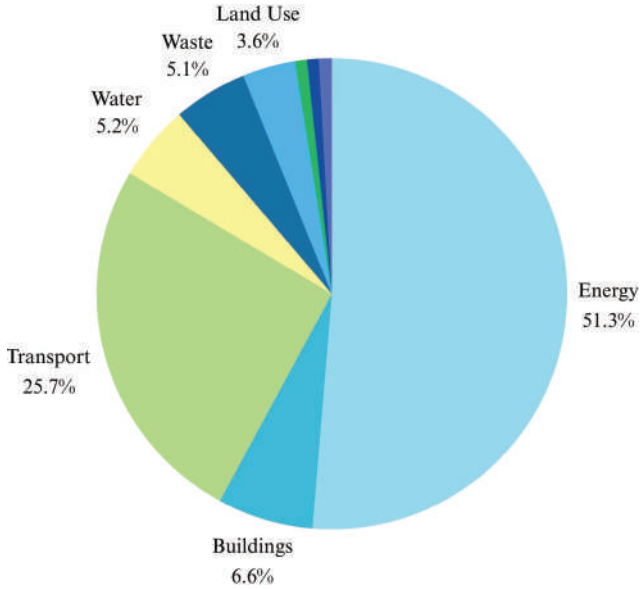
Source: Author's creation and Climate Bonds Initiative Database. Climate Bonds Initiative, "Green Bond Database Methodology," Climate Bonds Initiative, accessed on October 3, 2024, https://www.climatebonds.net/market/green-bond-database-methodology.

FIGURE 3 Distribution of GSS bonds in Emerging Economies.



Source: Author's creation and Climate Bonds Initiative Database. Climate Bonds Initiative, "Green Bond Database Methodology."

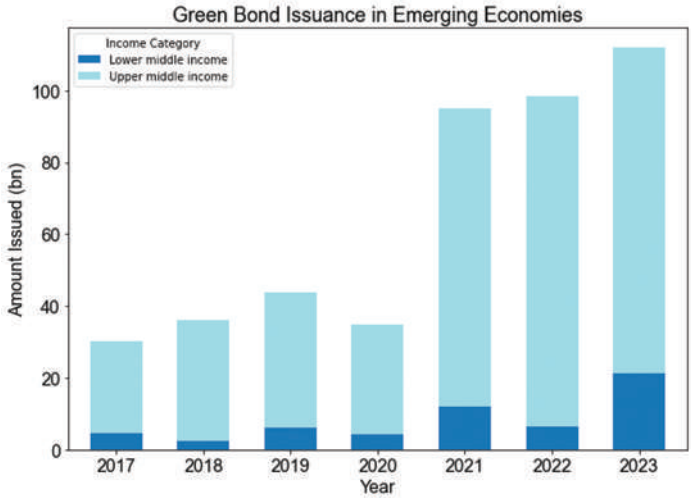
FIGURE 4 **Proceeds of 2023 Green Bonds in Emerging Economies**



Source: Author's creation and Climate Bonds Initiative Database. Climate Bonds Initiative, "Green Bond Database Methodology."

energy, transport, and infrastructure projects. The upward trend in green bond issuance, as shown in the graph (Figure 5), highlights the growing engagement with green finance and a global commitment to environmental sustainability. However, a disparity remains, with upper middle-income economies (UMIEs) consistently outpacing LMIEs in green bond issuance from 2017 to 2023. This gap is attributable to UMIEs having more robust institutional frameworks, more sophisticated financial sectors, and better credit ratings, making them more attractive for green investment.

FIGURE 5 Green Bond Issuance in Emerging Economies by Income Category



Source: Author's creation and Climate Bonds Initiative Database. Climate Bonds Initiative, "Green Bond Database Methodology."

Sustainability-Linked Bonds (SLBs)

Sustainability-linked bonds (SLBs) are gaining prominence but still represent a smaller segment of the GSS market. In the first quarter of 2023, SLBs comprised only 10.4 percent of the total GSS market, reflecting their early stage of development. Despite this, SLBs show significant potential in emerging economies because of their unique structure, which often includes financial incentives like coupon rate adjustments tied to achieving sustainability targets and aligning investor interests with issuers' sustainability objectives.

6.5 Market Constraints in LMIEs

Financial markets in LMIEs face significant challenges in utilizing green bonds, GSS bonds, and SLBs. Limited access to international capital markets, driven by lower credit ratings and a risk-averse global investment climate, forces LMIEs to rely on local and regional solutions. Many LMIEs struggle with weaker institutional capacities, underdeveloped financial sectors, and governance issues, making it difficult to establish the necessary infrastructure

for issuing and trading bonds. Critical institutions such as stock exchanges, trading platforms, and credit rating agencies are often insufficiently developed to support these sophisticated financial instruments.

Developing regulatory and policy frameworks for sustainable finance in LMIEs is more complex because of these institutional weaknesses and the challenge of balancing immediate economic growth with long-term sustainability objectives. Ensuring the enforcement of sustainability commitments in bonds, particularly SLBs, is difficult given the lack of accountability frameworks and limited data availability, increasing the risk of greenwashing.

Given these constraints, LMIEs may succeed more with alternative financial instruments like green microfinance, diaspora bonds, and blockchain applications, which can be more effectively tailored to local conditions. Blended finance mechanisms are also crucial, as they de-risk investments and attract private capital by offering approaches adapted to less developed markets.

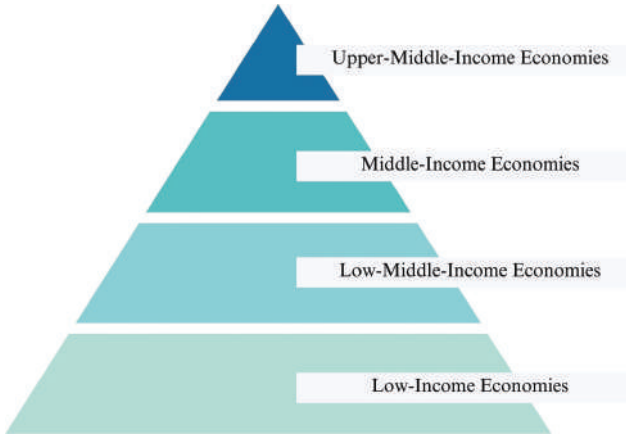
In summary, while green bonds and sustainability-linked instruments hold significant potential for LMIEs, market access constraints and underdeveloped financial markets limit their effectiveness. Innovative, locally tailored solutions and more robust institutional frameworks are essential to fully unlocking the benefits of sustainable finance in these regions.

6.6 Can LMIEs Learn from the Experiences of Other Developing Economies?

As early adopters of SF, advanced markets have been instrumental in shaping global SF standards, notably by developing green bonds and ESG reporting frameworks. As attention shifts toward SF in emerging and upper-middle-income economies, their experiences offer lessons for LMIEs.

A conceptual framework for categorizing countries within the Global South resembles a pyramid. At the top are upper-middle-income economies with greater access to SF markets, while lower-income economies are at the base, illustrating their more limited participation. For example, Indonesia sits near the top, while Honduras is positioned toward the base.

FIGURE 6 The Global South Pyramid



Source: Author's creation.

6.7 Case Studies

- **Chile:** A leader in sustainable finance, Chile has issued sustainable debt amounting to 12 percent of its GDP. Its focus on green and SLBs funds renewable energy and infrastructure projects. By 2026, Chile aims to label at least half of its outstanding debt with ESG criteria.[9]
- **Colombia:** With the launch of its Green Taxonomy, Colombia has made strides in green finance, particularly in green loans like Bancolombia's $200 million issuance for renewable energy. However, expanding into green bonds is a priority.[10]

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9. Ministry of Finance Chile, "Sustainability-Linked Bonds," Ministry of Finance Chile, June 2023, https://www.hacienda.cl/english/work-areas/international-finance/public-debt-office/esg-bonds/sustainability-linked-bonds; BNP Paribas, "Chile sets a trend with first sovereign sustainability-linked bond," BNP Paribas, March 21, 2022, https://cib.bnpparibas/chile-sets-a-trend-with-first-sovereign-sustainability-linked-bond.

