Public Development Banks and the SDGs: A global architecture for global good

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As the international community looks to mobilise the resources needed to address global challenges that can no longer be ignored, there has been a revival of interest in the role that public development banks (PDBs) can play as agents of change. These are institutions established and mandated by governments to finance and facilitate investments that have strong positive external effects that serve the common good. Their role has been crucial in many market economies because, left to it, the private sector is unlikely to undertake such investments, given the large capital costs involved, the long gestation lags, the lower relative returns, and the higher risks. These government-sponsored institutions, with public policy-oriented official mandates that normally do not apply to private commercial banks, are most often beneficiaries of special, low-cost financing support. Over time, the growth in the number of such institutions worldwide has created a global development financing architecture, which the Finance in Common Summit coalition headquartered within the Agence française de développement (AFD) in Paris is attempting to strengthen as part of a new multilateralism. This paper examines the evolution of that architecture and the role it has played to assess how it is best leveraged to advance sustainable development.

Ever since the Millennium Summit of 2000, the international community has been setting itself increasingly ambitious goals and targets in areas that are seen as constituting global, and not just national, public goods. First came the Millennium Development Goals, and then the SDGs, and subsequently very definitive targets aimed at limiting global warming. The SDG Declaration laid out an ambitious agenda to address the structural causes of poverty, inequality and environmental degradation. The recognition of the need to immediately address climate change has only enhanced that agenda. The aim is to ensure development that is inclusive, sustainable and universal, where universality is a recognition that development challenges are shared and that the realisation of the sustainable development goals in each country benefits all.

To take on this mammoth task a new and strengthened global partnership is required, among governments, public institutions, international organisations, the private sector and civil society, including academics and analysts. While a host of institutional and policy innovations are needed to address these challenges, a central issue is the financing of the initiatives that can help realise these goals within a specified time horizon.

The need for a special focus on financing was recognised soon after the Millennium Summit of 2000. The Monterrey Financing for Development Conference of 2002, while noting that the financing requirements were large, argued that a combination of national efforts and global partnerships, involving collaboration between the public and private sectors, could deliver the requirements. That agenda was substantially enhanced in 2015, with the adoption by the UN General Assembly of a set of 17 sustainable development goals (SDGs). Subsequently, the Addis Ababa Action Agenda, adopted by UN member nations at the 2015 Financing for Development Conference, took forward the discussion on ways of meeting the enhanced financing requirements.

As part of the enhanced financing effort, the *Intergovernmental Committee of Experts on Sustainable Development Financing* (ICESDF) (United Nations 2014), in its 2014 report, estimated spending needs at (i) $66 billion annually for a global safety net to eradicate poverty; (ii) $5 trillion to $7 trillion for annually required investment in infrastructure

(water, agriculture, telecommunications, power, transport, buildings, industrial and forestry sectors); (iii) about $3.5 trillion for the unmet credit needs of small and medium enterprises; and (iv) around $7 trillion a year to meet investment required to realise climate-compatible and sustainable development scenarios.

Actual spending in each of these areas has been far short. The 2021 OECD Global Outlook (OECD 2021) estimated that even before COVID-19 hit, SDG financing was falling short by an estimated 2.5 trillion dollars every year. More recently the UN's Intergovernmental Panel on Climate Change (IPCC) in the report of Working Group III of its *sixth* assessment noted that the available, imperfect data suggest that, to meet assessed needs, yearly flows of climate finance would have to rise by between 4 to 8-times in developing countries, and 2 to 5-times in the developed. While much needs to be done to increase the absorption capacities of poorer developing countries and their ability to identify and implement the best projects, the consensus is that as of now the task of raising additional resources and channelling them to the best projects, which falls substantially short of needs, is the first priority.

However, there is reason to believe that the sums required can be commandeered with suitable policies given the level of global savings, both public and private. As the ICESDF noted, given the necessary political will, the international community can meet the financing needs for a transformative sustainable development agenda. The real challenge is to mobilise that surplus and deliver it to the activities that would contribute to the realization of the SDGs. Close to 8 years after that report was released, the world has not moved far enough in this direction, though there are signs that the effort is underway.

Constraints and challenges

There are two important constraints to be addressed here. The first is that a lot of the activities that contribute to the achievement of the SDGs are not profitable or adequately profitable, and therefore not attractive to the private sector, which has control over the bulk of the surpluses.[1] The second is that the available real and financial resources are disproportionately concentrated with agents in the developed, and to a lesser extent middle-income, countries. This requires transferring a share of those resources to poorer countries where much of the advance towards the SDGs has to take place. That transfer must be substantially on concessional terms, given the nature of the projects involved. This makes the recognition of the need for and the forging of international cooperation agreements crucial.

The finance to be mobilised can come from domestic and international public or private sources. Depending on the kind of SDGs-targeted activity that is sought to be financed, resources must be obtained from the appropriate source or blend of sources. An important challenge is that in the case of many investments facilitating the realisation of the sustainable development goals, spending must be motivated by the perceived social benefit rather than private profit, since the latter would be a poor measure of the former. Moreover, a lot of the spending has to be directed to physical and social infrastructure that require large outlays in projects with long gestation lags before the benefits are realised. Conventional Anglo-Saxon style commercial banking would be inadequate to the purpose of financing such activities given the short maturities and high liquidity expectations associated

[1] According to Climate Policy Initiative (2021) public finance averaged $321 billion a year during 2019/20, which is just above half the estimated $631 billion of climate finance.

with the capital such banks mobilise, and the long maturity and illiquid character of the investments to be financed. Nor would non-bank private financial agents who privilege profits over much else be equal to the task. Government sponsored or owned, specialized financial institutions, with supportive policies that could back mobilisation of the volume and nature of financing required, are needed. They could also contribute to catalysing private financing of socially beneficial projects.

This is no new challenge, however. As noted, globally, especially in the period after the Second World War, efforts at post-War reconstruction and the increased concern with accelerating development of the poor countries in an unequal world order led to the establishment of such specialised financial institutions, at the national, regional and global levels. This has resulted in a global development financing architecture, populated with around 500 national public development banks, besides supranational institutions such as the World Bank and the regional development banks.[2]

In recent decades there has been a growing interest in leveraging this institutional frame, with its special characteristics and skills to strengthen the efforts at realising sustainable development goals. In fact, the Addis Ababa Action Agenda of 2015 made a case for using national development banks to help fund infrastructure and achieve sustainable development goals. It declared that "the time is ripe to promote development banks." (Gutierrez and Kliatskova 2021). Climate Policy Initiative (2021) estimates that development finance institutions were the dominant route for channelling public finance for climate related spending, with multilateral DFIs contributing on average $65 billion a year and national DFIs $120 billion, of a total of $321 billion of climate finance from public sources during 2019/20.

Repurposing the development banking architecture requires reshaping that architecture by tweaking mandates, shaping a shared agenda, pooling resources, and strengthening linkages between governments and the development finance institutions that differ in size, financial strength and risk bearing capability. It would also require reshaping governance structures to make these entities more diligent when making lending and investment decisions and more accountable for their actions.

This study is primarily concerned with delineating the evolution of the global development banking architecture and assessing how that architecture can be strengthened to advance the SDGs and climate agenda. It would address the following questions:

(i) What are the defining features of development banks and how do those features make them suitable as instruments to advance sustainable development and climate action?

[2] This number refers to NDBs identified by the joint database of AFD and Institute of New Structural Economics (INSE), Peking University (available at https://www.nse.pku.edu.cn/dfidatabase/datavisualization/index.htm). The number of development financing institutions varies depending on the definition used. Interestingly, an early mid-1990s study by Nicholas Bruck (1998), estimated that there were over 550 development banks worldwide, of which 32 were in the nature of international, regional and sub-regional development banks, leaving around 520 national development banks (NDBs) in 185 countries, or an average of about 2.8 per country. Developing countries had on average three or more development banks, while industrial countries had fewer reflecting the greater role these institutions play in late-industrialising countries. Latin America and the Caribbean had the largest number of NDBs (152), followed by Africa (147), Asia and the Pacific (121), Europe (49) and West Asia (47). However, these banks varied significantly in terms of size and scope of operations, making the numbers inadequately representative of DFI presence in each country.

(ii) How was the inherited legacy in the form of a global development financing architecture shaped, in terms of its components and dominant objectives, and how was that influenced by the changing economic and developmental context?

(iii) How, if at all, have the dominant objectives of these institutions changed as a result of this evolution and, if so, how was this a result of the changing context in which the DFIs functioned? What policy implications does this have for the effort to utilise them as instruments to promote sustainable development.

(iv) What are the financial and non-financial relationships and interlinkages between different segments and institutions within those segments, and do they facilitate operationalizing a globally integrated development financing system in pursuit of common goals and the global good?

These issues are taken up seriatim in the discussion that follows. Section I is concerned with delineating the features that make specialised development banks appropriate instruments to promote sustainable development. Section II examines the historical antecedents that inspired the structure of modern-day development financing institutions and traces the evolution of the global development financing architecture. Section III identifies the ways in which the mandates and financing patterns of the public DFIs have changed as part of this evolution and discusses the implications for policies designed to use them as instruments for advancing sustainable development. Finally, section IV examines the relationships embedded in the structure of the global architecture to assess how they contribute to and can be reshaped to facilitate the pursuit of sustainable development and the realisation of climate goals. The paper concludes with some suggestions on the way forward in the journey to make the global development financing structure a more effective instrument to promote sustainable development.

I: Defining the development banking architecture

As noted above, development banks are geared to intermediating financial flows that fund projects that would normally not be adequately serviced by institutions like commercial banks or privately owned and managed financial intermediaries focused on generating the maximum pecuniary profits possible. The database developed by the Agence française de développement, in collaboration with the Institute of New Structural Economics (INSE) of Peking University, distinguishes them from government credit programs or bilateral aid agencies without independent legal status by defining them as institutions with funding sources other than periodical budgetary transfers from governments (Xu, Marodon and Ru 2020).[3] While there are development banks that are privately owned, most are publicly owned and supported with significant resources from the budget or the central bank. A sample of 90 DFIs studied by Luna-Martinez and Vicente (2012) in 2009, which defined a DFI as an institution with "at least 30 per cent state-owned equity" and "an explicit legal mandate to reach socioeconomic goals in a region, sector or particular market segment", found that 74 per cent of these institutions were entirely government owned and controlled and a further 21 per cent had less than 50 per cent of private equity ownership. However, individual constituents of the global development financing architecture can have multinational, national or sub-national participation, with activities that can be

[3] Most numbers in this paper, except when explicitly stated, are from the July 2022 update of the AFD-INSE database available at https://www.nse.pku.edu.cn/dfidatabase/.

global/regional in scope in the case of multinational and national PDBs, and national or local in the case of the national and sub-national PDBs.

Such development banks are generally mandated to provide credit at terms that render industrial and infrastructural investment viable. They provide working capital and finance long-term investment, including in the form of equity. To safeguard their investments, they closely monitor the activities of the projects and firms they lend to, often nominating directors on the boards of companies. This allows for corrective action as soon as any deficiencies are detected. Development banks are also involved in early-stage decisions such as choice of technology, scale and location, which requires hosting technical, financial and managerial expertise. They sometimes provide merchant banking services, taking firms to market, underwriting equity issues, and supporting firms with their own reputation.

