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Financing the Sustainable Development Goals through mission-oriented development banks

Mariana Mazzucato

POLICY BRIEF

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Financing the Sustainable Development Goals through mission-oriented development banks

Mariana Mazzucato*

ABSTRACT

There is an urgent need for channeling long-term risk-tolerant finance towards achieving the Sustainable Development Goals. The paper argues that National Development Banks (NDBs) and Multilateral Development Banks (MDBs) can play a crucial role in mobilizing the needed capital but only if an outcomes oriented ‘mission-oriented’ approach is adopted to galvanize, catalyze, and crowd in substantial global public and private finance (scaling it up from billions to trillions). Missions help transform broad SDG related challenges, like global health and climate change,

into investment pathways where strong publicly set goals crowd in private investment. Key is to make sure that strong conditions around reciprocity determine equitable and just partnerships and direct public and private finance towards inclusive and sustainable outcomes. Low-income countries which continue to face stringent international credit conditions can benefit from diverting resources from debt repayment towards development goals, while high-income countries can unlock financialised and hoarded capital for sustainable development.

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1. FINANCING THE SDGS: MISSION-ORIENTED PATIENT FINANCE

The UN's Sustainable Development goals require governments and businesses to prioritize investment-driven growth that is both inclusive and sustainable. As the SDGs are not being met (UN, 2023a), more attention is required on how to create the finance that is needed to address them seriously. Financing innovation for development demands risk-taking, but with a long-term focus. The configuration of both national and international financial systems is crucial to realizing this objective (Mazzucato and Macfarlane, 2018; Macfarlane and Mazzucato, 2019, Mazzucato and Penna, 2016a; UN, 2023b; 2023c). The structure is pivotal because finance is not neutral; the structure of financing influences investment decisions and the resulting activities (O'Sullivan, 2004; Mazzucato, 2013a). Contrary to the idea that money merely facilitates exchanges without affecting the real economy (Modigliani and Miller, 1958), different financial instruments and institutions shape economic activities (Spence, 2021). Innovation's inherent uncertainty, lengthy development phases, collective nature and accumulative characteristic necessitate a unique financial approach. Indeed, as is well known, investments in innovative endeavors might not always guarantee short term financial returns. Given the uncertainty and long-term aspect of innovation, financing for it must be both tolerant

of high risk and focused on the long-run not the short-run (Lazonick and Mazzucato, 2013). Since innovation is a collective effort, it requires diverse forms of financing from both public and private entities, and both risks and rewards socialized.

In nations that experienced innovation-driven growth, the public sector frequently provided long-term, high-risk capital that the private sector was initially hesitant to offer (Mazzucato, 2013b). In Korea, Taiwan, and Singapore—countries that made the leap to development in the 1970s and 80s—an active, visible hand allowed them to “kick away the ladder” (Reinert, 2019; Chang, 2003). In Korea, by nationalizing, owning, and controlling all commercial banks, the government ensured that adequate funding was directed to targeted sectors needing innovation for catch-up, while also ensuring that the conditions for learning and competitiveness were met (Amsden, 1989). A similar strategy was employed in Taiwan (Wade, 1990). In China, the majority of funding for both public and private companies comes from public banks. Ambitious developmental goals are inherently risky, but history shows that determined governments are more likely to take the bold, long-term steps necessary to achieve them.

Equally, the most advanced and successful capitalist economies, even with a powerful private financial sector and banks, have had active states that made risky investments,

Table 1
Assets under administration (AuM)

	2018		2019		2020		2021		CAGR 2018-2021
	USD M	% of total	USD M	% of total	USD M	% of total	USD M	% of total	
Total	17,067,591	100.0%	17,676,187	100.0%	22,164,015	100.0%	22,519,490	100.0%	10%
MDBs	1,973,623	11.6%	2,058,304	11.6%	2,305,107	10.4%	2,284,504	10.1%	5%
Global remit	594,398	3.5%	617,482	3.5%	674,981	3.0%	676,675	3.0%	4%
Regional remit	1,379,225	8.1%	1,440,822	8.2%	1,630,125	7.4%	1,607,829	7.1%	5%
Africa	77,404	0.5%	83,932	0.5%	93,939	0.4%	98,375	0.4%	8%
Americas	195,892	1.1%	206,822	1.2%	226,381	1.0%	235,377	1.0%	6%
Asia	269,574	1.6%	305,822	1.7%	367,858	1.7%	388,167	1.7%	13%
Europe	836,337	4.9%	844,228	4.8%	941,933	4.2%	885,894	3.9%	2%
Oceania	17	0.0%	17	0.0%	15	0.0%	15	0.0%	-4%
NDBs	15,093,968	88.4%	15,617,883	88.4%	19,858,909	89.6%	20,234,986	89.9%	10%
National ownership	14,247,404	83.5%	14,712,227	83.2%	18,829,901	85.0%	19,175,484	85.2%	10%
Africa	75,772	0.4%	79,477	0.4%	90,513	0.4%	96,754	0.4%	8%
Americas	6,230,083	36.5%	6,465,093	36.6%	8,255,756	37.2%	8,537,738	37.9%	11%
Asia	5,792,767	33.9%	5,941,826	33.6%	6,804,439	30.7%	7,025,602	31.2%	7%
Europe	2,142,452	12.6%	2,218,922	12.6%	3,672,008	16.6%	3,503,883	15.6%	18%
Oceania	6,330	0.0%	6,909	0.0%	7,184	0.0%	11,508	0.1%	22%
Subnational ownership	846,564	5.0%	905,655	5.1%	1,029,007	4.6%	1,059,501	4.7%	8%
Americas	276,706	1.6%	322,768	1.8%	342,416	1.5%	394,981	1.8%	13%
Asia	17,207	0.1%	18,101	0.1%	22,748	0.1%	30,789	0.1%	21%
Europe	549,942	3.2%	562,057	3.2%	660,189	3.0%	630,247	2.8%	5%
Oceania	2,709	0.0%	2,729	0.0%	3,654	0.0%	3,484	0.0%	9%

Info: Data for institutions with complete data for 2018-2021

Note: Totals may not add up due to rounding

Source: Xu et al. (2023).

contributing to the advancement of general-purpose technologies (GPTs). This includes the development of the Internet, the nanotechnology sector, the biotechnology sector, and the emerging clean-tech sector (Block and Keller, 2011; Sampat, 2012). Rather than just fixing market failures, public investments shaped and co-created the markets (Mazzucato, 2016). The government took the initiative, not just as an investor of last resort, but as the investor of first resort, paving the way for new technological and industrial horizons. This has taken different institutional forms, from innovation agencies to public venture capital, procurement programs, and state banks (Mazzucato and Semieniuk, 2017). A key characteristic of market-shaping investments is that they are not limited to upstream basic research. Indeed, public investments that led to technological revolutions and new general-purpose technologies were distributed along the entire innovation chain: basic research through the National Science Foundation (NSF), applied research through the Defence Advanced Research Projects Agency (DARPA) and the National Institutes of Health (NIH), and early-stage financing of companies through agencies such as Small Business Innovation Research (SBIR) that use government procurement to allow small companies to scale up through providing innovative goods and services for the public sector (Block and Keller, 2011; Mazzucato, 2013b).

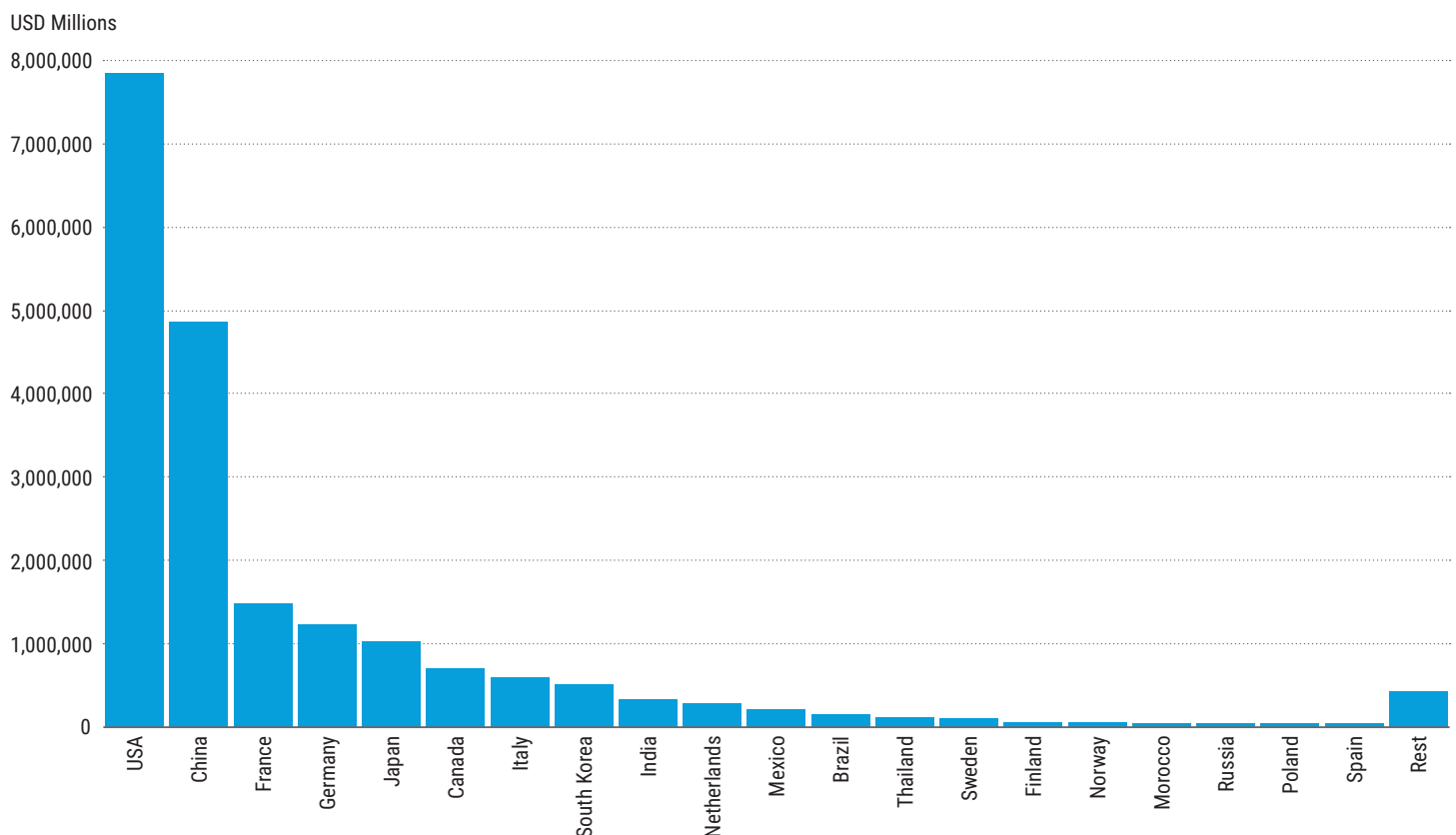
In developing countries, and some developed countries, such patient strategic finance is increasingly coming from national development banks (NDBs) and multilateral development banks (MDBs) (Griffith-Jones and Ocampo,

2018). NDBs are publicly owned entities that have a mandate to pursue socio-economic goals in a defined geographical area, sector or market segment through the use of repayable financial instruments. MDBs are international financial institutions chartered by two or more countries for the purpose of encouraging economic development in countries and regions. Some, like the World Bank, have a global remit, while others, like the African Development Bank (AfDB), the Asian Development Bank (ADB), the Inter-American Development Bank (IDB) and the Islamic Development Bank (IsDB), have a regional remit.