10. Climate Bonds Initiative, "Colombia: Sustainable Finance State of the Market 2022," Climate Bonds Initiative, April 2023, https://www.climatebonds.net/files/reports/colombia_sustainable_state_of_the_market_2022_english.pdf.

- **Indonesia:** In 2018, Indonesia issued the first sovereign green sukuk, raising $1.25 billion for green projects. This marked a milestone in funding renewable energy and climate resilience initiatives.[11]
- **South Africa:** South Africa's $8.5 billion investment in transitioning to a low-carbon economy has financed projects like decommissioning coal plants and developing renewable energy.[12]

6.8 Lessons from LMIEs

Table 2 presents SF initiatives in LMIEs, including Vietnam's $50 million clean water SLB, Kenya's $40 million green bond for energy-efficient projects, and Rwanda's sustainability-linked bond with credit enhancement.

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12. Government of South Africa, "South Africa's Just Energy Transition Investment Plan 2023-2027," Government of South Africa, 2022, https://assets.bbhub.io/company/sites/63/2022/11/south-africa_s-just-energy-transition-investment-plan-2023-2027.pdf.

TABLE 2 Sustainable Finance Initiatives in LMIEs

Country	Income Level Category	SF Initiative Description	Funds	Financial Instrument
Vietnam	Lower middle income	2023, Vietnam, a clean water project.	$50 million	SLB
Kenya	Lower middle income	Kenya's green bond markets: Proceeds have been allocated to energy-efficient, student accommodation, and solar power installations.	$40 million	Green bonds
Rwanda	Low income	Rwanda's first sustainability-linked bond (SLB) in East Africa incorporated a credit enhancement mechanism utilizing IDA funds.	Not specified	SLB
Philippines	Lower middle income	2021, the Philippines' Sustainable Finance Roadmap outlines a strategy for integrating sustainability into the financial system and attracting green investments.	$1.5 billion	Various instruments
Madagascar	Low income	Adaptation planning project; Althelia Madagascar Sustainable Landscapes Fund; strengthening national meteorological services and early warning systems.	$1.3 million (GCF), $60 million (GCF), private investments	Various instruments
Malawi	Low income	Malawi Floods Emergency Recovery Project; Malawi Climate Adaptation for Rural Livelihoods and Agriculture.	$80 million (World Bank); $25 million (International Fund for Agricultural Development)	Loans, grants

Bolivia	Lower middle income	Bolivia Climate Resilience project; Bolivia sustainable agriculture and land management project.	$40 million (World Bank); $50 million (IFAD)	Loans, grants
Egypt, Arab Republic	Lower middle income	Egypt Green Economy Financing Facility; Egypt renewable energy development policy.	$150 million (EBRD); $300 million (IFC)	Equity, loans

Sources: Author compilation and World Bank. The World Bank, "Private Capital Brings Clean Drinking Water to Schools and Communities in Vietnam," The World Bank, December 20, 2023, https://www.worldbank.org/en/results/2023/12/20/private-capital-brings-clean-drinking-water-to-schools-and-communities-in-vietnam; Evans Osano and Tamara Cook, "The story of Kenya's m-akiba: selling treasury bonds via mobi," FSD Africa, https://fsdafrica.org/blog/the-story-of-kenyas-m-akiba-selling-treasury-bonds-via-mobile; The World Bank, "How Rwanda's inaugural Sustainability-Linked Bond broke new ground in leveraging private capital," World Bank Blogs, November 30, 2023, https://blogs.worldbank.org/en/psd/how-rwandas-inaugural-sustainability-linked-bond-broke-new-ground-leveraging-private-capital; Asian Development Bank, "Fiscal Policy and Sustainable Finance," Asian Development Bank, June 2024, https://www.adb.org/sites/default/files/publication/973746/fiscal-policy-sustainable-finance.pdf; Green Climate Fund, "Republic of Madagascar," accessed October 3, 2024, https://www.greenclimate.fund/countries/madagascar; The World Bank, "Malawi—Floods Emergency Recovery Project," The World Bank, April 24, 2015, https://documents.worldbank.org/en/publication/documents-reports/documentdetail/533031468179977296/malawi-floods-emergency-recovery-project; Michael Morris et al., "Future Foodscapes: Re-imagining Agriculture in Latin America and the Caribbean," The World Bank, January 2020, https://documents1.worldbank.org/curated/en/942381591906970569/pdf/Future-Foodscapes-Re-imagining-Agriculture-in-Latin-America-and-the-Caribbean.pdf; International Finance Corporation, "IFC Invests $150 Million in Projects, Paves the Way for Local Currency Financing to Boost Private Sector Growth in Egypt and Across Africa," International Finance Corporation, May 14, 2024, https://www.ifc.org/en/pressroom/2024/ifc-invests-150-million-in-projects-paves-the-way-for-local-currency-financing-to-boost-private-sector-growth-in-egypt-and-across-africa.

6.9 Are We Learning Anything?

The effectiveness of SF strategies varies depending on market structures, regulatory environments, and sociopolitical contexts. LMIEs often lack technical expertise, institutional capacity, and financial resources, making SF implementation challenging. Thin local markets hinder the development of SF instruments, such as green bonds, which require a critical mass of issuers, investors, and dependable ESG data.

Moreover, sustainable finance investments are often perceived as risky, and overcoming this perception remains difficult. International cooperation can offer support, but aligning priorities and managing local stakeholder expectations presents ongoing challenges.

Impact?

SF presents an opportunity to align financial returns with social and environmental impact. However, measuring and demonstrating this impact is complex, given the lack of reliable environmental and social data. Standardized impact metrics are essential in comparing initiatives and quantify outcomes, but establishing accurate baseline data is often lacking in LMIEs. Improved data collection and impact evaluation methodologies are necessary to track progress effectively.

What Are the Critical Implementation Challenges?

LMIEs face several implementation challenges, which can be grouped into four categories:

1. **Nature of the economy:** Limited sectoral diversity in many LMIEs restricts the range of industries available for SF investments. These countries rely heavily on external funding, and their financial systems often do not comply fully with public finance management standards. Aligning financing with national sustainability goals remains a challenge.

2. **Exogenous factors:** Slower-than-expected growth in key trading partners, rising global commodity prices, and tightening financial conditions in advanced economies pose significant external risks.

3. **Absence of SF infrastructure:** LMIEs lack the standardized metrics and reporting frameworks necessary for consistent ESG measurement. Higher risk premiums and limited adherence to green bond principles complicate sustainable debt issuance. Many LMIEs face debt distress and struggle to align policy frameworks with the SDGs.
4. **Policy and regulatory frameworks:** Effective collaboration between governments and the private sector is essential for mobilizing private capital for sustainable projects. Technical assistance from international organizations and participation in global forums can help build capacity and support SF efforts.

By learning from the successes of other developing economies, LMIEs can accelerate their SF efforts, contributing to economic growth, environmental sustainability, and social well-being. However, each country's unique contexts must shape its approach to sustainable finance.

Can We Accelerate SF in LMIEs?

To advance SF in LMIEs, the current rhetoric, reports, and community dialogue must translate into actionable, prioritized initiatives. Overcoming existing barriers requires exploring innovative approaches that leverage emerging technologies, novel financial instruments, and community-based initiatives. This would mobilize resources and create a more inclusive and resilient financial ecosystem to support sustainable development in LMIEs.

6.10 Recalibrating SF Approaches

Redirecting SF flows: A larger share of global SF should be directed to LMIEs, which remain underserved regarding financial resources.