Policy banks

While some development banks are geared primarily to driving industrial growth, such institutions are by themselves inadequate to deal with all development needs. This is because the financial structure must not only contribute to growth by directing investment to crucial investment projects, but it must render development broad-based by delivering credit to sectors and sections that may otherwise be ignored by the financial sector. Some development banks, for example, are mandated to focus on specific sectors such as the medium and small-scale industrial sector, providing them with long-term finance and working capital at subsidised interest rates with longer grace periods, as well as offering training and technical assistance in areas like marketing. Others engage with small peasant farmers, providing credit to support agricultural operations that are seasonal in delivery of produce and subject to much volatility. But providing credit in small volumes to dispersed and often remotely located borrowers increases transaction costs substantially. Further, the volatility of production, especially in rain-fed agriculture, often results in costly restructuring or large scale defaults. This implies that the risk premia associated with such lending would also be high.

If these transaction costs and risk premia are reflected in interest rates charged on credit, rates could be so high that the loans concerned cannot be used for productive purposes. Suitably adjusting interest rates would imply that returns on lending to sectors such as these would be significantly lower than normal. This would require the state to intervene in one of many ways. It could insist on “social banking” on the part of ordinary banks, set low ceilings on interest rates chargeable to priority sectors and provide the banks a subsidy in the form of a subvention. Or it could require public banks to lend at low interest rates and cross-subsidise such lending with returns on normal commercial operations. As a consequence, the gross returns of such banks would be lower than a normal purely “commercial” benchmark. Or it could create specialised development banks that are provided state funds at extremely low interest rates or state support to mobilise low-cost capital to carry out these operations.

The call to make public development banks into intermediaries that can mobilise and channel SDG and climate finance is merely an ambitious extension of these social mandates that have been the remit of many such institutions.

The need for public development finance institutions

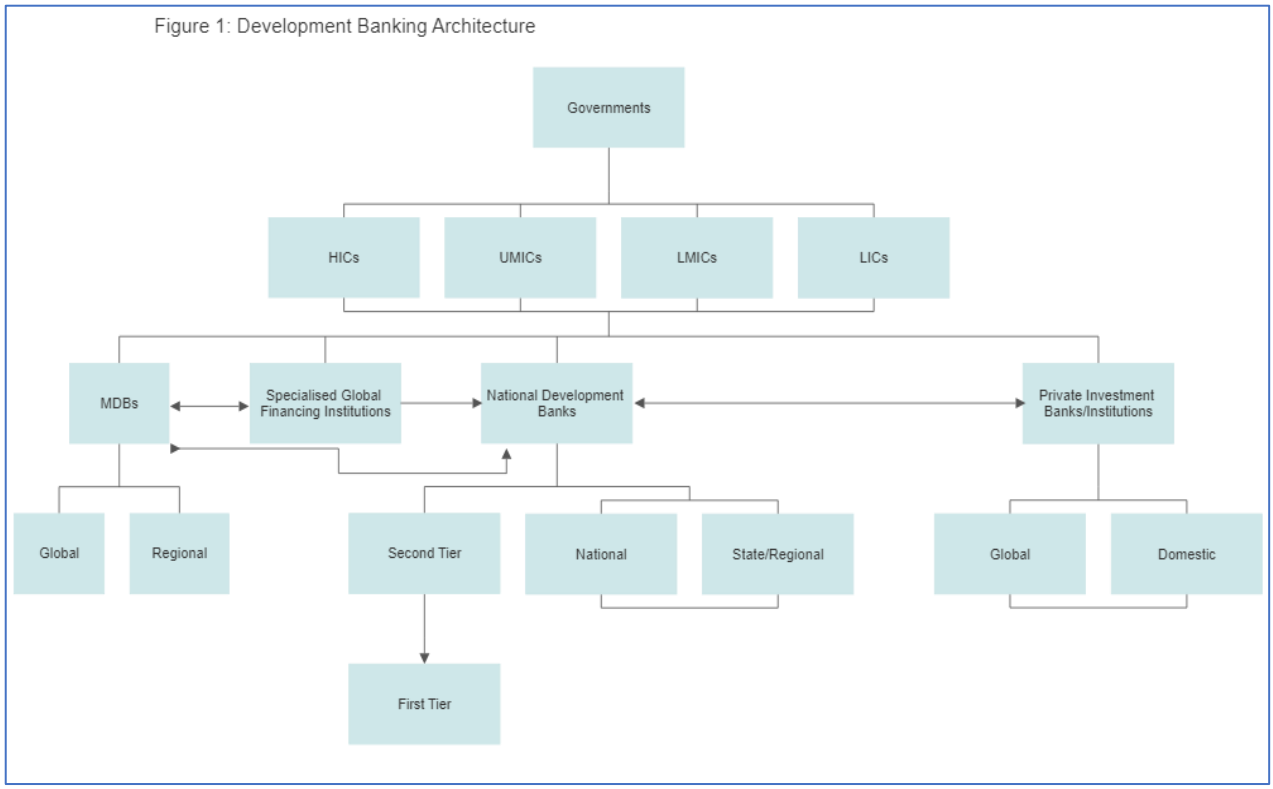
Though the case for public development banks is often made on the grounds that markets *fail* in certain circumstances, the problem is not just one of market functioning and failure.[4] The fundamental problem is that risk-sensitive, private financial agents operating for profit tend to abjure a range of investments and fight shy of engaging in a host of activities. Many of these investments/activities are crucial from a social or societal point of view, especially from the point of view of realising the SDGs. To the extent that direct budgetary finance is inadequate to match the scale at which such expenditures need to be undertaken, other institutions, state-owned, state-sponsored or private, need to pick up the slack. If private finance is unwilling to provide the resources, specialised state-owned or state-sponsored institutions are needed.

Banks for development

Though early versions of development banks were established in the course of the industrial transformation of the advanced nations of today, these institutions became ubiquitous with the launch of state-assisted or state-led development in poor countries after the Great Depression, but especially after the Second World War. All developing countries launching on post-War national development strategies, often in the aftermath of decolonisation, were keen on accelerating the pace of growth of productivity and per capita GDP by diversifying into manufacturing. But the effort at 'take-off' led by industrialisation required substantial investment. Crucial industries were capital intensive and industrialisation required investment in a cluster of them. If large sums of capital were required for investment in each activity, and multiple such activities had to be promoted, the total investment requirement would be substantial. In addition, supportive investments were needed in a host of infrastructural areas (roads, ports, power, communications and the like), which are capital intensive in character and non-tradable in nature but are characterised by economy-wide externalities.

A problem arises when such investment is to be financed from sources other than the government budget backed by taxation. Absence of financial development in poor countries can result in a "gap" for long term finance because in bank-dominated financial systems the limited financial savings mobilised is likely to be from agents who prefer highly liquid instruments with short term maturities and relatively low risk. Leveraging such resources to finance long term investments in relatively illiquid assets, with higher risks, requires managing the maturity, liquidity and risk mismatches. Private financial institutions in relatively less developed contexts may not have the ability and the resilience to make the required financial transformation, necessitating state-supported or state-owned institutions with access to lower-cost, long term funding, provided either from the budget or by the central bank or mobilised using government guarantees. This is what drove the emergence and evolution of the global development financing architecture populated by a varied set of public development banks (See Figure 1).

[4] For a discussion on the limitations of the market failure justification for state investment banks see Mazzucato and Penna (2015).



Source: Based on information in AFD-INSE Database

II: Evolution of the global architecture

Historical antecedents

Historically, even late industrialisers in eighteenth century Europe benefited from institutions that geared themselves to providing long-term finance to capital intensive projects. Gerschenkron (1962) believed they served as institutional substitutes that made up for the absence of crucial "prerequisites" to trigger industrial transformation and served as "financial organisations designed to build thousands of miles of railroads, drill mines, erect factories, pierce canals, construct ports and modernise cities". An early example was the Credit Mobilier in France, which, though being privately owned, successfully played this unusual role for a time but then failed. As Piero Sraffa argued in his Cambridge lectures on continental banking (De Cecco 2005), Credit Mobilier failed because it attempted to finance long-term investment with short-term deposits. This happened because, in what was a peculiar rivalry, the Banque de France not only refused to support the Credit Mobilier with liquidity as and when required but also prevented it from issuing long-term bonds.

This experience seems to have influenced financial development in other late industrialisers like Germany (and possibly Japan). They relied on a financial structure that involved a special relationship between joint stock banks and the central bank (which had the right of currency issue), through which the central bank provided an assurance that in case long term lending by banks resulted in liquidity shortages, it would step in and provide the needed liquidity to help them tide over the problem. This feature of 'continental banking' allowed and encouraged joint stock banks to provide long term finance for industrial investment, contributing to the success of the industrialisation effort. De Cecco (2005: 355) summarises Sraffa's perception of the system as follows: "German Grossbanken, which

were heavily involved in maturity transformation, were likely to find themselves periodically stuck in illiquidity situations, and required reliable access to last-resort lending by the Reichsbank. In fact, the whole concept of last-resort lending, which had been developed in the English context, had to be adapted, indeed drastically transformed, to be used in the German one." According to De Cecco (2005: 354), in Sraffa's perception, "the German experience represented a clear case of planned institution building", to realise the task at hand. The relationship between the Bank of Japan and the city banks in Japan under the main bank system that financed industrial investment was similar.

It is this tradition that developing countries took over. But since banking systems in these countries were inadequately developed and fragile, most of them chose to design and establish specialised development banks. Rather than combining the activities of pre-existing commercial banks with the industrial financing function, most developing countries chose to establish stand-alone development finance institutions expressly geared to realising specified financing objectives. These institutions were not autonomous creations of the private sector, which then came under government influence, but were established by the state and were in many cases state-owned institutions.

The architecture

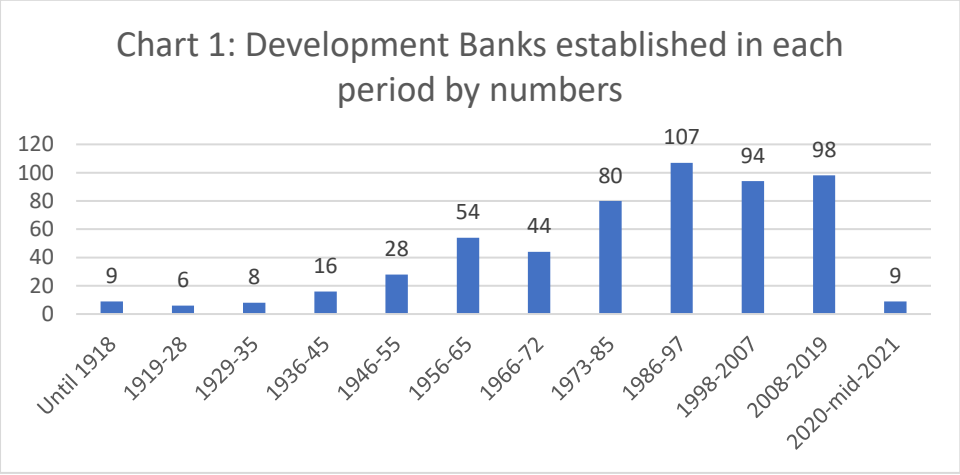
While institutions in the nature of development banks have been established since the 19th century, they registered a first spurt in numbers during the inter-war years (Charts 1 and 2), as rivalry between developed nations, the experience of the Great Depression and the New Deal prodded governments into accelerating growth by raising the rate of investment and pushing industrialisation. That required specialised institutions in certain contexts. As compared to an average of less than 1 development bank established every year during 1919-28, the number rose to 1.3 during the Depression years (1929-35) and 1.8 during the years covering the Second world War (1936-45). Subsequent processes of evolution led to the establishment over time of 500-odd multilateral, regional and national banks that together constitute the global development financing architecture.[5]

