





**The New Structural Economics Development Financing Research Paper Series aims to build the first comprehensive database of worldwide development finance institutions (DFIs) and foster original research on the rationales, operations, performance, and impact of DFIs to improve understanding of these important institutions and achieve better development outcomes.**

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# Abbreviations and Glossary

<b>AADFI</b>	Association of African Development Finance Institutions
<b>ADB</b>	Asian Development Bank
<b>ADFIAP</b>	Association of Development Financing Institutions in Asia and the Pacific
<b>ADFIMI</b>	Association of National Development Finance Institutions in Member Countries of the Islamic Development Bank
<b>AFD</b>	Agence Française de Développement
<b>AfDB</b>	African Development Bank
<b>AIIB</b>	Asian Infrastructure Investment Bank
<b>ALIDE</b>	Association of Development Finance Institutions in Latin America
<b>BBB</b>	British Business Bank
<b>BLADEX</b>	Foreign Trade Bank of Latin America
<b>BNDES</b>	Brazilian Development Bank
<b>BNM</b>	Bank Negara Malaysia
<b>BPMB</b>	Bank Pembangunan Malaysia Berhad
<b>BRICS</b>	Brazil, Russia, India, China, South Africa
<b>BUILD</b>	Better Utilization of Investments Leading to Development
<b>CAF</b>	Development Bank of Latin America
<b>CADFund</b>	China Africa Development Fund
<b>CDB</b>	China Development Bank
<b>COP</b>	Conference of Parties
<b>DBRB</b>	Development Bank of the Republic of Belarus
<b>DCA</b>	Development Credit Authority
<b>DFIs</b>	Development Finance Institutions
<b>EADB</b>	East African Development Bank
<b>EAPB</b>	European Association of Public Banks
<b>EDF</b>	Export Development Fund

EDFI	European Development Finance Institutions
EU	European Union
Ex-Im	Export-Import
FfD	Financing for Development
GCIS	Government Communication and Information System
GIB	Green Investment Bank
GIG	Green Investment Group
G-24	The Intergovernmental Group of Twenty-Four on International Monetary Affairs and Development
HICs	High Income Countries
IDB	Inter-American Development Bank
IEG	Independent Evaluation Group
IMF	International Monetary Fund
IsDB	Islamic Development Bank
KBN	Kommunalbanken Norway
KfW	Kreditanstalt für Wiederaufbau
LICs	Low Income Countries
LMICs	Lower Middle Income Countries
LTIC	Long-Term Investors Club
MDBs	Multilateral Development Banks
MICs	Middle Income Countries
NDBs	National Development Banks
NDFIs	National Development Finance Institutions
NIFRA	Nepal Infrastructure Bank Limited
NSE	New Structural Economics
OECD	Organization for Economic Co-operation and Development
OPIC	Overseas Private Investment Corporation
RDBs	Regional Development Banks
SAP	Structural Adjustment Program

<b>SINOSURE</b>	China Export & Credit Insurance Corporation
<b>SMEs</b>	Small and Medium-Sized Enterprises
<b>SDGs</b>	Sustainable Development Goals
<b>TADB</b>	Tanzania Agricultural Development Bank Limited
<b>TSKB</b>	Industrial Development Bank of Turkey
<b>UMICs</b>	Upper Middle Income Countries
<b>UN</b>	United Nations
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>UNDESA</b>	United Nations Department of Economic and Social Affairs
<b>UNIDO</b>	United Nations Industrial Development Organization
<b>USAID</b>	U.S. Agency for International Development
<b>USIDFC</b>	U.S. International Development Finance Corporation
<b>VC/PE</b>	Venture Capital/Private Equity
<b>WFDFI</b>	World Federation of Development Financing Institutions

# Executive Summary

Development finance institutions (DFIs) are legally-independent and government-supported financial institutions with explicit official missions to promote public policy objectives. DFIs are potentially potent policy instruments for fixing market failures, incubating markets, and promoting structural transformation. Yet their role has largely been neglected or dismissed, as DFIs are by definition viewed from the free-market perspective as tools of government intervention in financial systems resulting in resource misallocation and rent-seeking.

DFIs are experiencing a renaissance worldwide, however, as their usefulness is recognized by both academics and policymakers. Governments are establishing or planning to create new national development finance institutions and multilateral development banks.

In the wake of the recent global financial crisis, a shift in development discourse is taking place: both academics and policymakers are recognizing the importance of DFIs in playing countercyclical roles, bridging infrastructure financing gaps, addressing defects in capital markets, and enhancing structural transformation.

Emerging economies, China in particular, are taking a leadership role in initiating new multilateral development banks to fill infrastructure financing gaps. Both developed and developing countries alike have recently established or are planning to build new DFIs to meet economic, social, and environmental development challenges.

In sharp contrast with the worldwide DFI renaissance,

there is limited academic research examining the roles, operations, and effectiveness of DFIs. A primary reason behind the patchy academic research is a lack of data. So far there is no comprehensive list of DFIs, let alone more detailed data on their operation and performance.

To fill the data gap, the Institute of New Structural Economics at Peking University is piloting a database on worldwide DFIs by primarily relying on first-hand data collection from official sources. We plan to enrich our database by conducting thematically focused surveys in the near future. We hope that building the database in a rigorous and systematic manner can help foster vibrant academic research on this important but understudied topic and help make concrete policy recommendations to unleash the full potential of DFIs.

The present inaugural New Structural Economics Development Financing Research Report explores why DFIs are needed, examines what essentially defines DFIs, and builds on first-hand data collection to investigate the basic patterns of DFIs in terms of geographical distribution, establishment year, official mission, and distribution by income levels.

Answering the question of why to establish DFIs entails three analytical steps: first, it is closely related to the fundamental question of what justifies state intervention in the financial system; second, it requires examining the specific niches of DFIs when compared with alternative state intervention options; third, it requires a dynamic analysis of how DFIs adapt their roles to changing development needs at different stages of development. The existing literature has specified different types of market failures such

as information asymmetries, positive externalities, short-termism, and pro-cyclical lending to justify the utility of DFIs. Going beyond fixing market failures, scholars have called for a more proactive market-incubating role for DFIs, including fostering mission-oriented innovation, incubating market institutions, and fostering capital markets. Yet, most studies have failed to answer the question of why DFIs are better positioned to fix certain market failures or incubate markets than alternative options. This is the gap that future studies can fill.

The above justifications for creating DFIs are often challenged by the “political view” that DFIs suffer from poor corporate governance practices, are prone to rent-seeking, and crowd out private actors. Such critiques highlight the importance of rigorous academic research to investigate why some DFIs succeed whereas others fail, what enables good governance of DFIs, and whether a poor overall governance environment makes well-governed DFIs impossible. Yet faults in implementation should not necessarily invalidate the essential merits of DFIs as potentially potent policy instruments. More evidence-based research is necessary to make DFIs work better.

After reviewing the rationales for DFIs, we have built on the existing definitions of DFIs to propose three minimum criteria in an effort to distinguish DFIs from other institutions. An institution is qualified as a DFI, if it (a) is a legally independent and self-sustaining financial institution, (b) pursues public policy objectives, and (c) enjoys government support. Based on this working definition, we have identified 539 DFIs worldwide after systematically screening members of DFI and DFI-like associations one by one and examining each financial institution in the official DFI or DFI-like categories of national financial systems country by country.

Based on the first-hand data, we have presented the basic patterns of worldwide DFIs. The key findings are as follows: (a) about 92.58% of DFIs are at national and subnational levels in about 147 countries/economies, while the rest are multilateral organizations; (b) DFIs have experienced a rise after World War II, followed by a plateau in the 1980s, a peak in the 1990s and an emerging renaissance now; (c) half of all DFIs have general development as their mission, followed by about two fifths with single-sector focuses and a few with multisector focuses; (d) there is substantial variation in sectoral focus across different stages of development, with high-income economies focusing on the promotion of national trade, and middle-income economies on infrastructure and agriculture; (e) there is an inverted U-shape in terms of the number of DFIs across different income levels – on average middle-income economies have more DFIs than high-income economies and low-income economies.

Moving forward, we plan to rely on publicly available official information and questionnaire surveys to collect data in a systematic manner on DFIs’ ownership structures, funding sources, financial instruments, products and services, business models, operation portfolios, financial performance, governance and supervision, monitoring, evaluation, financial regulation, and their weight in national financial systems. We will carefully design the codebook, template, and technical notes and undertake strict quality control to ensure that all data is accurate, comprehensive, and comparable across institutions and over time. This will enable us to produce a series of thematically focused research papers on DFIs under the umbrella of the New Structural Economics Development Financing Research Report Series. Meanwhile, as our current database only contains currently operating DFIs, we plan to systematically collect information on DFIs that closed down or were commercialized in the past.

It is our hope that such a systematic database-building effort will enable in-depth academic research on DFIs, making it possible to realize their full potential for promoting sustainable structural transformation and accomplishing development missions. The future research questions include, but are not limited to, (a) what niches can DFIs occupy in implementing state intervention in financial systems compared with alternative options, (b) why do governments establish DFIs – specialized financial institutions – to undertake development financing instead of delegating or incentivizing existing commercial banks to take up the task, (c) how do DFIs adapt to changing development needs at different stages of development, (d) what would be the appropriate funding model for DFIs to ensure sufficient, sustainable, affordable,

and long-term funding sources given divergent fiscal strengths, sovereign creditworthiness, and capital market development across countries, (e) how does the reliance on government and/or the market for funding sources affect the governance and operations of DFIs, (f) how to evaluate their development performance, (g) why do some DFIs succeed whereas others fail, (h) what would be an appropriate financial regulatory framework for DFIs, and whether DFIs should comply with the Basel Accord and (i) how to improve DFI institutional design to make them work better.

# I. Introduction

Supported by governments, development finance institutions (DFIs) have an explicit official mission to fulfill public policy objectives. DFIs are potentially useful policy instruments for fixing market failures, incubating markets, and promoting structural transformation<sup>1</sup> in an equitable and sustainable manner. Yet their roles have largely been neglected or dismissed, as, from the free-market perspective, DFIs are by definition regarded as tools of government intervention in financial systems resulting in resource misallocation and rent-seeking (Ades and Tella 1997; Claessens, Feijen, and Laeve 2008; Faccio 2006; La Porta, Lopez-de-Silanes, and Shleifer 2002).

In the wake of the recent global financial crisis, however, a shift in development discourse is taking place – both academia and policy circles are recognizing the importance of DFIs in playing a countercyclical role, bridging infrastructure financing gaps, addressing defects in capital markets, and enhancing structural transformation.

**DFIs are experiencing a burgeoning renaissance worldwide.**

DFIs are experiencing a burgeoning renaissance

worldwide. Emerging economies, China in particular, are taking the leadership role in initiating new multilateral development banks (MDBs) to fill infrastructure financing gaps. Both developed and developing countries alike have recently established or are planning to build new DFIs to meet economic, social, and environmental development challenges.

Despite the potentially indispensable role of DFIs, there is little academic research tackling the fundamental questions of what essentially differentiates DFIs from other institutions, why we need DFIs, how DFIs adapt to changing development needs, and what accounts for variations in their performance across institutions and over time. One major reason behind this research gap is a lack of data.

To fill the data gap, the Institute of New Structural Economics at Peking University is piloting a database on DFIs worldwide by primarily relying on first-hand data collection from official sources at present and conducting thematically focused surveys in the near future. We hope that building a database in a rigorous and systematic manner can help foster vibrant academic research on this important but understudied research topic in an effort to make concrete policy recommendations and unleash the full potential of DFIs.

<sup>1</sup> Structural transformation here refers to the process through which economies move into higher-productivity sectors and segments to foster dynamic growth.

## ■ A Renaissance of DFIs Worldwide

The Addis Ababa Action Agenda on financing the post-2015 Sustainable Development Goals (SDGs) called for MDBs to realize “the significant potential” in financing sustainable development<sup>2</sup> and provide know-how (United Nations 2015, 17). While the existing MDBs have played a crucial role in supporting economic development and fighting poverty over the seven decades since the creation of the World Bank after World War II, there is a pressing need to review whether the existing mandates, instruments, and governance of MDBs will adequately contribute to their adapting missions (Center for Global Development 2016).

To fill the vast infrastructure financing gaps in developing countries and shape the international development finance system (Xu 2018), China has taken a leadership role in creating the Asian Infrastructure Investment Bank (AIIB) with initial authorized capital of US\$100 billion (Nassiry and Nakhooda 2016). After its charter entered into force on December 25, 2015, the AIIB opened its doors on January 16, 2016, tasked with pioneering a “Lean, Clean and Green” mode of operating – lean, with a small, efficient management team and highly skilled staff; clean, an ethical organization with zero tolerance for corruption; and green, an institution that is built

on respect for the environment (AIIB 2015). With 57 founding members including the largest European economies, whose participation was spearheaded by the United Kingdom (UK), the AIIB’s membership has rapidly expanded to 93, surpassing the 68-strong membership of the Asian Development Bank (ADB) by April 2019<sup>3</sup>. In terms of voting power, the AIIB has adopted a GDP-based share formula to decide a member’s capital subscription; hence, the AIIB formula is “pro-development” since developing countries, including China, generally perform better by GDP than other measures (Gu 2017, 149). Another newly established MDB led by developing countries is the New Development Bank (NDB). Under the leadership of Brazil, Russia, India, China, and South Africa (BRICS), the NDB was founded in 2015 with initial authorized capital of US\$100 billion. It holds initial subscribed capital of US\$50 billion, equally shared among the five founding members. The NDB aims to “support infrastructure and sustainable development efforts in BRICS and other underserved, emerging economies for faster development through innovation and cutting-edge technology.”<sup>4</sup>

Apart from the newly-established MDBs initiated by developing countries, more and more developing countries are establishing national development finance institutions (NDFIs) to meet development challenges. The Development Bank of the Republic of Belarus (DBRB) was founded in 2011 to support government programs related to long-term finance. The Tanzania Agricultural Development Bank Limited (TADB) was created in 2012 in order to support the

<sup>2</sup> In the United Nations “Transforming our world: the 2030 agenda for sustainable development” (2015), the 17 SDGs are integrated and indivisible and balance the three dimensions of sustainable development: economic, social, and environmental.

<sup>3</sup> AIIB, About AIIB. [accessed April 15, 2019]. Available from <https://www.aiib.org/en/about-aiib/index.html>.

ADB, About ADB. [accessed April 12, 2019]. Available from <https://www.adb.org/zh/about/members>.

<sup>4</sup> NDB web. Mission-values. [accessed April 12, 2019]. Available from <https://www.ndb.int/about-us/essence/mission-values/>



government's initiative on agricultural development. In 2012, Malawi established the Export Development Fund (EDF) to support access to finance for medium and large firms in support of Malawi's export sector. In 2015, the president of Ecuador announced the creation of BanEcuador B.P., a bank devoted to supporting the country's socioeconomic development.<sup>5</sup> In 2019, Nepal created the Nepal Infrastructure Bank Limited (NIFRA), a "national level infrastructure development bank" which can "act as a catalyst for building long-term and sustainable infrastructure-led economic growth in Nepal."<sup>6</sup> In 2019, Uzbekistan, is planning to build the Uzbekistan Development Bank aimed at promoting the nation's trade activities.<sup>7</sup> Furthermore, advanced economies are placing more and more importance on NDFIs, which runs contrary to the conventional wisdom that full-fledged capital markets and commercial banking systems in high-income countries (HICs) obviates the need for government-supported DFIs.

The United States has decided to build a new DFI, after the U.S. Senate and the House of Representatives passed the Better Utilization of Investments Leading to Development (BUILD) Act in October 2018. The Act consolidates the Development Credit Authority (DCA) of the US Agency for International Development (USAID) and the Overseas Private Investment Corporation (OPIC) into a reformed U.S. International Development Finance Corporation (USIDFC) (U.S. congress 2018, 31-32). The USIDFC will catalyze

market-based, private-sector development, spur economic growth in less-developed countries, and advance the foreign-policy interests of the United States.

The Green Investment Bank (GIB) was created and initially capitalized by the UK Government in 2012 in order to accelerate the transition to a greener, stronger economy. GIB has now been renamed the Green Investment Group (GIG) to enable its international expansion after its integration with the renewable team of Macquarie Capital, one of the world's largest infrastructure investors.<sup>8</sup> In 2014, the UK government established the government-owned British Business Bank (BBB), which is "dedicated to making finance markets work better for small business."<sup>9</sup>

In 2017, Canada's export credit agency formed a new subsidiary, FinDev Canada, catering to entrepreneurship, women's empowerment, and climate change for sustainable development through greener and cleaner investment.<sup>10</sup>

In parallel with the trend of establishing new MDBs and NDFIs, more and more importance is being placed upon DFIs. The European Union (EU) launched the Investment Plan for Europe in 2014, emphasizing that "effective involvement of National Promotional Banks (NPBs) is necessary to enhance their impact on investment, growth and employment due to their particular expertise and their knowledge of the

<sup>5</sup> BanEcuador B.P web. History. [accessed April 12, 2019]. Available from <https://www.banecuador.fin.ec/institucion/historia/>.

<sup>6</sup> NIFRA web. Background. [accessed April 13, 2019]. Available from <http://www.nifrabank.com/pages/background>

<sup>7</sup> Gazeta news web. Central Bank of Uzbekistan. [accessed April 23, 2019]. Available from <https://www.gazeta.uz/ru/2019/02/08/development-bank/>

<sup>8</sup> GIG web. About us. [accessed February 3, 2019]. Available from <http://greeninvestmentgroup.com/about-us/>

<sup>9</sup> BBB web. Front page. [accessed April 14, 2019]. Available from <https://www.british-business-bank.co.uk/>.

<sup>10</sup> FinDev Canada web. Our story. [accessed February 3, 2019]. Available from <https://www.findevcanada.ca/en/who-we-are/our-story>

local context, business and investor communities as well as national policies and strategies” (EU 2015, 2). The United Nations Industrial Development Organization (UNIDO) has formulated a partnership strategy with DFIs to support larger flows of resources and trigger a stronger impact on the ground (UNIDO 2014). The United Nations Conference on Trade and Development (UNCTAD) claims that “the time is ripe to promote development banks” (UNCTAD 2016, 6). The Intergovernmental Group of Twenty-Four on International Monetary Affairs and Development (G-24) and the Global Green Growth Institute have jointly launched the Infrastructure Finance in the Developing World Working Paper Series in an effort to “play a catalytic role in the creation and success of new development finance institutions.”<sup>11</sup>

In a nutshell, the world is witnessing a renaissance of DFIs at both the international and national levels. As policymakers are attaching more and more importance to DFIs, it is of paramount importance to ensure that DFIs are well designed and managed so that they can realize their full potential and avoid the pitfalls of past failures.

## ■ A Research and Data Gap

In sharp contrast with the worldwide renaissance of DFIs, there is limited academic research<sup>12</sup> that addresses the fundamental questions of (a) what are the defining features of DFIs, (b) what justifies the necessity of state intervention in financial systems, (c) why do governments establish DFIs – specialized financial institutions – to undertake development financing instead of delegating or incentivizing existing commercial banks to take up the task, (d) how should DFIs adapt to changing development needs at different stages of development, (e) what would be the appropriate funding model for DFIs to ensure sufficient, sustainable, affordable and long-term funding sources given divergent fiscal strengths, sovereign creditworthiness, and capital market development across countries, (f) how to evaluate DFIs’ development performance, (g) why do some DFIs succeed whereas others fail, (h) what would be an appropriate financial regulatory framework for DFIs, (i) whether DFIs should comply with the Basel Accord,<sup>13</sup> and (j) how to improve DFIs’ institutional

<sup>11</sup> G-24 web. Infrastructure finance in the developing world. [accessed April 14, 2019]. Available from <https://www.g24.org/infrastructure-finance-in-the-developing-world/>.