Unified Global SF frameworks: The global SF landscape must be streamlined to eliminate contradictions and create a unified definition of what qualifies as "sustainable" investments.

Tailored ESG standards: ESG criteria must be adapted to reflect the developmental realities of LMIEs. Prioritizing job creation and infrastructure development first, with environmental sustainability as a long-term goal, would better align SF with these economies' immediate needs.

7 Catalysts for Sustainable Finance in LMIEs

Box 2 summarizes a set of "7 Catalysts" designed to drive meaningful SF change for LMIEs. These strategies focus on mobilizing and diversifying capital, enhancing economic resilience, promoting social inclusion, and accelerating sustainable innovation. Implementing these ideas would empower communities, attract private investment, and support achieving environmental and development goals, contributing to more equitable and sustainable growth across LMIEs.

The global public and private sectors have a clear opportunity to collab-

BOX 2 The "7 Catalysts" for Accelerating Sustainable Finance in LMIEs

1. Mobilizing and diversifying capital

- Community-driven green bonds: Empower local communities to raise funds for sustainable projects. DeFi for sustainable projects: Leverage blockchain technology to democratize access to capital.
- Green crowdfunding platforms: Mobilize small-scale investments for grassroots sustainable projects. Sustainability-linked diaspora bonds: Tap into diaspora communities to finance sustainability-linked projects.

2. Enhancing economic resilience

- Local currency green financing: Reduce exchange rate risks by issuing green bonds in local currencies. Reverse auctions for green finance: Drive cost efficiency in green projects through competitive bidding. Pay-for-success sustainability bonds: Link financial returns to achieving specific sustainability goals.

3. Promoting social inclusion and empowerment

- Green microfinance networks: Expand access to finance for small-scale sustainable initiatives. Global Green apprenticeship programs: Build local expertise in sustainable technologies through international training programs.
- Sustainable development lotteries: Fund sustainability projects through lottery proceeds.

orate more closely with LMIEs. This collaboration can significantly accelerate SF progress by helping to fill knowledge gaps, integrating nature and climate efforts, and fostering nature-based innovations, such as biodiversity platforms. Realistic, time-bound transition plans and policies should be incorporated into national green investment strategies, including nationally determined contributions (NDCs), long-term strategies, and other national frameworks.

Innovative, actionable approaches must replace rhetoric and reports to advance SF in LMIEs. Overcoming existing barriers requires integrating emerging technologies, novel financial instruments, and community-driven

4. Accelerating environmental innovation and climate resilience

- Climate resilience as a service: Provide affordable, scalable climate adaptation services.
- Agriculture Carbon Credits for Small Farmers: Reward sustainable farming practices with carbon credits. Digital carbon wallets for individuals: Allow individuals to earn and trade carbon credits for sustainable behaviors.

5. Driving sustainable urban development

- Eco-certified real estate investment trusts: Channel investments into eco-friendly real estate. Social impact exchanges: Create platforms for sustainable enterprises to attract impact investors.

6. Harnessing local knowledge and indigenous practices:

- Governments should formalize and scale these Indigenous financial practices, as exemplified by Ecuador's "Buen Vivir" framework, which integrates traditional knowledge into national SF strategies.

7. A justice-centered framework

- SF frameworks should be designed to uplift marginalized groups—such as women, indigenous communities, and rural populations—while promoting environmental sustainability.

initiatives. This strategy can mobilize resources and create a more inclusive and resilient financial ecosystem that supports sustainable development in LMIEs.

6.11 Innovative Approaches

One promising idea is community-driven green bonds, which empower local communities to issue bonds for small-scale sustainable projects. This approach raises necessary funds, increases local ownership, and ensures that projects align with community needs. LMIEs often overlook eco-friendly practices rooted in local cultures. Indigenous communities in Bolivia, Kenya, and India have long used sustainable resource management and cooperative financing models. These underutilized systems offer culturally aligned, self-sustaining solutions that reduce reliance on external capital markets.

The Green Belt Movement in Kenya exemplifies this: Local practices and small-scale finance have successfully restored ecosystems while generating sustainable incomes. Expanding these models could strengthen SF frameworks in LMIEs and better align them with regional realities.

Leveraging Decentralized Finance (DeFi)

DeFi platforms can harness blockchain technology to democratize access to capital for green initiatives, especially in regions with limited traditional banking infrastructure. By bypassing intermediaries, LMIEs can give communities direct control over SF projects. Governments should establish regulatory sandboxes for DeFi, enabling small-scale investors to pool resources for sustainable projects. Public-private partnerships can build the necessary digital infrastructure to support these efforts. For example, Rwanda's M-PESA platform, which provides microloans to rural farmers, could be expanded using blockchain to support sustainable agriculture across Sub-Saharan Africa.

Climate resilience as a service offers scalable climate adaptation services on a subscription basis, helping communities better withstand climate impacts. Green crowdfunding platforms can mobilize small-scale investments for sustainable projects, fostering grassroots participation.

Sustainability-linked diaspora bonds tap into expatriate communities' financial resources to fund sustainability projects in their home countries. These bonds align financial returns with social and environmental outcomes,

while agriculture carbon credits incentivize sustainable farming practices by providing additional income to small farmers.

Local Currency Solutions

Green bonds in local currency reduce exchange rate risks, stabilize financial systems, and encourage domestic investment in sustainable projects. Social impact exchanges could attract impact investors to sustainable enterprises, while green microfinance networks expand access to finance for small-scale initiatives, driving local development and inclusion.

Carbon Sovereignty

LMIEs possess critical natural resources that serve as global carbon sinks but struggle to benefit fully from international carbon markets. A "carbon sovereignty" approach would allow these countries to control their natural assets while capitalizing on carbon credits and SF flows. This would enable LMIEs to harness SF for climate adaptation without compromising their sovereignty. Countries like Costa Rica, with its reforestation program funded by carbon credits, provide a model for how LMIEs can assert their carbon sovereignty and direct SF into preservation rather than exploitation.

Sequencing SF for Long-Term Development: A 3-Phase Approach

To drive transformative change, SF must be deployed strategically in phases. A three-phase approach—starting with capacity building, then infrastructure development, and culminating in private-sector innovation—ensures SF is integrated into long-term national development strategies, avoiding short-termism.

1. Capacity building: Strengthen institutional capacity to manage and implement SF.
2. Infrastructure development: Invest in renewable energy, green transportation, and water systems.
3. Private sector innovation: Support private sector engagement through tax incentives and access to green finance.

Morocco's renewable energy strategy exemplifies this phased approach, beginning with capacity building and regulatory reforms and evolving into large-scale infrastructure and private-sector innovation.

Preconditions for Success

For these strategies to succeed, three preconditions are essential:

1. Policy frameworks: LMIEs need supportive policy environments, including tax incentives and regulatory clarity, to foster sustainable finance.
2. Performance measurement and reporting: Establishing standardized metrics and reporting standards is crucial for transparency and accountability.
3. Financial infrastructure: Strengthening local and regional capital markets, including developing green exchanges, will facilitate the issuing and trading of green bonds.

Social Justice and Environmental Goals

The current SF landscape often prioritizes environmental outcomes over social justice. In LMIEs, however, sustainability must be pursued in tandem with reducing inequality. SF policies should incorporate social impact metrics alongside environmental goals, ensuring that projects prioritize inclusive economic growth. Equity funds should be established to support projects that directly benefit marginalized communities. Bangladesh's solar energy program, which provides microloans to low-income households, illustrates how SF can advance poverty alleviation and environmental goals.

6.12 Conclusion

Sustainable finance offers a vital pathway for LMIEs to achieve their development objectives while addressing environmental and social challenges. Success in this arena depends on understanding the unique contexts of these economies and fostering international cooperation, public-private partnerships, and robust policy frameworks. By embracing innovative ideas and

applying emerging SF strategies, LMIEs can mobilize capital for sustainable growth, ensuring that financial benefits are equitably distributed and retained within these economies.