The real growth occurred after the Second World War, since only about 7 per cent of NDFIs were established prior to that (Figure 2). The initial big waves of DFI creation were stimulated by the needs of post-War reconstruction (which led, for example, to the establishment of the KfW in Germany in 1948 and the Japan Development Bank (JDB) in 1951). Growth was also driven by decolonisation and the emergence of newly independent nations in the developing world, the governments of which sought to address their subordinate position in the international economic order by launching on import substituting industrialisation within a mixed economy framework. That led to the creation of

[5] The database of the Agence Française de Développment and the Institute of New Structural Economics at Peking University (INSE) identifies the scope of 550 development banks or Development Finance Institutions (DFIs) worldwide, of which 30 were international in scope, 44 regional, 59 national and international, 308 national, and 109 subnational in scope. The development banking architecture that the combination of these institutions reflect is defined by: (i) the state policies that shape the features and role of development banks at the global, regional and national levels; (ii) the financing patterns or sources of finance of the DFIs in different contexts; (iii) the individual characteristics of development banks reflected in ownership patterns, mandates, sources of finances, and lending structures, and the relative roles of different kinds of DFIs in different jurisdictions; (iv) the nature of private participation in development finance intermediaries; (v) the relationship between development banks and the entities/projects that they fund; (vi) and the regulatory framework governing the functioning of DFIs in different contexts.

banks such as the Development Bank of the Philippines (1947), Industrial Finance Corporation of India (1948), the Industrial Development Bank of Turkey (1950), the Brazilian Development Bank (1952), and the Industrial Development Bank of Kenya (1954). The average number of development banks established in a year rose to 3.1 during 1946-55 and 6.0 during 1956-65 (Chart 2).

As part of these trends, a number of multilateral and regional development banks were also established over the next three decades. The International Bank for Reconstruction and Development (IBRD), the parent institution of the World Bank Group, in 1944, the European Investment Bank (EIB) in 1958, the Inter-American Development Bank (IADB) in 1959, the African Development Bank (AfDB) in 1964, the Asian Development Bank (ADB) in 1966, the East African Development Bank (EADB) in 1967, the Development Bank of Latin America (CAF) in 1970, and the Islamic Development Bank (IsDB) in 1973. Some of these had very special mandates. The IBRD was originally established to facilitate post-War reconstruction under US hegemony. But with the launch of the Marshall Plan which became the vehicle for post-War reconstruction, the organisation shifted focus to influencing the development agenda in developing countries adopting national growth strategies in the post-War period. The European Investment Bank was established along with the creation of the European Economic Community to partly address the development needs of its less developed members. And the IADB was established as an instrument of US influence aimed at stalling the spread of socialist ideology in its neighbourhood. What is noteworthy is that regional development banks in which countries other than the leading Western nations play an important role grew in numbers over time. An early example is the Asian Development Bank over which Japan asserts considerable influence, and more recent ones are institutions like the New Development Bank and the Asian Infrastructure Investment Bank where China as a rising power has a voice and/or control.



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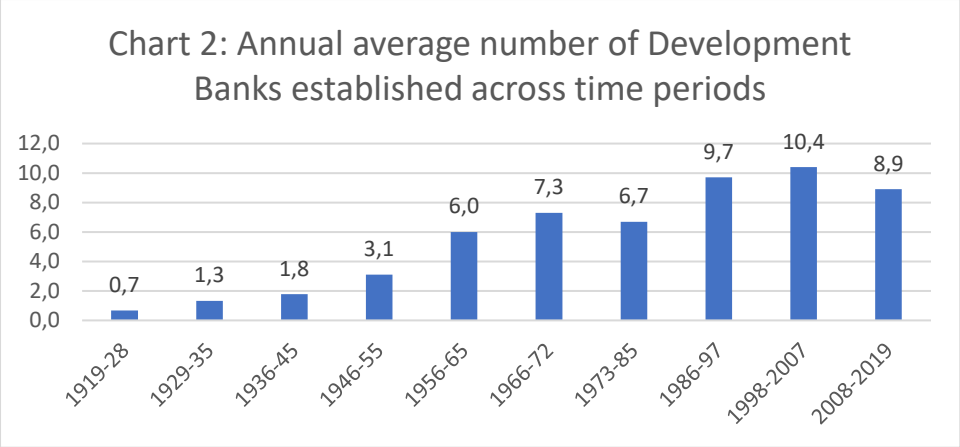

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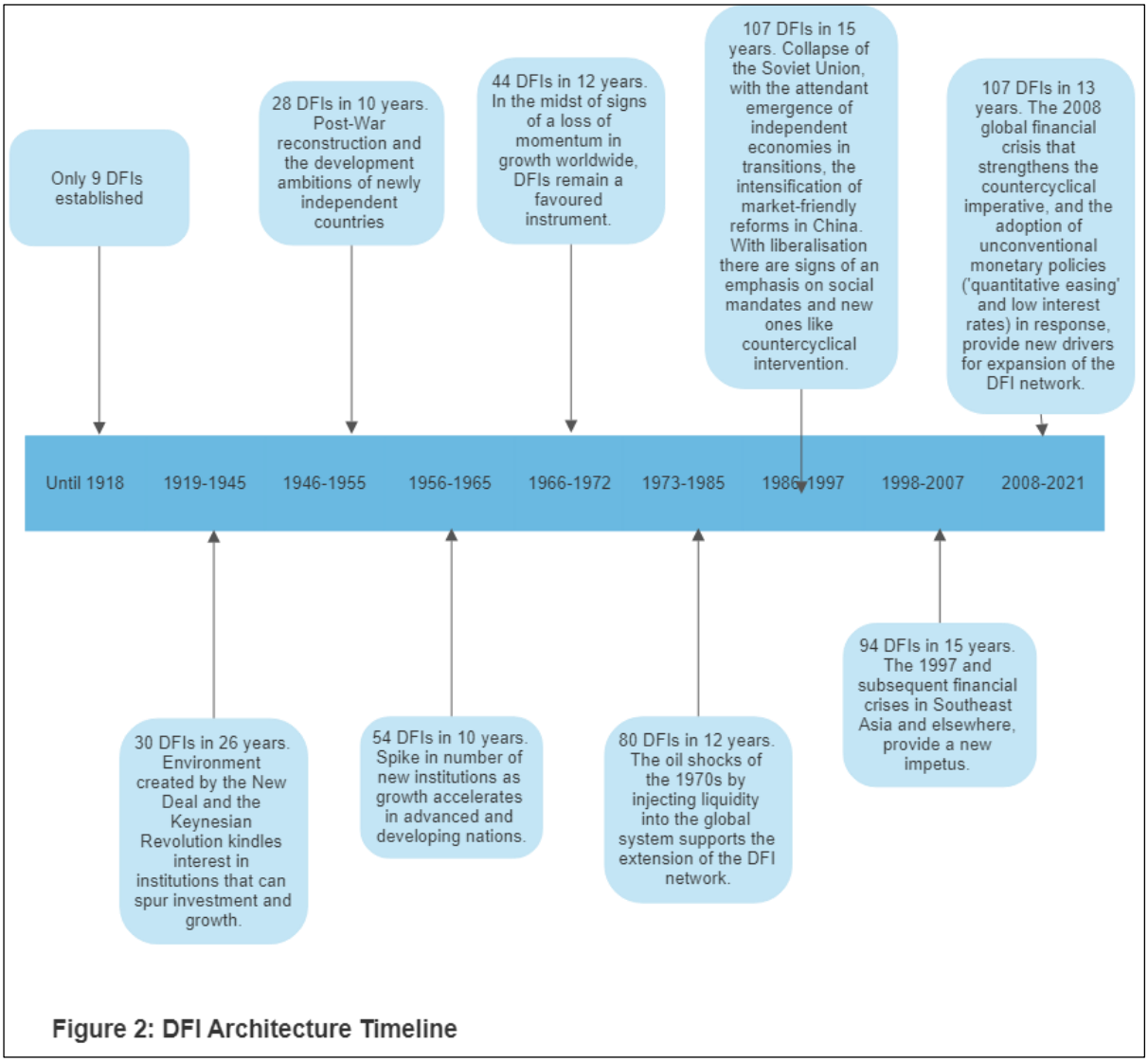


Figure 2: DFI Architecture Timeline

Source: Based on information in AFD-INSE Database.

With the possibilities for import substitution-based growth having exhausted themselves by the early-1970s, many developing countries faced a development impasse and shifted from

a state-led to a neoliberal development agenda. This held back growth in the number of development banks across the world. But this tendency was partly neutralised by the oil shocks of the 1970s, which resulted in an accumulation of hard currency surpluses with the oil exporting countries. The consequent spike in liquidity in the international financial system resulted in increased capital flows to emerging markets, that facilitated the creation of new financing institutions that could access capital from global sources. Notably, the 1970s saw the creation of a number of Arabic and Islamic development banks, undoubtedly prompted by the availability of oil surpluses. This, together with the spread of development banking to poorer developing countries, resulted in the number of new development banks remaining at elevated levels in the 1970s and 1980s.

Moreover, even though starting in the 1980s most governments in developing market economies embraced globalisation and a neoliberal agenda, many of them retained their development banks. The roles of these banks were aligned with the new policy paradigm (focusing for example on investment in infrastructure to incentivise private investment, supporting public-private partnerships and/or de-risking private investment in areas like infrastructure), but they were not required to exit. There were some exceptions like India, where leading development banks like the Industrial Finance Corporation of India, the Industrial Development Bank of India and the Industrial Credit and Investment Corporation of India were either divested of their development banking role or were encouraged to set up commercial banking subsidiaries into which the parent development banks were "reverse merged", diluting their development banking mandate. In Brazil, on the other hand, the shift to a more open and liberalized regime was accompanied by the strengthening of the Banco Nacional de Desenvolvimento Econômico e Social (BNDES). Many national development banks (like Brazil's BNDES, China's CDB and South Africa's SADB) have extended their activity beyond their borders to support the foreign forays of domestic players or to support investment in development partner countries. Further, with deregulation and liberalisation increasing economic volatility, and commercial banks being procyclical in their lending behaviour, development banks have been persuaded to adopt a countercyclical stance.

Simultaneously, development banking received a boost in the 1990s and to a lesser extent in the 2000s when a new set of countries underwent transformations that encouraged the creation of NDFIs. After the collapse of the Soviet Union, the newly independent east European and central Asian members set themselves on market-based development trajectories, requiring them to rely on financial institutions (such as the European Bank for Reconstruction and Development) to undertake tasks that private finance will not fulfil. These countries established a high proportion of the NDFIs that emerged in the 1990s. With reform accelerating and going beyond agriculture, the People's Republic of China established three policy banks, the China Development Bank, the Export Import Bank of China, and the Agricultural Development Bank of China in 1994. And with the end of apartheid in South Africa and a new, elected government in power in 1994, new development banks were established to facilitate growth and inclusion.

