



Global Development Policy Center



INTERGOVERNMENTAL
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From Drawing Board to Reality:
The First Four Years of Operations at the Asian Infrastructure
Investment Bank and New Development Bank

*Working Paper of the G-24 & Global Development Policy Center of Boston
University*

April 2020

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Abstract

The Asian Infrastructure Investment Bank (AIIB) and New Development Bank (NDB) launched operations at the start of 2016. This study assesses their performance in four areas: membership and governance, project operations, environmental and social sustainability and finances. Both banks have quickly designed operational policies and administrative procedures, begun building their staff expertise and successfully ramped up operational financing. At the same time, AIIB and NDB are charting different paths. The AIIB is, in many ways, following the template of the existing major MDBs, although with a more streamlined, “borrower-friendly” approach and an emphasis on private sector engagement. China is the dominant shareholder and has been joined by 75 member countries from around the world by end-2019, including five of the G7 nations. NDB, on the other hand, is controlled equally by the five “BRICS” nations and thus far has no other members. NDB policies are closely aligned with borrower country views, including use of national systems to address environmental and social risks, a highly streamlined project review process and a focus on engaging with government borrowers rather than the private sector. AIIB appears better positioned financially with a AAA international bond rating, although NDB’s access to China’s growing capital market and focus on local currency lending could be beneficial to borrowers. Both banks show considerable promise in supporting sustainable infrastructure, but with significant gaps in definitions and firm commitments. A series of institutional reform options can help AIIB and NDB to better achieve the goals of their shareholders in the coming years.

Acknowledgements

The views expressed in this paper are solely those of the author, and do not represent the positions of G-24 or Boston University Global Development Policy Center. The author thanks all interviewees as well as participants at a workshop at the Blavatnik School of Government at Oxford University on AIIB, held on May 16-17, 2019 and organized by Thomas Hale and Ngaire Woods. Thanks to Amar Bhattacharya, Kevin Gallagher, Marilou Uy, anonymous peer reviewers and the senior management of AIIB and NDB for feedback on earlier drafts. All errors and omissions are the responsibility of the author.

The world is in urgent need of infrastructure investment, particularly in emerging markets and developing countries (EMDCs). Numerous studies in recent years¹ have documented the yawning gap between current investment levels and what is required to install the reliable and sustainable transportation, energy, water and communication services essential to create opportunities and build better lives. The quantity and quality of the infrastructure put in place in the coming years will go a long way toward defining the social, economic and environmental future of our planet.

Many actors have a role in this process, but one key set of players are the multilateral development banks (MDBs). MDBs have the financial capacity, technical skills and international standing to undertake the kinds of infrastructure investments that can keep our world on a socially and environmentally sustainable development trajectory. MDBs are uniquely positioned to coordinate among multiple stakeholders and help move toward a more systemic approach commensurate with the urgency and scale of this global challenge, as noted by the G20 (2018) and New Climate Economy (2018). However, the “legacy” MDBs—the World Bank and four major regional MDBs²—are limited in their financial capacity and by numerous administrative and political bottlenecks.

Two new MDBs launched operations at the start of 2016 to respond to these challenges: the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (NDB).³ Their creation represents a momentous shift in the developing finance landscape. Countries that were, until now, on the receiving end of development aid are now building new financial institutions and doing so within a cooperative multilateral framework. This is an extraordinarily hopeful development for the future of global cooperation.

This study is an effort to better understand how the “rubber has met the road” at AIIB and NDB between their creation and end-2019. Are they living up to the expectations they raised? How are they different or similar to each other, and to the legacy MDBs? Where are they lending, and what are their lending policies? How are they managed, and what is their financial position? This paper will attempt to answer some of these questions, while avoiding categorical judgments as AIIB and NDB are just beginning their operational life. The study begins with an overview of **membership and governance arrangements** at the two banks, and follows with detailed discussions of **project operations, environmental and social sustainability** and **finances**.

Input for the study comes from AIIB and NDB annual reports, financial statements, policies and project documents, as well as third-party commentary by civil society organizations (CSOs), rating agencies and media. Anonymous interviews were conducted in July and August 2019 with high-level government officials responsible for NDB/AIIB engagement from four European, three Asian countries and one African country, as well as officials from both MDBs and several CSOs.

1. Membership and Governance

One factor behind the creation of AIIB and NDB is frustration with the governance of the legacy MDBs. EMDCs for decades have complained that policy and operational decisions at the legacy MDBs have been controlled by G7 nations and the U.S. in particular. These complaints have become louder in recent years as the economic weight of many EMDCs—especially China—has grown sharply, but their voting power at the legacy MDBs has not kept pace (Figure 1). For example, Japan has almost triple

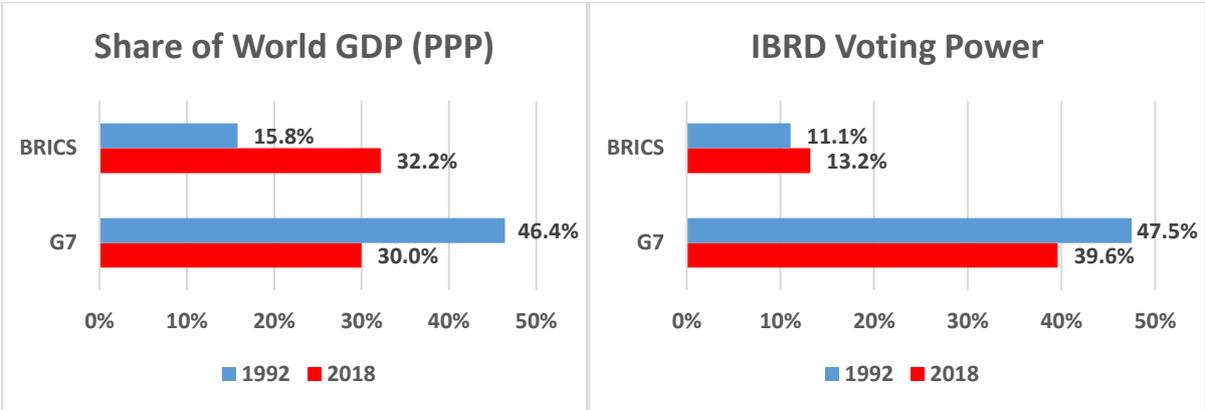
¹ Among others, see Bhattacharya et al. (2016), McKinsey (2016) and Asian Development Bank (2017a).

² Following CGD (2016), “Legacy MDBs” refers to the World Bank, African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development and Inter-American Development Bank.

³ AIIB began operations in January 2016. NDB was created as a legal entity in July 2015, and according to the NDB’s website “became fully operational” after finalizing its headquarters agreement on 27 February 2016.

the voting power of China (15% vs. 5.5%) at ADB, despite an economy about one-fifth the size, while India has similar voting power to Canada at the World Bank (2.9% vs. 2.5%) even though its economy is about 10 times larger.

Figure 1. Evolution of Economic Size and World Bank Voting Power, 1992-2018



Source: World Bank Financial Statement (1992 and 2018) and World Development Indicators (2019).

Note: Russia joined the World Bank in 1992, although its GDP data from the early 1990s is not entirely comparable to later years.

These discrepancies are understandably galling to many EMDCs. Voting power has been reformed to a degree at the World Bank (less so at the regional MDBs), but not fast enough to keep up with shifts in the global economy. AIIB and NDB were created in part to afford greater decision-making power to EMDCs. Many EMDCs consider the policies imposed by non-borrowers at the legacy MDBs to be less than optimal for achieving their development goals. This is particularly the case in relation to infrastructure, which many EMDCs badly need and which the legacy MDBs had until recently moved away from supporting (Humphrey 2015). Creating two new MDBs influenced more by EMDCs is an opportunity to design policies and approaches more in line with their views on development.

AIIB membership and governance

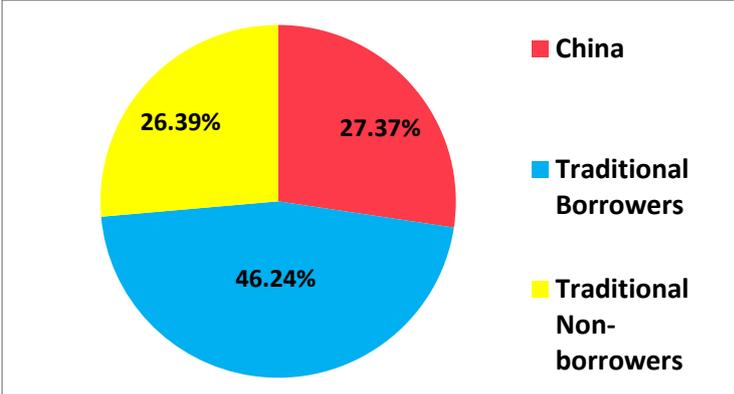
When Chinese President Xi first proposed AIIB in 2013, it was expected (in an initial stage, at least) to be a regional MDB led by China and composed of other Asian nations. However, a number of non-regional countries signed on as founding members in 2015, including wealthy nations such as U.K., France, Germany, Switzerland and Sweden. By December 2019, AIIB had a total of 76 member countries and another 26 members approved for membership. The majority of shareholders are Asian, but five of the G7 are now members, as are countries as disparate as Sudan, Rwanda, Argentina, Ecuador and Serbia. At end-2019, AIIB was the third-largest MDB in the world by membership, behind the World Bank and African Development Bank (AfDB).

AIIB’s membership represents both an impressive symbolic and political success for China, as well as a challenge for the way the bank operates. China quickly recognized the diplomatic and practical advantages of bringing in wealthy member countries, but also realized that this would change the character of AIIB. With most Asian members generally willing to follow China’s lead, the thorniest discussions in AIIB’s negotiations were between China and the European founding members. For the Europeans, installing environmental and social safeguards as well as other standards on project oversight and procurement were essential, and here China proved willing to be flexible. Also, China agreed to tone down (although only partially) the amount of operational authority it originally intended to give to the AIIB president compared to the Board of Directors. Europeans were unsuccessful in two key areas: China insisted that AIIB’s Board of Directors would be a non-resident board, and would not reduce the amount of proposed initial shareholding capital from US\$100 billion.

Beyond those issues, however, China was willing to accommodate the needs of the Europeans in return for the benefits they brought with them, including financial strength (critical to obtaining the AIIB’s AAA bond rating) and international credibility. AIIB has made this cooperation evident by hiring top officials from non-regional countries with experience at the legacy MDBs—particularly the World Bank. This included the designer of the environmental and social safeguard policies and the architect of AIIB’s Articles of Agreement (both U.S. nationals, even though the U.S. has not joined AIIB), and European officials for three of AIIB’s five vice-presidents as well as the chief risk officer. The European shareholders (now joined by Canada), in turn, have been willing to move forward with policies that are more flexible and less legalistic than at the legacy MDBs.

China is the largest shareholder of AIIB, with 27.4% of AIIB voting power (including the votes of Hong Kong, which is formally a separate shareholder) at end-2019. Other borrower members—including those outside of Asia—account for 46.2% of votes, while non-borrower nations collectively control 26.4% of AIIB votes (Figure 2). The borrower vs. non-borrower distinction is a bit murky at AIIB since all members technically can borrow from the bank. Nonetheless, the split is likely to remain relevant as the traditional non-borrower countries are more inclined to push for policies on higher environmental and social standards, tighter project oversight and a greater focus on poverty and social outcomes compared to traditional borrowers.