<sup>12</sup> For pilot research in English academic journals and books, see Cameron 1953; Dewatripont and Maskin 1995; Odedokun 1996; de Aghion 1999; Hainz and Kleimeier 2012; Lazzarini et al. 2015; Brei and Schclarek 2015; Ru 2018; Griffith-Jones and Ocampo 2018; Jouanjean, Massa, and Velde 2015; Massa, Parra, and te Velde 2016; Inoue, Lazzarini, and Musacchio 2013.

For the pilot academic research in Chinese, see Ba, Sun, and Niu 2010; Bai and Wang 2005; Bai 2003; Bai 1998; Bai 2008; Bai and Qu 1993; Bai 2005; Bai, Xu, and Wang 2006; CAPDF and NSD 2016; China Development Bank and Renmin University 2006; China Development Bank and Renmin University 2007; Jia 2010; Li and LI 2010; Wang 2017; Wei 2006; Xiao 2014; Yan 2013.

For reports by international organizations, see Hakim 1985, Gutierrez and others 2011; Buitert and Fries 2002; Rudolph 2009; Diamond 1968. For publications on DFIs by investigative journalists, see Sanderson and Forsythe 2012.

<sup>13</sup> The Basel Committee on Banking Supervision at the Bank for International Settlement, headquartered in Basel, Switzerland, is the primary global standard-setter for the prudential regulation of banks and provides a forum for regular cooperation on banking supervisory matters. Its 45 members comprise central banks and bank supervisors from 28 jurisdictions that are mainly advanced economies. But many non-members of the Basel Committee adopt Basel banking standards even though they have no seat at the standard-setting table (Jones, Beck, and Knaack 2018).

design to make them work better. A primary reason behind the patchy academic research is a lack of data.<sup>14</sup> So far there is no comprehensive list of DFIs, let alone detailed data on their operation and performance.

**To fill the data gap, the Institute of New Structural Economics at Peking University is building the first comprehensive database on worldwide DFIs.**

To fill the data gap, the Institute of New Structural Economics at Peking University is building the first comprehensive database on worldwide DFIs. We aim to build a rigorous, comparative, and comprehensive dataset on various aspects of DFIs across countries/regions and over time. We will cover a wide range of variables about DFIs, including when they were founded, as well as their official missions, ownership structures, funding sources, financial instruments, products and services, business models, operational portfolios, financial performances, governance and supervision, monitoring and evaluation, financial regulation, and the weight of DFIs in national financial systems. We primarily rely on first-hand data from sources such as official websites, charters, annual reports, and financial statements. In addition, we also plan to merge DFIs in our database with international financial statistical databases such as Bankfocus and Dealscan to make full use of existing data sources. After combing through all publicly available information on DFIs, we can better identify data gaps and design and conduct questionnaires or interviews

to collect thematically focused information in the near future. As building the database is an ongoing effort, we plan to divide tasks into manageable units and then publish the New Structural Economics Development Financing Research Report Series to report on our progress and update the database. The present report is the inaugural publication in the series. It is our hope that this pilot database can lay a solid foundation for in-depth academic research on DFIs which can have practical implications for their institutional designs to help fulfill their missions.

The remainder of the report proceeds as follows. Section II explores why we need DFIs, or the rationales behind establishing DFIs. Section III provides a working definition of what essentially distinguishes DFIs from other institutions. Section IV introduces the new database on DFIs, including the criteria for sample selection, data sources, and quality control. Section V relies on the new database to present a series of stylized facts on DFIs. Finally, it concludes with key messages and future directions of research.

<sup>14</sup> Bruck (1998) mentions that there are over 550 DFIs worldwide. Moreover, Gallagher and Kring (2017) mention that the total assets of NDFIs stands at USD 4.8 trillion. Yet neither elaborated on the criteria for identifying DFIs or data sources. The World Bank Group has conducted two surveys by sending out questionnaires to national development banks (NDBs) through the World Federation of Development Financing Institutions (WFDFI) in 2012 and 2017 respectively. But as both surveys relied on voluntary self-reporting by NDBs, they are far from a comprehensive list of NDBs, let alone of DFIs.

## II. Why to Create DFIs?

Answering the question of why to establish DFIs entails taking three analytical steps: first, it is closely related to the fundamental question of what justifies state intervention in the financial system; second, it requires examining the specific niches of DFIs when compared with alternative options of state intervention;<sup>15</sup> third, it demands dynamic analysis of how the role of DFIs adapts to changing development needs at different stages of development.

Yet, “despite their size and importance, little research has been done on the analytical rationale for national development banks,” claimed a recent pioneering book on national development banks published by Oxford University Press (Griffith-Jones et al. 2018, 6). The following section reviews the existing literature, albeit limited, in order to shed light on the above three analytical questions as well as chart a path for future research.

### ■ Fixing Market Failures

The existing literature often highlights market failures to justify state intervention in financial systems.<sup>16</sup> While the financial repression school contends that it is desirable to liberalize financial systems (Gurley and Shaw 1955; McKinnon 1973), a strand of literature maintains that financial markets suffer from endemic market failures including information asymmetries, positive externalities, pro-cyclical behaviors of private banks, and short-termism of capital markets. To identify market failures, we can conduct a thought experiment by imagining decentralized and laissez-faire commercial banking systems or capital markets, and then explore which sectors of the economy may suffer from the undersupply of capital and under what

<sup>15</sup> State intervention in financial systems can take various forms, and DFIs are only one instrument of state intervention. For example, the government can delegate state-owned commercial banks or incentivize private commercial banks to undertake policy lending. Government can also rely on the auction or bidding to select financial institutions to undertake development financing. Governments can even use fiscal revenues to subsidize prioritized sectors. For early attempts to compare DFIs with alternative options, see Buiter and Fries (2002), Yeyati et al. (2007).

<sup>16</sup> Fernandez-Arias et al. (2019) question the assumption of the existing literature that DFIs or governments have a good understanding of the existing market failures and propose that DFIs can help identify market failures through their loan-screening and lending activities to produce and organize information about social returns. This new role is of particular importance when it comes to structural transformation, since it requires the creation of new activities impeded by non-observable market failures.

circumstances capital might be in short supply. Such kinds of market failures provide the rationale for state intervention in financial markets.

### Information Asymmetries

Information asymmetries are endemic problems in financial markets, as they are particularly information-intensive (Stiglitz 1993). As banks are often unable to sort out “good” borrowers from “bad” ones, and high interest rates often discourage more cautious investors (“adverse selection”) or induce borrowers to invest in riskier projects (“moral hazard”), firms are unable to obtain loans even when they are willing to pay a higher interest rate – a situation known as “credit rationing” (Stiglitz 1989; Stiglitz and Weiss 1981). This problem is particularly severe for relatively opaque small and medium-sized enterprises (SMEs).

As shown in Section V below, a group of DFIs has been established in both developed and developing countries with the specific mission of financing SMEs to enhance financial inclusion (Griffith-Jones et al. 2018, 26-28). Yet the existing literature has failed to explore the relative comparative advantages of such DFIs in addressing the financial constraints of SMEs compared with alternative options, such as earmarked government funds administered by government agencies or delegated to commercial banks. While empirical research has shown that local state-owned savings banks can better mitigate the financial constraints of private firms than private-owned banks (Behr, Norden, and Noth 2013), few experts have systematically examined whether SME-focused DFIs can better serve the financing needs of SMEs than state-owned commercial banks and/or private banks.

### Positive Externalities

Another salient market failure is that private actors often fail to finance projects with positive externalities. The negative impacts of climate change and environment degradation transgress national boundaries. Combating climate change and promoting environmental protection are global public goods, and mission-oriented DFIs can internalize such positive externalities and scale up green finance (Griffith-Jones et al. 2018, 31-33).

Case studies have shown that Kreditanstalt für Wiederaufbau (KfW) has played a crucial role in promoting renewable energies in Germany (Griffith-Jones 2016). Apart from mainstreaming climate change awareness into the current policies and operations of the existing DFIs, governments are establishing new green banks such as the UK’s Green Investment Group mentioned earlier. Furthermore, at the Paris Conference of Parties (COP) 21 conference in December 2015, the Green Bank Network was initiated to collect, organize, and share green bank know-how.

### Short-termism

Capital markets often suffer from prevailing short-termism, leading to long-term financing supplies falling short of investment demands (Kay 2012). Laissez-faire banking systems also tend to underinvest in long-term industrial finance, as long-term projects involve large sunk costs requiring co-financing by several banks, which can induce a free-rider problem in monitoring (Dewatripont and Maskin 1995). Another reason why commercial banks are unable to provide long-term finance is that they lack the specialized skills required to deal with high-risk and long-term investments (de Aghion 1999).

One way to overcome the scarcity of long-term finance is to establish DFIs. DFIs often have official missions to provide long-term capital in general and infrastructure financing in particular. Yet little research has explained what enables DFIs to provide long-term finance. Schclarek, Xu, and Yan (2019) provide the first theoretical justification of why bond-issuing NDBs are better positioned to elongate the maturity of their loans than deposit-taking commercial banks.

## Pro-cyclical Lending

Pro-cyclical lending by private sector actors is an acute and endemic problem. During recessions, risk-averse private commercial banks shrink their lending, but they expand their operations during periods of economic growth. This results in boom-and-bust cycles, undermining macroeconomic stability and long-run economic growth.

Empirical evidence shows that DFIs played a countercyclical role in the recent global financial crisis (de Luna-Martínez and Vicente 2012). For example, during the financial crisis of 2007 to 2009, the European Investment Bank (EIB) increased loan disbursement by 57% and increased credits to SMEs by 128% (Brei and Schclarek 2019). Theoretical and econometric studies also demonstrate that public-owned banks are better at counterbalancing pro-cyclical trends than private-owned banks (Bertay, Demirgüç-Kunt, and Huizinga 2015; Brei and Schclarek 2013; Brei and Schclarek 2015). Yet such studies fail to investigate how public DFIs can play a countercyclical role compared with state-owned commercial banks, as well as how countercyclical lending impacts the operations of DFIs.

In summary, the market failure approach holds some explanatory power. It helps us to understand why countries, no matter rich or poor, set up development

banks to fund SMEs due to information asymmetries in the financial system. It sheds light on the phenomenon where development banks prioritize sectors with positive spillovers, such as renewable energy. It helps explain why governments set up DFIs to provide long-term finance that is in short supply in decentralized commercial banking systems and capital markets. Moreover, the approach helps show why, in the wake of financial crises, countries step up their support for development banks in order to play a countercyclical role. Market failures are prevalent in both developed countries and developing countries. Hence, it explains why industrialized countries such as Germany and Japan still keep their development banks in place despite their full-fledged financial systems.

## ■ Incubating Markets

The market failure approach, however, neglects an indispensable role played by DFIs: market incubation. The market failure approach usually assumes that a mature market exists but simply lacks efficiency, whereas the market incubation perspective emphasizes that markets are not an abstract concept but an array of institutions that develop from the nascent phase to the full-fledged phase. From a historical perspective, market incubation is by no means a spontaneous process, but is rather guided and facilitated by the government (Polanyi 1957). The question is how DFIs can help incubate markets.

## Mission-oriented Innovation

In the field of innovation policy, Mazzucato and her co-authors have advocated going beyond fixing market failures to creating markets by conducting mission-oriented investments that lead to the creation of new technological opportunities and market



landscapes (Mazzucato and Penna 2016; Mazzucato 2016). Mazzucato (2016) proposes a market-creating framework for policy that includes the following: (1) decision-making on the direction of change in pursuit of public policy objectives; (2) creating (public and private) organizations that can welcome underlying uncertainty and discovery processes; (3) evaluating mission-oriented and market-creation policies; and (4) building methods through which both risks and rewards can be shared so that smart growth can also be inclusive. This is built on the “entrepreneurial state” approach where the state plays a leading investment role across the entire innovation chain, from basic research to early-stage seed financing of companies, and then financing commercialization and market entry in an effort to lead innovation-led growth (Mazzucato 2015; Lazonick and Mazzucato 2013). In this framework, DFIs provide a concrete mechanism for fulfilling missions pre-defined in bold public policy plans, such as galvanizing green innovation (Mazzucato and Penna 2015; Mazzucato and Penna 2016).

Yet little has been done to answer the question of how DFIs can strike the right balance between achieving financial sustainability and investing in highly uncertain innovation. As DFIs are fundamentally financial institutions rather than aid agencies, achieving modest profits (or at least breaking even) is one of the minimum requirements to survive. Investing in innovation technologies with fundamental uncertainties is likely to result in substantial losses.

### Incubating Market Institutions

**DFIs may play an indispensable role in incubating markets that goes beyond fixing market failures.**

Unlike in developed countries with well-established market economies, market institutions in developing and transition economies are either flawed or nonexistent. Without well-functioning market institutions, markets cannot efficiently fulfill many of their functions, such as allocating resources. For example, corporate governance is generally weak and contract enforcement is unreliable in developing and transition economies.

Market incubation is at the heart of the China Development Bank’s (CDB) philosophy of development financing in the broader context of China’s transition from planned to market economy (China Development Bank and Renmin University 2006). At the heart of the CDB’s efforts was leveraging financing to incubate markets for long-term infrastructure and industrial finance, enhance creditworthiness, and building and improving market institutions in order to provide long-term finance (Chen 2013, 8). From this perspective, the role of the CDB is not simply limited to the provision of long-term finance; more importantly, CDB helps to incubate markets to the point of maturity, when it can then exit and allow market players to take over (Jin, Preble, and Sesia 2011). To do so, the CDB issued large loans in exchange for adherence to market-based rules (Chen 2013, 25).

Xu (2017) offers an in-depth case study to illustrate the three phases of the CDB’s efforts to incubate long-term urban infrastructure markets, that is, advance professional planning in line with government priorities, CDB incubation and market participation. First, at the stage of project preparation and selection, advance planning by professionals at the CDB plays a key role in ensuring the alignment of projects with development priorities, achieving long-term financial sustainability, and avoiding duplication of efforts and excessive debt-burdening of local governments. During the second phase, the CDB plays a key role

in incubating independent legal entities, known as local government financing vehicles (LGFVs), for loan repayments. LGFVs do not exist before the CDB's intervention, which involves four core elements: (a) incorporation,<sup>17</sup> (b) restructuring,<sup>18</sup> (c) cash flow design,<sup>19</sup> and (d) creditworthiness building.<sup>20</sup> During the third phase, the CDB works with the local government to design different modes of market participation according to the profitability of projects and market practices. It does this by attracting more capital from commercial banks and capital markets that used to be reluctant to participate in urban infrastructure financing.

It is worth noting that the CDB approach possesses some unique Chinese characteristics that may not be readily replicated elsewhere. First, state ownership of land enables the state-owned LGFVs to use revenues from land scales as collateral in order to mitigate risks of the CDB's lending. Second, Chinese local governments have relatively strong capabilities in mobilizing financial resources, which may not be the case in some developing countries with low state capacities.

But the market incubation role may have general implications for DFIs, especially in developing and transition economies. DFIs can use their financial leverage and in-house expertise to incubate market actors, enhance corporate governance, and lay the foundation for market solutions.

## Fostering Capital Markets

Domestic capital markets in developing and transition economies are very shallow (World Bank 2015). The question becomes what role can DFIs play in fostering capital markets as economies move toward more advanced industrial structures?<sup>21</sup> There are at least two channels through which DFIs can foster capital markets in support of real economies.

First, as bond banks, DFIs can rely on sovereign creditworthiness to issue bonds on capital markets. With explicit or implicit state guarantees, DFI bonds may enjoy greater liquidity than private corporate bonds and play a pioneer role in innovating new products. For example, the risk weighting of CDB financial bonds bought by commercial banks is 0%, which encourages the purchase and transaction of CDB bonds. By constantly innovating new products, the CDB has helped incubate long-term bond markets in China (China Development Bank and Renmin University 2007). To foster local capital markets, MDBs such as the World Bank Group have undertaken local currency bond issuance through their signaling and demonstration effects, as they help to strengthen confidence in the stability and safety of the countries' domestic bond markets attracting foreign issuers and investors (World Bank 2016).

Second, bond-issuing DFIs can go a step further to act as underwriters and dealers to deepen capital markets.

<sup>17</sup> The CDB first assists the local government and related departments in jointly incorporating a new project company as an eligible borrower in the market.

<sup>18</sup> When conditions allow, the project company is restructured to align its governance structure with modern enterprise practices.

<sup>19</sup> The borrower's revenue generation methods are designed or improved—including cash flow, gains on increased land value, and other proceeds that cover principal and interest on the loan to the project company.

<sup>20</sup> CDB increases the credit standing of borrowers by utilizing the creditworthiness of local governments where possible.

<sup>21</sup> Banking systems and capital markets have different comparative advantages in meeting the divergent demands of real economies at different stages of development. Banks are more appropriate for financing traditional asset-intensive industries, whereas capital markets favor innovative and risky projects (Allen et al. 2018; Lin, Sun and Jiang 2013).



As bond banks, DFIs may be able to accumulate financial expertise and bond marketing networks to lay the foundation for acting as underwriters and dealers. For instance, the CDB is the first Chinese financial institution to participate in the bond underwriting business, which enables it to underwrite bonds by issuers who may also be borrowers of DFI loans. Similar to commercial banks, DFIs may have prior financial claims in firms (issuers) which gives them access to private information about the issuers through loan monitoring activities (Puri 1999). This enables DFIs to have better information about the issuer's value.

In short, DFIs may play an indispensable role in incubating markets that goes beyond fixing market failures. Market incubation can be a multifaceted concept, which also refers to promoting mission-oriented frontier innovation, incubating market institutions and fostering capital markets.

### ■ Speeding Up Industrialization

The rapid industrialization of Continental Europe in the 19th century was fueled by prototypes of modern DFIs that provided large-scale and long-term finance (Gerschenkron 1962; Diamond 1957). One example is the *Crédit Mobilier* founded in 1852 in France, described as “a potent force for economic development” (Cameron 1953, 488) in Europe providing much-needed infrastructure financing. It later became the model for similar government-supported financial institutions in Europe (Cameron 1953; Collister 2007).

For latecomers to industrialization, there is greater pressure for “bigness” because of the scope of the

industrialization movement, the larger average size of factories, and the concentration of relatively high capital-intensive industrialization processes (Gerschenkron 1962). By contrast, in the UK, the first industrialized country, the gradual industrialization process obviated the pressure for developing any special institutional mechanisms for providing long-term capital to industry.

Furthermore, as economies climb up the industrial ladder, new firms, which seek to enter the more advanced industrial sector, find it exceedingly difficult to obtain finance for their initial investments due to high initial losses and long learning periods. Hence, experts argue that development banks are created to meet the financing needs of pioneering firms in a nonexistent or infant manufacturing sector, since commercial banks or capital markets are reluctant to socialize high risks associated with financing industrialization at its early stage (Nayyar 2017, 197). In retrospect, successful industrialized countries have established DFIs to promote structural transformation and speed up the industrialization process, such as the Development Bank of Singapore, founded in 1968, the Korea Development Bank, founded in 1954, and the Japan Development Bank, founded in 1951. In the catching-up industrialization process, DFIs have functioned as public entrepreneurs with comprehensive, long-term visions, acted decisively despite uncertainty and risk, and fostered learning-by-doing strategies to trigger and sustain transformation agendas (Xu and Carey 2015).