Sustainable finance has the potential to drive transformative change globally. As its evolution continues, ongoing academic discourse and policy innovation will be crucial to ensuring no country is left behind in the pursuit of global sustainability.

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SEVEN

Inclusive Digitalization

Fostering a Global South Partnership

ANIT MUKHERJEE *and* LORRAYNE PORCIUNCULA

Summary

This chapter critically examines the intersection of globalization and digitalization, emphasizing both the opportunities and the significant imbalances they create. It traces the evolution of global communication technologies and the institutional frameworks that govern the digital economy, revealing how developed nations have historically dominated agenda-setting in global digital governance. In addition, it highlights the rise of powerful private tech giants and the increasing concentration of digital markets. The chapter also sheds light on the growing digital and data divides, which disproportionately affect the Global South. These divides manifest in unequal access to meaningful connectivity, digital skills, and investment, as well as imbalances in data accessibility, quality, and monetization. Countries like India, Brazil, and South Africa are starting to push for frameworks on digital sovereignty, digital public infrastructure, and inclusive artificial intelligence (AI) to reshape the global digital architecture. The chapter concludes by advocating for greater

participation from the Global South in shaping global digital policies, leveraging international frameworks like the Global Digital Compact and fora, such as the G20, to build coalitions and promote an inclusive and equitable digital future. This analysis underscores the need to address these emerging imbalances to unlock the full potential of digitalization for all.

7.1 Introduction: Globalization in the Digital Age

The evolution of communication technologies has been instrumental in shaping the global economy and society over the past century. From the early days of the telegraph to today's interconnected digital world, technological advances in communications have consistently driven globalization, enhancing the flow of information, goods, and services across borders. This new decentralized, borderless network created unprecedented opportunities for international trade and cooperation, ushering in the era of the digital economy.

With over two-thirds of the world's population connected to the internet, the digital revolution has fundamentally altered the pace and character of globalization over the last three decades. Globalization and digitalization have reinforced each other, affecting the way governments, businesses, and people communicate and transact in almost every domain.

Digital trade represented nearly one-quarter of global trade flows in 2018, up from 18 percent in 1995.[1] As digital payments and financial services expand in scale and scope through increasing adoption of smartphones, two-thirds of adults worldwide now make or receive a digital payment, with the share in developing economies growing from 35 percent in 2014 to nearly 60 percent in 2021.[2] Governments are increasingly adopting "digital first" mode of service delivery by creating digital public infrastructure (DPI)—a combi-

1. Organisation for Economic Co-operation and Development (OECD), "Of bytes and trade: Quantifying the impact of digitalisation on trade," OECD, May 2023, https://www.oecd.org/en/publications/of-bytes-and-trade-quantifying-the-impact-of-digitalisation-on-trade_11889f2a-en.html.

2. The World Bank, "COVID-19 Drives Global Surge in use of Digital Payments," The World Bank, June 2022, https://www.worldbank.org/en/news/press-release/2022/06/29/covid-19-drives-global-surge-in-use-of-digital-payments.

nation of digital ID, payments, and interoperable data exchange protocols.[3] Finally, with nearly two-thirds of the world's population connected on social media platforms with a global reach, digitalization has spurred a quantum leap in data flows within and across borders.[4]

Over the last three decades, globalization and digitalization have reinforced each other, bringing significant benefits, but it has also created imbalances both within and across countries, making it imperative to address the gaps in access and ability of its citizens to interact with the digital ecosystem. This would harness "the potential of the digital transformation, bearing in mind the needs, circumstances and capacities of all countries, and of developing countries in particular, while aiming at the achievement of the Sustainable Development Goals, in order to see its benefits reach all corners of the globe."[5] As with other facets of globalization, there is a need to rebalance the power of the institutions that govern the digital transformation through greater voice of the Global South.

7.2 Institutional Framework for Global Digital Governance

The invention of the telegraph in the 19th century marked the first international revolution in communications, leading to the establishment of the International Telegraph Union (ITU) in 1865. The ITU, now the International Telecommunication Union, set foundational global standards and managed international networks in the pre-digital era. This effort was later expanded to cover telephony, radio, and satellite technologies. As the ITU became a specialized United Nations agency in 1947, it laid the groundwork for modern telecommunications governance.

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3. Anit Mukherjee, Rajeesh Menon, and Yukti Sharma, "Digital Development: Emulating India's Digital Public Infrastructure to Reach the Sustainable Development Goals," ORF America, August 2023, https://orfamerica.org/newresearch/dpi-india-mukherjee-backgr16.

4. Kepios, "Global Social Media Statistics," Kepios, July 2024, https://datareportal.com/social-media-users.

5. "G20 Maceió Ministerial Declaration on Digital Inclusion for All," G20 Brasil 2024, September 13, 2024, https://southsouthpoint.net/wp-content/uploads/2024/09/G20_Maceio_Ministerial_Declaration_2024_1726361028.pdf.

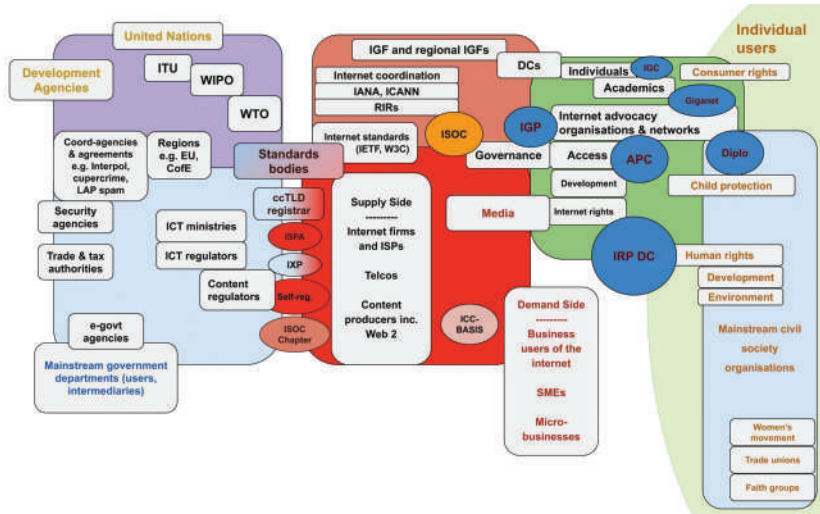
The rapid expansion of the internet in the late 20th century fundamentally altered global communications. New governance institutions emerged to manage the growing complexities of the digital world. The Internet Engineering Task Force, founded in 1986, played a key role in setting technical standards that allowed the internet to function smoothly, while the World Wide Web Consortium established standards for the web's architecture. The Internet Corporation for Assigned Names and Numbers was created in 1998 to manage domain names and IP addresses, crucial to maintaining global internet functionality. Additionally, Regional Internet Registries oversee the allocation of IP addresses across regions, ensuring coordinated global internet infrastructure. On a multi-stakeholder level, the Internet Governance Forum was established in 2006 to bring governments, the private sector, and civil society together to discuss policy issues related to the internet's growth and governance.

Other international organizations have also influenced the digital economy's development. The Organisation for Economic Co-operation and Development (OECD) has taken on a key role in shaping policies related to digital economy and data flows, while the World Intellectual Property Organization addresses the growing importance of intellectual property rights in the digital era. The World Trade Organization and the United Nations Conference on Trade and Development (UNCTAD) are also crucial in setting norms and frameworks that ensure digital trade is conducted fairly and inclusively across borders. Several other entities compose the complex internet governance ecosystem, as shown in Figure 1.

With the expanding global reach of technology platforms, private entities have gained significant normative power in global digital governance over the last decade. Technology giants such as Google, Amazon, Apple, Meta, and Microsoft, based in the United States, and Alibaba, Tencent, and ByteDance, based in China, shape digital markets by setting de facto global standards through their platforms and services, often exceeding the regulatory influence of states and international organizations. Their ability to control data flows, platforms, and user access gives them considerable influence over the digital economy's trajectory.