Figure 2. Voting Power at AIIB (December 2019)



Source: AIIB website, “Members and Prospective Members of the Bank”, accessed 10 January 2020.
Note: “Traditional borrowers” and “Traditional non-borrowers” are classified according to countries eligible and ineligible for World Bank lending as of 2019.

AIIB’s Articles of Agreement⁴ stipulate that a 75% majority of voting power at the Board of Governors is required for significant decisions such as modifying the capital structure, Board of Directors or the statutes (AIIB 2015, Article 28 [2]). Hence, China by itself has veto power over these decisions at AIIB, very similar to the 30% veto power wielded by the U.S. at the Inter-American Development Bank (IDB). Non-borrowers could theoretically piece together a veto coalition, but that would require complex coordination among 21 countries, and such a coalition would be difficult to maintain in the face of concerted Chinese pressure on an issue it deemed critical.

At the same time, shareholders report that China has been quite cautious on major policy discussions at AIIB, not using its voting power bluntly and making every effort to arrive at compromise positions that satisfy all members. One European shareholder official said: “We haven’t seen any evidence so far of China throwing weight around, given their voting power.” An official from another European member country agreed, but noted that there was concern about China asserting itself more going forward. “This is something we [the Europeans and Canada] are all nervous about,” the official said.

⁴ For a detailed account of the design of AIIB’s Articles of Agreement by its lead architect, see Lichtenstein (2018).

AIIB President Jin recently indicated⁵ that China may allow its voting power to be diluted below the 25% veto threshold when the 102 currently approved countries have formally become members, a move which would likely reassure other shareholders. Regardless, it is clear that China could easily assemble a veto coalition among allied nations and will continue to wield effective veto power.

As with the legacy MDBs, major decisions on membership, capital and over-arching policies are decided at AIIB's annual Board of Governors meetings, while most operational issues are delegated to the Board of Directors (BoD). AIIB's BoD is non-resident, and meets several times a year rather than sitting in permanent session. This is in contrast to the legacy MDBs, but in line with the approach of the European Investment Bank (EIB)—the world's largest MDB—and borrower-led MDBs like the Development Bank of Latin America (CAF). The BoD arrangements at the legacy MDBs were instituted with the purpose of giving shareholders more direct control over day-to-day MDB operations (Kapur et al. 1997), and have often been criticized as inefficient and overly politicized, not to mention expensive. China reportedly refused to compromise with AIIB's European shareholders on this issue. In part as a result, Austria, Germany and France have based AIIB representatives at their respective embassies in Beijing, to more closely monitor AIIB operations (German Federal Ministry of Finance 2019).

AIIB's shareholders have delegated more authority on day-to-day operational matters from the BoD to its president compared to the legacy MDBs. Notably, AIIB's president has the authority to approve many loans without formal board review. Several MDBs have begun in recent years adding policies to streamline board approval—often using no objection procedures—but none go as far as AIIB. The relevant regulations (AIIB 2019a) specify that the authority to approve all projects is by default delegated from the BoD to the president, and then lists specific criteria for projects where such delegation is not permitted. The main restrictions apply to first-time projects, sovereign loans above US\$200 million (to be raised to US\$300 million) and non-sovereign loans above US\$100 million (to be raised to US\$150 million) and equity investments above US\$35 million. European shareholders successfully lobbied for a provision allowing any single director to call a project in for BoD debate for any reason, as a backstop arrangement (German Federal Ministry of Finance 2019).

NDB membership and governance

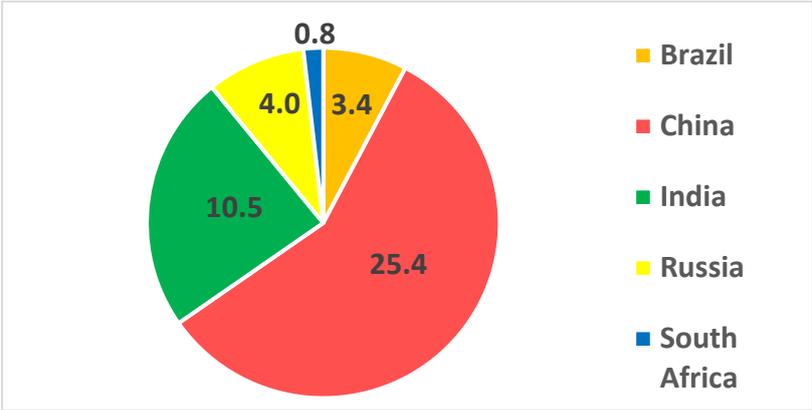
One of the most marked contrasts between NDB and AIIB is membership. NDB still has five BRICS nations as shareholders—five years after finalizing its Articles of Agreement and over two years since the approval of the formal terms and conditions for new members (NDB 2017a). According to NDB management consulted for this study, the BRICS nations preferred to design Articles of Agreement, foundational policies and institutional culture on their own terms, before letting in new members. Expansion has been a clearly stated goal, as noted in NDB's corporate strategy: "NDB must operate at scale, and that means bringing in new members beyond the founding five shareholder countries," with the aim of including a "mix of advanced, middle-income and lower-income countries" (NDB 2017b, p. 26). NDB's Articles state that all United Nations members are eligible to join the bank. New members have not been approved as of January 2020. Management interviews indicate that Board discussions are underway to expand membership, and the November 2019 BRICS Summit Leaders' Declaration included an expression of support for NDB membership expansion with no further details.

As a result, the BRICS nations are currently in complete charge of NDB governance. Unusually among large MDBs, each of the five countries contributed exactly the same amount of capital and have equal voting power. This was an important political choice and contrasts with the AIIB, which has followed a

⁵ Pres. Jin made the remarks at a public event on October 18, 2019 at Boston University's Global Development Policy Center.

shareholding model closer to the legacy MDBs, wherein wealthier nations contribute more capital and have more voting power.⁶ In so doing, NDB may have foregone a larger capital base, as China could easily have contributed substantially more capital, while others among the BRICS do not have the same economic strength (Figure 3). This trade-off between balanced governance power and maximizing potential capital is one that all MDBs must face.⁷ By prioritizing equality among the founders, NDB made a powerful statement that its approach to governance is different from AIIB and the legacy MDBs.

Figure 3. BRICS 2018 GDP (US\$ Trillions, PPP)



Source: World Development Indicators, 2019.

The risk is that, in light of potential divergent interests among the BRICS on certain issues, voting power equality could make it difficult to reach agreement on major decisions such as admitting new members, relations with other development institutions or the direction of NDB operations, as noted by He (2016, pp. 7-8). The political and economic situation of several BRICS nations has shifted sharply since NDB was first established, and the relationships among the BRICS are complex. In such a context, NDB’s governance arrangements—while admirable from a normative standpoint of equality among member nations—could hinder establishing a clear strategic direction for the bank. The fact that senior management is currently also equally divided on the basis of nationality among the five BRICS nations—in contrast to the more nationality-blind approach of AIIB—accentuates this dynamic by inhibiting the growth of an institutional identity.⁸

NDB’s governance arrangements may also be problematic for potential new members, as the BRICS have in their Articles of Agreement permanently reserved considerable governance authority for themselves. The Articles of Agreement stipulate that the BRICS will always have at least 55% of voting power and no other member can have more than 7% (NDB 2014, Art. 8). By comparison, only one of the legacy MDBs (IDB) has a higher share of votes allotted to the top five shareholders (65%), along with the EIB (74%). None of the major MDBs other than NDB guarantee a majority of voting shares for founding members, although the regional MDBs, as well as AIIB, do reserve a majority of votes for regional member shareholders. The only MDBs with a statute-mandated majority to founding members comparable to NDB are the Black Sea Trade and Development Bank and the Central American Bank for Economic Integration.

⁶ See Wang (2019) and Serrano (2018) for more on the governance contrasts between NDB and AIIB.

⁷ While most MDBs directly link capital contributions with voting power, some—like FONPLATA, Nordic Investment Bank or CAF’s Board of Directors—do not, and hence, are able to accept more capital from some members while still maintaining equal voting power. Such a decision eliminates the trade-off between voting power and capitalization, but requires some countries to accept voting power not aligned with their greater capital contributions.

⁸ See Serrano (2018) for a discussion of the contrasts between NDB and AIIB administrations.

Major decisions at NDB's Board of Governors (BoG), such as changes to the capital structure, amending the Articles of Agreement, modifying the composition and powers of the BoD and admitting new members, all require special majorities that include the support of four of the five BRICS. The BoD—also non-resident, as at AIIB—can have a maximum of ten chairs, five of which are permanently reserved for each of the BRICS (Ibid., Art. 10). The NDB president is elected by the BoG, but rotates among the five BRICS nations (Ibid., Art. 13a). Vice-presidents are also elected by the Board of Governors, but NDB must have at least four vice-presidents reserved for each BRICS nation not in control of the presidency (Ibid., Art. 13c). The president and vice-presidents also comprise the Credit and Investment Committee (CIC), which must approve all loan projects before either forwarding them on to the BoD for final approval or (for loans below a given amount) moving to implementation on a non-objection basis from the BoD (Ibid., Art. 13b ii and NDB 2016a p. 9). This means that—barring a dramatic expansion in the number of vice-presidents from the current four—the BRICS nations will control the loan pipeline.

The fact that NDB's governance arrangements are by statute dominated by the BRICS, even if membership expands, may contribute to wariness on the part of other prospective member countries. Large middle-income nations who would be potentially natural members—and would greatly contribute to NDB's international profile, capital base and loan portfolio quality—might have concerns that whatever shareholding they might be able to negotiate for themselves, their voting power would by statute remain permanently subordinate to the BRICS.⁹ A relevant parallel can be seen at CAF, a borrower-led MDB in Latin America. CAF was originally founded and fully controlled by five countries, but opened membership more broadly in the 1990s, and the founding member countries relinquished any special governance powers. This coincided with the beginning of CAF's extraordinary growth in both membership and financial capacity over the subsequent three decades.¹⁰ The BRICS nations may find—as CAF's founders did in the 1990s—that NDB's current governance arrangements prove to be a hindrance to the bank's growth prospects.

Project Financing

This section reviews aspects of project financing performance from the start of AIIB and NDB operations through December 2019: overall approvals, geographic and sectoral distribution, co-financing, public vs. private sector lending and financial terms.

Project approvals and disbursements

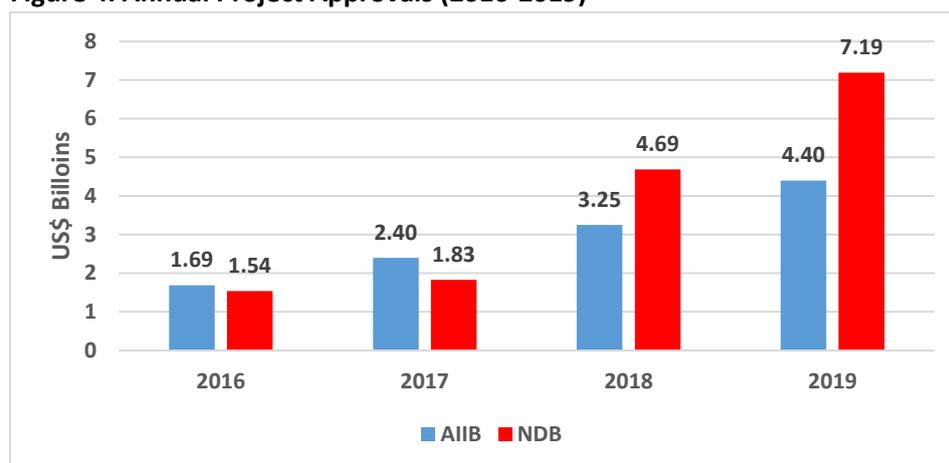
Both MDBs have gotten off the ground quickly, ramping up project approvals steadily over their first four years of operations (Figure 4). NDB initially began more slowly than AIIB, but has accelerated approvals more quickly, particularly in 2018, and then decreasing slightly in 2019. By end-2019, NDB had approved a total of US\$15.3 billion¹¹ vs. US\$11.7 billion by AIIB.