The late 2000s saw this trend continuing because of new factors influencing the development banking trajectory. After the 2008 financial crisis in the developed countries, as after the oil shocks, a spike in liquidity in the international financial system appears to have facilitated growth in DFIs. When central banks responded to the crisis and the Great Recession that followed with unconventional monetary policies that injected large volumes

of cheap liquidity into the system, some of that capital flowed to developing countries, which too provided access to new sources of market capital for development finance institutions in some emerging markets. Close to a 100 development banks were established between 2008 and 2019, when the world was experiencing and struggling to emerge from the Great Recession.

In sum, varying incentives led to the creation, sustenance and strengthening of development finance institutions in very different economic contexts. If there was a persistent explanatory factor, it was the gap in financing of multiple kinds characteristic of market economies and profit-driven financial systems—gaps in long term finance; in finance for lower profit, and therefore neglected sectors, like small industry and agriculture; in finance for social infrastructure; and in finance to realise SDGs and climate goals. Given the range of objectives public development banks help pursue in market economies, there was a persistent need for such institutions that explains the emergence and evolution of a development banking architecture. As a result of this long-term evolution, by 2018, according to an estimate by Xu, Marodon and Ru (2020), financing through the global DFI network (base in information from 450 institutions holding assets of $11.5 trillion) contributed 10 per cent of the financial resources diverted to global capital formation.

III: Changing mandates

Persistence of development banking

A surprising feature of this history is that development banks continued to play an important role after the shift in the economic policy regimes across market economies, which occurred in the 1980s and after. At least in terms of rhetoric, that shift did involve reducing the pro-active role adopted by governments and government sponsored institutions in driving growth and even delivering welfare benefits. Overall, there has been a four decades-old shift away from Keynesian-style state intervention in the developed countries and state-led industrialization in the developing countries, under which fiscal policy played a lead role and served as the prime stimulus for growth. That revival of fiscal conservatism was associated with a transformed role for the state, from being a driver of growth to an agency incentivising and facilitating private investment as the principal economic motive force.

Also associated with that shift in policy regime is the adoption of financial liberalisation measures that are supposed to pave the way for the emergence of markets, institutions and instruments that allow for the sharing of credit risk through derivative instruments and enhance the liquidity of seemingly illiquid assets. By facilitating maturity and liquidity transformation, these “financial innovations” are supposed to make available more market-mediated long-term financing for investment projects. Parallelly, some advocates of financial liberalisation see in DFIs a set of institutions that operate as they do and survive because of state backing and the consequent access to cheaper sources of capital that are not available to private financial intermediaries. This, in their view, is reflective of financial repression and creates an uneven playing field that discriminates against the now favoured private sector. So, an aspect of financial liberalisation is doing away with institutions that are supported in any form by governments, distorting the functioning of markets. Private financial payers are supposed to substitute for the lending these state-backed development finance institutions undertook in dirigiste economic regimes.

If, however, development banking persisted after the wave of liberalisation across the globe it was because of the recognition that such banks are needed in contexts where private players have an important role in financial and investment decisions, and not necessarily in those where a dominant share of the economic surplus accrues to the state, which then decides on its allocation based on motives that go beyond earning profits. The importance of this feature is corroborated by the absence of development banking intermediaries in the erstwhile centrally planned economies and the establishment of national development banks in such economies in eastern Europe and central and east Asia, including China, after they began their transition from central planning to functioning as more market mediated and market friendly systems. As a private sector and private players were fostered as part of a strategy of shifting to a private-led and market mediated economic system, these agents had to be provided access to long term and less risk-averse capital. As noted, this resulted in the emergence of the China Development Bank in 1994 as economic reform accelerated in that country, and a host of development banks in eastern European and central Asian countries after the collapse of the Soviet Union and Soviet bloc in 1991.

The impact of liberalisation

What liberalisation did do was transform the structure and role of the development banking architecture in many countries. Even when continuing with the traditional remit of closing the financing gap, the activities of development banks have changed in many contexts. But that transformation was not uniform or even similar in nature. Broadly speaking, once the emphasis on state-led, *dirgiste*, import-substituting industrialisation was diluted because it failed to take off in most countries that adopted that strategy, there was a shift in mandates away from supporting capital intensive projects to drive growth to support sectors and units that were being excluded by the private financial system. Subsequently, with the turn to liberalisation and neo-liberal reform across developing countries, the role of the state was seen as that of building the infrastructure needed to facilitate private-sector led growth. This became an important mandate for many DFIs in developing countries.

More recently, two other sets of tasks have gained predominance. The first is that, as national governments migrated away from interventionist strategies with a high degree of regulation of markets and private actors to more liberalised and unregulated economic regimes, economic volatility increased significantly with even strong economies like the Southeast Asian Tigers in 1997 and the advanced nations of the North Atlantic in 2008 experiencing severe crises. In both instances the effects of these crises had ripple effects elsewhere in the world, with even Russia and Latin America hit by the aftermath of the Southeast Asian financial crisis. These crises occurred in contexts in which, post the disillusionment with Keynesian policies in the late 1960s, governments had reduced reliance on countercyclical fiscal policies and veered towards fiscal conservatism. New instruments were needed to deal with the fallout of multiple crises, and besides monetary policy, many governments chose to make public development banks one of the instruments for countercyclical intervention, given their track record of leaning against the wind and seeking to spur investment even at the expense of profits. In time, public development banks came to be recognised for the important countercyclical role they could play (Griffith-Jones 2015; Ocampo and Ortega 2020; Brei and Schclarek 2018).

Gutierrez and Kliatskova (2021) note that reflective of the countercyclical role played by the development banks during the 2008 global financial crisis, the NDFIs covered in the World Bank Survey of 2017 (World Bank Group and World Federation of Development Financing

Institutions 2018) increased their loan portfolio by 20 percent in 2008 and 2009 at the height of the crisis. That is unlikely to have taken place without government prodding. A similar role was taken on by NDFIs during the COVID-19 pandemic. This is indeed a new and positive role for DFIs. But, as noted, that role is also an outcome of the global shift to fiscally conservative economic policy regimes. Implicit in this new role, therefore, was the contradictory effect that liberalisation can have on development banking. While DFIs are mobilised to take on this countercyclical role, these state-backed and favoured institutions are unacceptable because they are seen as market distorting. Reform of the global development financing architecture will have to prioritise their role as institutions that can undertake tasks that purely profit-seeking entities would abjure.

This is all the more important because a new set of tasks that public development banks have been required to take on in recent decades is that of helping advance the sustainable development and climate mitigation and adaptation goals that governments have set for themselves, individually, and more importantly, as part of the international community. As the presence and importance of development banks have grown, they have become or been made conscious of the role they can play in affecting social and environmental goals. For example, figures from the Climate Policy Initiative (CPI) indicate that DFIs contributed $123 billion or 34 per cent of an estimated $358 billion of climate finance mobilised in 2012 (Climate Policy Initiative 2013). By 2019/20 (average) the figure had risen to $220 billion or 35 per cent of a total of $532 billion of climate finance (Climate Policy Initiative 2021). Under pressure to keep social and environmental objectives in mind while making lending decisions or specifying the terms of project financing, some (not all) DFIs have attempted to formulate and implement environmental, social and governance (ESG) goals, which help build knowledge and gain experience that can be deployed as they are retooled or directed to contribute to the pursuit of the SDGs.

Thus, with the evolution of the DFI architecture, at least numerically the world is equipped with a structure that could not only undertake the tasks originally envisaged for public development banks, but also new tasks they may be called upon to fulfil. The SDGs and climate finance are unavoidable new mandates.

Though general purpose PDBs dominate the global architecture in terms of number (195 or 35.3 per cent) and assets (41.9 per cent), PDBs with specific social mandates linked to Housing, MSMEs, agriculture and export-import accounted for 33.4, 8.8, 6.6 and 5.4 per cent of assets respectively. PDBs with MSME mandates were proportionately high in number (26.8 per cent), but not in terms of asset holdings. The continued presence of these banks together with the fact that many countries have established special “policy banks” to provide credit or refinancing against credit to special areas such as agriculture or the small scale sector, where interest rates have to be subsidized and grace periods have to be longer, makes it possible to repurpose them as instruments that can help finance the SDGs. Public development banks can be required by governments that back them to focus on implementing special social mandates, such as realising sustainable development goals and intermediating climate finance for mitigation and adaptation. As a part of this process, the mandates of DFIs are being tweaked in some contexts. Gutierrez and Kilatskova (2021) note that with “increased foreign bank activity across the world and capital market development in many emerging markets” having facilitated access to long-term finance, NDFIs are increasingly focusing on “green and infrastructure projects in many cases crowding-in private sector finance by taking risks the private sector is not willing to take.”

There is also an increasingly influential opinion that holds that given the scale of financing required for realising the SDGs and climate goals, the public sector alone cannot manage the task, requiring a special effort to attract the large volumes of private financing available globally to join the effort. This needs efforts at de-risking investments or sharing risks, through mechanisms such as joint financing and partial or full guarantees. One consequence is that NDFIs do not restrict themselves to providing credit directly or through financial intermediaries (second tier lending), but also provide loan guarantees and equity investments in addition to loans. According to the World Bank Survey of 2017, 55 per cent of the NDFIs covered offer loan guarantees and 47 per cent invest in private equity and provide venture capital support.

When pursuing these new goals—addressing the multiple crisis afflicting a globalised economic order, advancing the SDGs and combating climate change—the PDBs would be delivering global public goods. All countries are affected by these crises, even if they are precipitated in or are focused on some corners of the globe. Thus, even if most development banks emerged in national contexts to address national problems, the global architecture of which they are now a part is being call upon to address global problems and delver global public goods. This provides the case for reshaping the architecture in ways in which it can serve as an integrated instrument for global good.

Financing

A crucial issue to be considered here is the pattern of financing of public development banks. There are already multiple sources of finance for PDBs: some receive support from government budgets or special central bank financing windows; others benefit from government guarantees that facilitate long-term borrowing and lower borrowing costs; yet others have to borrow from the open market that influences their lending targets and practices. Most of the development banks covered in the 2012 World Bank survey depended by and large on sources of finance other than the conventional demand and time deposits mobilised by commercial banks from their clients. Nearly 90 per cent of those surveyed borrowed resources from other financial institutions or issued debt instruments in domestic markets and 64 per cent had the benefit of government guarantees for debt issued by them. More importantly, 40 per cent of them received budgetary transfers from the government.

This backing allowed around half of these development banks to offer credit at subsidised interest rates, and two thirds of those institutions reported financing those subsidies with the transfers they received from government. [6] This helped more than half of them (53 per cent) to fulfil their specific policy mandates, which required them to "support the agriculture sector (13% of all DBs), SMEs through their lending, guarantee or advisory services (12%), export and import activities (9%), housing (6%), infrastructure projects (4%), local governments (3%), and other sectors (6%)." (World Bank Group and World Federation of Development Financing Institutions 2018: 12). Such requirements meant that they could not finance their activities only with finance from the market. The greater the reliance on market sources of finance, the more limited the ability and willingness of these institutions

[6] Eighteen per cent of the institutions that received transfers declared that if transfers were withdrawn, they would not be able to operate.

would be to keep in mind larger social and developmental benefits, as opposed to pure commercial considerations, when funding projects.

A more recent and more extensive survey by the INSE (Xu, Jiajun, Kedi Wang and Xinshun Ru 2021) found that 40 percent of NDBs issue bonds explicitly guaranteed by the government, of which 28.24 percent are fully guaranteed and 11.76 percent partially guaranteed. But there is considerable unevenness by income category of country. HICs account for 34 per cent of the bond issuing NDBs, UMICs for 39 per cent, LMICs for 25 per cent, and LICs for just 2 per cent. Nearly 60 percent of NDBs in HICs that issue bonds receive government guarantees, whereas less than 30 percent of LMIC or UMIC governments and 2 per cent of LIC governments provide such guarantees to their bond issuing NDBs.