### ■ Adapting Roles of DFIs at Different Stages of Development

Justifying the existence of DFIs requires a dynamic

analysis of how DFIs adapt their roles to changing development needs at different stages of development. Debates have centered on the question of whether DFIs are obsolete in HICs (Mertens and Thiemann 2018).

On the one hand, some have argued that, as countries develop their financial markets, DFIs should share the role of providing long-term credit with other local banks and specialize their focus, “eventually disappearing altogether” (Torres and Zeidan 2016, 97). In other words, DFIs provide no added value in HICs with full-fledged capital markets and commercial banking systems.

On the other hand, it contends that the obsolescence of DFIs in HICs runs contrary to reality – DFIs continue to “play a major role in funding investment and structural transformation in very successful developed and advanced emerging economies, such as Germany, Canada, France, and South Korea” (Griffith-Jones and Ocampo 2018, 7). It maintains that DFIs are “relevant for countries at all stages of development – at times of stability as well as crisis,” as they can best play their roles in mitigating uncertainty by offering a wide range of financial instruments suitable for different types of risks, fostering coordination among relevant actors, and participating in policy design, implementation, and long-term planning (Ferraz 2017, 126).

**More analysis needs to be done to specify how DFIs can adapt their roles to evolving needs at different stages of development.**

Yet more analysis needs to be done to specify how DFIs can adapt their roles to evolving needs at different stages of development. New Structural Economics (Lin 2012)<sup>22</sup> may offer a useful analytical framework for this dynamic analysis, as it emphasizes the importance of designing appropriate financial structures to meet the real economy’s divergent needs by delving deeper into risk profiles of different industrial sectors (Lin, Sun, and Jiang 2013).

## ■ A Caveat on the Effectiveness of DFIs

**Faults in implementation should not necessarily invalidate the essential merits of DFIs as potentially potent policy instruments.**

The above development perspectives on DFIs are often challenged by the “political view” that DFIs suffer from poor corporate governance practices (World Bank 2015) and are prone to rent-seeking and crowding out private actors (Odedokun 1996; Lazzarini et al. 2015)

Such critiques highlight the importance of rigorous academic research to investigate why some DFIs succeed whereas others fail, what enables good governance of DFIs, and whether a poor overall governance environment makes well-governed DFIs impossible. Yet faults in implementation should not necessarily invalidate the essential merits of DFIs as potentially potent policy instruments. More evidence-

<sup>22</sup> New Structural Economics (NSE), proposed by Professor Justin Yifu Lin, applies the neoclassical approach to the study of economic structure. NSE aims to address the limitations of traditional development thinking, including old structuralism, with an overemphasis on state intervention and neoliberalism with an excessive focus on free market (Lin, 2012).

based research is necessary to make DFIs work better.

In conclusion, the existing literature has specified different types of market failures to justify the utility of DFIs and has taken a further step to propose a more

proactive market-incubating role for DFIs. Yet, most studies have failed to answer the question of why DFIs are better positioned to fix certain market failures or incubate markets than alternative options. This is the gap that future studies can fill.

## III. A Working Definition: What Essentially Defines DFIs?

To ensure a rigorous analysis of DFIs, we need to provide a working definition of DFIs that essentially distinguishes them from other financial and/or development institutions. Currently, there is no consensus on the definition of development banks. In practice, there is a vast variation among DFIs in ownership, funding sources, financial instruments, operations, objectives, and dependence upon government despite their frequently similar names. “DFI” is used as an umbrella term in our database, including (but not limited to) development banks, export credit agencies, guarantee/insurance institutions, and equity investment vehicles.

Our key analytical task is to identify core features of DFIs that serve as the minimum requirements to qualify an institution as DFI. We have built on the existing definitions (see Appendix II for a collection of definitions by scholars, policymakers, and international organizations) to derive three essential characteristics of DFIs below:

**DFIs are legally-independent and government-supported financial institutions in pursuit of public policy objectives.**

### ■ **Minimum Criterion 1: A Legally-Independent and Self-Sustaining Financial Institution**

The first minimum requirement is that DFIs are legally independent financial institutions by their very nature. Most existing definitions have generally mentioned that DFIs are one type of financial institutions, but few have investigated the implications of their being financial institutions. In order to make a clear distinction between DFIs and other state inventions, we emphasize that their identity as financial institutions entails two operational necessities.

First, DFIs need to have independent legal status, rather than be government agencies and/or trust funds.<sup>23</sup> As mentioned in the previous section, DFIs are only one of many instruments for development finance. For example, governments can set up industrial development funds administrated by their own agencies, but such funds would not qualify as

<sup>23</sup> DFIs sometimes hold and manage assets on behalf of governments. For instance, the World Bank has received a substantial amount of aid from donor countries to invest in trust funds (IEG, 2011).

DFIs unless they have independent legal status.

Second, DFIs have to try to be financially sustainable, at least in principle. This core feature is important in distinguishing DFIs from development-oriented aid agencies. Aid agencies can primarily rely on taxpayers' money to conduct development-oriented projects. DFIs, however, are financial institutions that have to at least break even.<sup>24</sup> This means that DFIs have to undertake prudent risk assessments and select projects that can not only achieve development outcomes but also generate cash flows in the long run. Otherwise, excessive financial dependency on governments would undermine their essential features as banks and financial institutions, and put them at risk of incurring undue government interference into their resource allocation and daily operations. In practice, DFIs may sometimes implement aid programs, such as the Agence Française de Développement (AFD), or partly rely on fiscal transfers. But implementing aid programs by DFIs should not undermine the principle of maintaining financial sustainability to qualify DFIs as financial institutions instead of vehicles for fiscal handouts.

In short, DFIs are financial institutions with independent legal status pursuing financial sustainability, which helps us to distinguish DFIs from government funds and aid agencies.

## ■ Minimum Criterion 2: Pursuing Public Policy Objectives

The second minimum requirement is that DFIs are established to fulfill certain development or strategic objectives such as national trade promotion, rather than maximize profits as commercial banks do. When defining DFIs, scholars or policymakers tend to focus on a specific but diverse purposes, such as stimulating the private sector (Diamond 1957, 4), promoting social development, and regional integration (United Nations Financing for Development Office 2005, 10–11), providing long-term capital to industry (de Aghion 1999, 83), providing large-scale, high-risk, and long-term finance to projects or sectors with positive externalities (Levy-Yeyati, Micco, and Panizza 2004), and promoting national trade (Hufbauer and Rodriguez 2001).

In practice, development banks are either meant for general development or to focus on specific sectors/segments ranging from agriculture, housing, and infrastructure to SMEs and start-ups. As shown in Table A3 of Appendix II, from the perspective of policymakers, DFIs can be defined as state-established policy tools that perform a mandate given by the state through channeling credit to key sectors or segments that are underserved by the private financial system. DFIs facilitate the development of key sectors such

<sup>24</sup> Here we primarily focus on fiscal transfers from governments to DFIs. Some may argue that it is necessary to capture all types of government support, such as explicit fiscal handouts and implicit government guarantees, in calculating the true cost of DFIs' operation. Such an approach has merits when trying to evaluate the benefits and costs of DFIs. Lucas (2012, 2014a, 2014b, and 2016) has made pilot efforts to evaluate the full costs of government policies and projects by treating market risk as a cost to governments. Yet such an exercise goes beyond the scope of the present report, as the main purpose of our criterion is to judge whether DFIs are revolving funds in order to draw a distinction between self-sustaining DFIs and fiscally dependent aid agencies.

as trade, infrastructure, and agriculture so as to complement the role commercial banks play in long-term finance.

In order to come up with the minimum criteria for DFIs, we do not confine the mission of DFIs to any specific development purposes as some of the existing definitions do. As long as the official mission of a DFI emphasizes development purposes either in general or in specific sectors/segments, it will meet one crucial qualification criterion.

Meanwhile, unlike de Luna-Martínez and Vicente (2012) from the World Bank who emphasize that DFIs have to have an explicit legal mandate, we focus on the official mandate no matter whether such mandates are stated in legal documents or not. As some development banks, such as China Development Bank,

were established without a legal document, focusing on legal mandates would be too strict a criterion.

In summary, the above minimum criterion of the explicit development-oriented official mandate helps us to distinguish DFIs from profit-driven commercial banks.<sup>25</sup>

Yet in practice, the line between DFIs and commercial banks may sometimes be blurred, as development-oriented DFIs may sometimes engage in deposit-taking activities and/or short-term corporate lending. In order to capture this phenomenon, we have created a special category of DFIs titled “universal banks,” which are financial institutions that engage in both development financing and commercial/investment banking despite their explicit official mandate of promoting development (see Box 1 for more information).

### Box 1 DFIs as Universal Banks

The term “universal bank” used to refer to the phenomenon where financial institutions undertake both investment banking and commercial banking (Saunders and Walter 1994; Benston 1994). Recently the term has been used to describe a situation where development-oriented DFIs undertake both development financing and commercial/investment banking. On the liability side, DFIs may take deposits from households, just as commercial banks do; thus, DFIs can get involved in national payment systems. On the asset side, DFIs may provide short-term working capital and even venture into commercial and investment banking. This group of universal banks serve as a special category in our database. As long as they are legally independent financial institutions that explicitly recognize their role in development, we include them in our database.

<sup>25</sup> State-owned commercial banks may undertake development financing under the pressure or through moral suasion from governments, although their formal mandate is to maximize profit. For analytical purposes, it is useful to distinguish state-owned commercial banks from DFIs. For instance, the four state-owned commercial banks undertook policy lending but suffered from soft budget constraints. To address the problem, the Chinese government decided to establish three DFIs in order to separate development financing from commercial banking (Xu 2018).

The Association of Development Financing Institutions in Asia and the Pacific (ADFIAP) has created a new membership category called “universal banks, investment banks, and commercial banks.” One example is the DFCC Bank in Sri Lanka, which was established in response to a recommendation from the first World Bank mission to Sri Lanka, which called for the country to create a development finance corporation to support private sector access to medium- and long-term capital. Since the 1970s, DFCC Bank has faced fierce competition and eroding margins. In response to the changing environment, the bank has diversified its operations to include finance leasing and investment banking services. Moreover, through its associate and subsidiary companies, the DFCC Bank has also ventured into commercial banking, stock brokering, venture capital, unit trust management, consultancy services, and industrial estate management. Hence, the bank has “evolved itself from the narrower confines of a DFI to become a multi-product bank” (World Bank 2007). In October 2015, DFCC Bank and its subsidiary, DFCC Vardhana Bank, merged to form a full-fledged commercial banking supervised by the Central Bank of Sri Lanka, which has combined development banking and commercial banking resources to strengthen DFCC Bank as “a force to be reckoned with in the financial services industry” (DFCC Bank PLC 2013). In the new charter, it stipulates that DFCC Bank’s objective to for the “provision of medium- and long-term development finance” (DFCC Bank PLC 2007, 4). The bank claims that “throughout its journey, it never lost sight of its special role in the development agenda of the country” (DFCC Bank PLC 2013).

Universal banks open up new directions of research to explore what has driven the combination of development banking with commercial/investment banking, as well as the impacts on the operation and governance of DFIs.

## ■ Minimum Criterion 3: Government Support

In close relationship with the pursuit of public policy objectives discussed earlier, DFIs have to enjoy a certain kind of government support. While some

experts regard state ownership as one of the key defining features of DFIs, though they might disagree about the threshold,<sup>26</sup> we argue that state ownership may not be the necessary condition for ensuring that DFIs are development-oriented, as government support can come in many forms.

To ensure that DFIs pursue public policy objectives rather than maximize profits, governments can offer

<sup>26</sup> Brei and Schclarek (2017) use a 50% threshold to define state-owned development banks, whereas de Luna-Martínez and Vicente (2012) use the 30% threshold in the World Bank’s survey on DFIs in 2012.

guaranteed bond-issuing, low-interest or interest-free loans, liquidity guarantees, preferential tax treatment, and so on. In fact, the World Bank Group has supported the establishment of privately owned development finance companies with the government support to provide industrial finance and foster entrepreneurship after World War II. For instance, DFCC Bank is privately owned, even though it was established in 1955 with help from the World Bank. The government, however, maintains the right to nominate its director.<sup>27</sup> The Industrial Development Bank of Turkey (TSKB) was established in 1950 as the first privately owned development bank in the country.<sup>28</sup> These development finance corporations are often privately-owned but fulfill public policy objectives (Diamond 1968; Diamond 1965; Gordon 1983). Therefore, we regard government support rather than state ownership as the defining feature of DFIs, which helps to ensure that these banks are development-oriented.

## ■ A Plus Feature: Long-term Liabilities and Assets

Most definitions have highlighted that DFIs provide medium- to long-term finance. The provision of long-term finance distinguishes DFIs from commercial banks that primarily provide short-term working capital. Yet not all development financing provided by DFIs is in the form of long-term finance. Sometimes short-term finance has a stronger disciplinary role, mitigating moral hazards and agency problems in lending. The lender's ability to monitor borrowers may be improved with short-term financing contracts

because short-term debt needs to be negotiated frequently. Moreover, creditors can cut financing if they are not satisfied with the borrower's performance (Diamond and Rajan, 2001; Rajan, 1992; Rey and Stiglitz, 1993).

To ensure that DFIs can provide long-term finance, some distinguish DFIs from commercial banks by long-term liability structure (UNCTAD 2016). Brei and Schclarek (2018) define development banks as non-deposit-taking financial intermediaries, in contrast with commercial banks that take deposits from households. Yet this definition seems overly strict, as some development banks do take deposits in practice (World Bank Group and World Federation of Development Financing Institutions 2018), and some DFIs may take term deposits to solve the problem of maturity mismatch, such as the recently established Infrastructure Development Bank in Nepal. Hence, a plus feature of DFIs is that their liabilities are predominately long-term which makes long-term finance feasible.

In short, while a majority of the existing DFI definitions emphasize that DFIs have long-term liabilities and assets, we do not take this as a minimum criterion because fulfilling development purposes does not necessitate that DFIs should only provide long-term loans as other financial instruments such as guarantees, insurance, equity, and short-term loans may be of some merit. Hence, we take long-term liabilities and assets as a plus feature, which helps us to capture a main category of DFIs in future analysis.

In summary, we take the above three defining features as the minimum qualification requirements of DFIs:

<sup>27</sup> DFCC Bank PLC. Our story. In DFCC [online database]. Sri Lanka, [accessed April 22, 2019]. Available from <https://www.dfcc.lk/en/our-story/history>.

<sup>28</sup> TSKB web. TSKB in Brief. [accessed April 22, 2019]. Available from <http://www.tskb.com.tr/en/about-us>.



first, DFIs are legally independent financial institutions expected to be financially sustainable (at least break even in their balance sheets); second, DFIs have explicit official missions of realizing public policy objectives rather than maximizing their own profits; and third, DFIs enjoy a certain kind and degree of

government support (not limited to the provision of share capital) to ensure that their operations are aligned with public policy objectives. In addition, it is desirable that DFIs have primarily long-term liabilities in order to fulfill their role in providing medium- and long-term finance.

## IV. A New Database on DFIs

To fill the data gap, the Institute of New Structural Economics at Peking University is building a new database on worldwide DFIs. This section provides an introduction to the criteria for sample selection, data sources, and quality control.

### ■ Criteria for Selecting Samples

In line with our working definition of DFIs in Section III, DFIs are legally-independent, financially sustainable and government-supported financial institutions in pursuit of public policy objectives. To operationalize the minimum criteria, we have primarily focused on whether a financial institution has an independent legal status and whether it has an explicit official mission to fulfill public policy objectives.<sup>29</sup>

In order to identify DFIs worldwide, we have mainly taken the following two approaches:

One is to refer to the membership lists of DFI or

DFI-like associations. We have primarily relied on the World Federation of Development Financing Institutions (WFDFI), including regional chapters, such as the Association of African Development Finance Institutions (AADFI), the Association of Development Financing Institutions in Asia and the Pacific (ADFIAP), the Association of National Development Finance Institutions in Member Countries of the Islamic Development Bank (ADFIMI), and the Association of Development Finance Institutions in Latin America (ALIDE). As the WFDFI does not encompass all DFIs, especially those from HICs, we have further searched DFI-like associations, such as the Long-Term Investors Club (LTIC) and the European Association of Public Banks (EAPB). It is “DFI-like” because not all members are DFIs. See Appendix III for a full list of associations and their brief introductions. We apply the minimum criteria of DFIs to all members of these associations. Only those that meet the qualification criteria are included in our database.

The other is to examine the official classification of national financial or banking systems country

<sup>29</sup> We assume that as long as a financial institution has an explicit mandate of achieving public policy objectives, it must enjoy a certain degree of government support.

by country. We have examined official websites of government agencies, especially central banks. We pay particular attention to the classifications of “policy banks,” “DFIs,” or “national promotional banks.” For example, Malaysia has presented an overview about the role and the function of its DFIs on its central bank website, the Bank Negara Malaysia. South Africa lists DFIs on the government’s website, the Government Communication and Information System, and says that DFIs serve as key institutions in promoting the country’s New Growth Path scheme (GCIS 2011). Meanwhile, we also examine DFI-like classifications such as “public banks” and “specialized institutions.” After collecting all financial institutions that fall into the category of DFI or DFI-like official classification, we apply the minimum criteria to judge whether they qualify as DFIs or not.

## ■ Data Sources

We primarily rely on first-hand data from official sources such as official websites, charters, annual reports, and financial statements. In addition, we have merged our DFI database with international financial statistical databases such as Bankfocus<sup>30</sup> and Dealscan<sup>31</sup> to make full use of existing data sources. After exhausting all publicly available information on DFIs, we can better identify data gaps and plan to design and conduct questionnaires or interviews to collect thematically focused information.

As our database covers worldwide DFIs, many official sources are only available in foreign languages. To ensure that we have exhausted all publicly available official data sources, we have formed a team of

research assistants (RAs) proficient in different languages, such as Arabic, Chinese, English, French, Portuguese, and Spanish.

## ■ Quality Control

To ensure that our data is rigorously and systematically collected and compiled, we have designed a four-step quality control mechanism.

First, we design the codebook, template, guiding samples, and technical notes. For each data point, we have to ensure that every concept is clearly defined. For instance, regarding the establishment year of a DFI, we define it as the year when the charter or official establishment document came into effect rather than the year that the DFI started to operate. For those DFIs merged or reorganized in the past, we trace the establishment year back to that of the original DFI. Furthermore, we design the template and give clear guidelines on what can be filled in each cell. To help RAs grasp the codebook and template, we have provided guiding samples and technical notes on how to understand the key concepts and how to fill the template.

Second, we provide guidelines on data sources. We offer clear guidelines on potential data sources in descending order of their validity. RAs can only report no information is available when they have examined all recommended data sources. In addition, we encourage RAs to explore new sources on relevant indicators. RAs have to take a picture of the original data and report data sources to ensure that every data point can be double checked.

<sup>30</sup> Bankfocus database, <https://bankfocus.bvdinfo.com/version-2019328/bankfocus/defaultdbc?loginfromcontext=ipaddress>

<sup>31</sup> Dealscan database, <https://www.loanconnector.com/>

Third, we conduct tests in order to improve the codebook, template, and technical notes. After training the RAs, we have selected a small group of representative DFIs from different regions. After the pilot trial, we convene face-to-face meetings with RAs to improve the codebook, template, and technical notes. This process is of particular importance to ensure that our codebook and template can accommodate the vast diversity of DFIs.