There are over 500 public development banks worldwide: 90% are classified as NDBs, and 10% as MDBs. Delving deeper into the composition of MDBs, eight operate on a global scale, while 47 focus regionally. Geographically, 14 regional MDBs are located in Europe, 13 in Africa, 10 in the Americas, nine in Asia, and Oceania has one. Historically, half of the MDBs were established before 1980. Notably, 25% were founded in the 21st century, suggesting an increasing trend in their establishment in recent years.

As of June 2023, NDBs manage total assets (AuM) valued at around \$20.2 trillion. Over 70% of these assets are controlled by just five countries: the US, China, France, Germany, and Japan (Figure 1). However, this figure is based on data from only 58% of NDBs, suggesting that the actual total might be higher. In contrast, the data concerning the assets of MDBs is more reliable, as it encompasses nearly 90% of these institutions. MDBs manage assets totaling approximately \$2.2

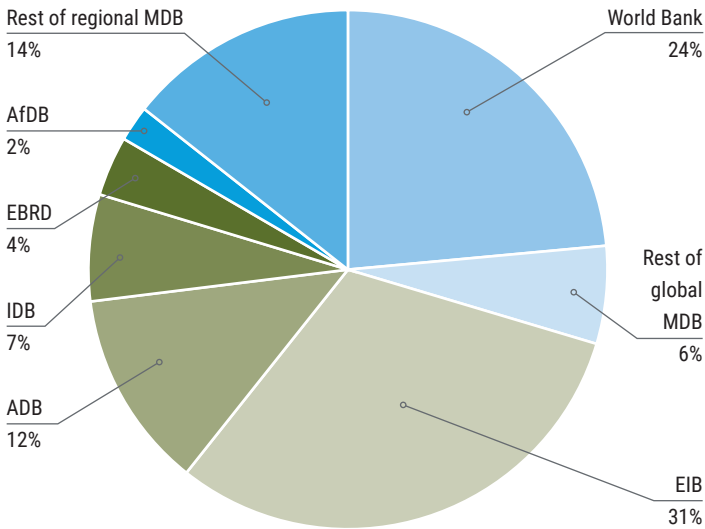
Figure 1
National development banks' (NDB) assets under management as of 2021. USD million (Total USD 20.2 T)



Data source: Xu et al. (2023).

Figure 2

Multilateral development banks' (MDB) assets under management as of 2021. 100% = USD 2.2 T



Data source: Xu et al. (2023).

trillion (Table 1). Delving deeper, global MDBs oversee \$676 billion in assets, while regional MDBs control around \$1.6 trillion (Figure 2) (Xu et al., 2021, 2023).

Historically, public development banks were predominantly focused on capital-intensive projects, such as infrastructure. However, in recent times, there has been a shift. They are now increasingly channeling funds towards sustainable development goals (Mazzucato and Penna, 2016a). The challenge-orientation can not only promote economic development but also address critical challenges like climate change, health disparities, and the digital divide (Figure 3).

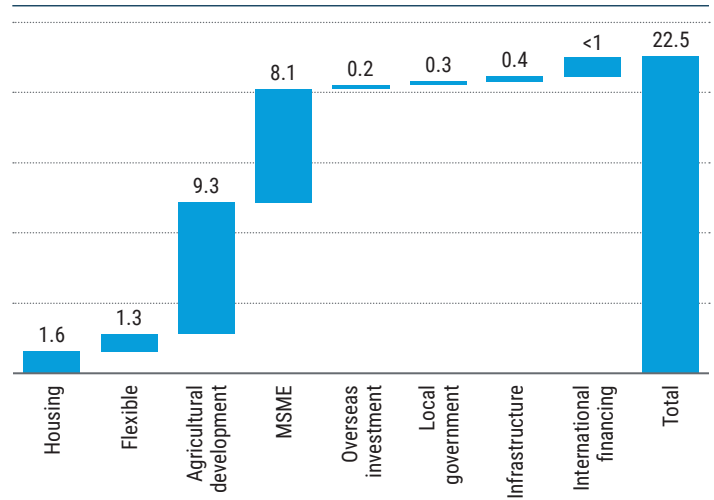
At a time when countries are failing to meet the Sustainable Development Goals (SDGs), and in the context of widening global fragmentation and regionalization, the need for NDBs and MDBs to play a more strategic and aligned role has been highlighted (UN 2023b; 2023c). A central task of this paper is to consider ways for creating a more dynamic and coordinated ecosystem of public development banks – at the national level in the form of NDBs and at the international level in the form of MDBs. In particular, the paper examines how a mission-oriented approach can help NDBs and MDBs mobilize and coordinate strategic patient finance around ambitious SDG-aligned missions, creating an SDG multiplier. Section 2 defines mission-oriented structures for policy, finance and governance in the context of public development banks (Mazzucato, 2022). Section 3 shows how a mission-oriented approach can create additionality and strengthen alignment between MDBs and NDBs. Section 4 concludes by highlighting the need for a new economics of the common good that encourages economic actors to actively shape markets toward collective goals (Mazzucato, 2023a; 2023b).

2. MISSION-ORIENTED FINANCE

A key problem in advanced capitalism is the way finance has been disconnected from the real economy. There are three dimensions of this problem: First, in advanced economies,

Figure 3

Multilateral Development Banks' (MDB) and National development banks' (NDB) assets under management as of 2021. USD million. (Total USD 22.5T)



Data source: Xu et al. (2023).

most bank lending is directed towards trading or lending against existing assets, rather than financing the creation of new productive assets. For instance, in the UK, only about 10% of all bank lending supports investment by non-financial firms. The majority funds purchases of finance, insurance, and real estate assets—often referred to as FIRE. This tends to drive up the prices of these assets in the process (Mazzucato et al., 2023). Second, a significant portion of this finance is short-term. In 2022, the global algorithmic trading market was valued at 15.5 billion, where profits are derived from investments traded at the millisecond level (GVR, 2021). Third, the problem is not only of the financial sector alone. Large corporations have become financialized, allocating over 54% of their earnings to stock buybacks, while another 37% goes to dividend payouts (Lazonick, 2014; Mazzucato, 2021). This represents a lack of reinvestment of funds back into the real economy. Indeed, buybacks were essentially illegal in many jurisdictions until the 1980s because they were considered a form of stock manipulation. When they were reintroduced in the USA, due to the lobbying of the Securities Exchange Commission, buybacks were widely adopted around the world over the next 20 years (Williamson, et al., 2020). Between 2010 and 2019, total spending by all publicly traded companies on stock buybacks totaled \$6.3 trillion (Palladino and Lazonick, 2021). Finding ways for finance to be more long-term and getting both the financial and business sectors to reinvest back into the real economy, rather than in financialized areas, is crucial to development policy. How to make sure that investment is green and leads to inclusive outcomes is key. But this will not happen on its own and is the reason why market shaping policies that are mission oriented are crucial for the future of development policy and our ability to tackle the SDGs.

2.1. Mission-oriented policy

To steer finance towards the real economy, it is useful to think about the role that missions oriented policies can play at the center of development policies. Missions are a policy

framework that can shape economic policy in an outcomes-oriented way, in the service of the common goal. Missions require market shaping and creating, not just market fixing (Mazzucato, 2016; 2021). Guided by a goal-oriented approach, missions are useful for catalyzing investments in solutions to challenges that require deep coordination across both public and private actors, many different industrial sectors and patient long-term finance.

NASA's Apollo mission had the clear objective of going to the moon and back in one generation. It involved 400,000 people in both public and private sectors, and the types of businesses involved were in many different industries, from aerospace to nutrition, materials, and software. NASA played a coordinating role, but the level of co-investment and collaboration led to some of the most interesting technological solutions, from camera phones to foil blankets and baby formula. Furthermore, NASA was careful to structure the 'partnerships' in a fair way, with 'no excess profits' clauses—in other words, if investment is collective, so should rewards be. They also used outcomes-oriented procurement to allow market creation for the companies involved—market creation towards a goal rather than the usual emphasis on commercialization as an end in itself (ibid 2021). While such problem-solving has been typical of wartime missions, there is no reason why the SDGs cannot also benefit from a mission-oriented approach that puts urgency, fairness and collective investment at the core of the partnership. The “wicked” characteristic of such social and economic problems means that it is not just technological change that is needed but also social and behavioral (Mazzucato, 2018a; 2018b). Such missions can be used to frame problems like eradicating food insecurity and improving access to clean and safe water for all to mitigating climate change by creating net-zero regions.

A mission-oriented approach begins with a challenge (an SDG), transforms it into a clear targeted mission and then uses all levers, from procurement to grants and loans, to crowd in¹ bottom-up innovation across as many sectors and actors as possible: in the same way that going to the moon required not just aerospace but also nutrition, solving our climate challenges is not just about renewable energy but also about new forms of transport, nutrition, construction, digitalization and so on. For example, SDG 14 on life below water can be transformed into a plastic-free ocean mission, which would require a wide range of research and innovation activities in areas as different as chemicals, biotech, waste, design and Artificial Intelligence (AI) (Figure 3) (Mazzucato, 2018a; 2018b; 2021; Miedzinski et al., 2019). Crowding in projects under a common mission should result in a sum greater than the parts. In other words, missions require a portfolio of actions and experimentation (e.g., on a project- and technology-level) directed towards generating multiple technological and organizational solutions, some of which will, of course, fail (hence risk finance is needed). While the mission must be clear, the 'how' must be kept open, stimulating as much innovation and experimentation as possible. This also involves seeking synergies across sectors, technologies and policy domains, and therefore

¹ Crowd in refers to the phenomenon where public sector investment or policy initiatives attract and stimulate additional private sector investments in a particular area or sector.

requires “systems thinking”, novel approaches to collaborations, social learning and deliberate governance mechanisms (Mazzucato, 2021).

Missions also have an important role to play in national and regional economic strategies. A mission-based approach can help to ensure that industrial policies do not end up as a static list of sectors to support, easily 'captured' by lobbying efforts. Rather than focusing on particular sectors, mission-oriented policies focus on problem-specific societal challenges as captured in the SDGs, which many different sectors and actors interact to solve. The focus on societal problems, and new types of collaborations between public and private actors to solve them, creates the potential for greater economy-wide spillovers, which can stimulate growth due to the investment and innovation required. Therefore, a mission-based approach to innovation and financing, anchored in the SDGs framework, can lay long-term foundations for inclusive and directed growth, sectoral diversification, and productivity increases.

To stimulate inter-sectoral collaboration to solve mission-oriented challenges around the SDGs it is crucial to clearly design ambitious outcomes oriented public private partnerships. This can be done through core 'common good' principles. While public goods have been framed in the economics literature as corrections for market failures, the political economy of the common good sets an objective that requires market shaping not just fixing, with the 'how' to collaborate and coinvest (with ambitious structures, conditionality and reciprocity) as important as the 'what' (Mazzucato, 2023a; 2023b; 2023c Forthcoming). Contracts that demand co-investment, knowledge sharing, revenue sharing, transparency and accountability are key. In particular, global collaboration that bridges NDBs and MDBs, governments and the private sector should be rooted in knowledge-sharing with the goal of collective intelligence. To realize this vision, barriers such as the existing intellectual property rights framework must be reformed. For example, the challenges of vaccine distribution during the COVID-19 pandemic, where intellectual property rights and wealth disparities resulted in inequitable access, emphasize that financial solutions alone are not enough. Knowledge-sharing and equitable access to resources are paramount for genuine global progress.