Government funds can be channelled through different kinds of mechanisms. One is through the establishment of trust funds commissioned by governments for certain purposes and managed by NDBs with no responsibility for the fund's profit or loss. The other is funds earmarked for certain purposes, with NDBs that access these funds bearing credit risks. Among 375 NDBs worldwide, 8.8 percent of the NDBs reported that they receive trust funds, and 7.47 percent reported they obtain earmarked funds where they bear the risks.

Subsidies are also important forms of support, especially interest subsidies for loans to projects seen as having positive externalities but promising low returns. Thus, 12.80 percent of these NDBs reported receiving government subsidies. But here again, NDBs from HICs, mega-NDBs, and NDBs promoting trade are more likely to receive government subsidies.

To summarise, with changes in the dominant development policy paradigms and development contexts, the principal mandates of institutions populating the global development financing architecture have changed away from financing domestic, capital intensive industrialisation, to investing in social and physical infrastructure and to furthering goals linked to sustainable development and combating climate change. However, the pace of this transition is constrained by the flexibility with respect to the sources of financing of the public development banks, which must be modified to obtain funds that can be allocated to low profit and higher risk activities. The evidence seems to suggest that the financing transition has proceeded unevenly, occurring more in the HICs rather than the LMICs. The latter clearly do not have the fiscal and monetary space to ensure such flexibility. That needs to be corrected if the global development financing architecture is to be made an effective tool to help realise the SDGs.

IV: Structural relationships and interlinkages

A major weakness: uneven development

Table 1a: Uneven development of Development Banking Architecture

Type	Number	Percent	Assets ($ mn)	Percent
Multinational	49/51	10	2305553	10
National	338/389	70	19603783	86
Sub-national	95/113	20	937917	4
Total	482/553	100	22847253	100

Source: Public Development Banks and Development Financing Institutions Database (October 18, 2021 update) released April 2022,

http://www.dfidatabase.pku.edu.cn/index.htm and Xu, Jiajun, Régis Marodon, Xinshun Ru, Xiaomeng Ren, and Xinyue Wu. 2021. "What are Public Development Banks and Development Financing Institutions?——Qualification Criteria, Stylized Facts and Development Trends."*China Economic Quarterly International*, volume 1, issue 4: 271-294.

In fact, unevenness is a major weakness that undermines the potential of the existing global development financing architecture. National institutions dominate the structure (Table 1), accounting for 90 per cent of the 482 (out of 553) development banks for which information is available in the AFD-INSE database and 86 per cent of their assets. Multinational development banks account for a much smaller 10 per cent of institutions and assets. Subnational units while accounting for 20 per cent of the numbers, hold only 4 per cent of the assets.

Though the multinational development banks with a global agenda are often seen as constituting the apex of the global development finance architecture, even their relative size is not such as to be dominant. The 6 global multilaterals (IFC, IBRD, NDB, IFAD, MIGA and The Private Infrastructure Development Group) together account for only 3 per cent of total assets and the 26 multinational DFIs with regional scope for another 7 per cent. As compared with this the China Development Bank alone with its $2.6 trillion worth of assets accounts for 12 per cent.[7] The World Bank's 2012 survey showed that institutions like China Development Bank (CDB) and the BNDES of Brazil were bigger than the World Bank. The influence of the global multilaterals comes substantially from their being institutions that mediate flows of a chunk of development aid, enforce adoption of policies seen as conducive to ensuring repayment capacity, and signal to the private financial sector the creditworthiness of individual countries. In the event, whenever new multilateral financing windows or facilities are thought of, the World Bank is tapped as coordinating or implementing agency.

There is a high degree of concentration in the global multilateral DFI architecture as well. Three World Bank Group DFIs (IBRD, IFC and MIGA) account for 28 per cent of the assets held by 48 multilateral institutions and the European Investment Bank and the European Bank for Reconstruction and Development for 37 per cent. That is 5 institutions between them hold around two-thirds of multilateral DFI assets.

The dominance of the NDFIs over the global architecture is understandable. Since there is no supra-national state in place, multinational development banks must focus on cooperative agendas. But given international inequality, the interests of some dominant/hegemonic nations are likely to influence their agendas. Donors, other than the dominant ones, cannot control the use of their contributions to multilateral agencies. And recipients of multilateral loans and assistance may not be able to fully align their use to the national objectives defined by governments. [8] The latter would, therefore, encourage

[7] For an early assessment of the rapid growth of the CDB since its creation see Sanderson and Forsythe (2013).

[8] The World Bank's financing includes "development policy financing" (DPF), or the provision of loans linked to conditions influencing the policy agenda. DPF is a lending instrument that provides credits, loans, grants or guarantees to a borrowing country through 'fungible' budget support. Unlike Project Financing, DPF is not earmarked for specific projects, but supports targeted policy reforms and provides finance directly to a borrowing country's general budget.

creation of national development banks. This has conflicting consequences. Inasmuch as there is a growing emphasis on globally shared objectives and global public goods, the role of multinational development banks should be increasing. But in the absence of any kind of global governance and given competition between leading nations, the scope for such expansion is limited. For the foreseeable future, NDFIs would dominate, and it is through them that resources will have to be principally channelled.

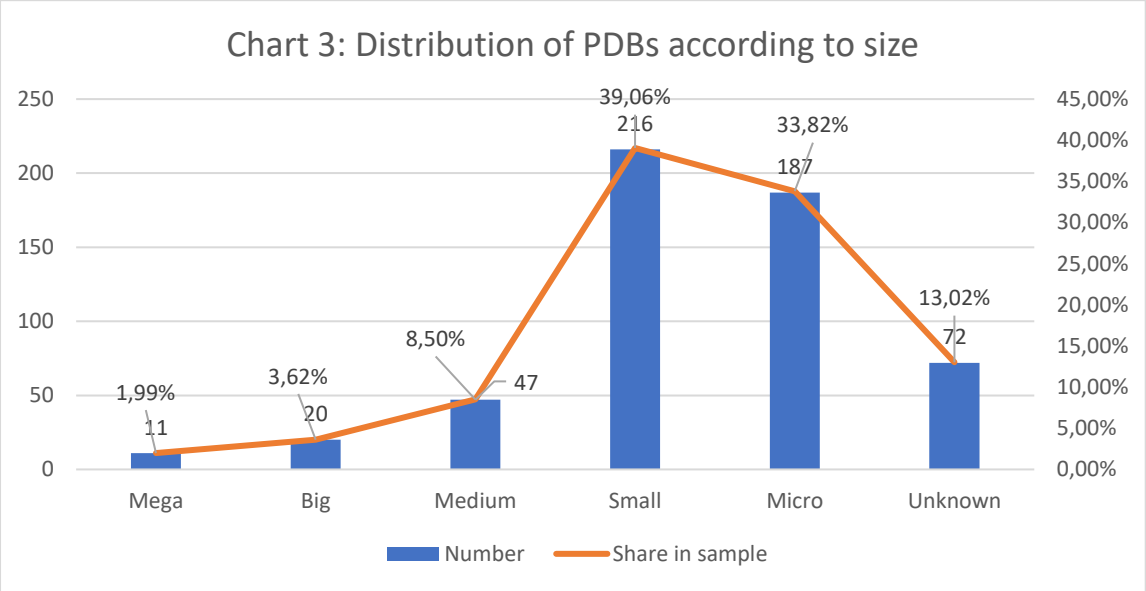
This is not necessarily an adverse outcome. Decentralisation of decision making helps when identifying means to realise the SDGs or address global warming and improving the quality of such interventions. National voice in such decision making has been restricted when reliance is on global institutions and flows. Moreover, the neglect of adaptation in climate finance is partly the result of dominance of HICs and UMICs in decision making regarding spends. A larger role for NDFIs can contribute to correcting such biases.

However, the global effectiveness of an architecture dominated by national DFIs is also weakened by the fact that geographic and income-wise spread is extremely uneven. A few institutions and regions account for most of the assets. The largest 15 of 480 DFIs for which asset size information is available in the AFD-INSE database account for 75 per cent of the assets of the DFI universe (Table 3). Overall, the global architecture is dominated by a small proportion of larger public development banks (PDBs)—only 78 of them (Chart 3), or around a sixth, hold assets in excess of $20 billion and account for 96 per cent of total assets, while 403 or around 84 per cent of the total number hold assets of less than $20 billion, and together account for less than four per cent of global PDB assets. By 2018 the CDB had become the one of the largest development banks in the world with assets of $2.36 trillion and a net income of $19 billion. China's overall presence in the global development financing architecture was even more pronounced with six of its PDBs and DFIs, with assets of $4.6 trillion, accounting for 20 per cent of the total. This almost matched the PDBs of the 27 European Union member countries, including regional banks EIB and EBRD, which have $5 trillion in total assets.

Table 3: The Top 15 PDBs and DFIs

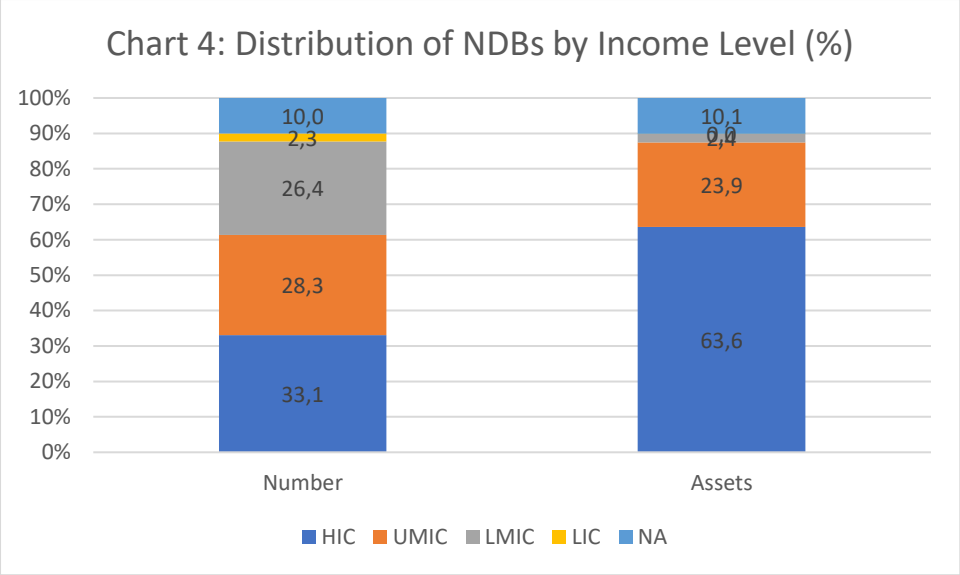
Rank	Name	Acronym	Year of establishment	Total assets ($ mn)
1	Fannie Mae	Fannie Mae	1938	39,85,749
2	Freddie Mac	Freddie Mac	1970	26,27,415
3	China Development Bank	CDB	1994	26,19,781
4	French Deposits and Consignment Fund Group	CDC France	1816	12,41,207
5	Agricultural Development Bank of China	ADBC	1994	11,42,694
6	U.S. Small Business Administration	SBA	1953	8,97,534
7	The Export-Import Bank of China	China Exim bank	1994	7,72,571
8	European Investment Bank	EIB	1958	7,66,757
9	Credit Company for Reconstruction	KfW	1948	6,68,144

10	Deposits and Loans Fund	CDP	1850	6,26,578
11	The World Bank	World Bank	1944	5,36,625
12	Industrial Bank of Korea	IBK	1961	3,32,258
13	Deposits and Investment Fund of Quebec	CDPQ	1965	3,23,106
14	Korea Development Bank	KDB	1954	2,80,235
15	Asian Development Bank	ADB	1966	2,71,741
Source: Public Development Banks and Development Financing Institutions Database April 2022, http://www.dfidatabase.pku.edu.cn/index.htm				



Note: Size categories: mega (more than $500 billion), large (between $100 billion and $500 billion), medium (between $20 billion and $100 billion), small (between $500 million and $20 billion) and micro (less than $500 million).
Source: Source: Public Development Banks and Development Financing Institutions Database April 2022, http://www.dfidatabase.pku.edu.cn/index.htm.