Fourth, we double-check the gathered information. After filling the template, we have three-layer quality

control. The first layer is at the project manager level, where we ensure that the data of all samples are collected, data sources are well reported, and the format is standardized and the citation requirement is met. The second is at the research director level to double check each data point and solve pending issues. The last layer is that the principal investigator does a final review of the data.

## V. A Landscape of DFIs Worldwide

This section builds on the firsthand data from our new database to present basic patterns of DFIs in terms of geographical distribution, establishment year, official mission, and distribution by income level. Based on the working definition of DFIs, we have identified 539 DFIs worldwide (see Appendix I for the full list). We do not claim that the current list is exhaustive, especially at the subnational level. We have disclosed the full list in order to foster an open dialogue, expand and improve the database, and make it as comprehensive as possible.

As mentioned earlier, the World Bank has conducted two rounds of surveys on national development banks in 2012 and 2017, respectively. To bring those surveys into dialogue with this paper, we have compared our key findings with those of the World Bank surveys below.

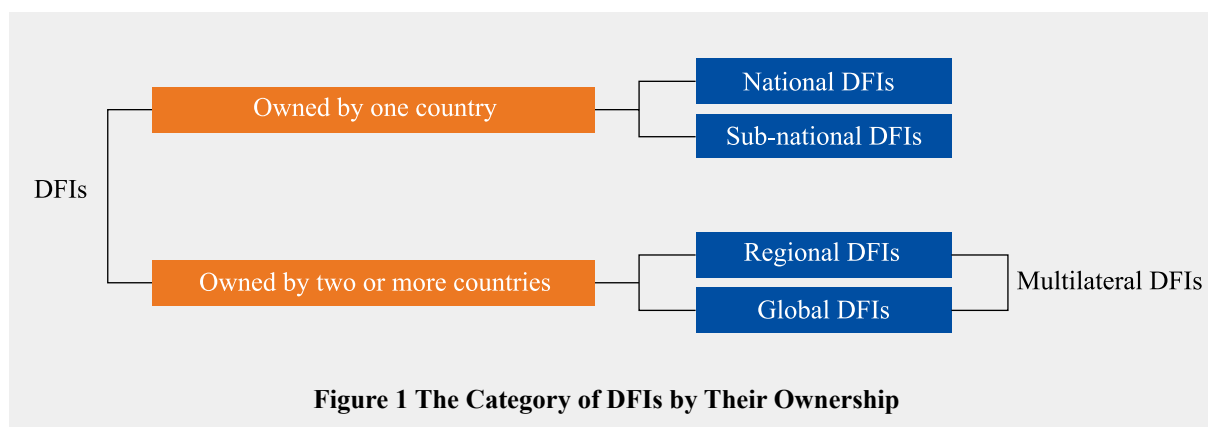
### ■ Geographical Distribution

According to the ownership of DFIs, they can be divided into sub-national, national, regional, and

global groups, as shown in Figure 1. It is worth noting that ownership of DFIs is not necessarily congruent with the geographical scope of their operations. 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.

At the national level, if DFIs are established by central governments, they are classified as NDFIs, such as the NDBs. If they are created by local governments, they are called sub-national DFIs operating at the municipal and provincial level.

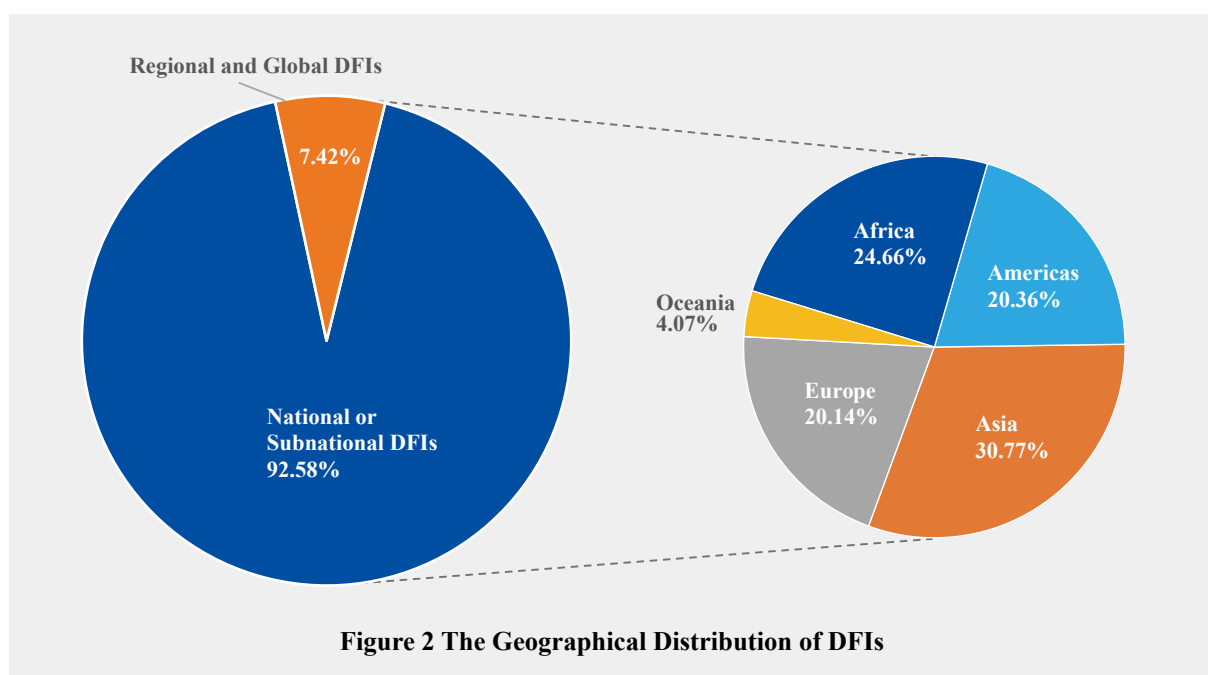
Multilateral DFIs are established by two or more countries. They can be further divided into global DFIs such as the World Bank Group with global membership (without differentiating regional members from non-regional ones), regional DFIs such as the Asian Development Bank (while there are members from other regions, they are classified as non-regional members), and smaller regional groupings such as the East African Development Bank.

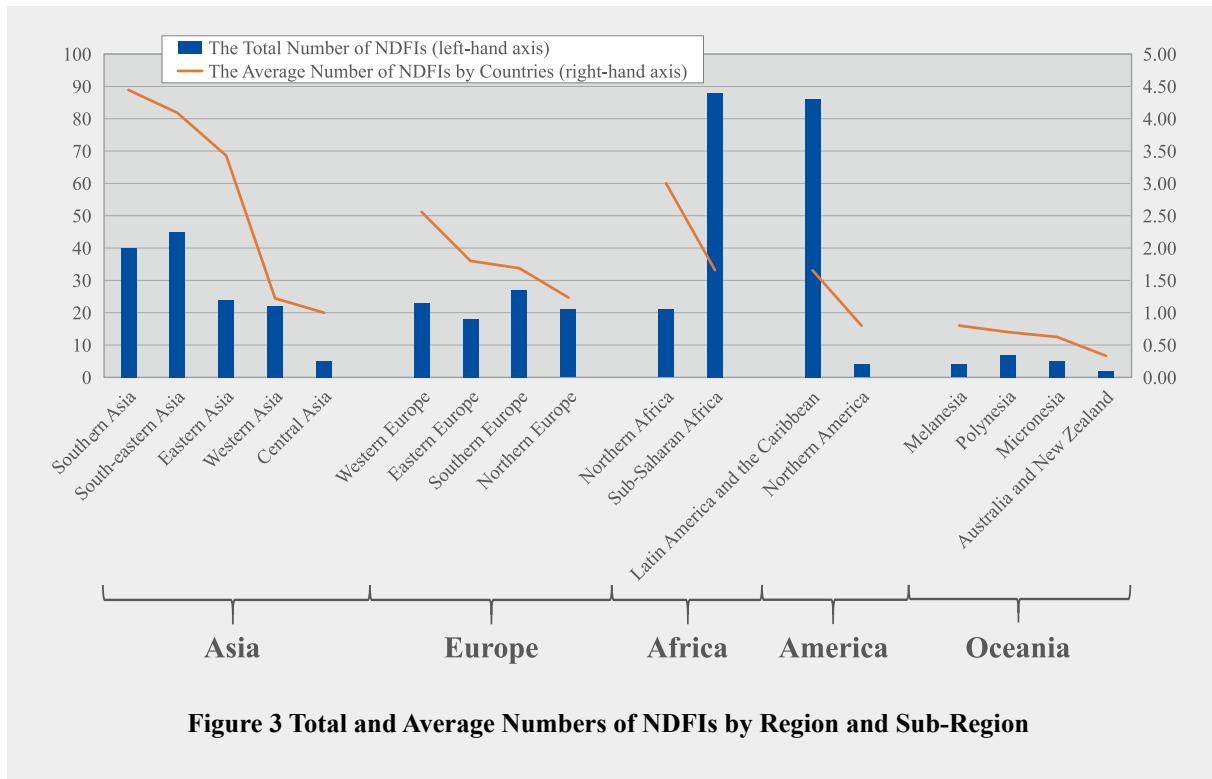


**A majority of DFIs (92.58%) are national and subnational and about 7% are multilateral. Our database currently covers 442 NDFIs in 147 countries.**

Figure 2 shows that a majority of DFIs (92.58%) are national and subnational and about 7% are multilateral. Among national and subnational DFIs,

25% are located in Africa, 20% in Europe, 20% in the Americas, 31% in Asia, and 4% in Oceania. As far as NDFIs are concerned, we have identified 442 in 147 countries. By comparison, the World Bank surveys covered 90 NDBs in 61 countries in 2012 and 64 NDBs in 48 countries in 2017. As our DFI database includes both development banks and insurance/guarantee/equity financial institutions, it presents a more comprehensive list of DFIs with much wider geographical coverage.



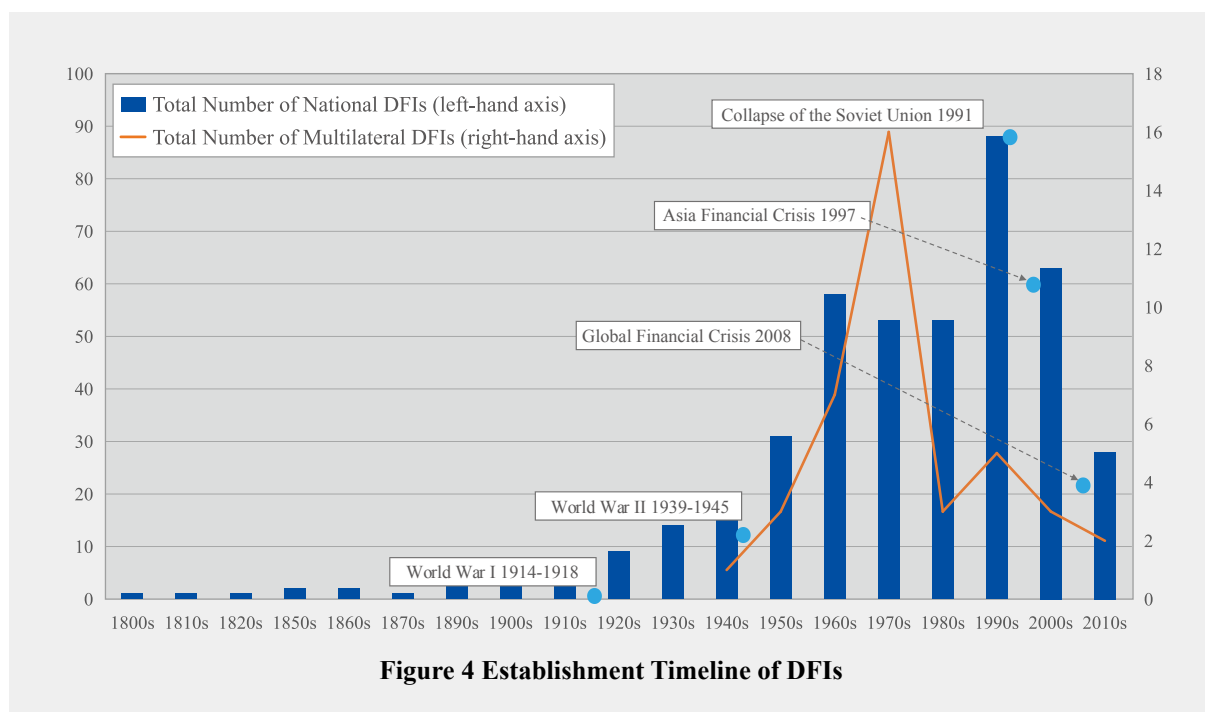


**Figure 3 Total and Average Numbers of NDFIs by Region and Sub-Region**

Figure 3 shows that in terms of aggregate numbers of DFIs by region and sub-region, a majority of 174 DFIs are located in Sub-Saharan African (88) and Latin America and the Caribbean regions (86), respectively. Regarding average numbers of DFIs by country (the total number of DFIs divided by the number of countries in a given sub-region), Southern Asia has the maximum DFIs, followed by South-eastern Asia. On average, each Southern Asian and South-eastern Asian economy has about 4.44 and 4.09 DFIs respectively. By contrast, every Sub-Saharan African and Latin American and the Caribbean country has 1.66 and 1.65 DFIs respectively.

## ■ Establishment Years of DFIs

The key findings include that the post-World War II era has witnessed the rise of DFIs on both multilateral and national levels. The growth of DFIs plateaued in the 1980s but then peaked in the 1990s in the wake of the collapse of the Soviet Union before the recent emerging renaissance.



## The Rise of DFIs in the Wake of World War II

While some DFIs were founded as early as the 19th century in Continental Europe to speed up the industrialization process, the majority of DFIs were established after World War II. In our database, only about 7.8% of NDFIs were created before World War II, which is in line with the findings of the World Bank surveys. 12% of 90 NDBs were established before 1945 in the 2012 World Bank survey and 16% of 64 NDBs were founded before 1945 in the 2017 survey.

### The majority of DFIs sprang up in the wake of World War II.

The majority of DFIs sprang up in the wake of World War II. Developed countries established development

finance institutions for post-war reconstruction, such as the KfW in 1948 and Japan Development Bank (JDB) in 1951. Upon gaining political independence, developing countries in Asia, Africa, and Latin America were eager to achieve faster industrialization and created their own national DFIs, such as the Development Bank of the Philippines (1947), the Industrial Development Bank of Turkey (1950), the Brazilian Development Bank (1952), the Industrial Development Bank of Kenya (1954), and the NIDC Development Bank in Nepal (1959). This pattern is also confirmed by the 2012 World Bank survey where the largest share of 64 NDBs (37%) were established between 1945 and 1979.

In parallel with the expansion of national DFIs, the number of multilateral DFIs expanded since the end of World War II and reached a peak in the 1970s. Under the leadership of the United States, the International Bank for Reconstruction and Development (IBRD), the parent institution of the World Bank Group, was



established in 1944. In search of regional solutions, regional development banks were later established, such as the European Investment Bank (EIB) in 1958, the Inter-American Development Bank (IDB) 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.

## Plateauing in the 1980s

**The momentum of establishing DFIs at both multilateral and national level stalled in the 1980s**

As shown in Figure 4, the momentum of establishing DFIs at both multilateral and national level stalled in the 1980s. Development banks came under fire after the debt crisis in the mid-1980s in the broader context of prevailing free market-oriented neoliberalism (Xu 2017). Empirical evidence shows that due to excessive government intervention, development banks were compelled to bail out companies on the verge of bankruptcy, thereby falling into the predicament of soft budget constraint. Worse still, to seek rents, government officials put cheap money from development banks not into critical areas for economic and social benefits, but into politically-connected firms with access to funds from capital markets or commercial banks (Adesand Tella 1997; Claessens et al., 2008; Faccio 2006).

As our current database only covers currently active DFIs, we have relied on secondary literature to collect information on DFIs that have been closed down or commercialized. It reveals that in Latin America the

members of the Association of Development Finance Institutions in Latin America (ALIDE) shrank from 171 to 73 in the mid-1980s. Liquidations included major banks in Peru, Mexico, Colombia, Venezuela, and Nicaragua among others (Fernández-Arias, Hausmann, and Panizza 2019, 2). In the 1980s, under the prevailing Washington Consensus, the IMF and the World Bank implemented the structural adjustment program (SAP) in the developing world, leading to the privatization of banks. For example, Banades, the stated-owned national development bank of Nicaragua, was forced to privatize and to restructure as part of the SAP, under the influence of the U.S. government and multilateral institutions such as the World Bank and the IDB (Aravena 2000).

## A Peak in the 1990s

**There was a substantial increase in newly established NDFIs in the 1990s.**

Figure 4 shows that there was a substantial increase in newly established NDFIs in the 1990s. The World Bank surveys used broad time periods such as 1946-1989, 1990-2001, and 1980-1990 and hence did not reveal this nuanced pattern.

A close look at the data reveals that about a fifth of the newly established DFIs were located in newly independent Eastern European countries after the collapse of the former Soviet Union. Emerging economies were another driving force behind the peak. For instance, 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. In

South Africa, Nelson Mandela's electoral victory in 1994 signified the end of apartheid. To spur social and economic development, the South African government established the National Urban Reconstruction and

Housing Agency in 1995, the National Housing Finance Corporation and the Rural Housing Loan Fund in 1996, and the National Empowerment Fund in 1998.

**Table 1 Establishment Years of NDFIs in the 1990s**

NDFIs Established in Newly Independent Countries during the 1990s		NDFIs Established in Some Other Countries	
Azerbaijan	1	South Africa	5
Croatia	2	China	3
Czech Republic	3	El Salvador	3
Kazakhstan	1	Hungary	3
Lithuania	1	Romania	3
Namibia	1	Thailand	3
R. Macedonia	1	Colombia	2
Slovakia	2	Finland	2
Slovenia	3	Italy	2
Uzbekistan	2	Malaysia	2
		Mongolia	2
		Nigeria	2
		Samoa	2
		Sudan	2
		Venezuela	2
Sum	17/88 (19%)	.....	.....

## An Emerging Renaissance

As discussed in the introduction, DFIs are having a renaissance today. As most DFIs are still in the process of establishment, Figure 4 has not fully captured this new trend. Despite the promise of free-market neoliberalism, privatization is not a panacea for the effective provision of long-term finance. Commercial banks and capital markets shied away from risky and long-cycle financing projects, as they often prioritize short-term performance or benefits (Kay 2012). Official development assistance (ODA) also shifted to social sectors such as health and basic education and away from infrastructure, leading to a growing gap in infrastructure financing for many developing countries (Foster and Briceño-Garmendia, 2010). This has partly contributed to the resurgence of DFIs as key instruments for filling the vast infrastructure financing gaps. Environmental challenges are another driver behind the renaissance of DFIs, even in HICs.

In summary, the post-World War II era has witnessed the rise of DFIs worldwide to reconstruct the war-worn advanced economies and speed up industrializations in newly established developing countries. Despite stagnating in the 1980s, the establishment of DFIs reached a peak in the 1990s. After a dip in the 2000s, an emerging DFI renaissance is on the horizon.