⁹ This is speculation on the part of the author. Governance arrangements are only one of several attributes a country would take into account when considering membership in an MDB. Other attributes include loan pricing, technical assistance, project approval speed and use of country systems. No interviewees from developing countries would speak for attribution on this issue, but four OECD country officials did point to the NDB's governance arrangements as an issue that would complicate membership for them.

¹⁰ See Humphrey (2016a) for an overview of CAF's growth trajectory.

¹¹ NDB project list and approval amounts are taken from data provided to the author directly by NDB. This data does not fully coincide with the data available on NDB's project website.

Figure 4. Annual Project Approvals (2016-2019)



Source: AIIB project database; NDB data supplied to author directly by NDB.

Note: Does not include two cancelled NDB projects.

Despite the higher approvals by NDB compared to AIIB thus far, NDB commitments (legally formalized financing agreements) and disbursements are considerably lower (Table 1). Of the US\$8.06 billion in financing approved by NDB by end-2018, less than US\$3 billion (37%) had been converted into commitments, while only US\$630 million (8%) had actually been disbursed. This compares to the 64% and 19%, respectively, for AIIB. According to information available from the 30 September 2019 interim financial statements, these trends have continued into 2019. NDB management argues that the slower rhythm of disbursements is because NDB is developing almost all of its projects on its own, whereas AIIB is co-financing many projects designed and negotiated by other MDBs. Another possible (and not mutually exclusive) explanation is that NDB is approving projects to which borrowers are not fully committed or are fully vetted—a problem with which many MDBs struggle. For example, two NDB loan projects—a US\$250 million loan to a state-owned bank in India and a US\$69 million loan for a road in Russia—have been cancelled, while a loan for a port project in South Africa has stopped disbursing due to procurement problems.¹² Low disbursements are a concern that NDB management says it aims to improve in the coming years.

Table 1. Cumulative Operational Outcomes, 2016-2019 (US\$ Billions)

		Approvals	Commitments	Disbursements
2016	AIIB	1.69	0.34	0.01
	NDB	1.54	0	0
2017	AIIB	4.09	2.73	0.78
	NDB	3.37	1.35	0.02
2018	AIIB	7.35	4.71	1.38
	NDB	8.06	2.97	0.63
2019	AIIB	11.74	6.87*	1.90*
	NDB	15.25	N/A	1.07*

Source: AIIB and NDB annual reports and financial statements.

N/A = Not available (to be released in spring 2020).

* Through 30 September 2019.

¹² See The Citizen (2019).

Geographic distribution

Through end-2019, NDB has approved just under 30% of its loans to China and India each (Table 2), with substantially less for Russia, South Africa and especially Brazil. The very low lending to Brazil is noteworthy. NDB management attributes this in part to Brazil’s federal system and the need for NDB to build relationships with state and local officials and point to the recent opening of regional offices in Brazil and South Africa as a step toward improving the balance of NDB’s portfolio.

Table 2. Share of Top 5 Country Recipients of Financing Approvals, to end-2019

NDB		AIIB	
India	28.4%	India	26.0%
China	27.7%	Turkey	11.9%
Russia	18.3%	Indonesia	8.0%
South Africa	15.7%	China	6.4%
Brazil	10.0%	Azerbaijan	5.1%

Source: AIIB and NDB project databases.

Note: AIIB has approved 12.8% of its total financing to pan-Asian infrastructure funds.

AIIB’s approved loan portfolio is much less concentrated compared to NDB. Project approvals were distributed across 20 countries as of end-2019, with a further 13% of approvals dedicated to funds investing in multiple countries across Asia (Table 2). India is by far the largest recipient of AIIB approvals thus far, although AIIB management indicated that it will seek to improve portfolio balance moving forward. In part, India’s large volume of loan approvals is a result of the fact that the Indian government has a substantial pipeline of finance-ready projects as part of its development agenda, which match up well with AIIB’s limited project initiation capacity at start-up. China itself has received two loans from AIIB: one for US\$250 million in 2017, and second for US\$500 million in 2019.

NDB can lend to non-members, but only under restricted circumstances requiring “material interest” to a member and a special majority vote on the board (NDB 2014, Art. 19 d and e). Thus far, NDB has not made any loans to a non-member loan,¹³ and according to NDB management, none were in the pipeline as of late 2019. AIIB’s Articles do not state that only Asian members can receive loans (AIIB 2015, Art. 11), although current policy stipulates that the bank can lend only up to 15% of approvals to non-Asian nations (AIIB 2018a). AIIB has to date made two non-Asian loans, both to Egypt for US\$319 million (a third was under preparation at end-2019 for US\$150 million), although the prospect of AIIB loans likely played a role in several non-Asian countries joining the bank, including even European nations such as Italy (Asia Times 2019).

¹³ A US\$230 million pipeline project in Lesotho was made to a South African company, with a guarantee from the South African government.

Box 1: Are AIIB and NDB banks for the Belt and Road Initiative?

One question related to NDB and AIIB is the extent to which they might be used to finance China's geopolitical strategy, particularly the Belt and Road Initiative (BRI). Considering that the BRI, AIIB and NDB were all created within a similar timeframe, and China's policymakers have had a major role in all three, it is not an unreasonable question.

Early lending patterns do not indicate that China is utilizing NDB as part of its BRI strategy. China and India are by far the largest borrowers from NDB through end-2019, accounting for 56% of total loan approvals. China is of course the funder, not recipient, of BRI investments, and India has vocally opposed BRI. Brazil is not a BRI target country while Russia and South Africa have only received 18% and 16% (respectively) of NDB loan approvals to date each. Of that, only three approved projects—a container port (US\$200 million) and a road project (US\$480 million) in South Africa and a road project in central Russia (US\$68.8 million, which has since been cancelled) could realistically be considered part of BRI*—a total of only 5% of NDB approvals thus far.

The link between AIIB lending and BRI is more difficult to assess, as almost all AIIB borrowers are linked in some way to BRI. However, early loan approval patterns do not reveal an obvious trend toward BRI. India has to date received 26% of AIIB approvals, more than twice as much as the next most-favored borrower (Turkey, with 12%). About 13.5% of AIIB total financing (nine out of a total of 61 projects) is clearly targeted to transport and communications infrastructure—mainly roads, but also ports and telecoms—that has an obvious potential link to BRI. Five of those projects are co-financed with EBRD, ADB and World Bank, suggesting that considerations beyond BRI were involved in project selection.

The preliminary evidence is of course not definitive, but it does suggest that China is not taking a short-term, direct approach to steering AIIB or NDB lending in favor of BRI. This could be a longer-term strategy on the part of China to strengthen international perceptions of AIIB and NDB independence early in their organizational lives. As well, the current financial and technical capacity of AIIB and NDB pale in comparison to China's policy banks like China Ex-Im and China Development Bank (with loan portfolios of US\$490 billion and US\$1.7 trillion at end-2018, respectively). The panorama could change as AIIB and NDB grow.

* This includes only projects in transport and communications. As per Macaes (2018), one can also consider BRI as encompassing a broader range of projects.

Co-financing and partnerships

AIIB has relied heavily on co-financing with existing MDBs, making use of their project preparation capacity, administrative procedures and environmental and social safeguard frameworks. Just under half (49%) of AIIB's number of approved projects through 2019 (41.5% of total financing) are co-financed with other MDBs, mainly the World Bank Group, ADB and EBRD, two with the European Investment Bank and one each with the Eurasian Development Bank and the Islamic Development Bank. This has allowed AIIB to build the capacity of its staff and learn from other MDBs, while still mitigating risks. The gradual decline in co-financing—from 74% of projects in 2016 to 40% in 2018, and 33% in 2019—indicates that AIIB is growing more confident in its ability to take the lead in preparing projects.

NDB has taken a different approach, relying primarily on its own staff to prepare projects and, to a lesser degree, providing financing to national development banks in member countries for on-lending. Through 2019, five out of a total of 52 NDB project approvals (8% of total financing) were to national development banks, although one of those projects (to Canara Bank in India) was subsequently cancelled before disbursing. A further seven approved projects (14.5% of total financing) were to state-owned enterprises, with almost all the remainder directly to the governments of the five shareholder countries. NDB has worked with other MDBs on four projects, and in all cases with MDBs controlled by borrower countries¹⁴—Eurasian Development Bank (EDB), International Investment Bank (IIB) and CAF. In the case of EDB and IIB, this involved a loan directly to them from NDB for on-lending to Russia, while the two CAF projects were “parallel” loans rather than co-financing.¹⁵

Both of these models involve different trade-offs. AIIB’s co-financing has the advantages of i) relying on the systems of other MDBs to mitigate project and financial risks; ii) quickly disbursing more financial resources to clients; and iii) allaying international concerns that AIIB will lower project standards. The degree to which AIIB staff are learning by working with other MDBs cannot easily be verified, but it is evident that the bank is moving quickly toward leading more projects on its own. NDB’s approach of taking on more of its own projects poses risks due to project preparation by staff just building their own capacity, and may partly explain NDB’s lower disbursements. It may, however, reap benefits in the future as NDB staff more quickly develop closer relationships with borrowers and strengthen their own capacity and internal systems. NDB’s approach of working with national development banks and smaller MDBs is also an innovation, as these institutions are often overlooked by the legacy MDBs.

While AIIB and NDB have both demonstrated a healthy trend toward cooperation on the project level, a next step is to move to a more systematic approach based on country and sector platforms involving national and international actors, as noted by G20 (2018) and the New Climate Economy (2018). AIIB made an early move in this direction by leading the creation of the Multilateral Cooperation Center for Development Finance (MCDF), a platform supported by the Chinese government and in cooperation with several other MDBs and the International Fund for Agricultural Development (IFAD).¹⁶ More initiatives like MCDF are needed by both AIIB and NDB, as well as other development institutions, if there is any hope of addressing global sustainable infrastructure gaps at the scale required.

Project sectors

The focus of both AIIB and NDB is explicitly infrastructure finance, although the AIIB’s Articles of Agreement (AIIB 2015, Article 2 [i]) and NDB’s corporate strategy (NDB 2017b, p. 21) do allow for financing in other sectors based on client needs—in “productive sectors” in the case of AIIB, and unspecified in the case of NDB. This is in line with the strong developmental orientation of China and many other EMDC governments toward economic growth, with infrastructure as a critical bottleneck. As AIIB President Jin put it, “We do not aim at direct intervention in poverty, but what we try to achieve in promoting broad-based economic and social development through investments in infrastructure and other productive sectors will make a huge difference in the overall economic situation of our members. Poverty will be reduced as a result” (Gu 2018, p. 2).