As digital markets become more concentrated, the role of private entities in shaping regulations and policies has raised critical questions about the balance of power between private and public actors in digital governance. This growing normative plurality highlights the challenges of ensuring an inclu-

FIGURE 1 Visual Map of Internet Entities



Source: Adapted from David Souter, "Networking Networks in Internet Public Policy," APC Symposium, July 2010, https://www.slideshare.net/slideshow/the-apnic-cooperation-sig/45345424.

sive, transparent, and equitable governance framework for the global digital economy.

Historically, the participation of the Global South in shaping the global digital architecture has been limited, with agenda-setting largely dominated by the OECD countries, especially the United States through its financial capacity and innovation ecosystem, and Europe whose "Brussels effect" has established significant regulatory power in digital governance across developing countries.[6] However, in recent years, countries like India, Brazil, and South Africa have started to assert themselves in global discussions, particularly around inclusive digital development and cross-border data flows. They have proposed frameworks for digital sovereignty, information integrity, inclusive AI and DPI, reflecting a growing ambition not only to participate, but also to

6. Lilla Nóra Kiss, "The Brussels Effect: How the EU's Digital Markets Act Projects European Influence," Information Technology & Innovation Foundation, March 7, 2024, https://itif.org/publications/2024/03/07/the-brussels-effect-how-the-digital-markets-act-projects-european-influence/.

shape the digital architecture in ways that address their unique challenges and opportunities.

7.3 Globalization and the Digital Economy: Emerging Imbalances

The rapid digitalization of the global economy has brought numerous opportunities but also exposed a range of emerging imbalances. While globalization has connected more people and economies through digital technologies than ever, significant disparities persist, particularly between developed and developing nations. These imbalances can be categorized into digital divides, data divides, and power imbalances, which affect access to technology, skills, investments, and the ability to leverage data for economic and social benefits, especially for the Global South.

7.3.1 Digital Divides

The first dimension of digital divides relates to **meaningful connectivity**. While access to the internet has increased dramatically with the number of internet users globally growing from 1 billion in 2005 to 5.7 billion in 2023, covering two-thirds of the world's population, providing meaningful connectivity and creating opportunity in the digital economy for everyone everywhere is still an unfinished agenda of globalization (Figure 2).

Providing meaningful connectivity goes beyond basic internet access to include high-speed, affordable, and reliable connections increasingly through mobile broadband that allow users to fully participate in the digital economy. It requires having an adequate device, high bandwidth, affordable data plans, and a reliable network connection.[7] In 2022, the average bandwidth in high-income countries was nearly sixteen times that of low-income countries, and almost six times higher than in middle-income countries (ITU, 2024). In many low- and middle-income countries, large portions of the population, particularly in rural areas, remain underserved. The lack of consistent high-quality connectivity limits their ability to engage in digital commerce, access

7. Alliance for Affordable Internet (A4AI), "We need to change how we measure access," A4AI, https://a4ai.org/meaningful-connectivity-a-new-standard-to-measure-internet-access.

education and healthcare services, and participate in global digital networks, exacerbating socioeconomic inequalities.

While the proportion of the population covered by mobile cellular networks is almost equal, quality of digital connectivity (4G or higher) ranges from less than 40 percent in low-income countries to almost universal in high-income countries (Figure 3). As mobile broadband becomes the gateway to the digital world, low-income countries are at risk of being left behind. The same is true for geographical disparity within countries—urban areas have almost universal high-quality coverage while many in rural areas live on the wrong side of the digital divide. More importantly, women's access to digital tools is limited in many countries because of economic factors and cultural norms that exacerbate gender inequality and hinder empowerment in a "digital-first" world.[8]

A second dimension of this divide consists of the gaps in **skills and capacity**. In a fast-moving digital landscape, people need the right mix of skills—both foundational and complementary—to thrive in work and daily life. Foundational skills like digital literacy, numeracy, problem-solving, and creativity need to be combined with the ability to process information and reduce their vulnerability to false and misleading information.[9,10] In addition, technical skills, such as programming and data analysis, and complementary skills, including adaptability, entrepreneurship, and ethical technology use, are crucial for navigating the complex digital technology and innovation environment.[11]

The rapid innovation and adoption of AI is fundamentally altering the employment landscape, creating a stark divide in skills between advanced

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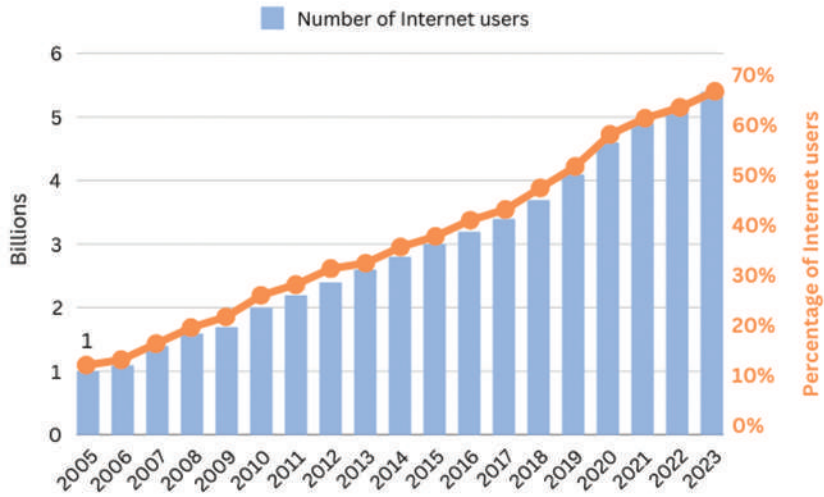
8.Alan Gelb, Anit Mukherjee, and Kyle Navis, "Citizens and States, How Can Digital ID and Payments Improve State Capacity and Effectiveness?," Center for Global Development, March 2020, https://www.cgdev.org/sites/default/files/citizens-and-states-how-can-digital-id-and-payments-improve-state-capacity.pdf.

9. Ester van Laar et al., "The relation between 21st-century skills and digital skills: A systematic literature review," Computers in Human Behavior, July 2017, https://doi.org/10.1016/j.chb.2017.03.010.

10. OECD, "OECD Skills Outlook 2023: Skills for a Resilient Green and Digital Transition," OECD, November 6, 2023, https://doi.org/10.1787/27452f29-en.

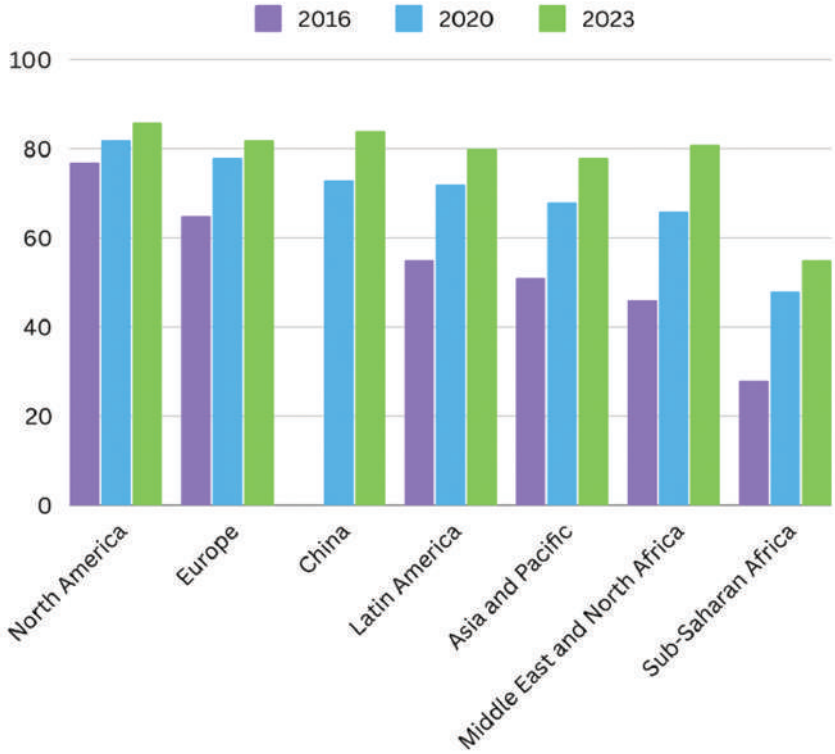
11. OECD, "OECD Skills for a Digital World: 2016 Ministerial Meeting on the Digital Economy Background Report," OECD Digital Economy Papers, June 2, 2016, https://doi.org/10.1787/5jlwz83z3wnw-en.