2.2. Mission-oriented finance

Missions require patient long-term high-risk finance that can crowd in other forms of finance, creating transformational change at different stages of the technological and business cycle. If structured well, finance can create and shape markets by channeling funds to solve problems. Such funds can come from a variety of direct and indirect sources: loans, grants, guarantees, and debt- and equity-based instruments. While the vocabulary is often one of 'de-risking', this misses the point that risk-taking is necessary (embracing the underlying fundamental Knightian uncertainty), and hence mechanisms for sharing both risks and rewards are crucial (Mazzucato and Macfarlane, 2018; Macfarlane and Mazzucato, 2018).

Innovation in financial instruments is essential. These include social bonds, green bonds, credit enhancement mechanisms, and private-public results-based financing, which channels resources from both commercial and

non-profit institutions (Mazzucato 2018b). However, these aren't the only options; the spectrum also covers relief mechanisms like natural disaster bonds and SDG Debt Swaps (WHO Council on the Economics of Health for All, 2023b). In other words, directionality of innovation is enabled not only by clear policy goals, but also through strategic financing policies.

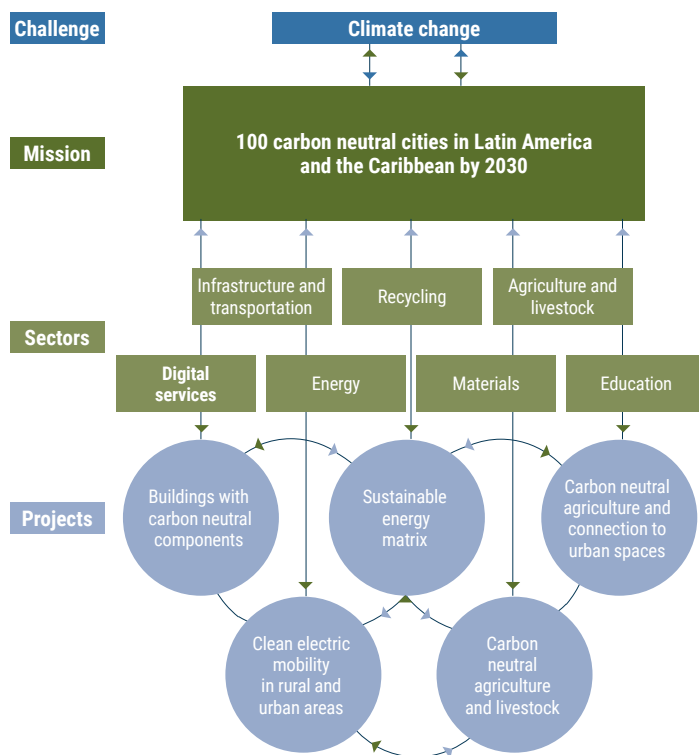
When public financial institutions, such as development banks, act as mission-driven investors, they often act as lead investors (lenders of first, not last, resort) which implies assuming various types of risk. The risk portfolio is also associated with the various roles NDBs play: from a countercyclical role by providing finance throughout the swings of business cycles, to a capital development role by financing infrastructure, to a venture capitalist role and a mission-oriented role by acting as investor of first resort to catalyze different forms of investment aimed at solving challenges (Mazzucato and Penna, 2016a; 2016b). MDBs also play a crucial role in enabling low-income countries to access lending, as these countries face tight restrictions set by international credit markets.

Mission-driven financial institutions tend to provide financing programs and instruments that aim to support projects and/or technologies related to particular challenges (e.g. renewable energy within the overall goal of achieving just green transitions) rather than following 'directionless' mandates such as supporting 'competitiveness' or 'economic growth'. Figure 4 shows the prevalence of NDBs and MDBs in the climate financing space. The risk portfolio of mission-driven national development banks is also reflected in the range of financial instruments that are designed for various areas of the risk landscape – a more strategic approach to risk-taking is what enables public development banks to be more active in risk-sharing between public and private financing actors (Mazzucato, 2019). Public banks must be able to strike the right balance between risks and rewards, ensuring that investments are structured across a risk-return spectrum so that lower risk investments help to cover higher risk ones. Where success occurs, a bank should be able to reap some of the financial rewards to offset the inevitable failures.

Managing risk in MDBs is a complex task. Unlike traditional banks, MDBs are not subject to standard regulation and supervision. Instead, they are monitored by their shareholders, who have unique expectations. Shareholders want MDBs to access low-cost funding from bond markets and avoid situations that could trigger a call on reserve capital. They also expect MDBs to maximize their impact on development, use their capital efficiently, and expand operations in poorer and riskier countries. These goals have clear risk management implications. To manage these complexities, shareholders often use MDB bond ratings as a measure of risk. Most MDBs are expected to maintain a top-tier AAA bond rating, a rating that's very rare and usually only achieved by state-backed institutions. However, maintaining a AAA rating can cause MDBs to build up large safety margins to deal with uncertainties. To reduce risk exposure, MDBs have implemented financial solutions where the risk is shared with a third party, such as a philanthropist. Despite these efforts, AAA rating targets can constrain MDBs. This might curtail their willingness to undertake riskier projects that could offer significant social benefits (G20, 2022).

Figure 4

An example of a mission around climate change for Latin America



Source: Mazzucato (2022b).

In the case of renewable energy technologies, while the composition of the investment portfolios of financial actors varies considerably, public financial actors – especially national development banks – invest in portfolios with higher risk technologies with a view to creating a direction (Mazzucato and Semieniuk, 2018). They also account for an increasing share in overall investment in renewable energy technologies. Figure 5 depicts a risk-capital intensity framework: public financial actors tend to occupy the top-right quadrant, which plays a critical role in creating and shaping new markets to crowd in private capital.

To ensure a fair distribution of risks and rewards, public banks have various mechanisms at their disposal to generate returns. These include retaining equity or royalties, holding a portion of intellectual property rights, or integrating conditionalities into public funding agreements (Mazzucato 2013a; 2013b; Macfarlane and Mazzucato, 2018). For instance, green stipulations can strategically channel financial resources towards decarbonization efforts (Mazzucato 2022a; Mazzucato et al., 2023). In Germany, the public bank KfW extended loans to the steel industry, contingent on the sector's commitment to reduce its material production content. This initiative by KfW has catalyzed a significant transformation in Germany's steel industry, prompting substantial investments in new infrastructure and technologies focusing on reuse, repurpose and recycle strategies, all aimed at achieving carbon neutrality by 2045 (Schreck et al., 2023). In a similar vein, BNDES, the Brazilian NDB, has financed the life sciences sector, but with a condition: the sector must develop drugs and antibiotics that are readily available to underserved

Figure 5

Public development finance makes up more than half of climate finance as of 2019/2020

LANDSCAPE OF CLIMATE FINANCE IN 2019/2020

Global climate finance flows along their life cycle in 2019 and 2020. Values are average of two years' data, in USD billions.

SOURCES AND INTERMEDIARIES

Which type of organizations are sources or intermediaries of capital for climate finance?

PUBLIC **PRIVATE**

INSTRUMENTS

What mix of financial instruments are used?

653 BN USD ANNUAL AVERAGE

Government funds to other public sources are not estimated

USES

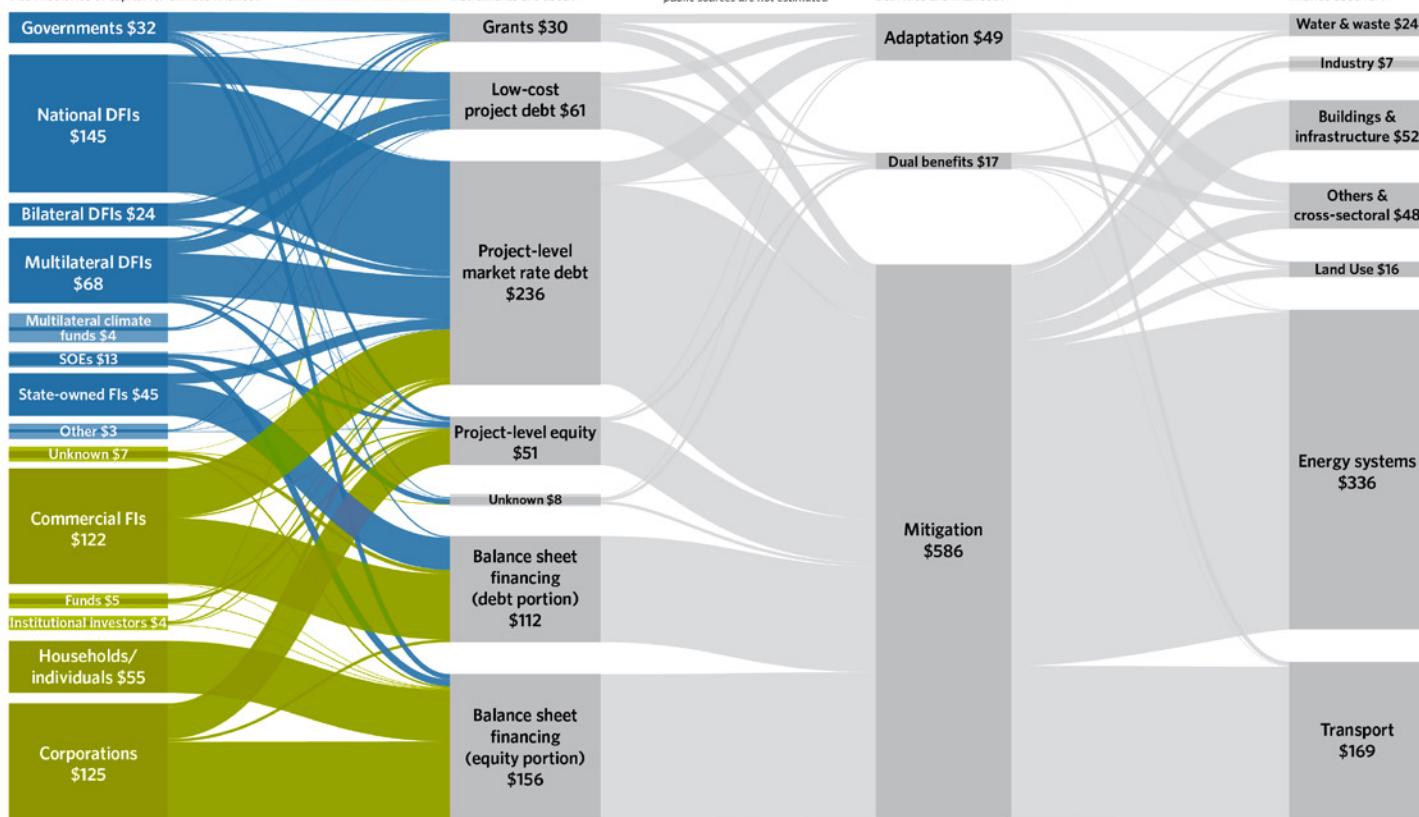
What types of activities are financed?



CLIMATE POLICY INITIATIVE

SECTORS

What is the finance used for?



Source: Climate Policy Initiative (2022).

populations (Gadelha et al., 2012). The concept of socializing rewards can manifest in various ways. For instance, the profits from successful investments may boost BNDES's earnings, which in turn benefit the Brazilian Treasury and the social security funds of Brazilian workers. By actively collaborating with governments, private enterprises, non-profit organizations and global development allies, these banks can synchronize their funding initiatives with more extensive green transition strategies that prioritize justice and fairness. Recognizing the collaborative essence of value creation (Mazzucato, 2018b) encourages the active participation of all stakeholders.