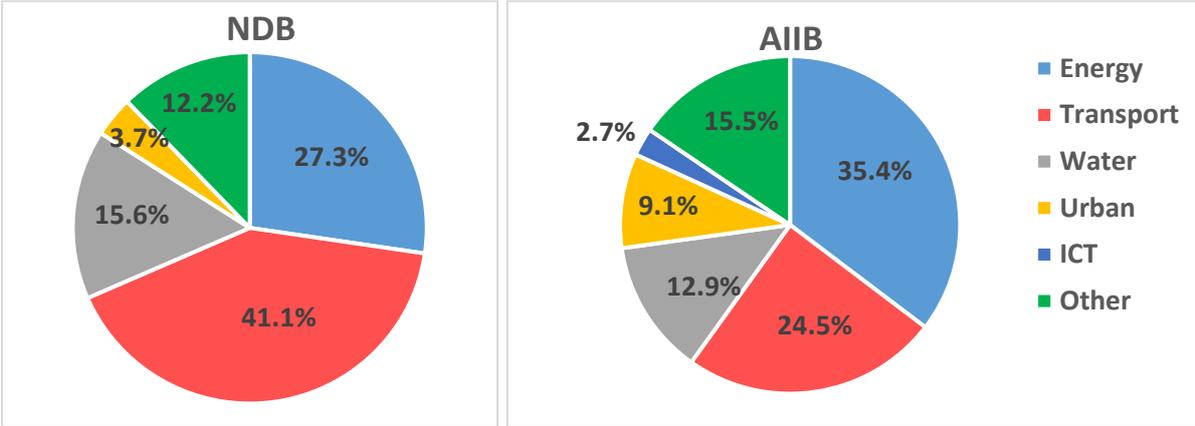
¹⁴ NDB approved a metro rail project in India in December 2019, which it states “is proposed” to be parallel financed by AsDB. As of early 2020, this could not be confirmed with AsDB directly.

¹⁵ That is, CAF and NDB worked together on project preparation and due diligence, but have separate legal agreements with the borrower (the Brazilian state of Para).

¹⁶ NDB is listed as a member, but for unclear reasons did not sign the MCDF’s MoU (MCDF, 2019). According to NDB, as of February 2020 it was in discussions with MCDF regarding formal membership.

Thus far, project approvals have followed the infrastructure focus entirely, with the exception of one project by NDB to Russia.¹⁷ Energy and transport facilities are top priorities, accounting for over two-thirds of NDB’s approvals to date and 60% of AIIB’s (Figure 5).¹⁸ Interestingly, each bank seems to be specializing to a degree, with NDB focusing more on transport, while AIIB has dedicated relatively more financing to energy. Both MDBs have said they will support a wide range of infrastructure sub-sectors, depending on borrower demand and project feasibility. AIIB has published three sector strategies—energy, transport and urban (AIIB 2018b, 2018c and undated)—and the drafts of strategies for water and ICT in 2019. This gives clearer orientation to AIIB’s operations and value proposition, and improves the transparency of its activities. NDB has not yet released sector strategies, beyond the description in its corporate strategy (NDB 2017b, pp. 20-21).

Figure 5. Sector of Approved Projects, 2016-2019



Source: NDB and AIIB project databases.

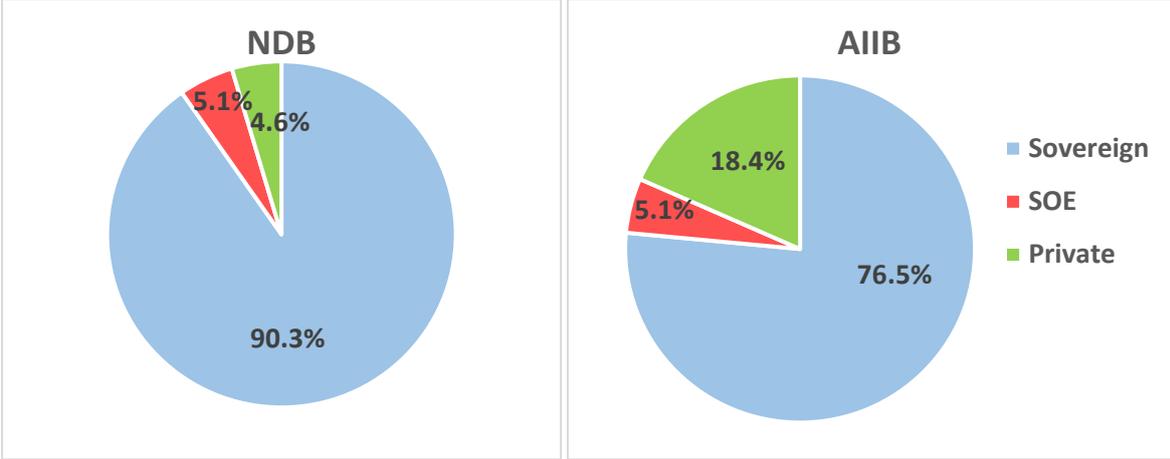
Note: “Other” includes non-infrastructure (one loan), industry (one NDB loan), social infrastructure (one NDB loan), environmental infrastructure (one AIIB loan and two NDB loans) and multi-sector infrastructure (nine financings by AIIB and one by NDB).

Public vs. private sector lending

AIIB and NDB can lend to public and private sector clients, but both have focused largely on public clients to date. Building project experience and a high-quality portfolio with public sector lending is prudent, considering the historically safe track record of MDB loans to government borrowers compared to the private sector.¹⁹ As of end-July 2019, AIIB had approved 23.5% of its loans to borrowers without a sovereign guarantee, compared to 9.7% for NDB (Figure 6). Of the eight total projects approved by NDB without a sovereign guarantee, two are to state-owned enterprises (SOEs) and three are to other multilateral development banks for on-lending to Russia. Only three projects—a US\$300 million loan to a petrochemical plant in Russia, US\$300 million to Brazil’s Vale mining corporation, and US\$100 million to a Brazilian infrastructure fund—are a fully private-sector client. For AIIB, 18 non-sovereign projects are to private sector companies or funds, while only one non-sovereign borrower is an SOE (a gas operator in Turkey).

¹⁷ US\$460 million for a judicial system support project from 2017.
¹⁸ AIIB’s financing to transport and energy is in reality higher, as five approved projects are to general infrastructure funds that emphasize energy and transport.
¹⁹ For example, the World Bank IBRD’s non-performing loan (NPL) ratio has held steady at 0.2-0.3% of the portfolio between 2012 and 2018 (Moody’s 2019a), while the World Bank’s private sector lending arm, the IFC, has averaged an NPL ratio of 4.4% over the same period (Moody’s 2018).

Figure 6. Borrower Profile of Approved Projects, 2016-2019



Source: NDB and AIIB project databases.

AIIB is committed to ramping up its engagement with the private sector as one of its operational priorities. The bank set a target of 20-25% non-sovereign approvals for 2019 (AIIB 2018d, p. 3), but the final approval number was actually a much higher 37% (US\$1.6 billion). Also, AIIB has begun to pilot financial structures related to the private sector via different types of financial funds—an innovation that the legacy MDBs themselves are only just beginning. Examples include:

- A US\$500 million ESG bond fund that purchases bonds issued by corporate infrastructure developers in Asia that comply with environmental, social and governance criteria. The aim of the fund is to promote impact bond markets and infrastructure as an asset class.
- A US\$500 million climate bond portfolio announced in September 2019 with Amundi, Europe’s largest asset manager, which will purchase climate-linked bonds to support individual projects and the broader climate bond market.
- A pan-Asian infrastructure equity fund announced in July 2019, intended to mobilize U\$3 billion in private equity to Asian infrastructure across various sectors and countries.
- An investment platform in conjunction with Singapore’s Clifford Capital formalized in November 2019 to purchase infrastructure assets off the books of existing financial institutions and package them for securitization for partial onward sale to institutional investors. This arrangement is particularly noteworthy as the legacy MDBs have attempted to move into securitization but have been restrained by shareholder resistance (Global Capital 2019).

AIIB management has indicated that it will continue pursuing innovative financial structures involving private sector actors in support of infrastructure provision. By contrast, NDB’s corporate strategy states that traditional long-term loans to sovereign borrowers will be its main operational focus in the coming years: “Most of the Bank’s projects will be either sovereign operations or under sovereign guarantee. Non-sovereign operations, particularly with the private sector, will be expanded as the operational capability of the Bank evolves” (NDB 2017b, p. 4).

Financial terms

All of NDB’s approved operations are traditional long-term loans, and most of AIIB’s are as well, apart from US\$825 million (about 10% of total) in funds and equity investments. Neither bank has yet issued any guarantees, although both have stated that they intend to. Both banks offer a flat rate to all

sovereign borrowers,²⁰ while differentiating pricing to non-sovereign borrowers based on project and borrower characteristics. Terms for fixed-rate loans offered by AIIB to sovereign borrowers are identical to the World Bank’s IBRD as of January 2020 (AIIB 2016c and World Bank 2019a).²¹ NDB loan terms are similar to AIIB and IBRD, but 5 basis points lower at higher maturities (12-20 years) (NDB undated). Front-end and commitment fee charges are identical for AIIB and NDB (Tables 3 and 4), and are the same as charged by IBRD. The fact that NDB is offering better loan terms than AIIB and IBRD on longer-maturity loans, despite a lower bond rating (and therefore likely higher funding costs), implies a strong commitment to financial competitiveness on the part of NDB. The trade-off is that, over the medium term,²² the narrower margin between NDB funding costs and the loan terms it offers to borrowers will result in lower net income, thus affecting its ability to accumulate shareholder equity.

Table 3. Components of AIIB and NDB Sovereign Lending Terms

	AIIB	NDB
Benchmark Rate	LIBOR	LIBOR
Contractual Lending Spread	0.50%	0.50%
Maturity Premium	0.0-0.5%	0.0-0.35%
Market Risk Premium	0.1-0.15%	0.05-0.15%
Cost of Funds over Benchmark	0.05-0.25%	0.10-0.35%
Total Lending Spread	0.65-1.40%	0.65-1.35%
Front-End Fee*	0.25%	0.25%
Commitment Fee**	0.25%	0.25%

Source: AIIB 2016a and NDB undated.

* One-time fee on loan principal.

** Recurring fee on undisbursed loan balances.

Table 4. AIIB and NDB Lending Spread, by Maturity

	Up to 8 years	8-10 years	10-12 years	12-15 years	15-18 years	18-20 years
NDB	0.65%	0.85%	0.95%	1.05%	1.25%	1.35%
AIIB	0.65%	0.85%	0.95%	1.10%	1.30%	1.40%

Source: AIIB 2016a and NDB undated.

NDB has said it intends to emphasize local currency lending while AIIB is focusing on US dollar lending, at least initially. Local currency lending reduces exchange rate risk, and hence is attractive to many borrowers whose revenues are also in local currency. NDB has, so far, approved local currency loans totaling 25% of its approved portfolio (US\$3.6 billion equivalent), most of which (US\$2.8 billion) has gone to China and the remainder to South Africa. NDB had by end-2019 issued two bonds in China’s capital market for a total of US\$900 million equivalent, meaning it has a large supply of yuan to on-lend, although it will have to raise more to meet the disbursement needs of the already-approved projects. Management indicated that NDB intends to launch local currency bond issues in South Africa and possibly Russia by 2020 and will start an offshore borrowing program to fund local currency

²⁰ NDB sovereign loans to non-member countries include a country risk premium, which is not included for member countries.