FIGURE 2 **Individuals Using the Internet, World, 2005–2023**



Source: Author's creation. Data from the International Telecommunication Union, "Statistics," accessed on October 3, 2024, https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.

FIGURE 3 Smartphone Adoption by Region, Selected Years



Note: Country groups are those of the source

Source: Author's creation. Data from GSMA, "The Mobily Economy 2017," GSMA, 2017, https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-economy/wp-content/uploads/2024/02/Global_ME_2017_Final.pdf; GSMA, "The Mobily Economy 2021," GSMA, July 2021, https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-economy/wp-content/uploads/2021/07/GSMA_MobileEconomy2021_3.pdf; GSMA, "The Mobily Economy 2024," GSMA, February 2024, https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-economy/wp-content/uploads/2024/02/260224-The-Mobile-Economy-2024.pdf.

economies and the Global South. While the overall AI workforce has tripled in recent years, this growth is unevenly distributed.[12] Advanced nations are attracting and retaining top AI talent, leading them in research and development (R&D) and adoption of new technologies. Further exacerbating the divide is the phenomenon of "brain drain." Highly skilled AI professionals are migrating from developing countries to developed nations seeking better job opportunities, research facilities, and higher salaries. In 2022, while economies like Luxembourg and Canada attracted more AI talent than they lost, countries like India, Greece, and Lithuania saw a net outflow of AI talent from their borders (Figure 4). This exodus of talent hinders the growth of domestic AI ecosystems, depriving the Global South of the expertise and innovation needed to compete globally.

Another crucial factor widening this skills gap is the gender disparity. Women are significantly underrepresented in AI occupations, with men being about twice as likely to work in an AI occupation or report AI skills than women, leading to a lack of diverse perspectives in the field's development.[13] This imbalance highlights a deeper issue within STEM education, where cultural and societal barriers discourage women from pursuing careers in these crucial areas.

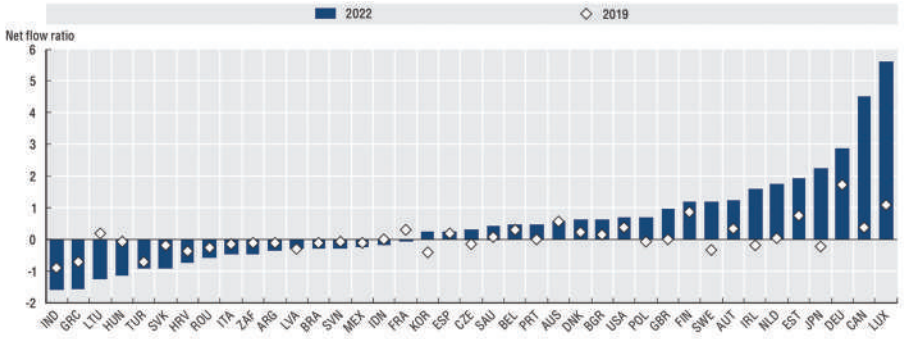
A third dimension of the digital divide concerns **investment**. Investment in digital infrastructure and innovation is highly unequal across the globe, with the bulk of capital flowing into tech hubs in the United States, Europe, and parts of Asia, particularly China. Meanwhile, regions like Sub-Saharan Africa, Latin America, and South Asia receive only a fraction of the global investment in digital technologies.[14] This lack of investment perpetuates the digital divide, leaving these regions with outdated infrastructure and fewer

12. Andrew Green and Lucas Lamby, "The supply, demand and characteristics of the AI workforce across OECD countries," OECD Social, Employment and Migration Working Papers, February 23, 2023, https://doi.org/10.1787/bb17314a-en.

13. OECD.AI, "Live data: AI talent concentration by country and gender," accessed on October 7, 2024, https://oecd.ai/en/data?selectedArea=ai-jobs-and-skills&selectedVisualization=ai-talent-concentration-by-country-and-gender.

14. The World Bank, "World Development Report 2016: Digital dividends," The World Bank, January 2016, https://doi.org/10.5860/choice.196952.

FIGURE 4 **Between-Country Migration in 2019 and 2022**



Notes: This chart displays the net migration flows per 10 000 LinkedIn members with AI skills in 2019 and 2022 for a selection of countries with 100 000 LinkedIn members or more declaring to have AI skills both in 2019 and 2022. Migration flows are normalised according to LinkedIn country membership.

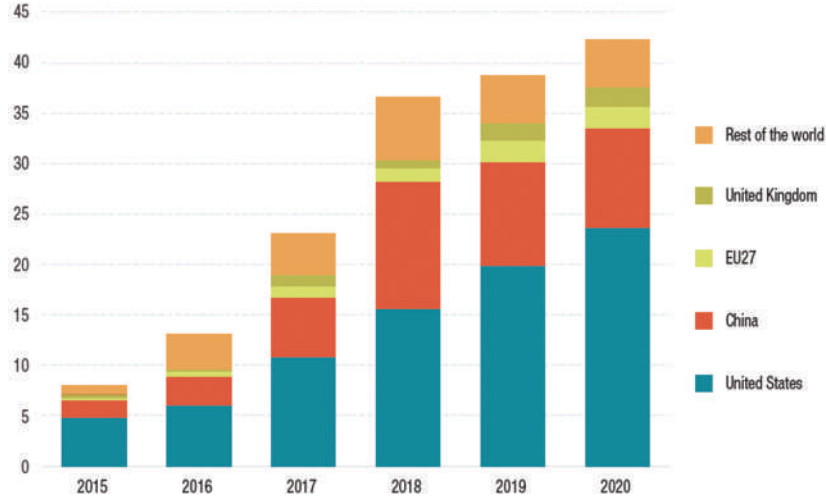
Source: OECD.AI, "Live data: Between-country AI skills migration," accessed on October 7, 2024, https://oecd.ai/en/data?selectedArea=ai-jobs-and-skills.

opportunities for local tech ecosystems to grow.[15] The imbalance in digital investment further entrenches global economic inequalities, preventing developing economies from fully capitalizing on the benefits of the digital economy.

This gap becomes even more acute when assessing investment in advanced technologies. The United States has the world's largest investment market in privately held AI companies followed by China (Figure 5). Five U.S.-based "Big Tech" platforms have acquired the largest number of AI startups to ensure their dominance in the field. The imbalance in capital investment in digital innovation is stark and needs to be addressed if the benefits of transformative technologies such as AI are to be shared, especially in the Global South.

15. Olena Bulatova, Nataliia Reznikova, and Oksana Ivashchenko, "Digital Divide or Digital Inequality? New Dimensions of Global Asymmetries of Socio-Economic Development and International Trade in The Conditions of Technoglobalism," Bulletin of Mariupol State University, June 28, 2023, https://doi.org/10.34079/2226-2822-2023-13-25-45-57.

FIGURE 5 **Private Investment in AI companies, by Economy, 2015–2020 (Billions of dollars)**



Source: Stanford University, "Artificial Intelligence Index Report 2021," Stanford University Human-Centered Artificial Intelligence, April 2021, https://aiindex.stanford.edu/wp-content/uploads/2021/11/2021-AI-Index-Report_Master.pdf.