Rethinking the risk management approach of MDBs is crucial. The G20 Capital Adequacy Frameworks Panel encourages a more comprehensive definition of risk appetite, grounded in robust evidence, institutional objectives, specific financial risks of MDB operations and shareholder risk tolerance. History shows MDBs are resilient; despite various crises since WWII, no major MDB has faced a capital call. However, an overemphasis on AAA ratings could limit MDBs' potential in their unique role of not just financing, but actively shaping markets. It is vital to free them from these constraints and empower them to contribute significantly to economic development (G20, 2022).

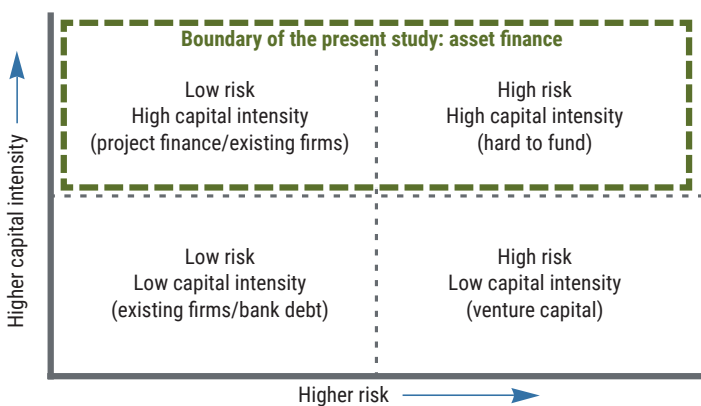
2.3. Mission-oriented governance

To reap the benefits of the mission-oriented approach, it must be governed effectively. Nine considerations can help NDBs and MDBs strengthen their governance structures: (1) mandate and mission, (2) organizational structure and ownership, (3) economic role, (4) investment activity, (5) governance arrangements, (6) sources of finance, (7) funding instruments, (8) risk and reward, and (9) relationship with government policy (Macfarlane and Mazzucato, 2018). This subsection digs into some of these considerations, but how governance structures can influence MDB and NDB financing requires further study.

The overarching mandate of MDBs and NDBs is critical to the role that public banks play in their economies. Mandates are often set out in law or in articles of association, and often change and evolve over time. There is a notable contrast between banks that are driven by a desire to solve big societal problems and those which are focused on more static outcomes, such as competitiveness, or serve particular sectors. By focusing finance on missions that need cross-sectoral collaborations, the role of the banks is less open to capture by specific business interests (Macfarlane and Mazzucato, 2018). Further, governance arrangements

Figure 6

Risk-capital intensity classification of renewable energy finance. Public actors – especially NDBs – deliver most of the high-risk capital for renewable energy technology



Source: Mazzucato and Semieniuk (2016).

are vital to the success and legitimacy of public banks. Achieving the right balance between political representation and independent decision-making is a key challenge. It is important that management teams to be free of day-to-day political interference to make independent, long-term decisions. While political representation can help to maintain alignment with government policy and a path of democratic accountability, steps should be taken to prevent undue political interference or capture by interest groups.

Structural transformation also requires strong and capable governments to steer financial investments in a more strategic and deliberate way. The transition to greener and more resilient economies needs more ambitious and capable states that embrace their role as ‘market-shapers’. Outsourcing key capacities is not the answer (Mazzucato and Collington, 2023). Lessons should be learned from mission-oriented organizations like DARPA and ARPA-E in the US, Yozma in Israel, SITRA in Finland and Vinnova in Sweden. The point is not to copy these organizations, but to learn from key sources of their success. For example, these organizations have explicitly welcomed risk-taking at the organizational level; they have used secondment practices to bring high-level scientists into the civil service for limited time periods; they have often aligned goals with national procurement practices; and they have been extremely good at drawing on the expertise of wider networks (Mazzucato and Macfarlane, 2019).

2.4 Definancializing global finance

Unlocking finance for development requires recognizing that a central issue is not the lack of finance but how it is utilized in dysfunctional manners: it is too short-term, leans more towards ‘brown’ than ‘green’ investments, is not reinvested in the real economy but is used for other financial purposes, and evades taxation. Financing for development, especially for the SDGs, can be improved with policies that address all these challenges.

Policies addressing tax evasion and avoidance have been weak, if not entirely absent. The Tax Justice Network estimates that the total annual tax losses incurred by countries

globally amount to \$480 billion: \$311 billion due to tax abuse and \$169 billion resulting from offshore tax evasion. This rise in annual tax losses also increases the projected amount that countries will forfeit to tax havens over the next decade, estimated at \$4.8 trillion (Tax Justice Network, 2023). As observed during the COVID-19 pandemic, there are methods to introduce conditionalities that penalize companies that evade taxes: such companies are unable to benefit from government programs in times of need.

Tax rates and rules should change. For example, multinationals should be treated as unitary businesses and their global profits allocated between countries using a formula, thus abandoning the century-old system of transfer pricing which allows multinationals to avoid taxation. This new system should be underpinned by a global effective minimum tax of 25%, the current international average rate (Ghosh, 2023). Another key discussion element is the current corporation-tax regimes, which allow firms to deduct virtually all costs, including labor and capital (OECD, 2023). Corporate taxes are close to a pure profit tax, which does not distort economic decisions and thus does not lead to higher prices, less investment or lower wages and employment. Thus, corporation taxes can be raised without fear of adverse effects on growth or welfare. The major distortions and gross inequities in the current international tax system come from inadequate enforcement and large loopholes (Devereux and Freeman, 1991).

Taxes on capital gains represent a significant loophole. Capital gains, which are profits from selling assets, can be taxable. While long-term gains, like those from stocks held for an extended period, generally enjoy lower tax rates than regular income, not all gains are taxed equally. The disparity in tax rates between short-term and long-term gains can be exploited, resulting in tax abuses. Simple modifications to tax codes can close this loophole, ensuring that long-term trades receive more favorable tax treatment than short-term ones (Enda and Gale, 2020). In this same respect, the tax on materials should be greater than the tax on labor, helping to tilt the playing field towards business practices that are labor enhancing, and green, with low material content (Daly, 2008).

The current situation provides a compelling foundation for proposing a Global Financial Transaction Tax (GFTT). After WWII, the US, having reaped the economic benefits of the war without suffering its destruction, was positioned to launch the Marshall Plan. Today, we face past socio-economic devastation and anticipate future environmental challenges. It’s imperative that we identify a major funding source, akin to the Marshall Plan, to facilitate the socio-economic and environmental transition in the global south. The most viable solution to amplify available funds lies in the GFTT.

Financial transaction taxes (FTT) have a proven track record as effective policy tools worldwide. Roughly forty countries, including powerhouses like Japan, Germany, Italy, France, China, Brazil, India, South Africa, Chile, and the UK, either currently utilize this form of tax or have recently done so. The United States already maintains a minor transaction tax, the revenue from which sustains the Securities and Exchange Commission. Implementing a trading tax is straightforward: stock sales might incur a minor percentage of the sale price as tax, while bond taxation could depend on their duration (Pollin, 2009).

A 0.1% GTT could yield annual revenues ranging from \$237.9 billion to \$418.8 billion, with the USA and the EU responsible for over half of this income. Even when factoring in more conservative estimates and such a nominal tax rate, the GTT's revenue potential remains substantial, approximating 0.4% of global GDP. Due to the modest proposed tax rates for the FTT, its introduction would likely have a negligible effect on financial market activities. Moreover, an FTT could potentially curb speculative behaviors, thus possibly diminishing market volatility (Pekanov and Schratzenstaller, 2019).

Introducing an FTT at the national level would necessitate only minor administrative changes, considering the existing reporting responsibilities of market players. Yet, transitioning the proposal to an international scale requires significant consensus. One option for a new institution tasked with tax collection might be to extend loans to development banks instead of businesses directly. Above all, this entity's operations must be fully transparent (Stiglitz, et al., 2023).

3. UNLOCKING THE SDG MULTIPLIER THROUGH PUBLIC DEVELOPMENT BANKS

As the UN Secretary General has argued, an SDG Stimulus requires different forms of finance working together in an aligned way (UN, 2023a). An SDG multiplier can be created by aligning global development banks around missions, so the sum of financing is greater than the parts. This can be done by steering them to crowd in private sector investments around concrete goals that require inter-sectoral and inter-actor coordination. Such coordination should be designed through the use of bold principles of reciprocity.

SDG targets are defined as aspirational and global, with each government setting its own national targets guided by the global level of ambition but considering national circumstances. Each government will also decide how these aspirational and global targets should be incorporated into national planning processes. The results are agreements on ambitious goals. However, there is often a missing link in terms of actionable plans on how to achieve them. The understanding that 'business as usual' is no longer viable is widespread, but there is a prevalent challenge in crafting new, impactful policies. This is where the mission-oriented approach comes into play. Fulfilment of the 2030 Agenda demands more than just visionary thinking; it necessitates specific direction and actionable strategies, the exact dimensions where a mission-oriented approach can be most effective.

Building on this perspective, a mission-oriented approach to directing strategic and patient finance emphasizes a shared vision and clear long-term policy goals (Mazzucato, 2021). The 17 SDGs – with their 169 underlying targets – present a framework that offers robust opportunities to guide economic activity towards a future that is both inclusive and sustainable. What is more, to ensure the sum of public development bank financing is greater than its parts, achieving additionality and alignment is critical, especially in regions that share similar challenges and objectives.

MDBs are increasingly central in creating environments conducive to the realization of the SDGs. Their initiatives

extend across a broad range of sectors, from agriculture and manufacturing to health and education. This diversity attests to the dynamic role MDBs play in shaping the global development agenda. For instance, in Latin America, the IDB health loan portfolio stands at \$5.7 billion, slightly over 5 per cent of its total loans. The IDB supports strengthening health-care systems, disease prevention and treatment, addressing malnutrition, and innovative digital health solutions across 16 countries. Indeed, during the COVID-19 pandemic, global and regional MDBs became the largest provider of development assistance, providing approximately \$8 billion (WHO Council on the Economics of Health for All, 2023a).

However, MDBs do not limit their interventions to areas of acute crisis. They also create environments that encourage education, gender equality and economic growth. In Mozambique, for instance, the IsDB Secondary Education project has not only improved the learning environment for 40,000 students, but also triggered systemic changes leading to increased participation of girls and raising pass rates from 55 per cent to 80 per cent. In parallel, the European Bank for Reconstruction and Development (EBRD) is driving gender equality forward through its Women in Business program, which demonstrates a willingness to push boundaries by providing more than 17,000 loans to women entrepreneurs. Climate change action has become a strategic priority for MDBs globally. The EBRD aims to increase green financing to over 50 per cent of its business volume and achieve significant greenhouse gas emissions reductions by 2025. Likewise, the ADB, the Asian Infrastructure Investment Bank (AIIB), the European Investment Bank (EIB) and the World Bank have set ambitious climate finance targets. These MDBs strive to support investments that enable climate change mitigation, adaptation and resilience, thus contributing further to the broader SDGs (IsDB, 2023).