²¹ AIIB and IBRD both offer variable spread loans also—which offer a financial discount but also pose greater interest rate risk to borrowers—while NDB does not. AIIB’s variable spread loan rates are essentially the same as IBRD’s.

²² Both MDBs currently have far more paid-in capital than their borrowing liabilities, and paid-in capital does not have a “funding cost” in a standard financial sense (since shareholders do not expect dividends). This gives both MDBs more flexibility on setting loan prices in the short term, as they do not need to generate revenue to pay dividends to shareholders in return for their capital contributions. As the MDBs raise a larger share of their resources by borrowing on capital markets (which needs to be repaid with interest), this dynamic will change.

lending for Brazil and India within the same time frame. NDB's cost of funding in these markets will influence the cost of the loans it can offer to clients, which in turn will impact the viability of NDB's local currency lending in the medium term.

2. Green and Sustainable Infrastructure?

The sustainability of infrastructure investments is an essential underpinning to inclusive growth, the SDGs and climate change mitigation (Bhattacharya et al., 2019). AIIB and NDB have both made ambitious claims about the sustainability of their operations. AIIB officials frequently repeat their "lean, green and clean" mantra, while NDB committed to having two-thirds of approvals in the first five years be for "sustainable infrastructure" (NDB 2017b, p. 7). Evidence indicates that while AIIB and NDB have made commendable progress, in some ways surpassing the legacy MDBs, gaps remain between rhetoric and operational reality that call for considerable work in coming years meet the expectations that they have raised.

Project financing

Definitions and targets for selecting sustainable projects

Clear definitions, indicators and targets are essential for an MDB to systematically support sustainability goals through its projects. Without these, MDB staff do not have the guidance or incentives to promote sustainable infrastructure projects with borrowers or any way to measure progress. The MDB joint declaration on SDGs and the Paris Agreement—to which both AIIB and NDB are signatories—states that the MDBs will "develop tools and methods for characterizing, monitoring and reporting on the results of our Paris-alignment activities" (MDBs 2018).

AIIB has not yet defined what it means by being a "green" bank in a way that can be measured and verified, nor has it set any operational targets related to green or sustainable projects. All three AIIB sector strategies published thus far (energy, transport and urban) express strong support for environmental and sustainability concerns, but have no indicators or targets. AIIB has not set any targets for carbon emissions or renewable energy in its energy sector strategy, although it does outline a set of indicators that could be used to evaluate its performance should shareholders decide to set targets (AIIB 2018b). The transport and urban strategies include no indicators or targets related to emissions or environmental impact. AIIB has not committed to benchmarking the emissions impact of individual projects or overall portfolio, although it has proposed a methodology to evaluate emissions at the individual project level (Ibid., Annex 2).

Similarly, NDB has not followed up the commitment of two-thirds sustainable infrastructure approvals through 2021 with definitions, policies or strategies to bring this laudable commitment into reality. Thus far, NDB has neither published any sector strategies nor released any type of indicators and benchmarks related to sustainability. According to participants in a November 2018 meeting with CSOs, NDB officials said they had road-tested one method for evaluating sustainability, but had decided to continue exploring other methodologies. Since that time, NDB has made no mention of what criteria might be used to assess sustainability. Nor has NDB made other concrete commitments toward renewable energy, mass transit, efficiency or emissions targets at the project or portfolio level, although its 2018 Annual Report (p. 28) does estimate a reduction of 1.5 million tons of CO₂ emissions due to that year's investment in clean energy.

While this is disappointing, it is not substantively different from the legacy MDBs.²³ Despite progress in recent years, the legacy MDBs have shied away from establishing clear targets for emissions at the

²³ See Wright et al. (2018) for a comprehensive review of climate-related policies of the major MDBs.

project or portfolio level. For example, the ADB's Climate Change Operational Framework 2017-2030 provides an overview of an ambitious set of actions ADB intends to take in the coming years, but is notably vague on setting precise targets (ADB 2017b, p. 42). Nor have the legacy MDBs agreed to set overall portfolio emissions targets, despite pressure from climate advocates to do so. In 2017, the World Bank agreed to report on the greenhouse gas emissions of its portfolio, but at the end of 2018 stated that it would not set any emissions targets (Devex 2018). Nonetheless, the legacy MDBs appear well advanced compared to AIIB and NDB in several areas, including indicators, targets and operational approaches related to sustainability in their overall and sector strategies, as detailed by Wright et al. (2018).

AIIB and NDB have an opportunity to establish themselves as leaders in green and sustainable infrastructure, in line with their commendably strong rhetoric. To do so, it is important that they anchor their operations in a framework containing clear definitions and measurable indicators to benchmark progress. Setting project targets and establishing staff incentives are also critical, although difficult. MDBs must be responsive to their borrowers, many of whom urgently need to provide services and opportunities to a growing population. This is particularly challenging for AIIB and NDB, as they are: i) new MDBs trying to build their portfolio with limited technical expertise and staff capacity and ii) strongly committed to being more responsive to borrowers compared to the legacy MDBs. Nonetheless, if AIIB and NDB truly intend to be "green" and "sustainable", they will need to strike a balance between borrower demand and the institutional goals set by their shareholders. Operational targets are an essential component to this balance.

Sustainability of AIIB and NDB project approvals, 2016-2019

AIIB and NDB have made progress toward building a portfolio of green and sustainable project investments. In lieu of universally agreed criteria for categorizing projects as "sustainable", this paper follows the lead of Bhattacharya et al. (2019), which builds on criteria developed by the International Development Finance Club (IDFC).²⁴ The categorization below is based on project descriptions provided by AIIB and NDB. It excludes projects that do not easily fit into the defined categories (21.0% of AIIB's approvals and 14.2% of NDB's approvals), such as social sector projects or financing provided to funds that are to be on-lent for a mix of projects. The results provide an indication of the sustainability of the banks' investments to date, but are not comprehensive.

In aggregate terms, 50.4% of AIIB's infrastructure investments to end-2019 classify as sustainable, compared to 60.4% for NDB. This compares well to IDB and ADB, which in 2018 dedicated only 21.7% and 39.1% of their approvals to sustainable infrastructure projects (Table 5). The comparison is not entirely fair however, as AIIB and NDB are both infrastructure banks, while IDB and ADB orient large shares of their annual approvals to projects in social and other sectors. As a share of just infrastructure lending, IDB and ADB approved 77.1% and 61.9% of their 2018 projects to sustainable infrastructure. Nonetheless, the performance of AIIB and NDB is a strong signal of their commitment to sustainable infrastructure.

²⁴ See Bhattacharya et al. (2019) Annex 1 for a fuller discussion of the methodology.

Table 5. Sustainable Infrastructure Approvals Comparison

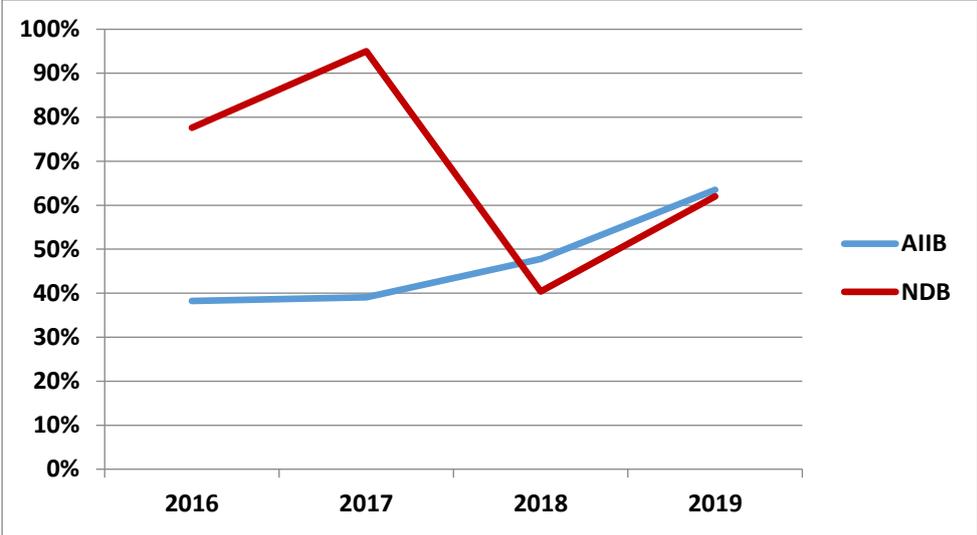
	AIIB (2016-2019)	NDB (2016-2019)	IDB (2018)	ADB (2018)
Sustainable Infrastructure Approvals (US\$ billions)*	4,675.1	7,813	3,088	8,442
As % of total infrastructure	50.4%	60.4%	77.1%	61.9%
As % of total approvals	39.8%	51.2%	21.7%	39.1%

Source: Based on MDB project descriptions following methodology of Bhattacharya et al. (2019).

* Includes only physical infrastructure investment, and does not include policy loans in infrastructure sectors.

AIIB has gradually increased its share of sustainable projects from 38% in 2016 to 49% in 2018 and 63.5% in 2019 (Figure 7). NDB, on the other hand, started very strongly, dropped off sharply and rebounded: 77% in 2016, rising as high as 95% in 2017, dropping to 40% in 2018 and recovering to 62% in 2019. Both MDBs have prioritized sustainable projects in the energy and water sectors, with transport in third place—largely due to support to road projects that do not qualify as sustainable under the IDFC criteria.

Figure 7. Share of Infrastructure Approvals Categorized as Sustainable, 2016-2019



Source: Based on MDB project descriptions and following methodology of Bhattacharya et al. (2019).

The energy sector is particularly important for sustainability, due to the huge impact of energy projects on emissions for several decades into the future, as well as immediate social and environmental impacts. NDB has made the most progress to date in moving away from carbon-based energy, with an impressive 73.8% of energy loans through 2019 to renewable energy projects.²⁵ This exceeds the 60% target set by President Kamath (NDB 2016b), and is a substantial achievement compared to other MDBs. For example, about 37% (US\$1.7 billion) of energy sector lending by the World Bank (IBRD and IDA) in FY 2017 was for renewable energy. However, the NDB trend is declining: after dedicating 58% of all project approvals in 2016 to renewable energy, the share dropped to 14% in 2017 and 10.4% in 2018, before rebounding to 15% in 2019. AIIB is less focused on renewables thus far, with about 35% of energy sector approvals for renewable energy sources through 2019. Further, about 40% of AIIB’s renewable energy commitments have been for hydroelectric installations, which are frequently

²⁵ This number includes a US\$250 million to India that has subsequently been cancelled as well as a US\$180 million loan to South Africa that dedicates a portion to transmission systems for renewable energy.

problematic for environmental and social sustainability.²⁶ By contrast, NDB's renewables portfolio is almost entirely in solar, wind and storage facilities, with only one hydro project.

Neither NDB nor AIIB have ruled out funding coal-based energy projects. This may have had some justification when the banks were on the drawing board, but the rapidly evolving science around emissions levels as well as the sharply improving viability of alternative energy sources make it much more questionable now. The legacy MDBs have long been resistant to phasing out coal, but that appears to be shifting. The African Development Bank committed in the fall of 2019 to phasing out coal projects (AfDB 2019), and the European Investment Bank a month later announced it would exit fossil fuel support entirely by 2021 (EIB 2019). IFC has also proposed a coal phase-out, although it has not yet been approved by shareholders (Senani and Pred 2019).