### ■ Mission: General or Specific Purposes?

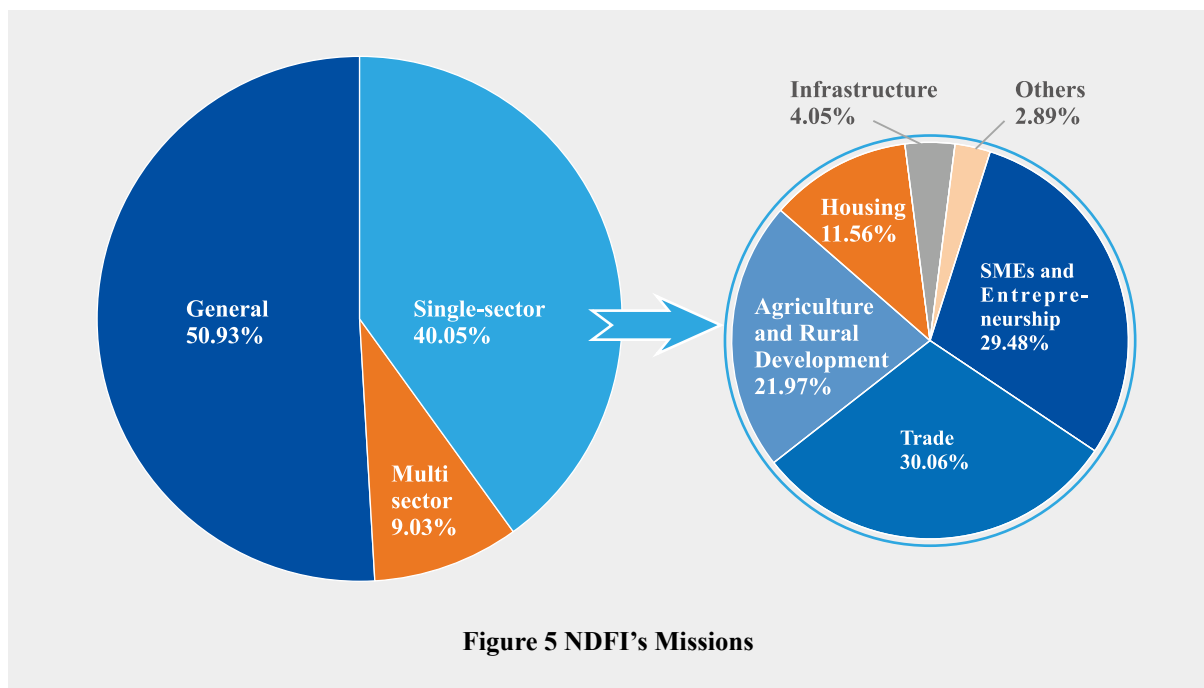
DFIs are often founded with two types of official missions: one is general, and the other is specific. Most multilateral DFIs are for general purposes.

**About half of NDFIs have very broad general missions in support of the economic or social development.**

As far as national DFIs are concerned, Figure 5 shows that about half have very broad general missions in support of the economic or social development of their countries. This finding is aligned with the World Bank surveys: 47% of 90 NDBs in the 2012 survey have the broad mandate, and 51% of 64 NDBs in the 2017 survey do.

About 40% of the NDFIs in our sample are tasked with focusing on a single sector, such as the promotion on trade, SMEs and entrepreneurship, agriculture and rural development, infrastructure and housing. Our list of the single sector is very similar to the classification of World Bank surveys with one exception. The World Bank classification includes “local government” but we classified it as general purpose. For instance, Kommunalbanken Norway (KBN) has a public policy mandate from the central government to provide low cost financing to the Norwegian local government. KBN may be classified as a narrow mandate of local government in the World Bank survey. Yet as the mandate does not earmark funding for any single development purpose, we tend to classify it as the general purpose DFI.

Another 9% have the mission of targeting multiple sectors. For example, the Bank Pembangunan Malaysia Berhad (BPMB) is mandated to provide medium- and long-term finance for the development of the Malaysian infrastructure, maritime, technology, and oil & gas sectors (Malaysia, 1973). Yet the World Bank surveys did not include the category of the multisector mandate, which may have been lumped together with the category of the general purpose.



As far as the sectoral distribution of the single-sector DFIs is concerned, the World Bank surveys show divergent outcomes as the sample selection may be biased since not all NDBs voluntarily report data. The 2012 survey showed that agriculture had the largest share of about 25% followed by SMEs (23%), whereas infrastructure accounted for a small share of 8%. By contrast, the 2017 survey showed that SMEs had the largest share of about 31%, followed by infrastructure at 27%.

Our database is a more comprehensive list of NDFIs, which may help to present a fuller picture. Figure 5 shows that the top single sector focus is SMEs and entrepreneurship (29.48%), followed by trade (30.06%), agriculture and rural development (21.97%), housing (11.56%), and infrastructure (4.05%).

A closer look at the distribution of sectoral focus

by different income levels reveals some interesting patterns.

### **A majority of trade-focused NDFIs are concentrated in HICs.**

Table 2 shows that a majority of trade-focused DFIs are concentrated in HICs. Moreover, as countries advance to higher development stages, trade-focused DFIs are becoming more and more important. This pattern appears puzzling, as one may argue that HICs with full-fledged financial systems and competitive industries do not need export-import banks to promote national trade. Yet a close examination of the U.S. Ex-Im Bank established in 1934 reveals that it is still regarded as “a continuing solution for imperfections in U.S. financial markets” (Rodriguez 2001, 4), especially when it comes to the support of small exporters in

risky developing countries to which private finance fail to provide financing. Moreover, the U.S. Ex-Im Bank has been deployed as a key instrument for “national economic defense”, as Lawrence H. Summers, the former Secretary of the U.S. Treasury, claims that “Just as the real virtue of a strong military is that can it prevent wars, the virtue of maintain a strong and credible Ex-Im Bank is that it can help to deter abusive subsidies by other countries – and to reduce the chance that the U.S. will need to resort to costly subsidies.” (Summers 2001, 257)

Another interesting pattern is that infrastructure-focused DFIs carry more weight in middle-income economies compared with high-income and low-income ones. This pattern may be explained by the fact that HICs have more alternative infrastructure financing options to meet less demanding financing needs. For instance, municipal bonds and public-private partnerships become viable options of financing infrastructure as capital markets and commercial banking mature.

**Infrastructure-focused DFIs carry more weight in middle-income economies compared with high-income and low-income ones.**

**Table 2 NDFI's Single-Sector Focus with Income Level analysis**

Single-Sector	High income		Upper middle income		Lower middle income		Low income	
Trade	32	61.54%	11	21.15%	8	15.38%	1	1.92%
SMEs and Entrepreneurship	20	39.22%	14	27.45%	15	29.41%	2	3.92%
Agriculture and Rural Development	8	20.51%	15	38.46%	12	30.77%	4	10.26%
Housing	4	20.00%	9	45.00%	6	30.00%	1	5.00%
Infrastructure	1	14.29%	2	28.57%	4	57.14%	0	0.00%
Others	0	0.00%	4	80.00%	1	20.00%	0	0.00%

## ■ Distribution by Income Levels

**The distribution of NDFIs shows an interesting inverted-U shape across different development stages.**

In terms of the distribution of NDFIs by income levels, Figure 6 shows an interesting inverted U-shape across different development stages. A majority of NDFIs (more than 60%) are concentrated in middle-

income economies, whereas only about 8% are located in LICs around 30% in high-income economies. On average, each high-income economy has 1.58 DFIs, upper-middle-income 2.7, lower-middle-income 2.8, and low-income 1.03. One possible explanation is that there might be less demand for development financing in high-income economies. Another explanation may be that DFIs are less likely to be successful in low-income economies for two reasons: one is that sovereign creditworthiness of low-income economy governments is often too poor for national DFIs to rely on to raise funds in capital markets; the other is that it is more challenging for DFIs to maintain sufficient operational autonomy in countries with poor governance.

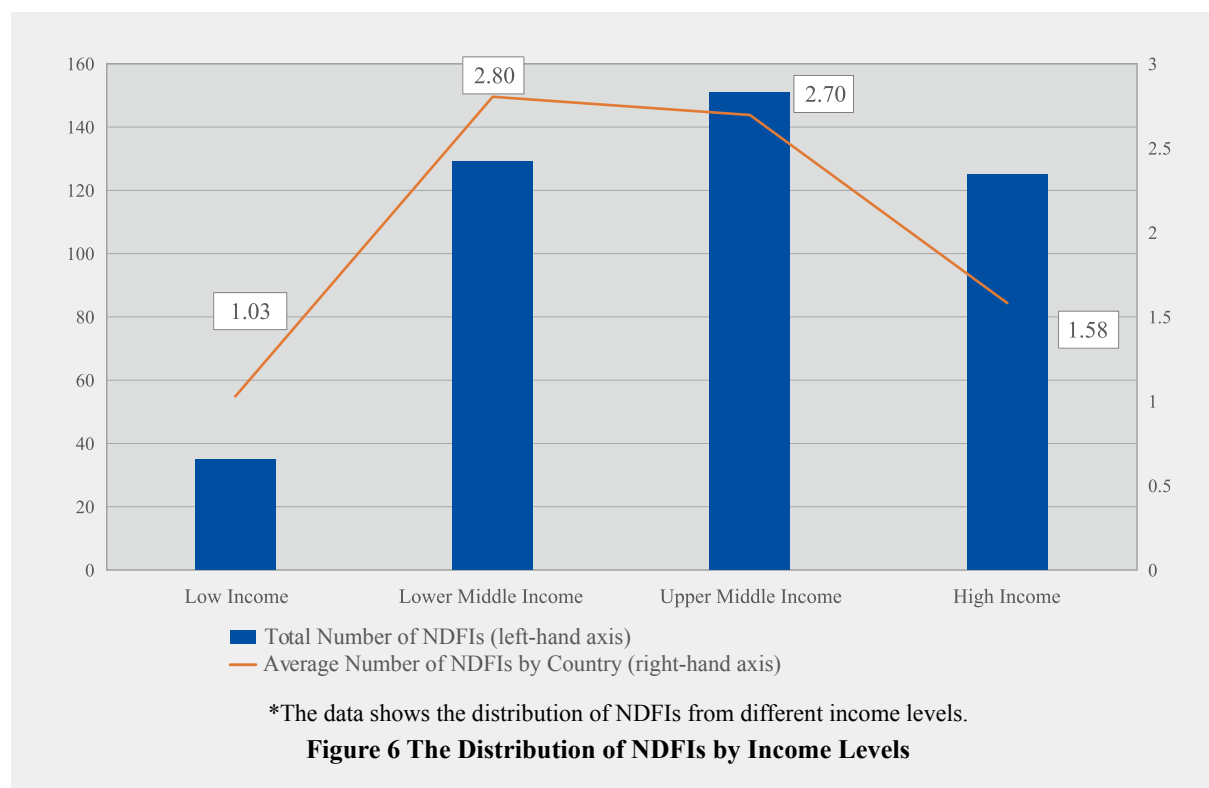


Table 3 shows descriptive statistics of the number of DFIs by income levels. It reveals that DFIs are most prevalent in lower middle income countries – about 80% of lower middle income countries have DFIs. By contrast, only 60% of HICs have DFIs. It also indicates that the maximum number of DFIs in upper middle incomes is as big as 14, followed by 12 in lower middle income countries. This stands in sharp contrast with 4 in LICs and 7 in HICs. It further shows that the variation in the number of DFIs is much greater in MICs than HICs and LICs. Within the middle-income group, some economies have relatively more DFIs

whereas a few economies have as few DFIs as those in high-income economies and low-income economies. It will be interesting to empirically investigate what explains variation in the number of DFIs within the middle income group and across income levels.

In summary, based on the first-hand data, we have systematically presented basic patterns of DFIs in terms of geographical distribution, establishment years, official missions, and distribution by income levels.

**Table 3 NDFI number with Income Level analysis**

Income Group	The Number of Countries with NDFIs	Total Number of Countries	The Percentage of Countries with NDFIs	Std. Dev.	Min	Max
HICs	47	79	59.49%	1.77	0	7
UMICs	22	34	64.71%	3.31	0	14
LMICs	37	46	80.43%	3.09	0	12
LICs	39	56	69.64%	1.09	0	4

## VI. Conclusion and Future Directions of Research

The world is witnessing a worldwide DFI renaissance. In the wake of the recent global financial crisis, both academics and policymakers are recognizing the potent role of DFIs in providing countercyclical lending, promoting structural transformation, filling infrastructure financing gaps, combating climate change, and fostering green growth. DFIs are needed to fix market failures, incubate markets, and speed up industrialization. Their roles are adapting to changing needs at different stages of development.

Despite their importance in practice, however, little academic research is available to systematically examine the different roles, operations, and effectiveness of DFIs. To fill the data gap, the Institute of New Structural Economics is building a new database on worldwide DFIs. Building on the existing definitions of DFIs, we have proposed the following three minimum criteria to judge whether an institution qualifies as a DFI: (a) it is a legally independent and financially self-sustaining financial institution, (b) it pursues public policy objectives development objectives, and (c) it enjoys government support. Based on this working definition, we have identified 539 DFIs worldwide after screening members of DFI and DFI-like associations and

financial institutions as well as specialized financial institutions and public banks.

Based on the firsthand data, we have presented the basic patterns of DFIs worldwide. The key findings are as follows: (a) most DFIs are at the national and subnational levels, and these account for about 93% of the total samples in comparison with multilateral ones; (b) the post-World War II era has witnessed the rise of DFIs on both multilateral and national levels, but the growth of DFIs plateaued in the 1980s and then peaked in the 1990s in the wake of the collapse of the Soviet Union before the recent emerging renaissance; (c) half of all DFIs have a general development purpose, followed by those with a single-sector focus, while there are only a few multisector-focused DFIs; (d) there is a substantial variation in sectoral focus across different stages of development, as high-income economies focus on the promotion of national trade, and middle-income economies on infrastructure and agriculture; (e) the number of DFIs across different income levels corresponds to an inverted U-shape: on average middle-income economies have more DFIs than high-income economies and low-income economies.



Moving forward, we plan to rely on publicly available official information and questionnaire surveys to systematically collect data on DFIs' ownership structures, funding sources, financial instruments, products and services, business models, operation portfolios, financial performance, governance and supervision, monitoring, evaluation, and financial regulation, and their weight in national financial systems. We will carefully design the codebook, template, and technical notes and undertake strict quality control to ensure that all data is accurate, comprehensive, and comparable across institutions and over time. This will enable us to produce a series

of thematically focused research papers on DFIs under the umbrella of the New Structural Economics Development Financing Research Report Series. Meanwhile, as our current database only contains currently operating DFIs, we plan to systematically collect information on DFIs that closed down or were commercialized in the past. It is our hope that such a systematic database-building effort will enable in-depth academic research on DFIs and make it possible to realize their full potential for promoting sustainable structural transformation and accomplishing development missions.

# Appendixes

## ■ Appendix I DFI List

Table A1 DFI Categories Worldwide

DFIs with \* are universal banks.  
DFIs in parentheses are subsidiaries of the above one or a member of the DFI group above.

Global–Level DFIs ▼

No	Name
1	World Bank Group
	(World Bank Group, International Bank for Reconstruction and Development)
	(World Bank Group, International Finance Corporation)
	(World Bank Group, Multilateral Investment Guarantee Agency)
2	International Fund for Agricultural Development

## Regional-Level DFIs ▼

No	Name in English	Name in original language	Region
3	Africa Finance Corporation	Africa Finance Corporation	Africa
4	African Development Bank	African Development Bank	Africa
5	African Export and Import Bank	African Export and Import Bank	Africa
6	Development Bank of the Central African States	Banque de Développement des Etats de l'Afrique Centrale	Africa
7	Maghreb Bank of Investment and Foreign Trade	Banque Maghrébine d'Investissement et de Commerce Extérieur	Africa
8	East African Development Bank	East African Development Bank	Africa
9	African Fund for Guarantee and Economic Cooperation	Fonds Africain de Garantie et de Coopération Economique	Africa
10	African Solidarity Fund	Fonds de Solidarité Africaine	Africa
11	The Company for Habitat and Housing in Africa	Shelter Afrique	Africa
12	The Eastern and Southern African Trade and Development Bank	The Eastern and Southern African Trade and Development Bank	Africa
13	The ECOWAS Bank for Investment and Development	The ECOWAS Bank for Investment and Development	Africa
14	The West African Development Bank	The West African Development Bank	Africa
15	Tropical Bank Ltd.	Tropical Bank Ltd.	Africa
16	Islamic Development Bank Group	Islamic Development Bank Group	Africa/ Americas/ Asia/Europe
	(Islamic Development Bank)	(Islamic Development Bank)	Africa/ Americas/Asia
	(Islamic Corporation for the Development of the Private Sector)	(Islamic Corporation for the Development of the Private Sector)	Africa/ Americas/Asia
	(State Insurance Corporation for the Insurance of Export-credit and Investment)	(State Insurance Corporation for the Insurance of Export-credit and Investment)	Africa/Asia/ Europe
17	OPEC Fund for International Development	OPEC Fund for International Development	Africa/ Americas/Asia
18	New Development Bank	New Development Bank	Africa/ Americas/ Asia/Europe
19	Arab Bank for the Economic Development of Africa	Arab Bank for the Economic Development of Africa	Africa/Asia
20	Arab Trade Financing Program	Arab Trade Financing Program	Africa/Asia/ Europe
21	Central American Bank for Economic Integration	Banco Centroamericano de Integración Económica	Americas

No	Name in English	Name in original language	Region
22	Foreign Trade Bank of Latin America	Banco Latinoamericano de Comercio Exterior S.A.	Americas
23	Caribbean Development Bank	Caribbean Development Bank	Americas
24	Development Bank of Latin America	Development Bank of Latin America	Americas
25	Financial Fund for the Development of the River Plate Basin	Fondo Financiero para el Desarrollo de la Cuenca del Plata	Americas
26	Agricultural Fund	Fondo Ganadero	Americas
27	Inter-American Development Bank	Inter-American Development Bank	Americas
28	North American Development Bank	North American Development Bank	Americas
29	Eurasian Development Bank	Eurasian Development Bank	Asia
30	The Economic Cooperation Organization Trade and Development Bank	The Economic Cooperation Organization Trade and Development Bank	Asia
31	Arab Fund for Economic & Social Development	Arab Fund for Economic & Social Development	Asia/Africa
32	European Bank for Reconstruction and Development	European Bank for Reconstruction and Development	Asia/Africa/ Europe
33	International Investment Bank	International Investment Bank	Asia/ Americas/ Europe
34	Council of Europe Development Bank	Council of Europe Development Bank	Asia/Europe
35	International Bank for Economic Co-operation	International Bank for Economic Co-operation	Asia/Europe
36	Asian Development Bank	Asian Development Bank	Asia/Oceania
37	Asian Infrastructure Investment Bank	Asian Infrastructure Investment Bank	Asia/Oceania
38	Black Sea Trade and Development Bank	Black Sea Trade and Development Bank	Europe
39	European Investment Bank	European Investment Bank	Europe
40	Nordic Investment Bank	Nordiska Investeringsbanken	Europe