National development banks (NDBs) are also stepping up with innovative financing projects that embody a dynamic, purpose-driven approach to tackling socio-economic, environmental and climate-related challenges. In Morocco, CDG Capital financed a large desalination plant through a public-private partnership that serves two crucial functions: providing clean drinking water to local populations and supporting agricultural development. The Development Bank of Southern Africa's (DBSA) Climate Finance Facility (CFF) is pioneering a 'green bank' model that encourages private investment in low-carbon, climate-resilient infrastructure across South Africa, Namibia, Lesotho and Eswatini. This facility, in line with the Paris Agreement's national determinants and SDGs, attracted initial funding of \$110 million from the DBSA and the Green Climate Fund (GCF). In Latin America, Mexico's Nacional Financiera (NAFIN) demonstrates how green and sustainability bonds can support the SDGs. From the issuance of Mexico's first green bond in 2015, NAFIN has interwoven the SDGs with national priorities, demonstrating a deep commitment to sustainability and economic return. Lastly, in the Eurasian region, the Industrial Development Bank of Turkey (TSKB) presents an organizational framework aligned with the SDGs. TSKB, having set specific SDG impact targets, covers at least one or two SDGs in nearly 90 per cent of its lending portfolio. This strategic alignment, emerging from a robust internal reform process, extends beyond simple SDG activity-mapping towards meaningful contributions to global goals (UNDP, 2022).

Many global and regional MDBs have strategic plans that explicitly align with the SDGs. For instance, the ADB, the IDB, and the IsDB report the explicit alignment of their financing programs with the SDGs and highlight the contributions they have made to specific targets (ADB, 2021; IDB, 2023; IsDB, 2023). The African Development Bank (AfDB) led the way in issuing SDG-linked bonds, integrating a conditionality – or reciprocity – that obliges the bank to align their strategic programs with the SDGs (AfDB, 2020). This action not only leverages capital market mechanisms for financing sustainable development, but also institutionalizes the SDGs within the bank’s financing structures. Unfortunately, more broadly, there is only partial alignment of public development bank strategies with the SDGs. According to a survey conducted among a sample of 46 public development banks, only half of them fully incorporated the SDGs into their organizational strategy. Additionally, 36 per cent stated that the SDGs were partially incorporated, while 14 per cent indicated limited or no mapping of the SDGs in their strategies (UNDP, 2022).

Enhanced coordination among global and regional MDBs, alongside NDBs, is critical to prevent isolated planning and financing, and to advance a genuine mission-driven approach to SDG finance. A key initiative promoting this improved coordination is the World Bank Partnership Fund for the SDGs. The fund currently underwrites 17 diverse projects that channel resources into six vital sectors: environmental sustainability and climate resilience, gender equality and social inclusivity, food security and agriculture, urban planning and development, sustainable finance and investment, and energy transition to renewable sources. The fund operates in various global regions, including China, Sub-Saharan Africa, Latin America, and Southeast and Central Asia, as well as projects with a global scope. It has successfully mobilized a broad network of over 275 partners, which includes regional MDBs, NDBs, Official Development Assurances (ODAs), societies, private sector entities and national governments, to contribute their support (World Bank, 2023a). Mission-oriented policy can help to coordinate MDB and NDB financing around such shared challenges, while crowding in the sorely needed business investment. This crowding in process is the result, not the objective: it happens as a result of increasing business expectations about future opportunities around the mission (where mission accomplished is the objective).

The roles of public banks in the development process should be properly acknowledged. For instance, many attribute the success of the East Asian economic narrative from the last century to the establishment of long-term development banks. Their influence was not just limited to direct lending; they played a pivotal role in risk-sharing and in guiding the economy with the right signals (Stiglitz, 1996). In East Asia, public sector control of banks and funding has been a hallmark of countries that achieved significant development in the 1970s and 80s, such as South Korea and Taiwan, as well as for China’s remarkable ascent. However, this is not enough. Regions, countries, and cities must have clear strategies to direct the development process; otherwise, banks will be directionless. For instance, government control of finances, combined with a clear national strategy, guided South Korean companies towards capital accumulation rather than rent-seeking (Amsden, 1989).

3.1. Mobilizing public development finance for achieving the SDGs: from billions to trillions

As acknowledged by the IMF (2022a), the global economy is confronting its most substantial challenges since World War II and nations are concurrently encountering an unfortunate regression in progress towards the SDGs. The Sustainable Development Report 2023 shows that of the roughly 140 Targets only about 15 per cent are on track (UN, 2023a). The burden of soaring public debt and servicing costs, particularly affecting the poorest countries, exert pressure on the resources necessary for SDG financing.

The COVID-19 pandemic has resulted in a troubling ‘scissors effect’ on the financing gap related to the SDGs. This effect is marked by a simultaneous increase in the need for financing and a decrease in accessible resources. According to OECD estimates, the pandemic has caused global recovery spending and the SDG financing gap to surge by a staggering \$3.5 trillion. However, this escalation has coincided with a sharp decline in external private financing of \$700 billion, including precipitous drops of 80 per cent in net investment inflows, 35 per cent in Foreign Direct Investment (FDI) and 20 per cent in remittances. In response to the crisis, advanced economies have instituted extensive monetary and fiscal stimuli. However, developing nations are struggling with a gap in recovery spending and financing. These nations would have needed an additional injection of \$800 billion to \$1 trillion to match the level of response provided by their developed counterparts. For example, just to effectively tackle the pandemic’s financial challenges, Sub-Saharan Africa alone would need a boost of \$100 billion to its recovery package (OECD, 2020).

The Debt Service Suspension Initiative served as a significant relief during the pandemic until it ended in December 2021. Its conclusion, along with the impending rise in interest rates and the burden on public finance, is subjecting national budgets to considerable stress. The IMF has noted that 60 per cent of low-income countries are now either at high risk of, or are already in, a state of debt distress. These already formidable challenges have been further intensified by recent geopolitical events, such as the war in Ukraine (IMF, 2022a). The sobering reality is that nations are facing an increasingly complex and challenging global economic landscape.

The SDG financing gap has consequently widened from \$2.5 trillion before the COVID-19 pandemic to an estimated \$3.9–7 trillion annually today (Zhan and Santos-Paulino, 2021; High-Level Advisory Board on Effective Multilateralism, 2023). Hampered by unsustainable debt burdens, a weak global financial safety net and unfair international governing structures (including within the IMF and World Bank), many countries in the Global South cannot build the resilience they need in the face of big global challenges, such as climate change, the digital divide and health disparities, as well as increasing inequality and hunger.

Addressing these financial deficits that hinder the achievement of the SDGs necessitates a significant expansion of fiscal space. The Bridgetown Initiative has called for a \$1 trillion expansion of multilateral lending to governments, and though this is more than what has been proposed to date, it is still not enough to meaningfully tackle the SDG

financing gap (Government of Barbados, 2022). Crucially, this comes down to how countries can mobilize, structure and coordinate finance to become more aligned with the SDGs. Estimates show that the SDG financing gap could be filled by shifting just 1 per cent of global financial assets (OECD, 2022). The total assets held by the 526 public development banks and development finance institutions globally amounts to no less than \$22.5 trillion, which is more than 20 per cent of global financial assets and more than 10 per cent of global investment (UN, 2023a; Xu et al., 2023). It is estimated that they represent up to \$2.7 trillion of annual investments, approximately 12 per cent of the total amount invested in the world every year by all public and private sources combined.

However, relying on traditional strategies may fall short, necessitating the advent of innovative, pioneering methods to carve out fiscal space for lower-income nations. For instance, Barbados has taken the lead in incorporating a ‘pandemic clause’ into a sovereign bond, crafted to suspend debt repayments during a pandemic. Similarly, they have implemented a natural disaster clause in their recent debt restructuring, post the severe hurricanes they endured (WHO Council on the Economics of Health for All, 2022a). In June 2023, following Barbados’ experience, the World Bank introduced climate resilient debt clauses designed to provide temporary debt relief to vulnerable countries during times of crisis (World Bank, 2023b). These tools serve as compelling examples that other public development banks could potentially adopt. The unfolding of such innovative approaches highlights the imperative for flexibility and creativity in financial mechanisms, tailored to address the unique challenges that lower-income countries face. Moreover, international financial institutions and public development banks have the opportunity to take the lead in pioneering SDG swaps to enlarge fiscal space. Debt swaps serve as a distinct financial mechanism enabling low-income nations to raise capital while addressing multifaceted policies. An example of a successful debt-swap program is Debt2Health (The Global Fund, 2016).

Another potential tool to boost the fiscal space of lower-income countries is the Loss and Damage Fund, conceptualized at COP27. These funds are set up to provide financial assistance to nations that are especially susceptible to the devastating impacts of climate change. However, to transform this concept into reality, several critical questions need to be addressed. For instance, how can the genuine augmentation of net additional financing be ensured and how can fragmentation be minimized (Hill, 2023). Though these questions remain unanswered, the international commitment to establishing these funds has been widely applauded and recognized as a historic breakthrough. The final structure of the Loss and Damage Fund is yet to be determined, as is the role of public development banks within it. Yet in principle, MDBs can better align their program with the objectives of the Loss and Damage Fund. They could also participate in blended finance initiatives to curb the worst impacts of climate change and contribute to the attainment of the SDGs.

Finally, it is essential to acknowledge that the finances of a government do not operate like those of a household. Traditional assumptions argue that any significant augmentation in government financing cannot occur without significantly escalating taxes or running the risk of insolvency or

detrimental macroeconomic repercussions, thereby limiting public expenditure. However, in stark contrast to households, governments have the ability to generate money, and they are immune to bankruptcy (WHO Council on the Economics of Health for All, 2021). This concept has been particularly evident during periods of military expansion and wars, when the flow of finance appears limitless. A recent manifestation of this took place during the pandemic in 2021, when the IMF approved the allocation of special drawing rights (SDRs) to set up the Resilience and Sustainability Trust, financed by the donated SDRs of high-income nations, to effectively broaden fiscal space (WHO Council on the Economics of Health for All, 2022b). Since that time, the allocation of SDRs has taken center stage in the global development financing agenda, with some proposals advocating for the SDG to serve as seed capital for MDBs to enhance financing (Plant, 2023).

If structured in a more directed, patient and long-term way, international and national finance can kickstart a newly energized global effort to accelerate implementation of the SDGs. One key step for aligning finance with the SDGs is to revisit the international financial architecture. The UN Secretary General’s sixth Our Common Agenda policy brief on ‘Reforms to the International Financial Architecture’ offers an important contribution to this debate by setting out five concrete actions around how best to massively scale up financing and the SDG impact of public development banks: (1) Massively increase development lending and improve terms of lending; (2) Change the business models of MDBs and other public development banks to focus on SDG impact and more effectively leverage private finance for SDG impact; (3) Massively increase climate finance, while ensuring additionality; (4) More effectively use the system of development banks to increase lending and SDG impact; and (5) Ensure that the poorest can continue to benefit from the MDB system.

The UN policy brief calls for public development banks to rethink current modalities to increase lending aligned with the SDGs and to develop a framework by which they can scale up their lending, mobilize more private sector capital and coordinate SDG impact. This is where a mission-oriented approach can help. Confronting the SDG financing gap will necessitate a diverse, inventive and globally harmonized approach. Established methods of financing need to be adjusted, while innovative financial mechanisms, such as debt swaps and purpose-oriented funding, need to be broadened. A strategy focused on a shared mission might provide a hopeful path, enabling nations to collaborate towards the SDGs. The function of public development banks needs to be meticulously examined and exploited to its fullest extent. Only through such cooperative and visionary tactics can the aspiration to bridge the profound funding shortfalls and transition towards a more sustainable, equitable and resilient world be realized.

3.2. Unlocking business investment through reciprocity and progressive conditionality

While much attention is paid to the role of public funding for SDGs, the reality is that their key role should be to stimulate business sector investment that is often hoarded or used for financialized reasons. Indeed, the need to unlock business investment to target the challenges underlying the

SDGs is crucial. This is not instead of public investment, but complementary to it. Corporate governance models wed to maximizing shareholder value have been shown to reduce the level of investment (Lazonick, 2016; Mazzucato 2018a). A key aspect of unlocking business investment is to ensure profits, currently at a global high, are reinvested back into the economy, rather than extracted out through financialized means (e.g., excess dividends and stock buybacks) and directed towards areas that are good for people and planet, i.e., SDG aligned.