AIIB and NDB have both stated that they will avoid funding coal-based projects, and, when doing so, only utilize technology that would reduce emissions from the borrower country's current level. As a senior NDB official put it, "If you have plan for renewable energy, we will finance that. But coal generation is still going on around the world. What we try to do is support the countries so that they can move marginally away from higher carbon energy sources." Each bank has provided financing to projects linked to coal. AIIB (via an IFC fund that AIIB invested in) is backing an energy-intensive cement plant in Myanmar that sources its power from coal (BIC Europe 2018), and NDB financed contaminant cleaning equipment to a controversial²⁷ coal plant in South Africa as well as to transmission facilities that at least partially support coal-based electricity.

Most of the remaining energy sector projects for both MDBs are oriented toward natural gas. In some cases, projects shift energy generation from coal to natural gas—an improvement in terms of emissions, but nonetheless disappointing for those hoping to see more commitment to renewables (BIC Europe 2019 and Boell Foundation 2019). At AIIB, European shareholder officials stated that this is a top priority for them in the coming years, and an important topic of discussion at the recent AIIB annual meeting in July 2019. "We'd like to see more green financing overall," said one European official. "We are pushing for that and we will continue to do so." NDB has faced less pressure from its own shareholders, and is more circumspect about sustainability or achieving the two-thirds target set in its strategy. One top NDB official stated: "To be frank, that's a goal that we try to move toward, but in quantitative terms I cannot say we will achieve two-thirds."

The fact that AIIB and NDB fund projects that are not categorized as sustainable according to the criteria above does not mean the projects are not legitimate and developmentally useful. As cooperative banks, AIIB and NDB—like all MDBs—have an obligation to assist their borrowers reach pressing development targets. While renewable energy should be a priority in light of AIIB and NDB's commitment to the Paris Agreement, they must balance other considerations, including the urgent need to expand electricity coverage and work with transmission systems designed for traditional power sources. Similarly, mass transit and rail should be priorities in the transport sector, but AIIB and NDB cannot ignore the pressing need of a country like India to expand its road network and provide economic opportunities for the rural poor. The ability of both banks to contribute to the Sustainable Development Goals suggests taking a broader view of what constitutes "sustainable", moving beyond just environmental criteria to include social impacts as well. But if AIIB and NDB are to live up to their

²⁶ Hydroelectric facilities can generate substantial methane due to deforestation and lead to loss of water, habitat and livelihood, among other problems (Bhattacharya et al. 2019, p. 43).

²⁷See for example Reuters (2019a) and BBC (2019). In light of the financial difficulties facing South Africa's Eskom Utility (losses of US\$1.5 billion in 2018 and US\$30 billion in debt), the approval of two NDB loans to Eskom for US\$660 million seems risky in financial as well as environmental terms.

commitments to the Paris targets, more needs to be done going forward in the area of environmental sustainability.

Environmental and social protection policies

Starting in the 1980s, MDBs instituted environmental and social safeguard policies to reduce the negative impacts of their projects. These policies require borrower countries to go beyond their own national legislation and regulations when implementing MDB projects. NDB and AIIB have taken different approaches to environmental and social protection issues compared to legacy MDBs, and compared to one another. NDB prioritizes the use of a country's own legislation and regulations, and will only intervene with additional requirements in cases where it considers the national framework to be inadequate. AIIB initially appeared to be moving in the same direction, but negotiating by the UK and other European nations joining AIIB²⁸ shifted those plans. The result is a set of AIIB safeguards similar, in many ways, to those of the legacy MDBs, although less prescriptive and with a degree of flexibility more in tune with the views of borrower countries. Both approaches have the potential to help shift the long-running debate on these conflictive issues in the broader development community, but doing so will critically depend on how policies are implemented.

AIIB²⁹

AIIB utilizes a suite of three environmental and social standards within an overall Environmental and Social Framework (ESF) policy (AIIB, 2019c). The policy was issued in 2016, and a process of public consultations and review was launched in early 2020. The policy was designed largely by a former top World Bank safeguards specialist, and borrows many aspects and language from the safeguard frameworks of the legacy MDBs. The ESF has three safeguard standards: environment, involuntary resettlement and indigenous peoples. To determine safeguard applicability, AIIB categorizes each project in one of four categories (Ibid., p. 10):

- Category A: Significant adverse environmental and social impacts that are irreversible, cumulative, diverse or unprecedented. Impacts may affect an area larger than the project sites and may be temporary or permanent in nature.
- Category B: Limited number of potentially adverse environmental and social impacts; few if any impacts are irreversible or cumulative; they are limited to the project area; and can be successfully managed using good practices.
- Category C: Minimal or no adverse environmental or social impacts.
- Category FI: Funds provided to a financial intermediary who must follow similar procedures.

The AIIB's ESF details the requirements for each category, including contents of required studies or plans, consultations, public disclosures, monitoring and oversight, grievance mechanism and decision-making steps, among others. It covers much of the same ground as the World Bank's new ESF (World Bank 2017), but is more in line with borrower desires for greater flexibility and speed, and fewer ex-ante requirements. Areas of difference in comparison to the World Bank's ESF include:

- **AIIB permits projects to move ahead in certain circumstances, even if full impacts are not clear** by using a "framework" approach (AIIB 2019c, pp. 17-18, 39 and 43). The World Bank's ESF has similar provisions, but is more categorical in ensuring all plans and actions have been approved by the Bank before moving ahead. AIIB also permits a "**phased approach**" in vaguely

²⁸ Based on interviews with members of the AIIB negotiating delegations (four non-borrower European nations and one borrower Asian nation) as well as a member of AIIB's secretariat during the negotiations.

²⁹ For two detailed analyses of AIIB environmental and social policies from a civil society perspective, see Germanwatch 2019 and Boell Foundation 2019.

defined circumstances, by which borrowers undertake required actions following project approval (Ibid., pp. 18-19). The World Bank's ESF has no similar provision.

- The **timeline for the public release of information** is similar to the World Bank's ESF, with draft environmental and social documentation to be released prior to appraisal for sovereign-guaranteed projects and just after for non-sovereign projects (AIIB 2019d p. 7-8). However, AIIB management can defer disclosure for legal or commercial reasons at its own discretion (AIIB 2019c, p. 21), which is not permitted in the World Bank's ESF. Whether this provision will be used extensively remains to be seen.
- AIIB's **policy on indigenous peoples** requires that in certain circumstances the client must undertake "free, prior and informed consultations" with the support of independent experts (Ibid., pp. 44-45). The World Bank's ESF, by contrast, requires that in similar circumstances the borrower must *obtain* "free, prior and informed consent" (World Bank 2017, pp. 79-80). Obtaining consent is a considerably higher hurdle than merely undertaking consultations.
- Projects undertaken via **financial intermediaries** (a significant portion of AIIB operations; and expected to grow in the future) are categorized as "FI", which partially delegates responsibilities to the borrower (Ibid., p. 10). This contrasts with the more rigorous approach of the World Bank's IFC to managing environmental and social risks with financial intermediaries, which has been under implementation since 2014 (IFC 2015). IFC's policy includes annual mandated sampling of sub-projects to review compliance as well as intensive investment to train borrowers in E&S standards and procedures.

CSOs have pointed out what they perceive as weaknesses in AIIB's approach to environmental and social issues, and have pressured the bank—particularly its non-borrower shareholders—to strengthen the ESF. "[The ESF] is driven by laudable principles but lacks clear and mandatory implementation rules." (Germanwatch 2019, p. 37). Another CSO review concludes: "A close reading of the ESF shows that there is plenty of latitude to handle 'mandatory' requirements in a rather flexible manner." (Boell Foundation, p. 25).

European shareholder officials consulted for this study appear relatively comfortable with AIIB's policies at this stage. In part, this is driven by a recognition that these issues had become major political battlegrounds at the legacy MDBs. "There's a feeling that this is a chance to try a new approach, and we are open to staying flexible and seeing how well it goes," said the AIIB desk officer for one European country. "We could have spent quite a bit of time tweaking policies. Let's get it to be as good as we can and get using it rather than spending ages battling at the board." An AIIB desk officer from another European country said, "We are reasonably comfortable [with the ESF], but we learn as we go along. Proof is in implementation, and that's going on as we speak." One AIIB borrower country official felt that the ESF was strong, and praised AIIB staff as highly pro-active in addressing social concerns about project-related involuntary resettlement.

Out of 61 projects approved as of end-2019 by AIIB, 30 use the safeguard framework of other MDBs (Table 6). For the 29 projects using AIIB's own ESF,³⁰ 14 are category "B", five category "A", and ten categorized as FI. For the 19 A and B category projects, all documentation required by the ESF policy is currently available on AIIB's website, although no information is available on the FI projects. It is not possible to ascertain when during AIIB's appraisal process these documents were made public, and therefore what opportunity affected people may have had to inform themselves and take action about the social and environmental risks they face.

³⁰ Two investments are bond funds set up by AIIB related to ESG and climate criteria, which have no separate safeguard rating.

Table 6. Breakdown of Approved AIIB Project Safeguard Categorizations, 2016-2019

Safeguard Categorization	Co-Financier	Number of Projects
Co-Financing Operations Using Other Safeguard Frameworks	World Bank Group	22
	ADB	5
	EBRD	2
	EIB	1
AIIB Category A		5
AIIB Category B		14
AIIB Category C		0
AIIB Category FI		10

Source: AIIB project database.

One aspect of AIIB’s current organizational arrangements that could complicate oversight of ESF implementation is the fact that AIIB has no in-country offices, but is run entirely from the Beijing headquarters. AIIB management has indicated that it is in the process of designing a specialized team intended to be on-call to fly from headquarters to recipient countries to help address any project issues, including on ESF policies. It remains to be seen if this is sufficient, particularly as AIIB ramps up operations going forward. Several borrower and non-borrower shareholders suggested that AIIB would eventually need to institute some type of in-country presence to cope with inevitable project problems, including those related to environmental and social issues.

NDB

NDB has taken a markedly different approach to managing environmental and social impacts. As NDB’s corporate strategy states, “National sovereignty is of paramount importance to NDB in its interactions with member countries.” (NDB 2017b, p. 11). In line with this, NDB is prioritizing the use of national legislation and regulation to manage environmental and social risks, rather than imposing external safeguard policies. “The Bank’s policies are directed toward the goal of using and strengthening country systems. Instead of starting from externally-designed set of standards, NDB will take a country’s systems as the starting point, and see where weaknesses may need to be addressed to meet the Bank’s requirements” (Ibid., p. 16).