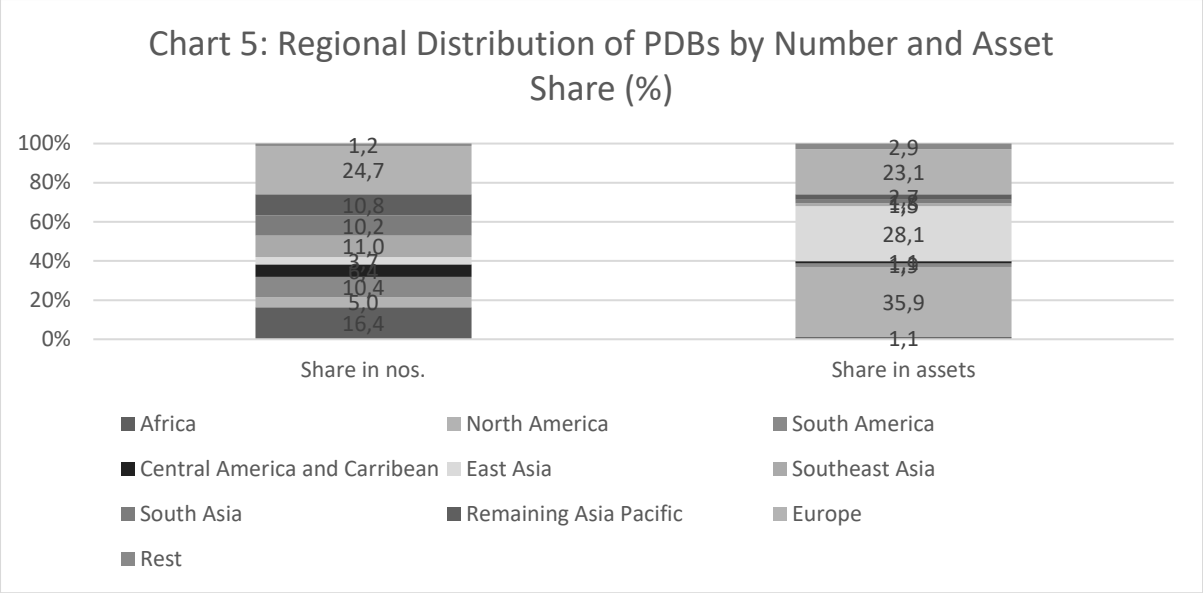
This only underlines the fact that the relationship between a country's income level and the. degree of development of its public development banking infrastructure is not monotonic (Chart 4). Rather if countries are broken up into high, middle and low-income countries, the number of DFIs are high in high and upper middle income and lower income countries, and falls sharply for low income countries. However, in terms of DFI assets the share rises as we move from low to high income countries. Of 433 PDBs for which the relevant information was available, 37 per cent (159) were located in high income countries with 71 per cent of total assets of these institutions, 61 per cent (263) in middle income countries with 27 per cent of the assets, and just 3 per cent (11) in low income countries with a negligible share (0.03%) of the assets. High income (HI) and upper middle income (UMI) countries together account for 68 per cent of DFIs and 97 per cent of assets of 433 classified countries. But the asset share of the HIC group is significantly determined by the two mortgage finance companies in the United States—Fannie Mae and Freddie Mac—which are also the two larges DFIs in the database.



Source:

Distribution of PDBs according to income category of country				
Size	Number	Assets ($ mn)	Share in number (%)	Share in Assets (%)
HIC	159/179	14521366	33.1	63.6
UMIC	136/145	5454558	28.3	23.9
LMIC	127/155	559322	26.4	2.4
LIC	11/23	6408	2.3	0.03
Not Applied	48/51	2305553	10.0	10.1
Total	481/553	22847207	100	100

This also influences the unevenness in regional distribution (Chart 5). North America, appears to dominate the DFI architecture with 36 per cent of assets. But, that is because of Fannie Mae and Freddie Mac, the second tier, federally established home mortgage companies, which account for 81 per cent of the assets of 24 North American DFIs with information covered in the AFD-INSE database. They alone account for 29 per cent of the assets of 481 DFIs. Ignoring them, Eastern Asia, dominated by China, accounts for 28 per cent of assets and is the leading region for DFI activity. Within East Asia, China with 6 out of 18 DFIS, accounts for 72 per cent of the assets of the region's DFIs (Table 4). Europe accounts for another 23 per cent of assets. These three regions with just a third of global DFIs account for 87 per cent of global DFI assets. The divergence between number of DFIs established and asset share is sharp in Africa, where 70 DFIs together account for only 1 per cent of total assets of global DFIs.



Source: AFD-INSE Database

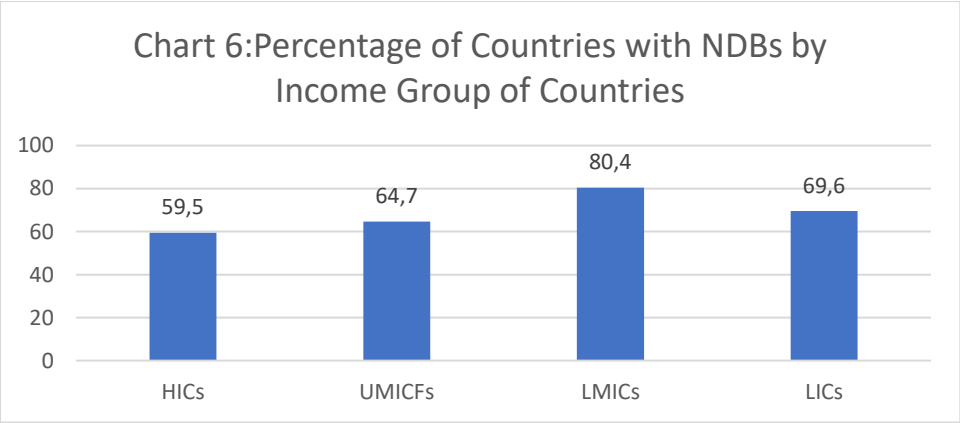
Table 4: East Asian Shares by Top 3 Countries				
	China	Japan	Korea	East Asia
Number	6	5	6	18
Assets ($ mn)	46,01,622	9,70,834	8,50,167	6424092
Share of Assets (%)	71.6	15.1	13.2	100.0

The principal determinant of this structure is not difficult to identify. Many high-income economies managed to make the industrial transition with financing from state supported commercial banking systems or even fortuitously evolved bond markets. Thus, they did not see the establishment of many development banks even in the early stage of their industrial development. Moreover, high income market economies tend to have more complex and diversified financial systems with markets that allow for the transfer of credit risk through derivative instruments and that enhance the liquidity of seemingly illiquid assets by enabling transfer of financial instruments backing those assets. While it is true that DFIs still play a role in some high-income countries—Germany, Canada, France, and South Korea—their role has in many instances been significantly transformed, with some turning into instruments for development aid and technical assistance.[9] Interestingly, within the middle-income country group, lower middle income countries accounted for 48 per cent of the 263 PDBs for which information was available, but with only 9 per cent of their assets. That is, DFIs were spread rather evenly in terms of numbers across middle income countries with diverse levels of development, but with a relatively small share of assets in LMICs.

This picture of the number and distribution of assets of DFIs points in many directions. First, it makes clear that DFIs are spread widely across the globe. The 2019 survey by INSE found

[9] Thus: "For instance, the Association of European Development Finance Institutions (EDFI) consists of DFIs that were founded by governments in HICs that provide development finance for the private sector in countries outside the European Union. Some NDBs often have overseas operations as well" (Xu et al 2021).

that DFIs were present in 145 of 215 countries covered (or in more than two thirds of them). Presence in terms of number of DFIs is far more even than distribution in terms of assets. Second, this spread was across countries in terms of income levels. Around 70 per cent of low income countries, 80 per cent of lower middle income countries, 65 per cent of upper middle income countries and 60 per cent of high income countries were home to at least one DFI (Chart 6). Some had as many as 14. This signals the availability of such institutions to take on a role in financing activities linked to the SDGs and climate mitigation and adaptation. Third, it suggests that despite this widespread physical presence, there is huge variation in the scale of activity as reflected in the asset base of institutions, with poorer countries and regions channelling a much smaller volume of resources through these institutions. This points to the limited availability of development financing in low income countries and poorer regions of the world, which the international community must address with financial and technical support and collaboration, given the importance of SDG- and climate-related spending in these contexts as well.



Source: Table 3 in Xu et. al. 2019.

Interlinkages between DFIs

One way to address this would be to move resources through the development financing architecture, from either global/regional multilateral institutions or DFIs in the high and upper middle income countries to DFIs in the lower middle income and low income countries. However, interlinkages between development finance institutions in developed and less developed countries seem to be limited. Earlier versions of the INSE database provided some information on the incidence of "on-lending", by which it means instances of loans that NDBs receive from MDBs or NDBs from more developed countries to be distributed to end beneficiaries. Of the 375 NDBs for which information is reported, only 33 or 8.8 percent have received funds from other DFIs for on-lending. As expected NDBs in LICs and LMICs are more likely to receive such loans, given the difficulties they face in mobilising additional resources from domestic sources. In terms of mandates, NDBs established to support local governments tend to rely on such financing, because while there are strong externalities associated with such projects, their low or absent profitability limits access to market-based funding.

What is noteworthy is that even where lending is of the second-tier category, engagement with or through governments is often resorted to. Of the 33 instances of 'on-lending' identified by INSE, the nature of the contract was not identified in 17. But of the remaining 16, 7 were instances in which the government or a government department acted as an

intermediary borrower and assumed repayment responsibility and in another 2 instances, in which the borrowing was by an NDB, the government provided a guarantee. Only in the other 7 cases was borrowing and repayment the sole responsibility of an NDB (Table 5).

On-lending is supported by MDBs, such as the World Bank Group, European Bank for Reconstruction and Development, European Investment Bank, African Development Bank, and Asian Development Bank. In general, NDBs providing on-lending resources to other NDBs are mainly from HICs and UMICs. In terms of mandates, a majority of on-lending instances go to support housing, SMEs, and agriculture. Since these areas tend to have a large number of borrowers and small lending volumes, second-tier lending through NDBs in host countries helps reduce transaction costs for MDBs and NDBs from MICs and HICs.