Such progressive conditions mean that loans, grants and guarantees are used to set a 'reciprocity' relationship between public and private sectors. This use of conditionality is different from the widely criticized IMF and World Bank conditionalities of the 20th century which reduced fiscal space of developing countries. Loans from MDBs and NDBs with progressive conditions mean that, for example, to access a loan businesses must pay workers their living wage, improve working conditions, avoid excessive use of stock buybacks and implement green supply chains. If they need help doing so, that help is provided on that condition (especially important for small companies that might have a harder time to meet such objectives (Mazzucato, 2022b)). For example, the US Government's CHIPS and Science Act provides \$52.7 billion for American semiconductor research, development, manufacturing and workforce development. The funding opportunity included conditionalities related to profit-sharing, limiting share buybacks and worker protections. Another example is how COVID relief packages in France, included conditions on companies like Renault and Air France to commit to lowering their carbon emissions. And finally, the creation of Germany's green steel sector was guided by the country's high-level mission for a carbon-neutral energy transition – the Energiewende. Germany's public bank, the KfW, introduced a Green Loans Programme for heavy industry with smart conditionalities attached to the bank's public investments. To qualify for the KfW's low-interest loans, steel manufacturers must (1) comply with zero- or low-carbon processes, (2) provide proof of compliance and (3) engage a three-stage verification process. In doing so, it has created a new market for CO₂-efficient steel. Benefiting from its first-mover advantage and increasing returns to innovation, the German steel sector has remained globally competitive.

Blended finance, that is the mix of public and private resources, can be an effective approach to enhancing public development bank financing through the mobilization of additional private funds towards sustainable development in developing countries. To improve blended finance, it is necessary to fortify the foundational frameworks of domestic financial systems, create an atmosphere conducive to blended finance transactions and embolden local actors to partake in these ventures. Moreover, adopting a broader, transformational vision assists in preparing a diverse pipeline of projects ripe for the infusion of blended finance. However, this alone is not sufficient. The public sector's commitment to a more robust system of impact management and transparency needs to be strengthened to ensure the effectiveness and fairness of blended finance operations (OECD, 2020). This dynamic, all-inclusive approach has the potential to invigorate the symbiosis between public development banks and the private sector, steering economies towards more sustainable and inclusive outcomes.

Mission-oriented finance can help stimulate a multiplier effect by crowding in private sector investment. Indeed, if an MDB (e.g. the African Development Bank) lends in a mission-oriented way to a national NDB (e.g. the public bank in Nigeria), and if in turn the NDB lends to the private sector with conditions attached linked to transformational change (e.g. the example above of KfW lending to steel conditional on material reduction), then a multiplier effect can result which goes way beyond the total funds in MDBs.

Previous evidence has shown a greater multiplier for investments – when initial investment leads to additional spending and investments – guided by mission-oriented policies, able to respond to the grand socio-economic and environmental challenge involving different sectors in the economy (Deleidi and Mazzucato, 2019). Indeed, a key role of development finance can be to catalyze private investment, often hoarded, or too risk averse. The generation of additionality (making investments happen that would otherwise not have) has been reflected in the Brazilian case, for example, where companies' R&D intensity has increased following the receipt of a loan from the public bank BNDES (Carreras, 2020). More specifically, permanent changes in the rate of growth of mission-oriented public expenditure generate the largest effect in terms of labor productivity, investments and output growth, additionally 'crowding in' resources from private companies (Deleidi and Mazzucato, 2019). This is due to the embedded 'ripple effect' of these policies, generated by fostering inter-sectoral investment and bottom-up innovation.

Tracking the finance that flows from MDBs and NDBs to businesses to fully capture the multiplier effect and crowding in potential of certain investments is therefore crucial. One of the current core issues in the evaluation of policy effectiveness and public expenditure is strictly related to the use of the static multiplier, often leading to very different positions compared to what is determined from a dynamic analysis. Being able to distinguish the type of public expenditure and its effect at different stages of project implementation is paramount to evaluating the different dynamics within programs, particularly with a medium- to long-term horizon. We need to move towards an understanding that public sector organizations are dynamic in terms of developing their own capacities and competences. Evaluation metrics should focus on dynamics of change, using approaches that go beyond the concept of general equilibrium to help understand the over-time evolution of systems under general conditions (Kattel et al., 2018; BEIS, 2020). As noted in many recent studies, evaluation practices often lag theoretical advances in policy evaluation and the advent of transformative innovation policies makes this gap apparent, which calls for the integration of existing evaluation approaches, including sustainability transitions (Haddad and Bergek, 2023).

3.3. Aligning regional MDBs and NDBs

Aligning the activity of public development banks at the regional level is a good place to start. MDBs with a regional focus possess in-depth knowledge and understanding of the specific challenges and opportunities within their respective regions. This regional expertise enables them to design tailored financing approaches that address the unique needs and priorities of different regions. By

aligning their activities with regional, national, and local development strategies and priorities, MDBs can ensure that their financing efforts are targeted and impactful. Such a regional approach allows for greater effectiveness in addressing region-specific SDG targets and fostering sustainable development within diverse geographical contexts.

During the COVID-19 pandemic, some development banks also created specific funding programs that targeted particular issues, whether related to health or the climate. In addition to lending operations, advisory services can help to create viable projects and encourage businesses to make investments that otherwise would not happen. The Asian Development Bank (ADB), for example, significantly increased health sector financing, reaching 26 per cent of total commitments in 2021. A key response included the Asia Pacific Vaccine Access Facility, which sought to support vaccine coverage of the region by committing \$4.1 billion in loans and grants for 15 developing member countries, delivering 227 million initial doses. Similarly, the African Development Bank (AfDB) plans a \$3 billion investment by 2030 to develop regional pharmaceutical manufacturing capacities in Africa. While regional MDBs have been crucial in providing needed health financing during the pandemic, an important open question remains as to whether they will continue their pandemic level commitments beyond this crisis (WHO Council on the Economics of Health for All, 2022a).

Improved alignment of strategic goals possesses the potential to boost overall funding. For instance, climate finance currently constitutes 20 per cent of total commitments pledged by members of the International Development Finance Club. If public development banks were to pledge to a comparable ratio, they could offer more than \$50 billion in climate finance per year and mobilize even more through the private sector. Achieving strategic alignment, however, is no easy task. Public development banks recognize the necessity to build a comprehensive portfolio that aligns seamlessly with the SDGs. Merely relying on standalone, individual projects, while commendable, falls short of realizing the desired transformative impact (UNDP, 2022).

Still, strategic coordination alone is insufficient. For example, the Access to COVID-19 Tools Accelerator (ACT-A) is a multistakeholder initiative swiftly established during the early stages of the COVID-19 pandemic. Representing the most significant international effort to ensure access to COVID-19 health technologies, the initiative successfully aligned the strategic goals of a diverse array of stakeholders in the private sector, civil society organizations and the multilateral space with the common objective of ending the pandemic. The ACT-A strategic plan and budget aim to fundraise \$23.4 billion, encompassing donor-grant financing and contributions from sovereign and private donors. However, ACT-A has fallen short of meeting its funding goals; as of September 2022, ACT-A contributions had fulfilled less than 50 per cent of its budget (WHO, 2022). An extensive body of literature has attributed its funding challenges to poor governance and inadequate public sector involvement, as well as questions regarding the partnership's political legitimacy and accountability level (Moon et al., 2022).

4. CONCLUSION

With seven years left to achieve the SDGs, and with only 15% of the roughly 140 targets on track, now is the time to turn the SDGs into concrete action. The issue at hand is not solely the quantity of financial resources available but also their quality. It is necessary to reimagine finance that is not only abundant, but also purposeful. The goal should be to channel long-term, risk-tolerant finance that aligns with the SDGs through a clear trajectory of mission-orientation.

NDBs and MDBs play a critical role in providing patient long-term finance to tackle socio-economic challenges, supporting projects that traditional financiers shy away from. To unlock their potential and redirect global finance towards the SDGs, this paper has argued in favor of three core changes.

First, align the NDBs and MDBs around concrete goals using a mission-oriented approach. Missions can help to transform broad SDG-related challenges, like global health and climate change, into investment pathways where strong publicly set goals mobilize coordinated action around shared challenges.

Second, use missions to help crowd in and galvanize substantial global public and private finance. By adopting a mission-oriented approach, setting clear objectives, and raising future expectations for business investments, a transformative chain reaction can be catalyzed, creating an SDG multiplier.

Third, attach strong conditions around reciprocity to direct public and private finance. Different from the harmful conditionalities of the past, which reduced fiscal space of developing countries, these progressive conditionalities can mean that, for example, to access a loan businesses must pay workers their living wage, improve working conditions, avoid excessive use of stock buybacks and implement green supply chains (Mazzucato, 2022a).

A number of reform proposals are in development by various groups, including the G20 Expert Group on Strengthening Multilateral Development Banks, which was initiated under the G20 Indian Presidency (Independent Expert Group, 2023; Summers and Singh, 2023b). These reforms would benefit from a joined up, mission-oriented lens to capture the full scope of the transformation needed.

- **A new triple mandate:** MDBs should embrace a revised mandate that acknowledges their central role in aiding the most vulnerable communities within nations, championing national economic development and collective wealth, and amplifying the contributions of their borrowing nations to global well-being. This mandate should encompass global public goods, especially those that have significant impacts on poverty alleviation and national economic growth. Key areas include climate, nature, water, food, energy, cybersecurity, pandemics and challenges related to conflict. It is imperative that NDBs also adopt this expanded triple mandate as a primary objective.
- **Resource provision:** This implies expanding grants and concessional finance aimed at the poorest nations, non-concessional resources for financially stable middle-income countries and measures to catalyze

private finance. The G20 Expert Group advocates for a threefold increase in sustainable lending levels by 2030, targeting approximately \$400 billion annually. While this is an ambitious goal, it is overshadowed by the \$1 trillion increase in multilateral lending proposed by the Bridgetown Initiative, and it still falls short when compared to even the most conservative estimates of the SDG financial gap (Government of Barbados 2022). It is also necessary, through the conditionalities reviewed above, to unlock capital that is either hoarded, or locked into the financial markets (FIRE).

- **Catalyzing private capital:** Despite a significant increase in MDB lending, a gap remains that requires bridging through private funds. MDBs need to redouble their efforts to mobilize and secure private capital, addressing core challenges such as local currency risk, policy and regulatory uncertainties, a scarcity of investable projects and limited risk capital. It is paramount to recalibrate interactions with the private sector, forging strong public-private partnerships, with conditions that allow for knowledge sharing, and sharing of both risks and rewards between all public and private value creators.
- **Establishing a ‘global challenges funding mechanism’:** This proposal advocates for the creation of a global financing mechanism that draws from flexible coalitions of specific donors and non-state investors eager to align with MDB initiatives in a structured manner. While its initial positioning would be within the World Bank Group, it should function under distinct governance driven by common good principles. The goal is to address the limitations of MDBs and to encourage the adoption of innovative financial solutions, that involve risk-reward sharing, and conditional guarantees with the conditions driven by human rights and SDG principles, such as gender equity, dignity at work, and green supply chains.

These proposals represent just the beginning of a comprehensive reform program. Such reforms need to be embraced not only by global and regional MDBs, but also by national and subnational governments, along with their NDBs. However, these efforts may remain fragmented unless finance is mobilized around a clear set of missions. Harnessing the full potential of these institutions is crucial to addressing the current SDG financing gaps.