A country systems approach like the one proposed by NDB has a number of arguments in its favor, notably greater country ownership of the development agenda and partnerships rather than a donor-recipient dichotomy.³¹ Relying on a country’s own laws rather than external rules can contribute to strengthening national systems through use, with impacts not just on MDB-funded projects but all investments in the country.³² As well, country systems use can reduce bureaucratic obstacles and costs to getting development projects underway.³³

However, a country systems approach poses serious risks. A fundamental reason for safeguards at the legacy MDBs is that legislation and regulation on environmental and social issues in many EMDCs is weak, inadequately enforced, or both. The use of a country’s systems in such a context could easily result in major adverse effects such as social conflict with project-affected people or destruction of irreplaceable ecosystems. It can also have negative impacts on the MDB itself, including project delays

³¹ See Conectas (2018) for more details.
³² See Humphrey (2016b) for a fuller discussion of this point. Using safeguards does not preclude strengthening country systems, but the two do not always go hand-in-hand, since the borrower often sets aside their own laws and regulations when using MDB safeguards.
³³ See World Bank (2010) for an evaluation of the impacts of safeguards on projects.

and cancelations, deteriorating relations with borrowers and a negative public reputation that is easy to acquire and difficult to live down.

The essential components for a rigorous use of country systems that effectively strengthens systems through use and protects against negative social and environmental impacts include:³⁴

- Clear and detailed environmental and social standards for the MDB itself
- Thorough and transparent assessments of recipient country environmental and social laws, regulation and implementation capacity
- System for evaluating where country systems do not match MDB standards
- Defined procedures in cases where country systems do not match MDB standards, which should include:
 - o Mechanisms to realistically and comprehensively fill gaps to meet MDB standards
 - o The commitment of the MDB to decline to finance a project if country systems are insufficient and gap-filling measures are not feasible

Based on publicly available information, the elements needed for a well-functioning country system do not, as yet, appear to be in place at NDB.

The NDB ESF is in broad strokes quite similar to AIIB's in that it is comprised of a statement of policy followed by three standards related to environment, involuntary resettlement and indigenous peoples. In addition, it utilizes the same project screening framework to assess each project into one of four categories (A, B, C and FI) with a similar requirement for each. However, NDB's ESF is considerably more flexible and less prescriptive compared to that of AIIB, including much less detail and fewer mandated requirements for either the borrower or NDB itself. The result is more of a statement of principles rather than a set of prescribed actions to follow based on pre-defined criteria.

The ESF offers no details on how NDB will evaluate the adequacy of country systems or identify and address any potential gaps. The ESF states: "NDB conducts environmental and social due diligence review, as an integral element of its appraisal to ensure the consistency of use of country and corporate system with the core principles and key requirements of this Framework. This assists in NDB deciding whether to finance and, if so, the manner in which it requires the client to address environmental and social aspects" (Ibid., p. 11). NDB management has stated that country system assessments have been undertaken for all five member countries, and that the results were satisfactory to NDB. However, it has provided no information about those assessments, including what criteria were used, who undertook the reviews or which aspects of the legal and regulatory framework were reviewed. Nor have any country system evaluations been made public, despite requests by CSOs.

The NDB ESF mandates that all projects categorized A and B require clients to produce an environmental and social assessment, as well as (where relevant) resettlement and indigenous peoples' plans, and that these documents will be disclosed prior to project appraisal (Ibid., pp. 15, 22 and 24). This implies a total of at least 34 projects as of end-2019—22 rated as B and 12 rated as A. However, as of January 2020, no environmental or social-related documents of any kind had been posted on NDB's website. This is a worrying indication that either the assessments have not been completed or that NDB is not following its own information disclosure rules.

The overall impression at this early stage, based on policies and actions thus far, is that NDB is electing to leave management of environmental and social risks largely in the hands of borrower governments. It is difficult to disagree with the proposition that a country has a right to decide its own approach to environmental and social issues, and the end goal should be strong national systems rather than

³⁴ See Conectas 2018 and Humphrey 2016b for more details.

externally-imposed safeguards. However, NDB's lack of transparency on the criteria used and weak follow-through on disclosure commitments endangers its ability to employ an effective country systems approach. This poses very serious risks to local people, the environment and NDB itself.

The example of Latin America's CAF is instructive here. As a borrower-owned MDB, CAF is also inclined toward relying on country systems rather than safeguards. Through the early 2000s, CAF had only minimal statements of environmental and social principles.³⁵ In more recent years, however, CAF has begun to see the value of taking a stronger stance on environmental and social issues, if only to protect its own reputation and the viability of its projects. CAF released a new set of environmental and social safeguard policies in 2016. Although still emphasizing country systems, CAF's new safeguards include specific criteria and procedures to address gaps between country systems and CAF's own standards.³⁶

Rather than learn the hard way through problem projects and criticism, as CAF has, NDB has an opportunity to take the country systems approach to a new level. By employing a careful approach that includes strong standards, feedback and support to borrower members and a transparent engagement with the public on decision processes and outcomes, NDB can demonstrate that a country systems approach can be fully compatible with environmental and social protection in infrastructure projects. Based on the available evidence, however, substantial work remains to bring this aspiration into reality at NDB.

3. Finances

Financial structure, policies and performance are critical if little understood aspects of an MDB. Unlike bilateral aid agencies and other types of international development organizations, MDBs raise most of their operating resources by issuing bonds on international capital markets. This requires MDBs to maintain prudent financial policies to convince ratings agencies and bond buyers that they are trustworthy borrowers. Without access to the resources provided by private bond buyers, MDBs cannot function at scale.

Capital structure

A key underpinning of any MDB is its capital structure, which defines how much financing it is able to extend. Frustration with the low level of shareholder capitalization at the legacy MDBs was a contributing factor pushing China and the BRICS to create AIIB and NDB. The overall subscribed capital levels of both new banks as of end-2019 is substantial—just under US\$100 billion for AIIB and US\$50 billion for NDB.³⁷ Of that, 20% is actual paid-in cash capital, while the remainder is “callable” capital—a type of guarantee committed by shareholders in case an MDB faces financial difficulties. The 20% paid-in vs. 80% callable ratio is similar to the legacy MDBs at their creation, although currently the legacy MDBs have substantially more callable capital (over 90% for all, apart from EBRD, which is still at 80%).³⁸

Looking at paid-in capital—which is most relevant in defining lending headroom—AIIB and NDB are well capitalized compared to the legacy MDBs (Figure 8). NDB's shareholders have contributed their capital ahead of schedule (NDB 2018 Annual Report, p. 59), which is a strong sign of their commitment

³⁵ See Conectas (2018), Humphrey (2016a) and Bank Information Center (2008) for more on the background of CAF's environmental and social policies.

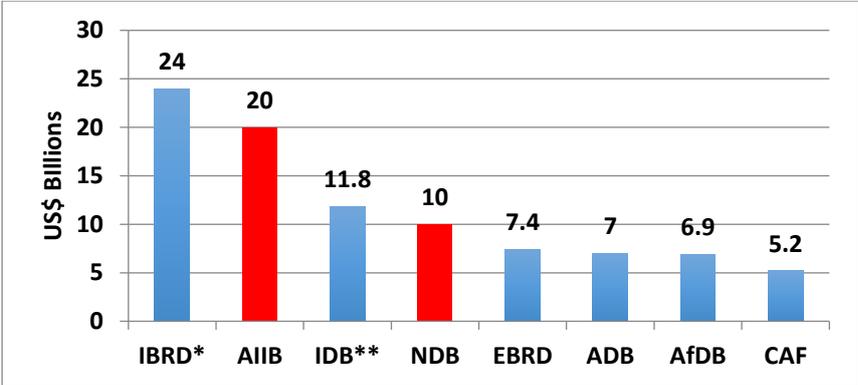
³⁶ See Gallagher and Yuan (2017) and Conectas (2018) for an analysis of CAF's current environmental and social policies in comparison to other development financiers in Latin America.

³⁷ NDB has an authorized capital of US\$100 billion, but only half of that has been subscribed thus far. AIIB shareholders have subscribed US\$96.7 billion as of end-2019, with much of the remaining US\$3.3 billion expected to be subscribed in the near term by countries approved for membership but not yet formally joined.

³⁸ See Humphrey (2017) for a fuller discussion of MDB capitalization.

to the institution. AIIB’s shareholders have kept up to schedule for the most part, with a few cases of delayed payments thus far in very small amounts (AIIB 2018 Financial Statement, p. 24). The willingness of shareholders to contribute substantial paid-in capital bodes well for the future of AIIB and NDB. The larger capital contribution of AIIB’s shareholders immediately gives it much stronger prospects for portfolio growth in the coming years compared to NDB.³⁹ As of end-2018, NDB had received US\$4.9 billion in paid-in capital compared to US\$14.8 billion for AIIB.

Figure 8. Paid-In Capital Stock, Selected MDBs



Source: 2018 annual financial statements.

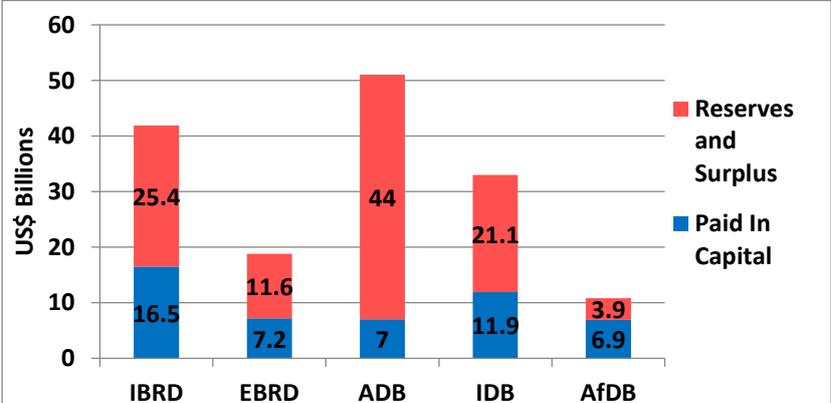
* Includes the recent capital increase of US\$7.5 billion. In 2018, IBRD paid-in capital totaled US\$16.5 billion

** IDB paid-in capital jumped from US\$6 billion in 2016 to its current level as a result of merging its concessional lending window into Ordinary Capital, rather than new capital contributions from shareholders.

Performance

Although MDBs are non-profit institutions, the net income they generate each year is an important indicator of MDB administrative efficiency and provides resources that shareholders can allocate as they see fit. The most appropriate and common use for net income is to build financial reserves, which serves as shareholder equity and thus builds an MDB’s lending capacity without requiring more capital contributions from shareholders. For the major MDBs, accumulated net income forms the majority of total shareholder equity (Figure 9). Unlike some other MDBs in their early years, AIIB and NDB have both generated allocable income starting in their very first year of operation. NDB had net income of US\$72 million in 2018 (0.72% return on equity), while AIIB generated just under US\$200 million (1% return on equity) in the same year. By comparison, the World Bank’s IBRD window generated no net income until its third year of operations, and even then only 0.2% of shareholder equity.

Figure 9. Components of Shareholder Equity (2018)

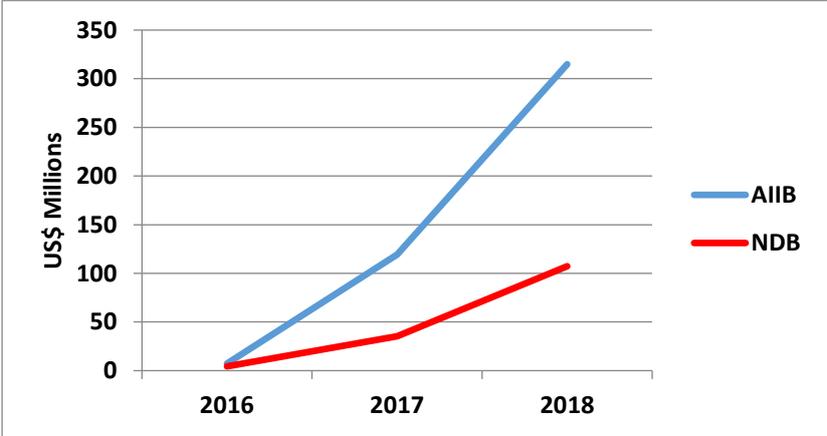


Source: 2018 Financial Statements

³⁹ See Humphrey et al. (2015) for projections of AIIB and NDB portfolio growth based on their initial capitalization.