7.3.2 Data Divides

A first dimension of the data divide is **access to data**. In the digital economy, access to data is as important as access to physical infrastructure. However, there are stark inequalities in data accessibility between the Global North and Global South. In many developing countries, the inadequate infrastructure for data collection and sharing, as well as lack of balanced data governance policies, hampers innovation and investment.

The rapid diffusion of cellular-mobile based access to data has meant that significantly more people in the Global South are now both producers and consumers of data at an increasing pace. However, much of the data generated in the Global South is controlled by multinational corporations based in advanced economies, creating dependence and limiting local businesses and governments from accessing and using this valuable resource for economic and social development. As they catch up, countries are increasingly concerned about protecting their data and using it to economically empower their citizens.

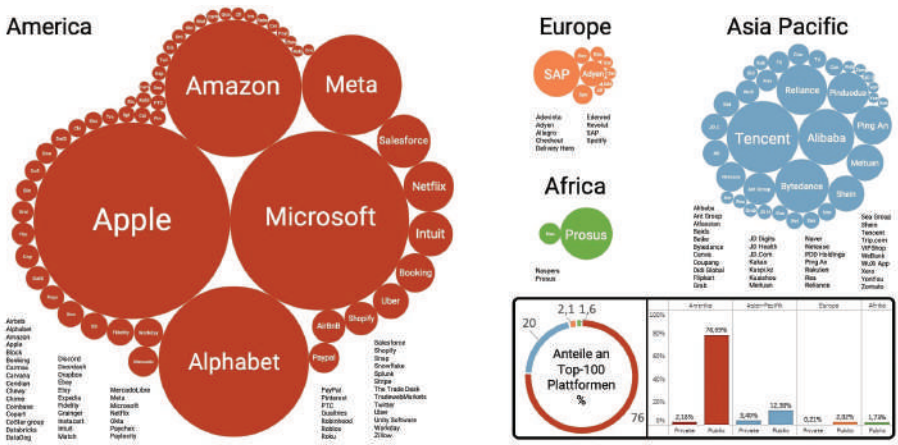
This is, however, a difficult conundrum for policy makers. The digital economy has provided significant benefits both for producers and consumers

of goods and services. It has lowered barriers to entry for small and medium enterprises, expanded their geographical footprint through digitization of logistics and supply chains, and enabled business processes to be outsourced thereby creating jobs, attracting investment, and lowering the cost of doing business. Consumers have greater choice and convenience, especially since digital payments have become ubiquitous globally. The network effects generated by digitalization have expanded both the economies of scale and scope, supporting innovation and shaping markets, both within and across countries.

At the same time, digital markets—and the data that powers them—became globalized before appropriate rules, regulations, and standards regarding data collection, processing, and transfer could be framed and enforced. Taking advantage of the network effects and the lack of guardrails, digital markets are increasingly dominated by supranational entities, especially digital platforms based in the United States and China, which have seen unfettered growth (Figure 6).

As these platforms expanded across borders riding on the free market paradigm of globalization, their reach and influence have grown exponentially creating an unequal and unfair balance of power between developed countries and the Global South. For the latter, the challenge for policy makers is to strike a balance between enacting reasonable regulation to protect personal data and

FIGURE 6 **Top Platforms in the World**



Source: Holger Schmidt, "Top-100 Platforms in the World," accessed on October 3, 2024, https://www.netzoekonom.de/plattform-oekonomie/. Copyright Holger Schmidt, 2024, used with permission. All rights reserved.

its use on the one hand and enabling an innovation ecosystem that attracts investments, creates jobs, drives growth, and addresses development priorities on the other.

A second dimension into this divide is **data quality**. Even where data is accessible, there is often a disparity in data quality. High-income countries benefit from well-structured, accurate, and up-to-date datasets, which are crucial for informed decision-making in sectors like healthcare, education, and public policy. In contrast, many developing countries struggle with fragmented, incomplete, or outdated data, limiting their ability to make evidence-based policy decisions and hindering the ability of businesses to innovate. Poor data quality also undermines the ability to effectively measure and address critical issues such as poverty, climate change, and public health.

The third dimension of the data divide is related to the existence of **frameworks** to unlock the **value of data** for all. Multinational digital technology platforms, especially those based in the United States and China, dominate the collection and monetization of data globally. This creates a situation where the economic value generated from data in the Global South often flows to the Global North. Countries with less regulatory and taxation capacity struggle to capture a fair share of the value produced by data, whether through corporate taxation, data governance frameworks, or innovation ecosystems.

As digital platforms have grown in size and influence, data flows within and across borders is one of the most important elements of globalization, mirroring the increase in the share of global trade starting in the early 1990s. While there are similarities between the two, there are significant differences especially in terms of infrastructure and regulation. Much of the increase in trade volumes over the last three decades happened within institutional norms, principles, and legal frameworks such as removing tariff and nontariff barriers, free trade agreements, and the creation of the WTO to prevent unfair trade practices.

In contrast, there are few agreed frameworks to govern cross-border data flows in spite of its rapid growth over the last three decades. This creates a serious imbalance between inflow and outflow of data generated at the country level.. The United States and China, with dominant international online platforms (DIOPs), high technology industries (LHTIs), and workforce with tech-

nical skills, are positioned as global data hubs for data inflows.[16] In contrast, developed regions, such as countries in the European Union (EU), Japan, and the United Kingdom, who lack homegrown online platforms, experience data outflows. Finally, the whole of the Global South (excluding China), consisting of more than three-quarters of the world's population, experience an outflow of data from their national jurisdictions. Countries like India have high-tech capabilities but lack major DIOPs, resulting in data outflows. Smaller countries in sub-Saharan Africa with limited digital infrastructure and neither DIOPs nor LHTIs are experiencing substantial data outflows.[17] This fragmented digital landscape, with limited regulatory cohesion, put both the Global South and some developing countries at a disadvantage, reinforcing the dominance of those that control the flow and processing of data across borders.

Consequently, legal frameworks such as the EU's General Data Protection Regulation (GDPR) is an effort to exercise digital self-determination, that is, to limit the power of global platforms to access, process, and use data generated within countries for private benefit. It has also provided a model for data protection and privacy legislation in the Global South, with countries adapting the GDPR provisions for their specific priorities, needs, and capacities. With EU's Digital Markets Act and Digital Services Act coming into force in March 2024, the first steps have been taken to regulate the power of "digital gatekeepers"—the global private platforms that dominate the digital economy using data that should be a global public good in the service of inclusion, equity, and development.[18]

While there has been some progress towards crafting data governance rules, regulations, and standards, the current imbalances will persist unless there is a rebalancing of capital investment in the innovation ecosystem, currently

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16. United Nations Conference on Trade and Development (UNCTAD), "Digital Economy Report 2021," UNCTAD, September 2021, https://unctad.org/system/files/official-document/der2021_en.pdf;

17. United Nations Conference on Trade and Development (UNCTAD), "Digital Economy Report 2021."

18. European Parliament, "EU Digital Markets Act and Digital Services Act explained," European Parliament, December 14, 2021, https://www.europarl.europa.eu/topics/en/article/20211209STO19124/eu-digital-markets-act-and-digital-services-act-explained.

dominated by the United States and China. This is evident with emerging technology, such as artificial intelligence models, which use massive amounts of data, often without explicit authorization in violation of digital rights. This imbalance calls for new global taxation policies and robust cross-border frameworks to ensure that data is treated as a valuable resource, benefiting both the regions where it is generated and the companies that monetize it. The OECD's Base Erosion and Profit Shifting (BEPS) project, which aims to close gaps in international tax rules that allow multinational corporations to shift profits to low- or no-tax jurisdictions, thus depriving countries of their fair share of tax revenues, is an example of a framework that could be leveraged by Global South countries to better capture the economic benefits of data, ensuring these resources contribute to local development and public welfare.[19]

7.4 Rebalancing the Global Digital Economy: Role of the Global South

With rapid advances both in the coverage of cellular mobile networks and alternatives, such as satellite base stations and open radio access networks, countries around the world are rapidly closing the gaps in access to digital networks. This means there will be at least 2 billion new entrants to the globalized digital economy in the coming decade, almost all of them in the Global South. At the same time, the digital footprint of the global population is also expected to increase manifold, thereby creating both opportunities for innovation and challenges for regulation.