## National-level DFIs ▼

No	English name	Name in original language	Country/Economy
41	Agro & Social Fund Sh.P.K.	Agro & Social Fund Sh.P.K.	Albania
42	Fund Besa Sh.A.	Fondi Besa Sh.A.	Albania
43	Algerian Development Bank	Banque Algérienne de Développement	Algeria
44	National Investment Fund	Fonds National d'investissement	Algeria
45	Development Bank of American Samoa	Development Bank of American Samoa	American Samoa
46	*Savings and Credit Bank	*Banco de Poupança e Crédito	Angola
47	*Sun Bank	*Banco Sol	Angola
48	Credit Guarantee Fund	Fundo de Garantia de Crédito	Angola
49	The Development Bank of Angola	Banco de Desenvolvimento de Angola	Angola
50	Antigua & Barbuda Development Bank	Antigua & Barbuda Development Bank	Antigua and Barbuda
51	*Bank of Pampa	*Banco de la Pampa	Argentina
52	*Bank of the Argentine Nation	*Banco de la Nación Argentina	Argentina
53	Bank of the City of Buenos Aires	Banco Ciudad de Buenos Aires	Argentina
54	Bank of the Province of Buenos Aires	Banco de la Provincia de Buenos Aires	Argentina
55	Investment and Foreign Trade Bank S.A.	Banco de Inversión y Comercio Exterior S.A.	Argentina
56	Reciprocal Guarantee Company	GARANTIZAR SGR, Sociedad de Garantía Recíproca	Argentina
57	Export Finance and Insurance Corporation	Export Finance and Insurance Corporation	Australia
58	Austria Business Service Company	Austria Wirtschaftsservice Gesellschaft	Austria
59	Austria Economic Service	austria wirtschaftsservice	Austria
60	Austrian Control Bank Inc	Oesterreichische Kontrollbank Aktiengesellschaft	Austria
61	The Development Bank of Austria	Oesterreichische Entwicklungsbank AG	Austria
62	*Atabank Jsc	*Atabank Jsc	Azerbaijan

No	English name	Name in original language	Country/Economy
63	Azerbaijan Mortgage and Credit Guarantee Fund	Azerbaijan Mortgage and Credit Guarantee Fund	Azerbaijan
64	*IPDC Finance Limited	*ইন্ডাস্ট্রিয়াল প্রমোশন অ্যান্ড ডেভেলপমেন্ট কোম্পানি অফ বাংলাদেশ লিমিটেড (আইপিডিসি)	Bangladesh
65	*Basic Bank Limited	*Basic Bank Limited	Bangladesh
66	Bangladesh Development Bank Ltd.	Bangladesh Development Bank Ltd.	Bangladesh
67	Saudi Bangladesh Industrial & Agricultural Investment Company Ltd.	Saudi Bangladesh Industrial & Agricultural Investment Company Ltd.	Bangladesh
68	Development Bank of the Republic of Belarus	Банк развития Республики Беларусь	Belarus
69	Belgian Corporation for International Investment	Société Belge d'Investissement International	Belgium
70	Belgian Export Credit Agency	Credendo	Belgium
71	Belgian Investment Company for Developing Countries	Belgian Investment Company for Developing Countries	Belgium
72	Development Finance Corporation	Development Finance Corporation	Belize
73	Bhutan Development Bank Ltd.	Bhutan Development Bank Ltd.	Bhutan
74	Royal Insurance Corporation of Bhutan Ltd.	Royal Insurance Corporation of Bhutan Ltd.	Bhutan
75	Bank of Productive Development S.A.M.	Banco de Desarrollo Productivo S.A.M.	Bolivia
76	*The Republic of Srpska Investment-Development Bank	*Investiciono-razvojna banka Republike Srpske	Bosnia and Herzegovina
77	Botswana Development Corporation Limited	Botswana Development Corporation Limited	Botswana
78	Botswana Housing Corporation	Botswana Housing Corporation	Botswana
79	Botswana Savings Bank	Botswana Savings Bank	Botswana
80	Citizen Entrepreneurial Development Agency	Citizen Entrepreneurial Development Agency	Botswana
81	National Development Bank	National Development Bank	Botswana
82	Norsad Finance Limited	Norsad Finance Limited	Botswana
83	*Bank of Amazon	*Banco da Amazônia	Brazil
84	Bank of Amazon S.A.	Banco Amazonas S.A.	Brazil

No	English name	Name in original language	Country/Economy
85	Bank of Northeast Brazil S.A.	Banco do Nordeste do Brasil S.A.	Brazil
86	Brazil Bank	Banco do Brasil S.A.	Brazil
87	Brazil Cooperative Bank	Banco Cooperativo do Brasil S.A. — Bancoob	Brazil
88	Brazilian Development Bank	Banco Nacional de Desenvolvimento Econômico e Social	Brazil
89	Cooperative Bank Sicredi S A	Banco Cooperativo Sicredi S.A. — Banco Sicredi	Brazil
90	Cresol Federation	Cresol Confederação — Cresol	Brazil
91	Far South regional Development Bank	Banco Regional de Desenvolvimento do Extremo Sul	Brazil
92	Federal Economic Caixa	Caixa Econômica Federal — Caixa	Brazil
93	The Development Bank of Minas Gerais S.A.	Banco de Desenvolvimento de Minas Gerais S.A.	Brazil
94	Bulgarian Development Bank	Българската банка за развитие	Bulgaria
95	National Bank of Economic Development	Banque Nationale de Développement Economique	Burundi
96	Urban Habitat Promotion Fund	Fonds de Promotion de l'Habitat Urbain	Burundi
97	Rural Development Bank	ធនាគារអភិវឌ្ឍន៍ជនបទ	Cambodia
98	National Investment company of Cameroun	Société Nationale d'Investissement du Cameroun	Cameroon
99	Business Development Bank of Canada	Business Development Bank of Canada	Canada
100	Export Development Canada	Export Development Canada	Canada
	(FinDev Canada)	(FinDev Canada)	Canada
101	Quebec Deposit and Investment Fund	Caisse de Dépôt et placement du Québec	Canada
102	Bank of the State of Chile	BancoEstado	Chile
103	National Institute of Agricultural Development	Instituto Nacional de Desarrollo Agropecuario	Chile
104	Production Development Corporation	Corporación de Fomento de la Producción	Chile
105	Small Business Guarantee Fund	Fondo de Garantía para Pequeños Empresarios	Chile

No	English name	Name in original language	Country/Economy
106	Agricultural Development Bank of China	中国农业发展银行	China
107	China Development Bank	国家开发银行	China
	(China–Africa Development Fund)	(中非发展基金)	China
108	China Export and Credit Insurance Corporation	中国出口信用保险公司	China
109	China–Africa Fund for Industrial Cooperation	中非产能合作基金	China
110	China–LAC Cooperation Fund	中拉合作基金	China
111	China–Latin American Production Capacity Cooperation Investment Fund	中拉产能合作投资基金	China
112	Silk Road Fund	丝路基金	China
113	The Export–Import Bank of China	中国进出口银行	China
114	Fund for the Financing of the Agricultural Sector	Fondo para el Financiamiento del Sector Agropecuario	Colombia
115	Funding Authority for Development	Financiera del Desarrollo Nacional	Colombia
116	National Development Finance	Financiera de Desarrollo Nacional	Colombia
117	National Savings Fund	Fondo Nacional del Ahorro	Colombia
118	The Bank of Foreign Trade	Bancoldex S.A.	Colombia
119	Commonwealth Development Authority	Commonwealth Development Authority	Commonwealth Of Northern Mariana Islands
120	Development Bank of Comoros	Banque de Développement des Comores	Comoros
121	National Development Bank of the Great Lakes	Banque de Développement des Etats des Grands Lacs	Congo
122	*Bank of the Cook Islands	*Bank of the Cook Islands	Cook Islands
123	Banking System for Development	Sistema de Banca para el Desarrollo	Costa Rica
124	National Bank of Costa Rica	Banco Nacional de Costa Rica	Costa Rica
125	National Institute of Cooperative Development	Instituto Nacional de Fomento Cooperativo	Costa Rica
126	People's Bank for Community Development	Banco Popular y de Desarrollo Comunal	Costa Rica



No	English name	Name in original language	Country/Economy
127	*National Bank of Investment	*Banque Nationale d'Investissement	Côte D'Ivoire
128	Real Estate Bank of Ivory Coast	Banque de l'Habitat de Côte d'Ivoire	Côte D'Ivoire
129	Croatian Bank for Reconstruction and Development	Hrvatska banka za obnovu i razvitak	Croatia
130	The Croatian Agency for SMEs, Innovations and Investments	Croatian Agency for SMEs, Innovations and Investments	Croatia
131	*Bank of Credit and Commerce	*Banco de Crédito y Comercio	Cuba
132	Development Corporation of Curaçao	Corporación para el Desarrollo de Curaçao	Curaçao
133	Development Bank of the Netherlands Antilles N.V.	Ontwikkelingsbank van de Nederlandse Antillen N.V.	Curaçao
134	Czech Export Bank	Česká exportní banka, a.s.	Czech Republic
135	Czech–Moravian Guarantee and Development Bank	Českomoravská záruční a rozvojová banka, a.s.	Czech Republic
136	Export Guarantee and Insurance Corporation	Exportní garanční a pojišťovací společnost, a.s.	Czech Republic
137	Financial Development Company	Société Financière de Développement	Democratic Republic of the Congo
138	Industry Promotion Fund	Fonds de Promotion de l'Industrie	Democratic Republic of the Congo
139	Denmark's Export Credit Agency	Eksport Kredit Fonden	Denmark
140	Investment Fund for Developing Countries	Investeringsfonden for Udviklingslande	Denmark
141	Development Fund of Djibouti	Fonds de Développement de Djibouti	Djibouti
142	Agricultural Bank of Dominican Republic	Banco Agrícola de la República Dominicana	Dominican Republic
143	National Bank of Exports	Banco Nacional de las Exportaciones	Dominican Republic
144	Reserve Bank of the Dominican Republic	Banco de Reservas de la República Dominicana	Dominican Republic
145	Bank of the Ecuadorian Social Security Institute	Banco del Instituto Ecuatoriano de Seguridad Social	Ecuador
146	National Financial Corporation B.P.	Corporación Financiera Nacional B.P.	Ecuador
147	Rural and Urban Production Development Bank	BanEcuador B.P.	Ecuador
148	The Development Bank of Republic of Ecuador	Banco de Desarrollo del Ecuador B.P.	Ecuador

No	English name	Name in original language	Country/Economy
149	Agricultural Bank of Egypt	يبرصملا يعارزلا كنبل	Egypt
150	Credit Guarantee Company	Credit Guarantee Company	Egypt
151	Export Development Bank of Egypt	تارداصل ايمنتل يبرصملا كنبل	Egypt
152	Industrial Development and Workers Bank of Egypt	Industrial Development and Workers Bank of Egypt	Egypt
153	Agricultural and Livestock Development Bank	Banco de Fomento Agropecuario	El Salvador
154	*Federation of Credit Unions and Bank of Workers	*Federación de Cajas de Crédito y de Bancos de los Trabajadores	El Salvador
155	Multisectoral Investment Bank	Banco Multisectorial de Inversiones	El Salvador
156	National Popular Housing Fund	Fondo Nacional de Vivienda Popular	El Salvador
157	Salvadoran Investment Corporation	Corporación Salvadoreña de Inversiones	El Salvador
158	Solidarity Fund for the Small Business Family	Fondo Solidario para la Familia Microempresaria	El Salvador
159	The Development Bank of El Salvador	Banco de Desarrollo de El Salvador	El Salvador
160	*Development and Investment Bank	*Development and Investment Bank	Eritrea
161	KredEx	KredEx	Estonia
162	*Eswatini Development & Savings Bank	*Eswatini Development & Savings Bank	Eswatini
163	Eswatini National Industrial Development Corporation	Eswatini National Industrial Development Corporation	Eswatini
164	Swaziland Development Finance Corporation	Swaziland Development Finance Corporation	Eswatini
165	Swaziland National Housing Board	Swaziland National Housing Board	Eswatini
166	The Industrial Development Company of Eswatini	The Industrial Development Company of Eswatini	Eswatini
167	Development Bank of Ethiopia	የኢትዮጵያ ልማት ባንክ ቢሊዝ	Ethiopia
168	Fiji Development Bank	Fiji Development Bank	Fiji
169	Fiji National Provident Fund	Fiji National Provident Fund	Fiji
170	Finnish Fund for Industrial Cooperation Ltd	Teollisen yhteistyön rahasto Oy	Finland
171	Finnvera	Finnvera	Finland
172	Municipality Finance PLC	Municipality Finance PLC	Finland

No	English name	Name in original language	Country/Economy
173	Deposits and Consignments Fund	Caisse des Dépôts et Consignations	France
174	French Development Agency	Agence Française de Développement	France
	(Promotion and Economic cooperation Company)	(Société de Promotion et de Participation pour la Coopération Economique)	France
175	Public Investment Bank	Banque publique d'investissement	France
176	The Development Bank of Gabon	Banque Gabonaise de Développement	Gabon
177	Agricultural Pension Bank	Landwirtschaftliche Rentenbank	Germany
178	Euler Hermes Inc	Euler Hermes Aktiengesellschaft	Germany
179	KfW Banking Group	KfW Bankengruppe	Germany
	(German Investment Corporation)	(Deutsche Investitions- und Entwicklungsgesellschaft mbH)	Germany
180	*Agricultural Development Bank	*Agricultural Development Bank	Ghana
181	EXIMGUARANTY Company Ghana Ltd	EXIMGUARANTY Company Ghana Ltd	Ghana
182	National Investment Bank Limited	National Investment Bank Limited	Ghana
183	Export Credit Insurance Organization	Οργανισμός Ασφάλισης Εξαγωγικών Πιστώσεων	Greece
184	Hellenic Fund for Entrepreneurship & Development	Hellenic Fund for Entrepreneurship & Development	Greece
185	Pacific Islands Development Bank	Pacific Islands Development Bank	Guam
186	Bank of Rural Development S.A.	Banco de Desarrollo Rural S.A.	Guatemala
187	National Mortgage Credit of Guatemala	Crédito Hipotecario Nacional	Guatemala
188	*National Bank of Credit	*Banque Nationale de Crédit	Haiti
189	*Honduran Bank for Production and Housing	*Banco Hondureño para la producción y la Vivienda	Honduras
190	Fund for Local Development of Honduras	Fondo para el Desarrollo Local de Honduras	Honduras
191	National Bank of Agricultural Development	Banco Nacional de Desarrollo Agrícola	Honduras
192	*MFB Hungarian Development Bank Private Limited Company	*Magyar Fejlesztési Bank	Hungary
193	Credit Guarantee	Garantiqa Hitelgarancia Zrt.	Hungary
194	Hungarian Export-Import Bank Plc.	Zártkörű Részvénytársaság	Hungary

No	English name	Name in original language	Country/Economy
195	*Idbi Bank, Ltd.	*आईडीबीआई बैंक लि	India
196	Bank of Maharashtra	Bank of Maharashtra	India
197	Export–Import Bank of India	एक्जमि बैंक	India
198	IDFC Ltd	IDFC Ltd	India
199	IFCI Limited	आई एफ सी आई लमिटेड	India
200	India SME Technology Services Ltd.	India SME Technology Services Ltd.	India
201	National Bank for Agriculture and Rural Development	National Bank for Agriculture and Rural Development	India
202	National Housing Bank	राष्ट्रीय आवास बैंक	India
203	Small Industries Development Bank of India	Small Industries Development Bank of India	India
204	*Bank Nagari	*Bank Nagari	Indonesia
205	Bank Pembangunan Daerah Jawa Barat	Bank bjb	Indonesia
206	Gedung Jamkrindo	Gedung Jamkrindo	Indonesia
207	Indonesia Eximbank	Indonesia Eximbank	Indonesia
208	PT. Multi–Infrastructure Facility	PT. Sarana Multi Infrastruktur	Indonesia
209	Agriculture Bank of Iran	عزرواشك كناب	Iran (Islamic Republic of)
210	Bank of Industry and Mine	گندعم و تغنص كناب	Iran (Islamic Republic of)
211	Cooperative Development Bank	Tose'e Ta' Avon Bank	Iran (Islamic Republic of)
212	Parsian Farda Investment and Financial Counsellors Institute	Parsian Farda Investment and Financial Counsellors Institute	Iran (Islamic Republic of)
213	Saman Bank Corporation	Saman Bank Corporation	Iran (Islamic Republic of)
214	Strategic Banking Corporation of Ireland	Strategic Banking Corporation of Ireland	Ireland
215	The Israel Export Insurance Corporation Ltd	מ"עב יזוח רחם ינוכיס חוטיבל תילארשיה הרבחה	Israel
216	Bank of Mezzogiorno	Banca del Mezzogiorno – MedioCredito Centrale S.p.A	Italy
217	Deposit and Loans Fund	Cassa Depositi e Prestiti	Italy
218	Fincredit Confapi	ASSOCONFIDI	Italy

No	English name	Name in original language	Country/Economy
219	Institute for the Agricultural Food Market	Istituto di Servizi per il Mercato Agricolo Alimentare	Italy
220	Italian Foreign Trade Company	Società italiana per le imprese all'estero SIMEST S.p.A.	Italy
221	Foreign Trade Insurance Services Company	Servizi Assicurativi del Commercio Estero	Italy
222	Development Bank of Jamaica, Ltd.	Development Bank of Jamaica, Ltd.	Jamaica
223	National Import – Export Bank of Jamaica	National Import – Export Bank of Jamaica	Jamaica
224	*The Norinchukin Bank	* 農林中央金庫	Japan
225	Development Bank of Japan, Inc.	日本政策投資銀行	Japan
226	Japan Bank for International Cooperation	国際協力銀行	Japan
227	Japan Finance Corporation	Japan Finance Corporation	Japan
228	Nippon Export and Investment Insurance	日本貿易保険	Japan
229	Jordan Islamic Bank	Jordan Islamic Bank	Jordan
230	Jordan Loan Guarantee Corporation	Jordan Loan Guarantee Corporation	Jordan
231	Development Bank of Kazakhstan	Банк Развития Казахстана	Kazakhstan
232	Fund for Financial Support of Agriculture Jsc	Fund for Financial Support of Agriculture Jsc	Kazakhstan
233	State Insurance Corporation for The Insurance of Export–Credit and Investment	KazakhExport	Kazakhstan
234	Agricultural Finance Corporation	Agricultural Finance Corporation	Kenya
235	IDB Capital Ltd	IDB Capital Ltd	Kenya
236	Industrial and Commercial Development Corporation	Industrial and Commercial Development Corporation	Kenya
237	Kenya Industrial Estates Ltd	Kenya Industrial Estates Ltd	Kenya
238	Tourism Finance Corporation	Tourism Finance Corporation	Kenya
239	Development Bank of Kiribati	Development bank of Kiribati	Kiribati
240	ALTUM	ALTUM	Latvia
241	Lesotho National Development Corporation	Lesotho National Development Corporation	Lesotho