The paper has considered opportunities to create a more dynamic and coordinated ecosystem of public development banks – at the national level in the form of NDBs and at the international level in the form of MDBs. While the SDGs present a commendable blueprint for achieving inclusive and sustainable growth, they do not yet provide a detailed investment strategy or guide for actualizing that vision. This requires a clear and inspirational direction for finance and investment, with multiple portfolios and trajectories on getting there—exactly what a mission-oriented approach to finance can help provide.

References

ADB. (2021). ADB’S Support for the Sustainable Development Goals. Retrieved from <https://www.adb.org/sites/default/files/institutional-document/684471/adb-support-sdgs-2030-agenda.pdf>

AfDB. (2020). African Development Bank concludes R2 billion investment in Nedbank SDG-linked bonds. Retrieved from <https://>

www.afdb.org/ar/news-and-events/press-releases/african-development-bank-concludes-r2-billion-investment-nedbank-sdg-linked-bonds-36712

Amsden, A. H. (1992). *Asia’s next giant: South Korea and late industrialization*. Oxford University Press, USA.

BEIS. (2020). *Alternative policy evaluation frameworks and tools: Exploratory study* (BEIS Research Paper 2020/044).

Block, F. L., and Keller, M. R. (2011). *State of Innovation: The U.S. Government’s Role in Technology Development*. Boulder, CO: Paradigm.

Carreras, M. (2020). *Fostering Innovation Activities with the Support of a Development Bank: Evidence from Brazil*. SPRU Working Paper Series (SWPS 2020-16). Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3695031

Chang, H. J. (2006). *The East Asian development experience: The miracle, the crisis and the future*. Zed Books.

Climate Policy Initiative. (2022). *Global Landscape of Climate Finance: A Decade of Data 2011-2020*. Retrieved from <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-a-decade-of-data/>

Daly, H. E. (2008). *The steady-state economy*. Sustainable Development Commission UK. Retrieved from http://tratarde.org/wp-content/uploads/2016/04/Daly_UK_Paper-STEADY-STATE-ECON-OMY-abril-2008.pdf

Deleidi, M., and Mazzucato, M. (2019). Putting austerity to bed: Technical progress, aggregate demand and the supermultiplier. *Review of Political Economy*, 31(3), 315-335.

Deleidi, M., and Mazzucato, M. (2021). Directed innovation policies and the supermultiplier: An empirical assessment of mission-oriented policies in the US economy. *Research Policy*, 50(2), 104-151.

Devereux, M., and Freeman, H. (1991). A general neutral profits tax. *Fiscal Studies*, 12(3), 1-15.

Enda, G., and Gale, W. G. (n.d.). *What are capital gains taxes and how could they be reformed?* The Brookings Institution. Retrieved from <https://www.brookings.edu/articles/what-are-capital-gains-taxes-and-how-could-they-be-reformed/>

G20. (2022). *Boosting MDBs’ Investing Capacity: An Independent Review of Multilateral Development Banks’ Capital Adequacy Frameworks*. Retrieved from https://www.dt.mef.gov.it/export/sites/sitodt/modules/documenti_it/news/news/CAF-Review-Report.pdf

Gadelha, C. A. G., Maldonado, J., Vargas, M., and Barbosa, P. R. (2012). *A dinâmica do sistema produtivo da saúde: inovação e complexo econômico-industrial*. Fiocruz.

Ghosh, J. (2023). *Davos Man Must Pay*. Project Syndicate. Retrieved from <https://www.project-syndicate.org/commentary/world-economic-forum-davos-tax-rich-wealth-climate-change-by-jayati-ghosh-2023-01>

Government of Barbados. (2022). *Urgent and Decisive Action Required for an Unprecedented Combination of Crises: The 2022 Bridgetown Initiative for the Reform of the Global Financial Architecture*. Retrieved from <https://pmo.gov.bb/wp-content/uploads/2022/10/The-2022-Bridgetown-Initiative.pdf>

Griffith-Jones, S., and Ocampo, J. A. (Eds.). (2018). *The Future of National Development Banks*. Initiative for Policy Dialogue. Oxford Academic. <https://doi.org/10.1093/osc/9780198827948.001.0001>

GVR. (2021). *Algorithmic Trading Market Size, Share & Trends Analysis Report By Solution, By Service, By Deployment, By Trading Types, By Types Of Traders, By Region, And Segment Forecasts, 2022 – 2030*. Grand View Research. Retrieved from <https://www.grandviewresearch.com/industry-analysis/algorithmic-trading-market-report>

Haddad, C. R., and Bergek, A. (2023). Towards an integrated framework for evaluating transformative innovation policy. *Research Policy*, 52(2). <https://doi.org/10.1016/j.respol.2022.104676>

High-Level Advisory Board on Effective Multilateralism. (2023). *A Breakthrough for People and Planet: Effective and Inclusive Global Governance for Today and the Future*. New York: United Nations University.

- Hill, C. (2023). A loss and damage fund: two big challenges. Development Policy Center. Retrieved from <https://mdbreformaccelerator.cgdev.org/a-loss-and-damage-fund-two-big-challenges/>
- IDB. (2023). The IDB Group and the Sustainable Development Goals (SDGs): Making an impact across all countries in the region. Retrieved from <https://crf.iadb.org/en/sdgs?institution=idbgroup>
- IMF. (2022a). Crisis Upon Crisis: IMF Annual Report 2022. Retrieved from <https://www.imf.org/external/pubs/ft/ar/2022/downloads/imf-annual-report-2022-english.pdf>
- IMF. (2022b). Debt dynamics. Crisis Upon Crisis: IMF annual report 2022. Retrieved from <https://www.imf.org/external/pubs/ft/ar/2022/in-focus/debt-dynamics/>
- Independent Expert Group. (2023). Strengthening Multilateral Development Banks: The Triple Agenda. Report of the independent Experts Group. Retrieved from https://www.cgdev.org/sites/default/files/The_Triple_Agenda_G20-IEG_Report_Volume1_2023.pdf
- IsDB. (2023). Sustainable Development Goals. Retrieved from <https://www.isdb.org/what-we-do/sustainable-development-goals>
- Kattel, R., Mazzucato, M., Ryan-Collins, J., and Sharpe, S. (2018). The economics of change: Policy appraisal for missions, market-shaping and public purpose. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2018-06). Retrieved from <https://www.ucl.ac.uk/bartlett/public-purpose/wp2018-06>
- Kedward, K., Ryan-Collins, J., and Chenet, H. (2020). Managing nature-related financial risks: A precautionary policy approach for central banks and financial supervisors. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2020-09). Retrieved from <https://www.ucl.ac.uk/bartlett/public-purpose/wp2020-09>
- Laplane, A., and Mazzucato, M. (2020). Socialising the risks and rewards of public investments: economic, policy, and legal issues. *Research Policy*, 49S, 100008.
- Lazonick, W. (2014). Profits without prosperity: Stock buybacks manipulate the market and leave most Americans worse off. *Harvard Business Review*, 92(9), 46-55.
- Lazonick, W., and Mazzucato, M. (2013). The Risk-Reward Nexus in the Innovation Inequality Relationship: Who Takes the Risks? Who Gets the Rewards? *Industrial and Corporate Change*, 22(4), 1093-1128.
- Macfarlane, L., and Mazzucato, M. (2018). National development banks and patient finance: an international comparison. UCL Institute for Innovation and Public Purpose, IIPP WP 2018-01. Retrieved from https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/iipp_wp_2018-01.pdf
- Mazzucato, M. (2013a). Financing Innovation: Creative Destruction vs Destructive Creation. *Industrial and Corporate Change*, 22(4), 851-867.
- Mazzucato, M. (2013b). *The Entrepreneurial State*. Anthem Press. (2015). Penguin, Allen Lane.
- Mazzucato, M. (2016). From Market Fixing to Market-Creating: A new framework for innovation policy. *Special Issue of Industry and Innovation: "Innovation Policy – can it make a difference?"*, 23(2). Retrieved from <https://www.tandfonline.com/doi/full/10.1080/13662716.2016.1146124>
- Mazzucato, M. (2018a). Mission-oriented innovation policy: Challenges and opportunities. *Industrial and Corporate Change*, 27(5), 803-815.
- Mazzucato, M. (2018b). Mission-Oriented Research and Innovation in the European Union: A problem-solving approach to fuel innovation-led growth. European Union. Retrieved from <https://op.europa.eu/en/publication-detail/-/publication/5b2811d1-16be-11e8-9253-01aa75ed71a1/language-en>
- Mazzucato, M. (2018c). *The Value of Everything: Making and Taking in the Global Economy*. London, England: Allen Lane.
- Mazzucato, M. (2018d). Mission-oriented innovation policies: challenges and opportunities. *Industrial and Corporate Change*, 27(5), 803. Retrieved from <https://academic.oup.com/icc/article/27/5/803/5127692>.
- Mazzucato, M. (2019). Governing missions in the European Union. Report for the European Commission. Retrieved from https://ec.europa.eu/info/sites/info/files/research_and_innovation/contact/documents/ec_rtd_mazzucato-report-issue2_072019.pdf
- Mazzucato, M. (2021). *Mission Economy: A Moonshot Guide to Changing Capitalism*. Allen Lane.
- Mazzucato, M. (2022a). Rethinking the social contract between the state and business: A new approach to industrial strategy with conditionalities. UCL Institute for Innovation and Public Purpose, IIPP WP 2022-18. Retrieved from <https://www.ucl.ac.uk/bartlett/public-purpose/wp2022-18>
- Mazzucato, M. (2022b). Transformational change in Latin America and the Caribbean: A mission-oriented approach (LC/TS.2022/150/Rev.1). Santiago: Economic Commission for Latin America and the Caribbean (ECLAC).
- Mazzucato, M. (2023a). A collective response to our global challenges: a common good and 'market-shaping' approach. UCL Institute for Innovation and Public Purpose, IIPP WP 2023-01. Retrieved from <https://www.ucl.ac.uk/bartlett/public-purpose/wp2023-01>
- Mazzucato, M. (2023b). Financing the Common Good. Project Syndicate. Retrieved from <https://www.project-syndicate.org/commentary/new-economic-paradigm-common-good-market-shaping-by-mariana-mazzucato-2023-05>
- Mazzucato, M. (2023c Forthcoming). Public Goods and the Common Good: From correcting market failures towards shaping the economy to meet bold objectives. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2023).
- Mazzucato, M., and Collington, R. (2023). *The Big Con: How the Consulting Industry Weakens Our Businesses, Infantilizes Our Governments, and Warps Our Economies*. London: Penguin Allen Lane; New York, NY: Penguin Press.
- Mazzucato, M., and Dibb, G. (2019). *Missions: A beginner's guide*. UCL Institute for Innovation and Public Purpose, Policy Brief Series (IIPP PB 09). Retrieved from <https://www.ucl.ac.uk/bartlett/publicpurpose/publications/2019/dec/missions-beginners-guide>
- Mazzucato, M., and Macfarlane, L. (2018). Patient Finance for Innovation-Driven Growth. UCL Institute for Innovation and Public Purpose, Policy Brief series (IIPP PB 01).
- Mazzucato, M., and Macfarlane, L. (2019). A mission-oriented framework for the Scottish National Investment Bank. UCL Institute for Innovation and Public Purpose, Policy Paper (IIPP WP 2019-02). Retrieved from <https://www.ucl.ac.uk/bartlett/publicpurpose/wp2019-02>
- Mazzucato, M., and Mikheeva, O. (2020). The EIB and the new EU missions framework: Opportunities and lessons from the EIB's advisory support to the circular economy. UCL Institute for Innovation and Public Purpose (IIPP), Policy Report (IIPP WP 2020-17).
- Mazzucato, M., and Penna, C. (2016a). Beyond market failures: The market creating and shaping roles of national development banks. *Journal of Economic Policy Reform*, 19(4), 305-326.
- Mazzucato, M., and Penna, C. (2016b). The Rise of the Mission-Oriented National Development Banks: The Cases of Germany's KfW and Brazil's BNDES. *SWPS* 2025-26.
- Mazzucato, M., and Semieniuk, G. (2017). Public financing of innovation: new questions. *Oxford Review of Economic Policy*, 33(1), 24-48. <https://doi.org/10.1093/oxrep/grw033>
- Mazzucato, M., and Semieniuk, G. (2018). Financing Renewable Energy: Who is financing why and why it matters. *Technological Forecasting and Social Change*, 127, 8-22.
- Mazzucato, M., Carreras, M., and Mikheeva, O. (2023). Steering economic recovery in Europe: Lessons for governing the recovery and resilience facility. European Parliament. Retrieved from [https://www.europarl.europa.eu/RegData/etudes/STUD/2023/699556/IPOL_STU\(2023\)699556_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2023/699556/IPOL_STU(2023)699556_EN.pdf)
- Mazzucato, M., Ryan-Collins, J., and Gouzoulis, G. (2023). Mapping modern economic rents: the good, the bad, and the grey areas. *Cambridge Journal of Economics*, 47(3), 507-534.