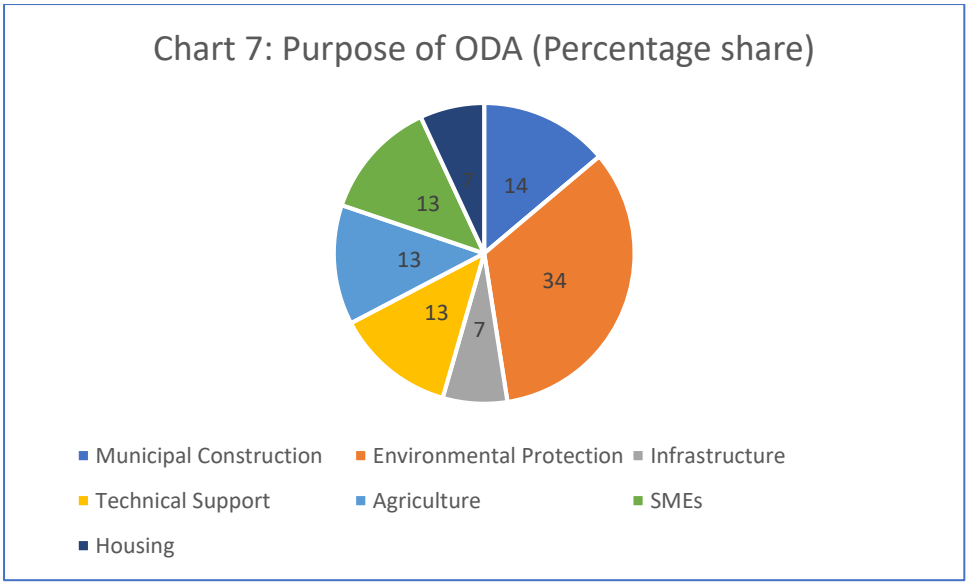
Table 5: Types of On-lending			
Type category	Definition	Number	Percentage
First	Projects in which the government or a government department (e.g., the Ministry of Finance) acts as the borrower and assumes repayment responsibility	7	21.2
Second	Projects in which NDBs act as the borrower and assume repayment responsibility, with the government or a government department (e.g., the Ministry of Finance) providing a guarantee	2	6.1
Third	Projects in which NDBs act as the borrower and assume repayment responsibility, with the government or a government department (e.g., the Ministry of Finance) not providing a guarantee	7	21.2
Unknown	-	17	51.5
Total	-	33	100
Source: Chen, "KfW's Overseas Investment and Financing Experience and Insights," Overseas Investment and Export Credit, no. 6 (2016): 25–31, included as Table 6.9 in Xu et. al. 2021.			

But, only a small proportion (5.87 per cent) of NDB loans are funded with overseas development assistance (ODA). Smaller NDBs from LICs and those with infrastructural or local government mandates are more likely to receive ODA funding, mainly from international organizations and MDBs such as the European Union, World Bank, and African Development Bank, as well as DFIs from HICs and UMICs such as KfW (Tables 6 and 7). In terms of objectives, environmental projects are the main beneficiaries of ODA backed lending through NDBs (Chart 7). The World Bank also funds SDG related projects and is increasingly devoting attention to climate change mitigation and adaptation investments in poorer countries. This is also true of the Asian Development Bank, in which Japan plays a leading role, and the Asian Infrastructure Investment Bank (AIIB), in which China is a dominant player.

Table 6: NDBs Providing On-Lending			
Bank Name	Region	Country	Category

International Development Finance Corporation	Americas	USA	HICs
Kommuninvest	Europe	Sweden	HICs
Netherlands Development Finance Company	Europe	Norway	HICs
French Development Agency	Europe	France	HICs
Société du Financement Local	Europe	France	HICs
Austrian Development Bank	Europe	Austria	HICs
The Export-Import Bank of Korea	Asia	South Korea	HICs
Development Bank of Japan, Inc.	Asia	Japan	HICs
Japan Finance Corporation	Asia	Japan	HICs
China Development Bank	Asia	China	UMICs
The Export-Import Bank of China	Asia	China	UMICs
Export-Import Bank of India	Asia	India	LMICs
Source: Chen, "KfW's Overseas Investment and Financing Experience and Insights," Overseas Investment and Export Credit, no. 6 (2016): 25–31, included as Table 6.10 in Xu et. al. 2021.			

Table 7: NDBs Receiving ODA				
Classification		Number of Observations	ODA	
			Number	Percentage
Total Samples		375	22	5.9
Development Stage	HICs	122	0	0
	UMICs	120	13	10.8
	LMICs	111	7	6.3
	LICs	22	2	9.1
Bank Size	Mega	18	0	0
	Big	44	2	4.6
	Medium	103	7	6.8
	Small	192	11	5.7
	Unknown	18	2	11.1
Official Mandate	General	198	13	6.6
	Trade	41	1	2.4
	Agriculture and Rural Development	34	3	8.8
	SMEs and Entrepreneurship	67	2	3.0
	Housing	21	1	4.8
	Infrastructure	6	1	16.7
	Local Government	8	1	12.5
Note: "Percentage" refers to the number of NDBs receiving ODA divided by the number of total samples or samples in each subcategory.				
Source: Table 6.11 in Xu et. al. 2021.				



Source: Figure 6.8 in Xu et. al. 2021.

National level linkages

While cross-border linkages between development financial institutions are still limited, though present, there appear to be strong vertical and horizontal linkages at the national level. Vertical linkages involve some NDFIs being established as subsidiaries of other high level or "apex" NDFIs, and receiving finance from the latter as equity and even loans. Horizontal linkages are established when credit from one NDFI is disbursed to the final borrower or project by a second NDFI in which the former has no equity holding. This occurs typically when the government establishes DFIs for specific purposes (to fund renewable energy projects, for example) with specialised capabilities to identify projects to finance and nurture. A general purpose NDFI may find it easier and more cost-effective to channel funds reserved for such purposes through the specialised financial institution.

Thus, while there is a strong case for using public development banks as instruments to pursue the SDGs, two stand out weaknesses in the current development finance architecture are (i) the geographic unevenness in the development of that structure, especially in terms of assets under their management, reflecting unevenness in access to deployable resources; and (ii) the absence of adequate global or cross-country linkages that can facilitate the flow of concessional capital (and expertise) to address the consequences of that unevenness. This makes it crucial to modify that architecture to transform a geographically diverse and dispersed structure into an effective tool for the provision of a range of global public goods.

V. Tweaking the global architecture to facilitate sustainable development

Development banks and climate finance: Some lessons

As noted earlier, climate has emerged as a focus for development finance institutions and the engagement of these institutions in this area has been on the increase. However, here too, unevenness is a problem. Consider for example climate finance provision as claimed by the multilateral development banks, for which separate data are collated and published. Information is available for the African Development Bank, Asian Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank, the

Inter-American Development Bank and the World Bank group (IBRD, IDA and IFC). The average annual volume of own resources devoted by these institutions to climate finance rose from $25.5 billion during 2012-2015 to $43.7 billion during 2016-2020 (Table 8). Besides this, as part of a trend of emerging international linkages these institutions managed external resources from agencies directing their climate finance allocations through them. That volume was smaller, rising from an average of $1.7 billion during 2012-2015 to $2.6 billion during 2016-2020. However, in the case of some regional development banks such as the AfDB, the importance of external resources managed by them was much greater given the shortage of own resources. Thus, the share of external resources managed by the AfDB in total climate finance rose from an average of 17 per cent during 2012-2015 to 22 per cent during 2016-2020. This points to the use of regional financial institutions as mediators of climate finance flows. That can be extended to using national DFIs as well.

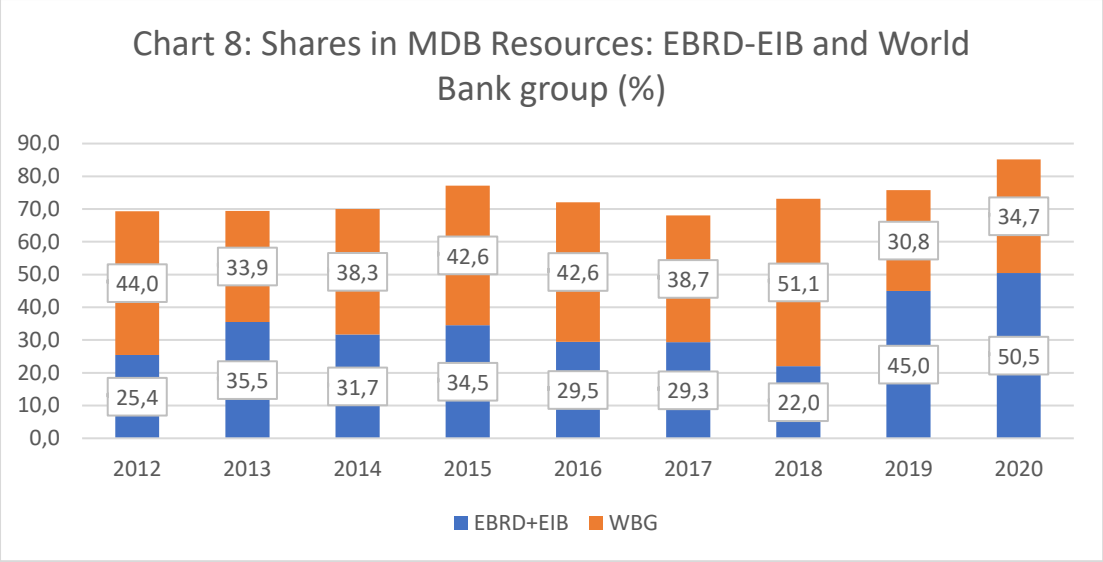
Table 8: MDB Climate finance ($ million)

MDB Resources							
	AfDB	ADB	EBRD	EIB	IDB	WB	All
Avg 2012-2015	1428.75	2670.25	3319	4741.5	1579	10119.25	25486.25
Avg 2016-2020	2039.8	4559	3875.6	12774.4	3741.2	16680.2	43670.2
External Resources							
	AfDB	ADB	EBRD	EIB	IDB	WB	All
Avg 2012-2015	246	411	161	68	244.5	699	1730
Avg 2016-2020	454.6	637.6	280.6	217.6	337.4	694.8	2622.6

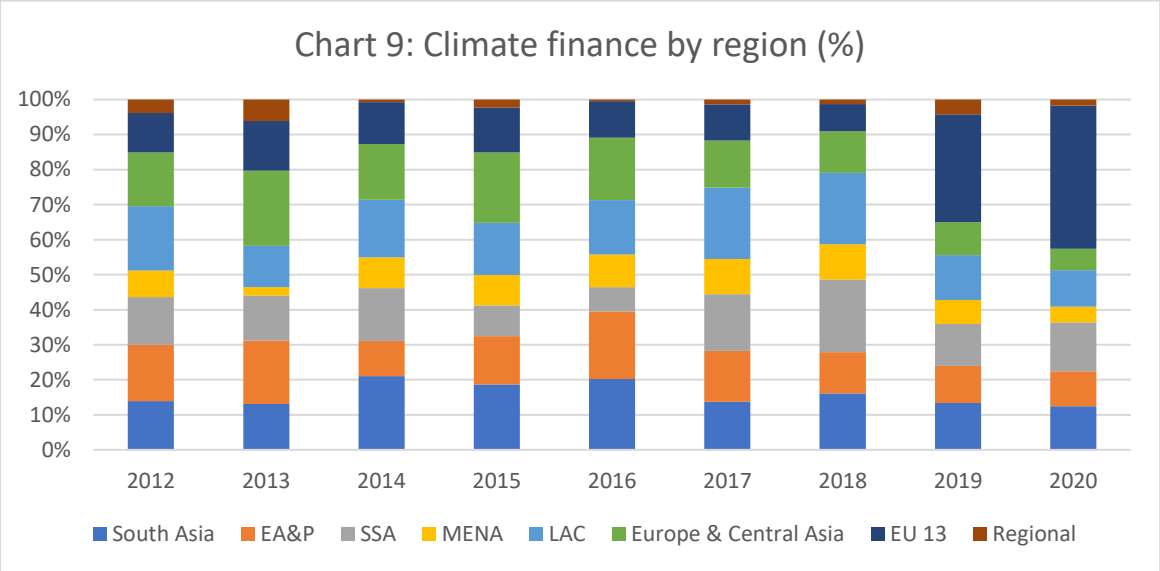
Source: Multilateral Development Banks Group 2020.