No	English name	Name in original language	Country/Economy
242	*Liberian Bank for Development and Investment	*Liberian Bank for Development and Investment	Liberia
243	Libyan foreign Bank	ي ج ر ا خ ل ا ي ب ي ل ل ا ف ر ص م ل ل	Libya
244	Agricultural Credit Guarantee Fund	Agricultural Credit Guarantee Fund	Lithuania
245	Investment and Business Guarantees	INVEGA UAB – Investiciju ir verslo Garantijos	Lithuania
246	Guarantee Cooperative	Mutualité de Cautionnement	Luxembourg
247	Luxembourg Export Credit Agency	Office du Ducroire Luxembourgeo	Luxembourg
248	National Company of Credit and Investment	Société Nationale de Crédit et d'Investissement	Luxembourg
249	SME Cooperative	Mutualité des p.m.e.	Luxembourg
250	National Company of Participations	Société Nationale de Participations	Madagascar
251	Export Development Fund	Export Development Fund	Malawi
252	*Malaysian Industrial Development Finance Berhad	*Malaysian Industrial Development Finance Berhad	Malaysia
253	Agrobank	Agrobank	Malaysia
254	Bank Kerjasama Rakyat Malaysia Berhad	Bank Kerjasama Rakyat Malaysia Berhad	Malaysia
255	Bank Pembangunan Malaysia Berhad	Bank Pembangunan Malaysia Berhad	Malaysia
256	Credit Guarantee Corporation Malaysia Berhad	Credit Guarantee Corporation Malaysia Berhad	Malaysia
257	Export–Import Bank of Malaysia Berhad	Export–Import Bank of Malaysia Berhad	Malaysia
258	Johor Corporation	Johor Corporation	Malaysia
259	Malaysia Debt Ventures Berhad	Malaysia Debt Ventures Berhad	Malaysia
260	National Savings Bank	Bank Simpanan Nasional	Malaysia
261	Pilgrimage Fund Management Institution	Lembaga Tabung Haji	Malaysia
262	Sabah Credit Corporation	Sabah Credit Corporation	Malaysia
263	Sabah Development Bank Berhad	Sabah Development Bank Berhad	Malaysia
264	Small Medium Enterprise Development Bank Malaysia Berhad	Bank Perusahaan Kecil & Amp Sederhana Malaysia Berhad	Malaysia
265	TEKUN Nasional	TEKUN Nasional	Malaysia

No	English name	Name in original language	Country/Economy
266	Mali Development Bank	La Banque de Développement du Mali	Mali
267	National Bank of Agricultural Development	Banque Nationale De Developpement Agricole	Mali
268	Malta Development Bank	Malta Development Bank	Malta
269	Development Bank of Mauritius	Development Bank of Mauritius	Mauritius
270	Agricultural Trust Institute	Fideicomisos Instituidos en Relación con la Agricultura	Mexico
271	Capitalization and Investment Fund of the Rural Sector	Fondo de Capitalización e Inversión del Sector Rural	Mexico
272	Federal Mortgage Company S.N.C	Sociedad Hipotecaria Federal S.N.C.	Mexico
273	Financial Entrepreneurs	Financiera Emprendedores	Mexico
274	National Bank for Savings and Financial Services	Banco del Ahorro Nacional y Servicios Financieros S.N.C.	Mexico
275	National Development Bank	Nacional Financiera S.N.C.	Mexico
276	National Foreign Trade Bank	Banco Nacional de Comercio Exterior S.N.C.	Mexico
277	National Funding Authority for Agricultural, Rural, Forestry and Fisheries Development	Financiera Nacional de Desarrollo Agropecuario, Rural, forestal y Pesquero	Mexico
278	National Works and Public Services Bank	Banco Nacional de Obras y Servicios Públicos S.N.C.	Mexico
279	Federated States of Micronesia Development Bank	Federated States of Micronesia Development Bank	Micronesia (Federated States of)
280	*Capital Bank of Mongolia	*Capital Bank of Mongolia	Mongolia
281	*Trade and Development Bank (TDB) LLC	*Trade and Development Bank (TDB) LLC	Mongolia
282	Development Bank of Mongolia	Монгол Улсын Хөгжлийн Банк	Mongolia
283	Microfinance Development Fund	Microfinance Development Fund	Mongolia
284	*Agricultural Credit Group of Maroc	*Groupe Crédit Agricole du Maroc	Morocco
285	Agricultural Credit of Morocco	Tamwil El Fellah	Morocco
286	Deposit and Management Fund	Caisse de Dépôt et de Gestion	Morocco
287	Financial Company for Agricultural Development	Société de Financement pour le Développement Agricole	Morocco
288	*National Investment Bank	*Banco Nacional de Inverimento	Mozambique
289	GAPI SARL	GAPI SARL	Mozambique

No	English name	Name in original language	Country/Economy
290	*Myanma Economic Bank	*မြန်မာ့စီးပွားရေးဘဏ်	Myanmar
291	Myanmar Agriculture Development Bank	Myanmar Agriculture and Development Bank	Myanmar
292	Agricultural Bank of Namibia	Agricultural Bank of Namibia	Namibia
293	Development Bank of Namibia	Development Bank of Namibia	Namibia
294	Environmental Investment Fund of Namibia	Environmental Investment Fund of Namibia	Namibia
295	National Housing Enterprise	National Housing Enterprise	Namibia
296	SME Bank Limited	SME Bank Limited	Namibia
297	*Agricultural Development Bank	*Agricultural Development Bank	Nepal
298	Employees Provident Fund, Nepal	Karmachari Sanachaya Kosh	Nepal
299	National Investment Company Pvt. Ltd.	National Investment Company Pvt. Ltd.	Nepal
300	Nepal Industrial Development Corporation Ltd.	Nepal Industrial Development Corporation Ltd.	Nepal
301	Atradius	Atradius	Netherlands
302	BNG Bank	BNG Bank	Netherlands
303	Netherlands Development Finance Company	Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V.	Netherlands
304	NWB Bank	Nederlandse Waterschapsbank N.V.	Netherlands
305	New Zealand Export Credit Office	New Zealand Export Credit Office	New Zealand
306	The Development Bank for Production	Banco de Fomento a la Producción	Nicaragua
307	Nigerian Bank Corporation	Société Nigérienne de Banque	Niger
308	Bank of Agriculture Ltd	Bank of Agriculture Ltd	Nigeria
309	Bank of Industry Ltd	Bank of Industry Ltd	Nigeria
310	Federal Mortgage Bank of Nigeria	Federal Mortgage Bank of Nigeria	Nigeria
311	Ibile Holdings Limited	Ibile Holdings Limited	Nigeria
312	LECON Financial Services (Ltd)	LECON Financial Services (Ltd)	Nigeria
313	National Economic Reconstruction Fund	National Economic Reconstruction Fund	Nigeria



No	English name	Name in original language	Country/Economy
314	New Nigeria Development Company Ltd	New Nigeria Development Company Ltd	Nigeria
315	Nigeria Export–Import Bank	Nigeria Export–Import Bank	Nigeria
316	Odu'a Investment Company Ltd	Odu'a Investment Company Ltd	Nigeria
317	The Infrastructure Bank PLC	The Infrastructure Bank PLC	Nigeria
318	Niue Development Bank	Niue Development Bank	Niue
319	Export Credit Norway	Eksportkreditt Norge	Norway
320	Kommunalbanken AS – Norway	Kommunalbanken AS – Norway	Norway
321	The Norwegian Export Credit Guarantee Agency	Garantiinstituttet for eksportkreditt	Norway
322	The Norwegian Investment Fund for Developing Countries	The Norwegian Investment Fund for Developing Countries	Norway
323	Export Credit Guarantee Agency of Oman Saoc	Export Credit Guarantee Agency of Oman Saoc	Oman
324	Oman Development Bank	Oman Development Bank	Oman
325	Oman Housing Bank	Oman Housing Bank	Oman
326	*Bank of Khyber	*Bank of Khyber	Pakistan
327	*First Credit and Investment Bank Limited	*First Credit and Investment Bank Limited	Pakistan
328	Amz Ventures Limited	Amz Ventures Limited	Pakistan
329	House Building Finance Company Limited	House Building Finance Company Limited	Pakistan
330	Nib Bank Ltd.	Nib Bank Ltd.	Pakistan
331	PAIR Investment Company Limited	ڈیٹیل اینپمک ٹنمٹس یون رائپ	Pakistan
332	Pak Libya Holding Company (Pvt.) Limited	(ٹویوئارپ) اینپمک ایبیل کاپ	Pakistan
333	Pak–Brunei Investment Company Limited	Pak–Brunei Investment Company Limited	Pakistan
334	Pakistan Kuwait Investment Company (Private) Limited	اینپمک ٹنمٹس یون تویوک ناتسکاپ ڈیٹیل (ٹویوئارپ)	Pakistan
335	Saudi Pak Industrial & Agricultural Investment Company (Pvt.) Ltd.	Saudi Pak Industrial and Agricultural Investment Co. Ltd.	Pakistan
336	SME Bank Limited	کنیب یامی سی	Pakistan
337	Zarai Taraqiati Bank Ltd	Zarai Taraqiati Bank Ltd	Pakistan

No	English name	Name in original language	Country/Economy
338	National Development Bank of Palau	National Development Bank of Palau	Palau
339	Palestine Mortgage and Housing Corporation	Palestine Mortgage and Housing Corporation	Palestine
340	Agricultural Development Bank	Banco de Desarrollo Agropecuario	Panama
341	National Mortgage Bank of Argentina	Banco Hipotecario Nacional	Panama
342	National Development Bank	National Development Bank	Papua New Guinea
343	Agricultural Habilitation Credit	Crédito Agrícola de Habilitación	Paraguay
344	Financial Development Agency	Agencia Financiera de Desarrollo	Paraguay
345	Livestock Fund	Fondo Ganadero	Paraguay
346	National Development Bank	Banco Nacional de Fomento	Paraguay
347	Agricultural Bank	Banco Agropecuario	Peru
348	Bank of the Nation	Banco de la Nación	Peru
349	Finance Development Corporation S.A.	Corporación Financiera de Desarrollo S.A.	Peru
350	FOGAPI	FOGAPI	Peru
351	MIVIVIENDA S.A. Fund	Fondo MIVIVIENDA S.A.	Peru
352	*Development Bank of the Philippines	*Development Bank of the Philippines	Philippines
353	*Land Bank of The Philippines	*Land Bank of the Philippines	Philippines
354	*Al amanah Islamic Investment Bank of the Philippines	*Al amanah Islamic Investment Bank of the Philippines	Philippines
355	Card SME Bank	Card SME Bank, Inc.	Philippines
356	Esquire Financing Inc.	Esquire Financing Inc.	Philippines
357	Inter-Asia Development Bank	Inter-Asia Development Bank	Philippines
358	Local Water Utilities Administration	Local Water Utilities Administration	Philippines
359	Overseas Filipino Bank	Overseas Filipino Bank	Philippines
360	Philippine Export-import Credit Agency	Philippine Export-import Credit Agency	Philippines
361	Planters Bank	Planters Bank	Philippines

No	English name	Name in original language	Country/Economy
362	Queen City Development Bank	Queen City Development Bank	Philippines
363	Bank of National Economy	Bank Gospodarstwa Krajowego	Poland
364	Export Credit Insurance Corporation	Korporacja Ubezpieczeń Kredytów Eksportowych Spółka Akcyjna	Poland
365	*Portuguese Investment Bank	*Banco Português de Investimento	Portugal
366	Company for Financial Development	Sociedade para o Financiamento do Desenvolvimento	Portugal
367	Credit Insurance Company of Portugal	Companhia de Seguro de Créditos	Portugal
368	Development Financial Institution	Instituição Financeira de Desenvolvimento	Portugal
369	Investment Company	SPGM – Sociedade de investimento, SA	Portugal
370	Qatar Development Bank	Qatar Development Bank	Qatar
371	Macedonian Bank for Development Promotion	Macedonian Bank for Development Promotion	Republic of Macedonia
372	KODIT–Korea Credit Guarantee Fund	KODIT-Korea Credit Guarantee Fund	Republic of Korea
373	Korea Development Bank	산업은행	Republic of Korea
374	Korea Trade Insurance Corporation	한국무역보험공사	Republic of Korea
375	The Export–Import Bank of Korea	한국수출입은행	Republic of Korea
376	*Industrial Bank of Korea	*Industrial bank of Korea	Republic of Korea
377	NongHyup Bank of the National Agricultural Cooperative Federation	NongHyup Bank of the National Agricultural Cooperative Federation	Republic of Korea
378	Suhyup Bank of the National Federation of Fisheries Cooperatives	Suhyup Bank of the National Federation of Fisheries Cooperatives	Republic of Korea
379	FRC S.C. Romanian Fund for Counter–Guarantee S.A.	FRC S.C. Fondul Roman de Contragarantare S.A.	Romania
380	National Credit Guarantee Fund for Small and Medium Enterprises	Fondul National de Garantare a Creditelor pentru Intreprinderile Mici si Mijlocii	Romania
381	Romanian Eximbank	Romanian Eximbank	Romania
382	Romanian Loan Guarantee Fund	Fondul Roman de Garantare a Creditelor	Romania
383	Romanian Rural Credit Guarantee Fund	Fondul de Garantare a Creditului Rural	Romania

No	English name	Name in original language	Country/Economy
384	Bank for Development and Foreign Economic Affairs	Vnesheconombank	Russian Federation
385	Development Bank of Rwanda	Development Bank of Rwanda	Rwanda
386	*Development Bank of Samoa	*Development Bank of Samoa	Samoa
387	*National Bank of Samoa	*National Bank of Samoa	Samoa
388	Samoa Housing Corporation	Samoa Housing Corporation	Samoa
389	Bank of Ecuador SARL	Banco Equador SARL	Sao Tome and Principe
390	Saudi Industrial Development Fund	يدوعسلا اةيعانصل اةيعنل قودنص	Saudi Arabia
391	National Agricultural Credit Fund of Senegal	Caisse Nationale de Crédit Agricole du Sénégal	Senegal
392	National Bank of Economic Development	Banque Nationale pour le Développement Economique	Senegal
393	Development Bank of Seychelles	Development Bank of Seychelles	Seychelles
394	Housing Finance Company	Housing Finance Company	Seychelles
395	National Development Bank Ltd	National Development Bank Ltd	Sierra Leone
396	Export–Import Bank of the Slovak Republic	Exportno – importnej banke Slovenskej republiky	Slovakia
397	Slovak Guarantee and Development Bank	Slovenská záručná a rozvojová banka	Slovakia
398	Slovene Enterprise Fund	Slovenski podjetniški sklad	Slovenia
399	Slovenian Export and Development Bank	Slovenska izvozna in razvojna banka	Slovenia
400	Slovenian Regional Development Fund	Slovenian Regional Development Fund/ Slovenski Regionalno Razvojni Sklad	Slovenia
401	Somali Development and Reconstruction Bank	Bankiga Horumarinta Iyo Dib U Dhiska Soomaaliyeed	Somalia
402	Development Bank of Southern Africa	Development Bank of Southern Africa	South Africa
403	Independent Development Trust	Independent Development Trust	South Africa
404	Industrial Development Corporation	Industrial Development Corporation	South Africa
405	National Empowerment Fund	National Empowerment Fund	South Africa
406	National Housing Finance Corporation	National Housing Finance Corporation	South Africa
407	National Urban Reconstruction and Housing Agency	National Urban Reconstruction and Housing Agency	South Africa

No	English name	Name in original language	Country/Economy
408	National Youth Development Agency	National Youth Development Agency	South Africa
409	Rural Housing Loan Fund	Rural Housing Loan Fund	South Africa
410	Small Enterprise Finance Agency Ltd	Small Enterprise Finance Agency Ltd	South Africa
411	Official Credit Institute	Instituto de Crédito oficial	Spain
412	Spanish Company of Export Credit Insurance	Compañía Española de Seguros de Crédito a la Exportación	Spain
413	Spanish Financial Development Company	Compañía Española de Financiación del Desarrollo	Spain
414	Superintendence of Banks	Superintendencia de Bancos	Spain
415	*DFCC Bank PLC	*DFCC Bank PLC	Sri Lanka
416	*Regional Development Bank	*Pradheshiya Sanwardana Bank	Sri Lanka
417	Lanka Orix Leasing Company Plc	Lanka Orix Leasing Company Plc	Sri Lanka
418	Seylan Bank PLC	Seylan Bank PLC	Sri Lanka
419	*Saudi Sudanese Bank	*ينادوسلا يدوعسلا كنبل	Sudan
420	Agricultural Bank of Sudan	ينادوسلا يعارزل كنبل	Sudan
421	Al Shamal Islamic Bank	Al Shamal Islamic Bank	Sudan
422	El-Nilein Industrial Development Bank	El-Nilein Industrial Development Bank	Sudan
423	Financial Investment Bank	يلامل رامثتسل كنبل	Sudan
424	Industrial Development Bank	يعانصل ايمنتل فرصرم	Sudan
425	Omdurman National Bank	Omdurman National Bank	Sudan
426	Tadamon Islamic Bank	قظوفحم قوقحل اعيمج	Sudan
427	Workers National Bank	Workers National Bank	Sudan
428	Swedfund International AB	Swedfund International AB	Sweden
429	Swedish Export Credit Corporation	Aktiebolaget Svensk Exportkredit	Sweden
430	The Swedish Export Credit Agency	Exportkreditnämnden	Sweden
431	Swiss Export Risk Insurance	Die Schweizerische Exportrisikoversicherung	Switzerland

No	English name	Name in original language	Country/Economy
432	Swiss Investment Fund for Emerging Markets	Swiss Investment Fund for Emerging Markets	Switzerland
433	*TMB Bank Public Company Limited	*ธนาคารทหารไทย จำกัด มหาชน	Thailand
434	Bank of Agriculture and Agriculture Cooperatives	Bank for Agriculture and Agriculture Cooperatives	Thailand
435	Export-Import Bank of Thailand	ธนาคารเพื่อการส่งออกและนำเข้าแห่งประเทศไทย	Thailand
436	Government Housing Bank	ธนาคารอาคารสงเคราะห์ (ธอส.)	Thailand
437	Government Savings Bank	ธนาคารออมสิน	Thailand
438	Islamic Bank of Thailand	ธนาคารอิสลาม	Thailand
439	Secondary Mortgage Corporation	บริษัทตลาดรองสินเชื่อที่อยู่อาศัย	Thailand
440	Small and Medium Enterprise Development Bank of Thailand	ธนาคารพัฒนาวิสาหกิจขนาดกลางและขนาดย่อมแห่งประเทศไทย	Thailand
441	Thai Credit Guarantee Corporation	บริษัทประกันสินเชื่ออุตสาหกรรมขนาดย่อม (บสย.)	Thailand
442	*Tonga Development Bank	*Tonga Development Bank	Tonga
443	National Agricultural Bank	Banque Nationale Agricole	Tunisia
444	Tunisian Bank Corporation	Société Tunisienne de Banque	Tunisia
445	*Bank of Provinces	*İLLER BANKASI A.Ş.	Turkey
446	*Industrial Development Bank of Turkey	*Industrial Development Bank of Turkey	Turkey
447	*Ziraat Bank	*T.C. Ziraat Bankasi A.Ş.	Turkey
448	Credit Guarantee Fund	Kredi Garanti Fonu	Turkey
449	Development and Investment Bank of Turkey	Türkiye Kalkınma ve Yatırım Bankası A.Ş.	Turkey
450	Export Credit Bank of Turkey	Türkiye İhracat Kredi Bankasi A.Ş.	Turkey
451	Halkbank	Türkiye Halk Bankasi	Turkey
452	IS Leasing	IS Leasing	Turkey
453	VakıfBank	Türkiye Vakıflar Bankasi Tao	Turkey
454	Ziraat Participation Bank	Ziraat Katılım Bankası A.Ş.	Turkey
455	Uganda Development Bank	Uganda Development Bank	Uganda