This would require a rebalancing of technological, regulatory, and financial capacity between developed countries and those of the Global South. Cooperation and coordination among countries of the Global South holds the key to address the current imbalance. This starts with understanding the core globalization paradigms—free markets, free trade and free capital flows—and its relation to the ongoing digital transformation of economies and societies. The need for rebalancing is more critical than ever, especially for countries of the Global South, who will anchor the future globalized digital world. We highlight three areas where the Global South can take the lead.

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19. OECD, "Base erosion and profit shifting (BEPS)," OECD, https://www.oecd.org/en/topics/policy-issues/base-erosion-and-profit-shifting-beps.html.

7.4.1 Using Data for Innovation and Development

One of the most important imperatives is to create frameworks for digitalization to accelerate progress towards SDGs, with inclusion and equity as the core principles. For many countries in the Global South, the increasing availability of data presents a significant opportunity to leapfrog traditional development pathways. However, while data is being produced at unprecedented rates, the capacity to harness it effectively for innovation and development is marked by a sharp data divide, that is, the gap between those who have access to high-quality data and those who do not.[20]

Countries need to develop frameworks that enable the responsible and equitable use of data while fostering innovation. This means not only adopting adequate data protection standards but also promoting data access to spur innovation in sectors like agriculture, education, and public health. Doing so requires finding a "sweet spot" between closing and opening data to responsibly unlock the value of data for all, accelerating social and economic development.

To this end, countries must invest not only in technology but also in building digital skills. The youth demographic in the Global South offers immense potential, but without adequate access to education and upskilling opportunities, this potential will remain untapped. Governments and private sectors should collaborate to create initiatives that develop a digitally skilled workforce capable of driving innovation in fields such as fintech, healthcare, and education.

7.4.2 Creating Digital Public Infrastructure

One of the key sources of imbalance in the diffusion of digital technologies is that it has been dominated by the private sector, which has driven investment and innovation to create and shape the digital economy. This approach is increasingly being challenged as countries—mostly in Europe and the Global

20. The terms "digital divide" and "data divide" are often used interchangeably but differ. See: Randeep Sudan, Craig Hammer, and Yaroslav Eferin, "Toward Bridging the Data Divide," World Bank Blogs, September 5, 2023, https://blogs.worldbank.org/en/opendata/toward-bridging-data-divide.

South—look to limit the power of digital platforms both through regulation as well by creating digital public goods (DPG), a set of digital building blocks that can be combined to create solutions across domains.

To that end, DPI is an approach to provide services and economic opportunities to citizens by combining interoperable, open-access, and reusable building blocks into a network of digital systems providing enabling policy and incentives for private sector innovation. To support this, sandboxes provide safe spaces to test new technologies and practices against regulatory frameworks, or experiment with innovative uses and means of governing data, offer an important tool that could allow governments to test and deploy DPI solutions in a controlled environment, and co-create safeguard that balances innovation with responsible governance.[21, 22, 23]

The idea of DPI as a tool to redress existing imbalances is being increasingly recognized in various global initiatives on the future of the digital economy. DPG and DPI are mentioned in the Global Digital Compact (GDC) adopted by member states at the UN General Assembly meeting in September 2024. For countries of the Global South, the GDC provides the basis to implement nationally determined, development-focused, and people-centric policies to drive digital transformation of their economies and societies, drawing on experiences of other countries to adapt to their own needs.[24]

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21. Datasphere Initiative, "Sandboxes for data: creating spaces for agile solutions across borders," Datasphere Initiative, May 25, 2022, https://www.thedatasphere.org/datasphere-publish/sandboxes-for-data.

22. Universal DPI Safeguards, "About the Universal DPI Safeguards Initiative," Universal DPI Safeguards, https://safedpi.gitbook.io/safeguards/working-group-documents/reports.

23. Lorrayne Porciuncula, Sophie Tomlinson, and Mariana Rozo-Paz, "Why sandboxes are key for responsible DPI," Datasphere Initiative, September 6, 2024, https://www.thedatasphere.org/news/sandboxes-for-dpis.

24. Anit Mukherjee, "What Next, After the Global Digital Compact?," ORF America, October 1, 2024, https://orfamerica.org/orf-america-comments/global-digital-compact.

7.4.3 Building Mission-Oriented Coalitions

The Global South stands at a crucial juncture with its increasing voice and capacity to leverage collective action to bridge the digital divide. A key strategy for the Global South should be to build on existing frameworks like the G20 and the UN to advocate for a more equitable and inclusive digital future. The G20, with its emphasis on consensus-building and representation of a significant portion of the global GDP, offers a valuable platform for driving collective action. The proposal of a Data20 Working Group within the G20 could provide a dedicated space to discuss and address data governance issues and bridge internal divides among existing G20 engagement groups.[25] This D20 could leverage the expertise and resources of diverse stakeholders, including governments, businesses, and civil society organizations, to develop shared understandings and policy approaches.

Furthermore, the UN's successful model of designating thematic "International Decades" provides another avenue for advancing a mission-driven approach to data governance. An "International Decade for Data (IDD)" could serve as a powerful tool for guiding the international community through the complexities of the data-driven landscape.[26] The IDD's ten-year time frame would allow ample time for building consensus, identifying common concerns, and developing solutions through collaborative engagement. For mission-driven coalitions to succeed, it is crucial to secure financial resources and capacity-building support from both public and private sectors to ensure the successful implementation of these initiatives, particularly in developing countries.

Moreover, the GDC, adopted in September 2024, further presents a significant opportunity for the Global South to advocate for closing digital divides and promoting inclusive digital transformation.[27] The GDC emphasizes the

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25. Astha Kapoor, Bruno Bioni, and Stephanie Diepeveen, "Call to Action: Why the G20 Needs a Data20," G20 Brasil 2024, June 13, 2024, https://www.g20.org/en/news/call-to-action-why-the-g20-needs-a-data20.

26. Lorrayne Porciuncula et al., "Advocating for an International Decade for Data under G20 Sponsorship," T20 Policy Brief, August 2024, https://www.t20brasil.org/media/documentos/arquivos/TF05_ST_06_Advocating_an_Inter66cf6ad8f1a90.pdf.

27. United Nations, "Global Digital Compact," United Nations, September 2024, https://www.un.org/global-digital-compact/sites/default/files/2024-09/Global%20Digital%20Compact%20-%20English_0.pdf.

importance of international cooperation, data governance, and addressing digital inequalities. The Global South should actively engage in the implementation and follow-up of the GDC, leveraging its principles and commitments to advance its digital development agendas. By forming strategic coalitions and advocating for these mission-oriented initiatives, the Global South can unlock the transformative potential of data and digital technologies for all.

7.5 Conclusion

With over two-thirds of the world's population connected to digital networks, the ongoing digital revolution has accelerated the process of globalization bringing significant benefits for the global economy. However, providing universal connectivity, ensuring inclusion, and creating opportunities in the digital economy remains a work in progress, especially in the Global South. The past two decades have also seen the rise in the power of global platforms based in the United States and China. There is a need to address the digital and financial divides that exist between the developed countries and those of the Global South to foster inclusive growth and achieve the SDGs. The Global Digital Compact adopted by the member states of the United Nations provides an opportunity for countries of the Global South to build coalitions, share expertise, support innovation, and create frameworks to use data to address their development needs and priorities.

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