Climate financing by the multilateral development banks was dominated by the EBRD, EIB and the World Bank group (Chart 8). The share of these sources in total MDB climate finance rose from 69 per cent in 2012 to 85 per cent in 2020. Initially the World Bank dominated. But with growing climate activism in Europe in recent years, the share of the EBRD-EIB combine in MDB climate finance has risen sharply in 2019 and 2020. Associated with that shift has been an increase in the share of the EU-13 in MDB climate financing. As climate action in a nation or region rises, so too does the role of national or regional institutions from the area in financing such action.

Where the spending occurs is clearly influenced by the sources of financing, with climate financing still being nationally or regionally focused, despite the climate mitigation objective being a global public good (Chart 9). Moreover, limited flows to poorer regions and countries has meant that adaptation financing with own resources by the MDB was low at an average of $4.9 billion during 2012-2015 (19 per cent) and $11.4 billion during 2016-2020 (26 per cent).



Source: Multilateral Development Banks Group 2020.



Source: Multilateral Development Banks Group 2020.

This institutional and regional concentration of MDB climate flows notwithstanding, there is reason to be optimistic. For example, in 2016, the Development Bank of South Africa became an accredited entity for the Green Climate Fund (GCF) which provides access to funds for low-carbon and climate resilient development. As of 2021, the DBSA's climate financing engagement included 8 capacity development projects, 16 research and development projects, and 31 investment projects. Some of the initiatives adopted were:

1. A Climate Finance Facility - USD 55.6 million was funded by GCF to establish this at R2 billion in 2018-19.

2. An Embedded Generation Investment Programme – USD 100 million funding from GCF was used to develop a guarantee facility to support non-sovereign guarantee-backed power purchase agreements for renewable projects in South Africa.

3. A Municipal Solid Waste Management Programme – Implementational Support to organic waste treatment solutions in 6 pilot municipalities in South Africa.

It is initiatives of this kind that establish linkages within the global architecture and transfer resources to support mutually beneficial programmes that need to be strengthened.

Tweaking the DFI architecture

Thus, despite the similarities in character and purpose of the PDBs there are significant differences across countries in the degrees of development of the global, regional and national development financing architecture. On the other hand, there is in place an extensive pre-fabricated development financing architecture that can be gainfully tweaked to pursue the SDGs and climate goals. While potentially an important instrument to support the global effort to mobilise finance to realise the SDGs and address global warming, the global financing architecture has to be strengthened and reformed to serve that purpose.

What is needed is a set of initiatives to channel a part of global flows of SDG and climate finance, now moving through bilateral channels, multilateral development banks and climate financing institutions and agencies through NDBs. To that end, NDBs should also be made focus institutions for the allocation of nationally and internationally mobilised resources aimed at meeting national goals in these areas, transforming where necessary existing NDBs or creating new ones with mandates to facilitate advance towards these goals. NDBs should also be required to develop (i) evaluation methods to assess the contribution that individual projects can make towards realisation of the SDGs; and (ii) metrics and systems of analysis to assess the potential emissions limiting capability of projects and discourage greenwashing.

Scepticism about the NDBs

While in terms of institutional characteristics NDBs have many advantages when addressing the SDGs and climate goals, there is considerable scepticism regarding their usefulness as development instruments because of the governance problems associated with publicly owned institutions. These problems are seen as the result of multiple factors. To start with, the fact that the state is in this instance policy maker, implementer of policy by diverting resources to and deciding on the allocation of available resources, and monitor of effectiveness and success, the structure is seen as riddled with conflicts of interest that prevent early detection and correction of errors. While this is a possibility, there are now enough experiments with organisational and institutional reform aimed at separating the policy making, investment decision making and monitoring functions. This varies from written agreements or Memoranda of Understanding between the government and managements of DFIs, that provide independence to the latter in return for well-specified quantitative targets and qualitative goals that need to be achieved. In democratic societies the monitoring of these outcomes, besides being undertaken by independent committees or regulatory bodies, is also the duty of elected representatives in parliament or other legislative bodies.

A second cause for scepticism is the probability of ‘government failure’ that is seen as higher than that of ‘market failure’. However, there are no theoretical or robust empirical arguments to suggest that markets are better disciplining and monitoring agents than governmental structures. Adherence to a view on the near-inevitability of government failure is most often ideological and stems from a belief that governments must not “meddle with” and “distort” markets. In practice, when dealing with objectives such as the SDGs and climate goals markets and private initiative are woefully inadequate, because of the privileging of pecuniary returns and the atomism in decision making typical of market

systems with private operators that precludes the much needed coordination to minimise wasteful spending and maximise gains. Market failure is not the only problem. As Mazzucato and Penna (2015: 48) note: “One key limitation of market failure theory is its inability to justify or explain the active role that the state has played in shaping and creating markets—not just fixing them when they fail—and promoting “great transformations”.”

Finally, there is the argument that state presence and intervention fails because of the corruption and rent-seeking that it encourages. This argument, rather than address the problem of likely corruption, throws out the baby with the bath water, as the cliché goes. It also ignores the fact that fraud and corruption characterise predominantly private systems as well. In the financial sector this has been repeatedly demonstrated in practice, not least by the behaviour and practices that led up to the global financial crisis of 2008.

The way forward

What is needed is cooperative intervention in a range of areas, involving all agents populating the development financing architecture. To start with, there is need for a joint commitment to prioritise the mandate to support realisation of the SDGs. With conventional, profit-generating projects now serviced by private financial markets, specialised government sponsored entities can be refocused to promoted investments in the infrastructure needed to pursue special objectives such as the SDGs. Since the goals are global public goods, their pursuit by NDBs must be the common agenda of multiple agents, and the drive to refocus must be fronted in cooperative institutions or conventions like the World Federation of Development Finance Institutions (WFDFI), the International Development Finance Club (IDFC) and the Finance in Common summits. The pivot to SDG-financing must be backed by a common approach, involving qualitative indicators and quantitative assessments, to identifying projects that can be seen as promoting the SDGs or contributing to climate change mitigation or adaptation.

Second, teams of national DFIs must be persuaded to assess a reasonable profile of projects that need to be financed by elements of this architecture to facilitate realisation of specified SDG targets and components of the nationally determined contributions (NDCs) to carbon emission reduction that their governments have committed to making. This should be accompanied by a justified assessment of how much of that national resource requirement can be domestically met and how much would need to be mobilised with support from the international community. These “self-assessments” would provide the material to be considered when the international community discusses and allocates or seeks to redirect funds to support the global effort.

Third, within the development financing architecture, this redirection should partly be aimed at compensating for the huge divergence in assets position between DFIs across nations and geographies. If pursuit of SDG goals that can be considered as delivering global public goods is prioritised, then the scope of DFIs must be, in principle, global. But countries and regions that have limited assets in their development financing institutions will not take on such responsibilities. One goal is to ensure greater evenness relative to development levels and spending requirements in the presence and asset-scale of DFIs. The other is to ensure that finance flows from those DFIs that have a disproportionate share of surpluses mobilised to DFIs in locations that do not have access to similar surpluses or surpluses in keeping with their SDG-funding and climate finance needs. This would require strengthening

linkages between states, multilateral and regional DFIs, and national public development banks.

An obvious way in which unevenness can be compensated is through cooperation between PDBs in advanced and upper middle income countries, on the one hand, and governments and development banks in poorer developing countries, on the other, to establish such banks in the latter and back them with funding or guarantees. To this end it would be useful to extend and strengthen four kinds of linkages:

- ❑ horizontal linkages between multilateral development banks and NDBs;
- ❑ horizontal linkages between multilateral climate finance agencies and NDBs;
- ❑ horizontal linkages between private climate funds and NDBs; and
- ❑ vertical linkages at national level between apex NDBs (offering second tier financing) and lower level, specialised NDBs.

This has been a strategy that has been adopted in the past. As noted earlier, investments abroad and collaboration with DFIs in poorer countries is reflected in the activities of DFI's from or promoted by high- and middle-income countries. Sometimes such collaboration is undertaken through multilateral development finance institutions. Thus, as Gutierrez and Kliatskova (2021) note: "The European Commission envisioned a key role for DBs in the implementation of the Investment Plan for Europe and has provided guidelines for the establishment of development banks in countries that do not yet have one."

The World Bank too, sometimes in collaboration with developed country agencies (as was the case with the use of PL 480 funds accruing to the United States) and domestic governments, helped establish several development finance institutions and channelled finance to local projects through them.[10] Given the inclinations of the World Bank at that time these were often privately owned institutions. However, the World Bank's position has seen much change and needs to change further.

Encouraging private financial institutions to back NDBs with credit and guarantees is another option for raising intermediation by the latter. Private financing options are likely to be limited in low and middle income economies where bank dominated financial systems are often not able to undertake the needed maturity and liquidity transformations. But those economies are the ones that are likely to need stepped up investments in infrastructural projects and manufacturing facilities.

Towards that end, it is necessary to:

- Work to get NDB-mediated financing into the global SDG and climate financing discourse and agenda to facilitate decentralised decision making with a national voice when allocating such finance.
- Build and strengthen NDB interest in SDG, climate and green financing.
- Monitor such NDB-mediated specialised financing flows.
- Rebalance NDB spread in terms of assets at least in these areas.

[10] Examples are the DFCC in Sri Lanka, the Industrial Development Bank of Turkey and the Industrial Credit and Investment Corporation of India.

- Encourage new alliances with ESG or climate objectives in the private financial space, such as the Glasgow Financial Alliance for Net Zero (GFANZ), to consider routing some of their financing through the NDBs.

In sum, it is time to engage with MDBs and SDGs and climate financing discussions/negotiations, and institutions and conversations such as the International Development Finance Club and World Federation of Development Finance Institutions and the Finance in Common summits to take this forward.

Next steps in research and analysis

At the level of research and analysis, the next step would be to build a supportive database that would:

(1) identify the data and information flows (quantitative and qualitative) that are crucial to strengthen climate and SDG financing and support the creation of a metric for globally integrated SDG financing;
(2) develop a SDG-focused pilot database on financing needs and achievements that can mediate those information and data flows and implement a demonstration pilot using information from a selected few DFIs.

Such a scoping exercise could be used to take forward ongoing efforts at collating financial and organisational information on DFIs worldwide, and design a preliminary, pilot database (with an accompanying report on methodology and additional data requirements) on climate and SDG financing by PDBs and cooperation and partnership between PDBs in that area. That would serve as the basis for developing an information source that can help advance the agenda being set in the “Finance in Common” summits.

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