No	English name	Name in original language	Country/Economy
456	British Business Bank	British Business Bank	United Kingdom of Great Britain and Northern Ireland
457	CDC Group plc	CDC Group plc	United Kingdom of Great Britain and Northern Ireland
458	Green Investment Group	Green Investment Group	United Kingdom of Great Britain and Northern Ireland
459	UK Export Finance	UK Export Finance	United Kingdom of Great Britain and Northern Ireland
460	National Development Corporation	National Development Corporation	United Republic of Tanzania
461	Tanzania Agricultural Development Bank	Tanzania Agricultural Development Bank	United Republic of Tanzania
462	TIB Development Bank Limited	TIB Development Bank Limited	United Republic of Tanzania
463	Export–Import Bank of the United States	Export–Import Bank of the United States	United States of America
464	*Bank of the Oriental Republic of Uruguay	*Banco de la República Oriental del Uruguay	Uruguay
465	Mortgage Bank of Uruguay	Banco Hipotecario del Uruguay	Uruguay
466	National Development Agency	Agencia Nacional de Desarrollo	Uruguay
467	National Development Corporation	Corporación Nacional para el Desarrollo	Uruguay
468	*Asaka Bank	*“Асака” давлат–акциядорлик тижорат банки	Uzbekistan
469	*The National Bank of the Republic of Uzbekistan for Foreign Economic Activity	*O‘zbekiston Respublikasi Tashqi iqtisodiy faoliyat milliy banki	Uzbekistan
470	Vanuatu Agriculture Development Bank	Vanuatu Agriculture Development Bank	Vanuatu
471	Foreign Trade Bank	Banco de Comercio Exterior	Venezuela, Bolivarian Republic of
472	National Company of Reciprocal Guarantees for Medium and Small Industry S.A.	Sociedad Nacional de Garantías Recíprocas para la Mediana y Pequeña Industria S.A.	Venezuela, Bolivarian Republic of
473	The Venezuelan Economic and Social Development Bank	Banco de Desarrollo Económico y Social de Venezuela	Venezuela, Bolivarian Republic of
474	The Joint Stock Commercial Bank for Investment and Development of Vietnam	Ngân hàng Thương mại Cổ phần Đầu tư và Phát triển Việt Nam	Viet Nam
475	The Vietnam Bank for Social Policies	The Vietnam Bank for Social Policies	Viet Nam

No	English name	Name in original language	Country/Economy
476	Vietnam Development Bank	Vietnam Development Bank	Viet Nam
477	Cooperative & Agricultural Credit Bank	بنك التعاون والائتمان الزراعي	Yemen
478	Development Bank of Zambia	Development Bank of Zambia	Zambia
479	Agricultural Bank of Zimbabwe	Agricultural Bank of Zimbabwe	Zimbabwe
480	Industrial Development Corporation of Zimbabwe Limited.	Industrial Development Corporation of Zimbabwe Limited.	Zimbabwe
481	Infrastructure Development Bank of Zimbabwe	Infrastructure Development Bank of Zimbabwe	Zimbabwe
482	Small and Medium Enterprises Development Corporation	Small and Medium Enterprises Development Corporation	Zimbabwe



## Sub-National Level DFIs ▼

No	English name	Name in the original language	Country
483	Agro Partner Sh.P.K.	Agro Partner Sh.P.K.	Albania
484	Buenos Aires Guarantee Fund	Fondo de Garantías de Buenos Aires	Argentina
485	Lower Austria Guarantees and Investments	NÖ Bürgschaften und Beteiligungen GmbH	Austria
486	Brussels Guarantee Fund	Fonds Bruxellois de Garantie – Brussels Waarborgfonds	Belgium
487	Walloon Finance and Guarantee Company for SMEs	Société wallonne de financement et de garantie des PME	Belgium
488	Guarantee Fund of the Republic of Srpska	Guarantee Fund of the Republic of Srpska	Bosnia and Herzegovina
489	*Brazilian Bank	*Banco de Brasília	Brazil
490	AgeRio State Development Agency	Agência de Fomento do Estado do Rio de Janeiro – AgeRio	Brazil
491	Alagoas Development Agency	Agência de Fomento de Alagoas – Desenvolve	Brazil
492	Amapá State Development Agency	Agência de Fomento do Estado do Amapá – Afap	Brazil
493	Amazon State Development Agency	Agência de Fomento do Estado do Amazonas S.A. – Afeam	Brazil
494	Bahia State Development Agency	Agência de Fomento do Estado da Bahia S. A. – Desenbahia	Brazil
495	Development Agency of the North Grand River	Agência de Fomento do Rio Grande do Norte S.A. – AGN	Brazil
496	Development Agency of the South Grand River	Agência de Fomento do Rio Grande do Sul – Badesul	Brazil
497	Espírito Santo Development Bank	Banco de Desenvolvimento do Espírito Santo – Bandes	Brazil
498	Goiás Development Agency	Agência de Fomento de Goiás S.A. – GoiásFomento	Brazil
499	Mato Grosso State Development Agency	Agência de Fomento do Estado de Mato Grosso S.A. – Desenvolve MT	Brazil
500	Pará State Bank	Banco do Estado do Pará S.A. – Banpará	Brazil
501	Paraná Development Agency	Agência de Fomento do Paraná S.A.	Brazil
502	Pernambuco State Development Agency	Agência de Fomento do Estado de Pernambuco S.A. – Agefepe	Brazil
503	Piauí State Development Agency	Agência de Fomento e Desenvolvimento do Estado do Piauí S.A. – Piauí Fomento	Brazil
504	Rio de Janeiro Development Agency – AgeRio	Agencia de Fomento do Estado do Rio de Janeiro S.A. – Agerio	Brazil
505	Roraima Development Agency	Agencia de Fomento do Estado de Roraima S.A.	Brazil
506	Santa Catarina State Development Agency	Agência de Fomento do Estado de Santa Catarina S/A – Badesc	Brazil

No	English name	Name in the original language	Country
507	São Paulo Development Agency	Agência de Desenvolvimento Paulista – Desenvolve SP	Brazil
508	Tocantins State Development Agency	Agência de Fomento do Estado do Tocantins S.A.	Brazil
509	Municipal Guarantee Fund for SMEs of Sofia	Municipal Guarantee Fund for SMEs of Sofia	Bulgaria
510	Antioquia Development Institute	Instituto para el Desarrollo de Antioquia	Colombia
511	Investment Bank Berlin	Investitionsbank Berlin	Germany
512	Landeskreditbank Baden–Württemberg–Development Bank	Landeskreditbank Baden–Württemberg–Förderbank	Germany
513	Development Bank for the State of North Rhine–Westphalia	Development Bank for the State of North Rhine–Westphalia	Germany
514	State Development Bank of the Free State of Saxony	Sächsische AufbauBank	Germany
515	Thuringian Construction Bank	Thüringer Aufbaubank	Germany
516	WIBank	Wirtschaft– und Infrastrukturbank Hessen	Germany
517	Delhi Financial Corporation	Delhi Financial Corporation	India
518	Gujarat State Financial Corporation	Gujarat State Financial Corporation	India
519	Haryana Financial Corporation	Haryana Financial Corporation	India
520	Jammu & Kashmir State Financial Corporation	Jammu & Kashmir State Financial Corporation	India
521	Karnataka State Financial Corporation	Karnataka State Financial Corporation	India
522	Kerala Financial Corporation	Kerala Financial Corporation	India
523	Maharashtra State Financial Corporation	Maharashtra State Financial Corporation	India
524	North Eastern Development Finance Corporation	North Eastern Development Finance Corporation	India
525	Odisha State Financial Corporation	Odisha State Financial Corporation	India
526	Punjab Financial Corporation	Punjab Financial Corporation	India
527	Rajasthan Finance Corporation	Rajasthan Finance Corporation	India
528	Tamil Nadu Industrial Investment Corporation Limited	Tamil Nadu Industrial Investment Corporation Limited	India
529	The Economic Development Corporation of Goa	The Economic Development Corporation of Goa	India
530	Uttar Pradesh Financial Corporation	Uttar Pradesh Financial Corporation	India

No	English name	Name in the original language	Country
531	West Bengal Financial Corporation	West Bengal Financial Corporation	India
532	Financial Development for Lombardy S.p.A.	Fanziaria per lo Sviluppo della Lombardia S.p.A	Italy
533	Borneo Development Corporation (Sabah) Sdn. Bhd	Borneo Development Corporation (Sabah) Sdn.Bhd	Malaysia
534	1st Valley Bank, Inc.	1st Valley Bank, Inc.	Philippines
535	Bangko Kabayan, Inc.	Bangko Kabayan, Inc.	Philippines
536	Dumaguete City Development Bank	Dumaguete City Development Bank	Philippines
537	First Consolidated Bank, Inc.	First Consolidated Bank, Inc.	Philippines
538	Fund of Small Business Credit Assistance of Moscow	Фонд содействия кредитованию малого бизнеса Москвы	Russian Federation
539	The Catalan Institute of Finance	Institut Català de Finances	Spain

## ■ Appendix II DFI Definitions

**Table A2 DFI Definitions in Academia**

Author(s)	Definition of DFIs	Journal/Book	Year
Paul E. Roberts, Jr.	“Development banks are unique financial institutions in under-developed countries, specialized in providing high-risk, long-term financing for the purpose of industrialization.”	Economic Development and Cultural Change	1971
M. O. Odedokun	“Directed credit policies are those that affect the distribution of a given quantum of credit, through government intervention in the credit market, among different categories of borrowers... DFIs have been perhaps the most common means of directing credit.”	Journal of Development Economics	1996
Beatriz Armendariz de Aghion	“Development banks are government-sponsored financial institutions concerned primarily with the provision of long-term capital to the industry.”	Journal of Development Economics	1999
Christa Hainz; Stefanie Kleimeier	“Development banks provide a so-called ‘political umbrella’ that use their leverage to influence governmental decisions and deter adverse events that would negatively affect the projects outcome.”	Journal of Financial Intermediation	2012
Sergio G. Lazzarini; Aldo Musacchio, Rodrigo Bandeira-de-Mello; Rosilene Marcon	“State-owned development banks are controlled by national governments and generally have a mandate to support local business activity.”	World Development	2015

Author(s)	Definition of DFIs	Journal/Book	Year
Ernani Torres; Rodrigo Zeidan	“National Development Banks (NDBs) were created for bridging long-term financing need in industrialized and less developed countries.”	The Quarterly Review of Economics and Finance	2016
Joao Carlos Ferraz	“... development banks as the financial or banking institutions that are controlled by national states and have mandates over market segments or specific sectors and/or over specific regions to induce growth, development and structural change.”	Efficiency, finance, and varieties of industrial policy	2017
Michael Brei; Alfredo Schclarek	“‘development banks’ refers to non-deposit-taking development banks that are owned by a local government”	The Future of National Development Banks	2018

**Table A3 DFI Definitions from the Perspective of Policymakers**

Selected Countries	DFI Definitions Given by National Central Banks
India	“DFIs provide medium to long term finance to different sectors of the economy. These institutions have been set up to meet the growing demands of particular sectors, such as export, import, rural, housing and small industries, to cater to specific needs of various sectors of the economy.”
Malaysia	“DFIs established by the government with specific mandate to develop and promote key sectors that are considered of strategic importance to the overall socio-economic development objectives of the country, including agriculture, small and medium enterprises (SMEs), infrastructure, maritime, export-oriented sector as well as capital-intensive and high-technology industries.”

**Table A4 DFI Definitions by International Organizations**

Selected International Organizations	Definition
World Bank (Diamond 1957)	The development bank is “defined as an institution to promote and finance enterprises in the private sector.”
World Bank (de Luna Martínez and Vicente 2012)	“a bank or financial institution with at least 30 per cent State-owned equity that has been given an explicit legal mandate to reach socioeconomic goals in a region, sector or particular market segment”
World Bank (2017)	“...the term DB will refer to any type of financial institution that a national government fully or partially owns or controls and has been given an explicit legal mandate to reach socioeconomic goals in a region, sector, or market segment.”
Inter-American Development Bank (Yeyati, et al.)	“...development banks are often described as financial institutions that are primarily concerned with offering long-term capital finance to projects that are deemed to generate positive externalities and hence would be underfinanced by private creditors.”
UNIDO	“Development banks are the financial arms of the State, channeling domestic savings towards medium- and long-term industrial projects.”
UN Financing for Development Office	“A salient defining feature overall is the fundamental focus of NDBs on long-term financing to projects that foster development...national development banks can be defined as financial institutions set up to foster economic development, often taking into account objectives of social development and regional integration, mainly by providing long-term financing to, or facilitating the financing of, projects generating positive externalities.”
OECD	“[DFIs] are specialized development banks or subsidiaries set up to support private sector development in developing countries. They are usually majority-owned by national governments and source their capital from national or international development funds or benefit from government guarantees. This ensures their creditworthiness, which enables them to raise large amounts of money on international capital markets and provide financing on very competitive terms.”
EDFI	“(DFIs) are specialized development banks that are usually majority owned by national governments. DFIs can be bilateral, serving to implement their government’s foreign development and cooperation policy, or multilateral, acting as private sector arms of International Finance Institutions (IFIs) established by more than one country.”

## ■ Appendix III DFI Associations and DFI-Like Associations

### 1. World Federation of Development Financing Institutions (WFDFI)

WFDFI was founded in 1979 and is made up of organizations from the AADFI, ADFIAP, ALIDE, and ADFIMI. WFDFI's mission is "to serve as the global focal point for institutions providing and promoting sustainable development finance."

Source: <https://wfdi.net/wfdi-issues-%E2%80%9Cthe-karlsruhe-declaration%E2%80%9D-a-message-to-rio20/>, (the web is under maintenance) accessed May 13, 2019

### 2. Association of African Development Finance Institutions (AADFI)

AADFI was founded in 1975 with support from the African Development Bank. The secretariat is located in Abidjan, Côte d'Ivoire, and it boasts 82 members. The mission of AADFI is to promote social and economic development of Africa through cooperation among DFIs and to accelerate economic integration and mutual learning.

Source: <http://www.adfi-ci.org/about.php>, accessed April 27, 2019

### 3. Association of Development Financing Institutions in Asia and the Pacific (ADFIAP)

ADFIAP was established in 1976 with support from the Asian Development Bank. It currently has 131 members in 45 countries. The secretariat is located in Manila, Philippines. The mission for ADFIAP is to promote sustainable development by enhancing the function of DFIs in the Asia-Pacific region. Source: <http://www.adfiap.org/about-us/>, accessed April 27, 2019

### 4. Association of National Development Finance Institutions in Member Countries of the Islamic Development Bank (ADFIMI)

ADFIMI was established in 1986 with support from the Islamic Development Bank. It is headquartered in Istanbul, Turkey. Currently it has 43 members in 17 countries. The mission of ADFIMI is to promote human development, trade, and economic development through the financial sector, especially by increasing the role of DFIs while respecting Islamic financial rules.

Source: <http://www.adfimi.org/main/pages/vision-mission/4>, accessed April 27, 2019

### 5. Association of Development Finance Institutions in Latin America (ALIDE)

ALIDE was founded in 1968 with support from the Inter-American Development Bank. It represents DFIs in Latin American and the Caribbean, and its headquarters are located in Lima, Peru. It has 91 members in 22 countries. ALIDE is at coordinating the exchange of information among DFIs, which contributes to the economic development of the region and builds unity.

Source: <http://www.alide.org.pe/en/alide/mision/>, accessed April 27, 2019

**6. Association of Bilateral European Development Finance Institutions (EDFI)**

EDFI was established in 1992 and represents 15 members in 14 countries in Europe. It is headquartered in Brussels, Belgium. EDFI aims to serve as a platform to facilitate knowledge sharing and cooperation among its members.

Source: <https://www.edfi.eu/who-we-are/edfi/>, accessed April 27, 2019

**7. Global Network of Export-Import and Development Finance Institutions (G-NEXID)**

G-NEXID was launched in 2006 in Geneva. The mission of G-NEXID is to promote coordination of EXIM banks and trade in the Global South, which contributes to expanding the presence of developing countries in global value chains.

Source: <https://gnexid.com/mission-statement/>, accessed 2019 April 27

**8. International Development Finance Club (IDFC)**

IDFC was established in 2011 at the annual meeting of the World Bank and IMF and with the support of DFIs such as AFD. The secretariat is located in Paris, France. The IDFC has 24 members and NDFIs in 17 countries, as well as regional DFIs in the Americas, Africa, Asia, and Europe. IDFC aims to be a platform that promotes SDGs and implements the Paris Climate Agreement agenda worldwide.

Source: <https://www.idfc.org/>, accessed April 27, 2019

**9. Southern African Development Community-Development Finance Resource Center (SADC- DFRC)**

SADC was formed in 1980 as the Southern African Development Coordinating Conference (SADCC). In 1992, the SADCC transformed to SADC, with its secretariat located in Gaborone, Botswana. Currently SADC-DFRC has 41 members. The aim for SADC is to promote peace, security, poverty reduction, and the economic development of the region and to improve the lives of people in southern Africa.

Source: <https://www.sadc.int/about-sadc/overview/>, accessed April 27, 2019

**10. European Association of Guarantee Institutions (AECM)**

AECM was established in 1992 with five founding countries – Belgium, France, Germany, Italy, and Spain. As of now, it contains 48 members covering 34 countries. The secretariat is located in Brussels, Belgium. “Its members are mutual, private sector guarantee schemes as well as public institutions, which are either guarantee funds or Development banks with a guarantee division.” The mission of AECM members is “providing loan guarantees for SMEs who have an economically sound project but cannot provide sufficient bankable collateral.”

Source: <http://aecm.eu/about/mission/>, accessed April 27, 2019

**11. European Association of Public Banks (EAPB)**

EAPB is comprised of “national and regional promotional banks, municipality funding agencies, and public commercial banks in Europe.” EAPB members provide financial support to projects which contribute to the economic and social development of the continent and to a greener economy.

Source: <https://www.eapb.eu/who-we-are/our-mission.html>, accessed April 27, 2019



### 12. Global Network of Guarantee Institutions (GNGI)

GNGI was formed in 2016 in order to alleviate the financing constraints of SMEs. The mission of GNGI is to promote guarantee institutions worldwide and to facilitate mutual learning and the exchange of experiences among members.

Source: <http://aecm.eu/wp-content/uploads/2017/08/3-Global-Network-of-Guarantee-Institutions-launching-declaration-revisionMadrid-01jun2017-final-to-be-signed.pdf>, accessed April 27, 2019

### 13. Long-Term Investors Club (LTIC)

LTIC was founded in 2009 by KFW, Caisse des Dépôts, Cassa Depositi e Prestiti, and the European Investment Bank. Currently it has 18 members covering 15 countries in Europe and Latin America. The secretariat is located in Luxembourg. The mission of LTIC is to promote coordination among international long-term investors for global economic development.

Source: <http://www.ltic.org/>, accessed April 27, 2019

### 14. Network of European Financial Institutions for Small and Medium Sized Enterprises (NEFI)

NEFI was established in 1999 and represents 19 financial institutions in Europe. It is headquartered in Brussels, Belgium. “All NEFI members share a public mission to facilitate the access to finance for SMEs.” NEFI aims to serve as a platform for mutual exchanges, knowledge transfers, access to finance for SMEs, and cooperation among its members.

Source: <http://www.nefi.eu/nefi/>, accessed April 27, 2019

### 15. OECD Export Credit Agencies (OECD-ECA)

OECD-ECA represents 36 export credit agencies in 33 countries to facilitate the “[exchange of] information on members’ export credits systems and business activities and [the discussion and coordination of] export credits policies.” ECAs help “national exporters [compete] for overseas sales.”

Source: <http://www.oecd.org/trade/topics/export-credits/>, accessed April 4, 2019

## ■ Appendix IV Technical details

Geographical scope reference: United Nations, accessed December 3, 2018  
<https://unstats.un.org/unsd/methodology/m49/>

Income level reference: World Bank, 2018 June, accessed April 1, 2019  
<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>

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