- Miedzinski, M., Mazzucato, M., and Ekins, P. (2019). A framework for mission-oriented innovation policy roadmapping for the SDGs: The case of plastic-free oceans. UCL Institute for Innovation and Public Purpose, Working Paper Series (2019-03). Retrieved from https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/a_framework_for_mission-oriented_policy_roadmapping_for_the_sdgs_final.pdf
- Modigliani, F., and Miller, M. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *American Economic Review*, 48(3), 261-297.
- Moon, S., Armstrong, J., Hutler, B., Upshur, R., Katz, R., Atuire, C., and Wolff, J. (2022). Governing the access to COVID-19 tools accelerator: towards greater participation, transparency, and accountability. *The Lancet*, 399(10323), 487-494.
- O’Sullivan, M. (2004). Finance and Innovation. In J. Fagerberg, D. C. Mowery, & R. R. Nelson (Eds.), *The Oxford Handbook of Innovation*. New York: Oxford University Press.
- OECD. (2020). Closing the SDG Financing Gap in the COVID-19 era: Scoping note for the G20 Development Working Group. Retrieved from <https://www.oecd.org/dev/OECD-UNDP-Scoping-Note-Closing-SDG-Financing-Gap-COVID-19-era.pdf>
- OECD. (2022). Global Outlook on Financing for Sustainable Development 2023: No Sustainability Without Equity. OECD Publishing. Retrieved from <https://www.oecd.org/finance/global-outlook-on-financing-for-sustainable-development-2023-fcbe6ce9-en.htm>
- OECD. (2023). International tax reform: OECD releases technical guidance for implementation of the global minimum tax. Paris: OECD. Retrieved from <https://www.oecd.org/tax/beeps/international-tax-reform-oecd-releases-technical-guidance-for-implementation-of-the-global-minimum-tax.htm>
- Palladino, L., and Lazonick, W. (2021). Regulating Stock Buybacks: The \$6.3 Trillion Question. Roosevelt Institute Working Paper. Available at: https://rooseveltinstitute.org/wp-content/uploads/2021/04/RI_Stock-Buybacks_Working-Paper_202105.pdf
- Pekanov, A., and Schratzenstaller, M. (2019, May 29). A Global Financial Transaction Tax-Theory, Practice and Potential Revenues. Retrieved from [insert URL if applicable]
- Plant, M. (2023). Can SDRs Be Used for Loss and Damage Finance? Center for Global Development. Retrieved from <https://www.cgdev.org/blog/can-sdrs-be-used-loss-and-damage-finance>
- Pollin, R. (2009). Financial Transaction Taxes: A Tool for Fighting Wall Street Excesses and Raising Taxes Fairly. Economists’ Committee for Stable, Accountable, Fair and Efficient Financial Reform. Retrieved from <https://www.imf.org/external/np/exr/consult/2009/pdf/Comment81B.pdf>
- Reinert, E. S. (2019). How rich countries got rich... and why poor countries stay poor. Hachette UK.
- Sachs, J. D., Kroll, C., Lafortune, G., Fuller, G., and Woelm, F. (2021). Sustainable Development Report 2021. Cambridge University Press. Retrieved from <https://www.cambridge.org/core/books/sustainable-development-report-2021/increasing-the-fiscal-space-of-developing-countries-to-achieve-the-sdgs/6E8679DDF566C73B12BBDAAEBF0DC7D3>
- Sachs, J.D., Lafortune, G., Fuller, G., and Drumm, E. (2023). Sustainable Development Report 2023. Paris: SDSN, Dublin: Dublin University Press. Retrieved from <https://dashboards.sdgindex.org/chapters>
- Sampat, B. N. (2012). Mission-Oriented Biomedical Research at the NIH. *Research Policy*, 41, 1729-1741.
- Schreck, S., Kobiela, G., and Wolf, S. (2023). Climate-neutral steel: Enabling industrial transformation in Germany. German Watch. Retrieved from https://www.germanwatch.org/sites/default/files/germanwatch_climate-neutral_steel_2023.pdf
- Spence, M. (2021). Some thoughts on the Washington Consensus and subsequent global development experience. *Journal of Economic Perspectives*, 35(3), 67-82.
- Spiegel, S., and Schwank, O. (2022). Bridging the ‘great finance divide’ in developing countries. Washington, DC: Brookings Institute. Retrieved from <https://www.brookings.edu/blog/future-development/2022/06/08/bridging-the-great-finance-divide-in-developing-countries>
- Stiglitz, J. E., and Uy, M. (1996). Financial markets, public policy, and the East Asian miracle. *The World Bank Research Observer*, 11(2), 249-276.
- Stiglitz, J., Ghosh, J., and Tubiana, L. (2003). Un pas vers une taxe internationale sur les transactions financières serait une première. Paris, *Le Monde*. historique. Retrieved from https://www.lemonde.fr/idees/article/2023/06/06/un-pas-vers-une-taxe-internationale-sur-les-transactions-financieres-serait-une-premiere-historique_6176430_3232.html
- Summers, L., and Singh, N. (2023a). Reinventing Multilateral Development Banks. MDB Reform Accelerator. Retrieved from <https://mdbreformaccelerator.cgdev.org/reinventing-multilateral-development-banks/>
- Summers, L., and Singh, N. (2023b). The Multilateral Development Banks the World Needs. Project Syndicate. Retrieved from <https://www.project-syndicate.org/commentary/world-bank-mdbs-how-to-triple-funding-and-make-more-effective-by-lawrence-h-summers-and-n-k-singh-2023-07>
- Tax Justice Network. (2023). State of Tax Justice 2023, London. Retrieved from <https://taxjustice.net/wp-content/uploads/SOTJ/SOTJ23/English/State%20of%20Tax%20Justice%202023%20-%20Tax%20Justice%20Network%20-%20English.pdf>
- The Global Fund. (2016). Collaboration through financial innovation. Retrieved from https://www.theglobalfund.org/media/12284/publication_debt2health_overview_en.pdf
- UN. (2023a). The Sustainable Development Goals Report: Special Edition. Retrieved from <https://unstats.un.org/sdgs/report/2023/The-Sustainable-Development-Goals-Report-2023.pdf>
- UN. (2023b). Our Common Agenda Policy Brief 6: Reforms to the International Financial Architecture. Retrieved from <https://www.un.org/sites/un2.un.org/files/our-common-agenda-policy-brief-international-finance-architecture-en.pdf>
- UN. (2023c). United Nations Secretary General’s SDG Stimulus to Deliver Agenda 2030. Retrieved from <https://www.un.org/sustainabledevelopment/wp-content/uploads/2023/02/SDG-Stimulus-to-Deliver-Agenda-2030.pdf>
- UNDP. (2022). The Role of Public Development Banks in scaling up Sustainable Finance. Retrieved from <https://www.undp.org/publications/role-public-development-banks-scaling-sustainable-finance>
- Wade, R. (2004). *Governing the market: Economic theory and the role of government in East Asian industrialization*. Princeton University Press.
- WHO Council on the Economics of Health for All. (2021). Financing Health for All: Increase, transform and redirect. Council Brief No. 2. Retrieved from <https://www.who.int/publications/m/item/council-brief-no-2>
- WHO Council on the Economics of Health for All. (2022a). Barbados’ Introduction of a Pandemic Debt Suspension Clause. Retrieved from <https://www.who.int/publications/m/item/barbados--introduction-of-a-pandemic-debt-suspension-clause>
- WHO Council on the Economics of Health for All. (2022b). Strengthening public sector capacity, budgets and dynamic capabilities towards Health for All. Council Brief No. 4. Retrieved from <https://www.who.int/publications/m/item/strengthening-public-sector-capacity--budgets-and-dynamic-capabilities-towards-health-for-all--the-who-council-on-the-economics-of-health-for-all--council-brief-no-4>
- WHO Council on the Economics of Health for All. (2023a). Health for all: transforming economies to deliver what matters. World Health Organization. Retrieved from <https://www.who.int/publications/m/item/health-for-all-transforming-economies-to-deliver-what-matters>
- WHO Council on the Economics of Health for All. (2023b). Exploring Innovative Financing Solutions for Pandemic Preparedness and Response. World Health Organization. (Forthcoming).

WHO. (2022). ACT-Accelerator: Quarterly update Q2: 1 April–30 June 2022. Retrieved from <https://www.who.int/publications/m/item/act-accelerator--quarterly-update-q2--1-april--30-june-2022>

Williamson, S. K., Babcock, A. F., and He, A. (2020). The Dangers of Buybacks: Mitigating Common Pitfalls. Harvard Law School Forum on Corporate Governance. Retrieved from <https://corpgov.law.harvard.edu/2020/10/23/the-dangers-of-buybacks-mitigating-common-pitfalls/#:~:text=Buybacks%20were%20largely%20illegal%20until,over%20the%20next%20%20years>

World Bank. (2023a). Partnership Fund for the Sustainable Development Goals. Retrieved from <https://www.worldbank.org/en/programs/partnership-fund-for-the-sustainable-development-goals>

World Bank. (2023b). World Bank Group Announces Comprehensive Toolkit to Support Countries After Natural Disasters. Retrieved from

<https://www.worldbank.org/en/news/factsheet/2023/06/22/comprehensive-toolkit-to-support-countries-after-natural-disasters>

Xu, J., Marodon, R., Ru, X., Ren, X., and Wu, X. (2021). What are public development banks and development financing institutions? Qualification criteria, stylized facts and development trends. *China Economic Quarterly International*, 1(4), 271-294.

Xu, J., Marodon, R., Ru, X., Ren, X., and Wu, X. (2023). The PBD and DFI Database July 2023. Peking University and Agence Française de Développement. Retrieved from <https://www.nse.pku.edu.cn/dfidatabase/datadownloading/index.htm>

Zhan, J.X. and Santos-Paulino, A.U. (2021). Investing in the Sustainable Development Goals: Mobilization, channeling, and impact. *Journal of International Business Policy*, 4, 166–183. <https://doi.org/10.1057/s42214-020-00093-3>

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