It is notable how much faster AIIB’s net income and reserves have grown compared to NDB (Figure 10). In large measure, this is a function of the fact that AIIB had at end-2018 triple the amount of paid-in capital (US\$14.8 billion vs. US\$4.9 billion), a portion of which is placed in safe investments and earns interest income. Investment income at AIIB is about double that of NDB, at US\$213.4 million in 2018 vs. US\$113.2 million. This indicates that NDB has had success in earning from its treasury investment portfolio, somewhat offsetting lower paid-in capital.⁴⁰ However, income deriving from loans is three times higher at AIIB compared to NDB in 2018 (US\$37.4 million vs. US\$10.6 million), despite the fact that NDB had approved slightly more loans at end-2018 than AIIB. Low loan income is a reflection of the much lower level of disbursements at NDB discussed in section 2 above. This is important as NDB starts off with a subscribed capital base half of AIIB’s, and will need to generate net income to build shareholder equity and, thus, total lending capacity.

Figure 10. AIIB and NDB Reserves (2016-2018)



Source: AIIB and NDB financial statements, 2016-2018.

Resource mobilization

The ability of AIIB and NDB to raise resources from capital markets at good financial terms is a key factor that will define their ability to operate as useful development finance institutions. MDBs need to regularly borrow resources at low interest rates to be able to on-lend those resources for development projects at a cost low enough to be attractive to end-borrowers, while still being able to charge a margin to cover the MDB’s own administrative costs. The financial terms that AIIB and NDB are able to offer borrowers is an essential component of their value proposition, particularly for larger middle-income countries with various borrowing options.

Neither MDB has an urgent need to raise resources from capital markets, as their paid-in capital is sufficient to cover disbursement needs in the short term. As of December 2018, NDB had about US\$5 billion paid-in capital on hand with the remaining US\$5 billion to be paid in by January 2022, against only US\$630 million in disbursements by end-2018. AIIB had US\$14.8 billion paid-in capital by end-2018 with the remaining US\$5.2 billion expected by 2020, against disbursements of US\$1.4 billion. However, with the level of approvals ramping up sharply, NDB in particular requires additional resources from capital markets relatively soon, depending on how fast disbursements proceed. By end-2019, AIIB has issued only one bond—a global benchmark in US dollars—while NDB has issued two bonds, both on the China Interbank Bond Market (CIBM) for yuan (Table 7).

⁴⁰ NDB management point out that they have built up their own capacity to manage and invest the treasury portfolio from launch. AIIB began operations utilizing an external service (see 2018 Financial Statement, note C5), but as of end-2018 had begun to manage and invest its own portfolio (Ibid., note C15).

Table 7. AIIB and NDB Bond Issues

	AIIB	NDB		
Date	09 May 2019	19 July 2016	27 February 2019	
Currency	US\$	CNY	CNY	
Amount	US\$2.5 billion	3 billion (US\$450 million)	2 billion (US\$300 million)	1 billion (US\$150 million)
Maturity	5 Year	5 Year	3 Year	5 Year
Coupon	2.25% fixed	3.07% fixed	3.0% fixed	3.32% fixed
Listing	London Stock Exchange	CIBM	CIBM	CIBM

Source: AIIB and NDB websites.

International markets

To issue debt in dollar and euro capital markets—by far the two largest capital markets in the world—AIIB and NDB require ratings from at least one of the three largest bond rating agencies: Standard and Poor’s (S&P), Moody’s and Fitch. While other ratings agencies do exist, the top three dominate the market and are deeply embedded in financial regulations of many countries and the internal rules of institutional bond investors. AIIB has a top AAA rating by all three agencies (S&P 2019a, Fitch 2019a and Moody’s 2019b), while NDB is rated AA+ by S&P and Fitch, and has not been rated by Moody’s (S&P 2019b, Fitch 2019b). NDB also recently received a top AAA rating by the Japan Credit Rating Agency, which is key for issuing debt in the Japanese market (JCRA 2019).

In broad terms, all three of the major rating agencies base ratings for MDBs on a combination of financial, governance and administrative factors, but the specific indicators used, their weightings and the way in which they are summed up to arrive at a final rating vary considerably.⁴¹ This paper focuses mainly on S&P’s methodology as it is the largest ratings agency⁴² and because its methodology has been perceived as the most binding for MDBs in recent years. For S&P, an MDB’s bond rating is comprised of a *financial profile*—including indicators such as capital adequacy, portfolio quality and liquidity—and *enterprise profile*—a more subjective set of indicators related to policy role, governance and administration. Together these combine to arrive at the “*stand-alone*” rating, which can then be adjusted upward if S&P believes that an MDB would receive additional support from shareholders if needed, to arrive at the final *issuer rating*.

The financial profile of AIIB and NDB are both given the top classification of “extremely strong” by S&P, largely because of their high capitalization. With several billion in paid-in capital and only a very small portfolio of outstanding loans, capital adequacy is not a binding constraint. This will change in coming years, and NDB will come under more pressure than AIIB due to its lower capitalization. Additionally, NDB’s loan portfolio is highly concentrated, with 65% of approvals thus far to only two countries. Portfolio concentration is heavily penalized by S&P’s methodology, which gives added impetus for NDB to expand membership and diversify its loan portfolio. The more diversified portfolio of AIIB—with 20 borrower nations as of end-2019, as well as several private sector borrowers—positions AIIB well to maintain its “extremely strong” financial profile into the medium term.

For the enterprise profile, AIIB is classified as “very strong” in the most recent S&P report, while NDB is marked one notch down as “strong”. The reports do not fully explain how S&P arrived at these different results, but the language points to a few key areas. S&P notes that NDB faces “difficulties in finding viable bankable projects in Russia, Brazil, and South Africa,” which negatively impacts its policy

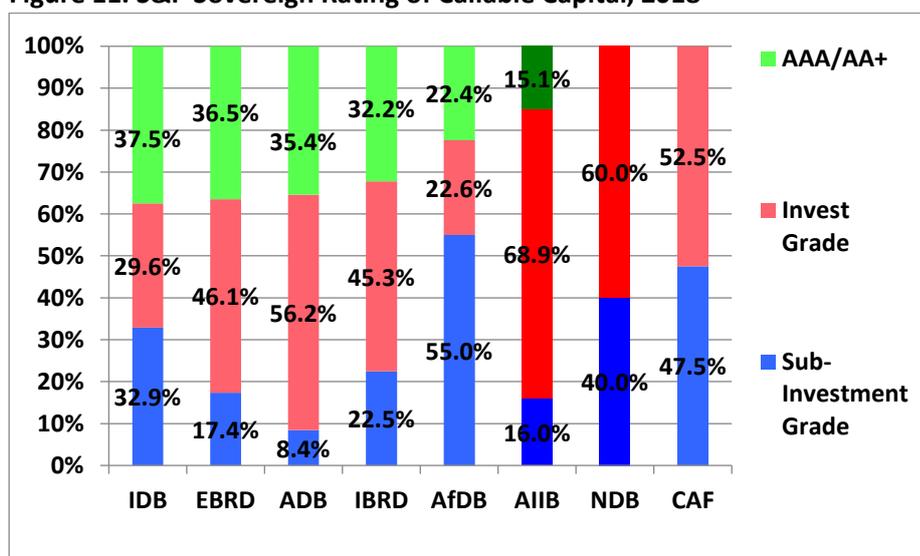
⁴¹ See Humphrey 2018 for more details.

⁴² S&P accounted for 49.2% of all outstanding bond ratings at end-2017, compared to 33.1% for Moody’s, 13.5% for Fitch and a combined 4.2% for seven other agencies, according to SEC 2018

relevance. S&P’s description of AIIB and NDB’s administration is similar, but it notes AIIB’s “high standards” and points out that AIIB has no nationality restrictions to employment (unlike NDB, which restricts staff to citizens of member nations only). Based on the mechanics of S&P’s methodology, NDB is not able to reach a AAA stand-alone rating with only a “strong” enterprise profile, whereas AIIB can with a “very strong” profile.

S&P calculates extraordinary shareholder support for each MDB based on how likely it believes that shareholders will pay their callable capital should it be needed by an MDB. S&P’s methodology calculates this essentially⁴³ by adding callable capital provided by AAA and AA+ shareholders back into its capital adequacy calculation, and increasing the final rating up to three notches above the MDB’s stand-alone rating. A total of 15% of AIIB’s callable capital is provided by member countries rated AAA or AA+ (Figure 11). This would give it up to three notches increase to its stand-alone rating. As AIIB has a stand-alone AAA rating, this extra support is not necessary, but it could prove useful as its lending grows in future years. AIIB could in principle have a stand-alone rating of only AA- and still achieve a AAA final rating, based on shareholder support. NDB has only one country shareholder rated A+ (China) and two of the five shareholders with ratings below investment grade (Brazil and South Africa). As a result it receives no uplift from shareholder support, and thus remains at its stand-alone rating of AA+. In other words, NDB’s callable capital plays no useful role in supporting its bond rating from S&P.⁴⁴

Figure 11. S&P Sovereign Rating of Callable Capital, 2018



Source: Annual financial statements (2018); S&P Ratings (2018).

The fact that NDB has received an AA+ instead of AIIB’s top rating is not a fatal flaw to its prospects as a development finance institution. Latin America’s CAF, for example, has only an A+ rating from S&P and has carved out a successful niche for itself among middle-income countries of the region. However, AIIB’s AAA rating gives it a number of advantages that NDB will not have in the near term, including:

- Better financial terms: Marginally lower funding costs will allow AIIB to either charge lower loan terms to borrowers than NDB, or allow AIIB a wider loan margin and thus generate higher net income.

⁴³ The actual methodology is somewhat more complex. See S&P (2018) for details.

⁴⁴ The methodologies of Fitch and Moody’s are somewhat more generous than S&P in accounting for callable capital below AA+, but still result in minimal ratings uplift for NDB.

- Counter-cyclical access: AAA-rated issuers can raise debt even in times of regional or global crises due to the “flight to quality” syndrome—highly useful for a development bank to assist borrower members facing financial difficulties.
- Regulatory advantages: AAA-rated MDBs currently are not required to reserve liquid assets to back up derivative positions, and Basel rules classify AAA-rated MDB bonds as zero risk-weighted assets (Basel Committee 2019).
- Engagement with private investors: MDBs are increasingly working with private sector actors, especially institutional investors and commercial banks, and these are more inclined to work with AAA-rated MDBs.⁴⁵

In May 2019, AIIB issued its inaugural bond, a 5-year US\$ global benchmark for US\$2.5 billion, which is listed on the London Stock Exchange. The terms of the bond were favorable, at 2.25% fixed (compared to 2.12% for 5-year US Treasuries from May 2019). Two-thirds of the buyers were central banks (Reuters 2019b). As a comparison, the bond was priced even better than a World Bank 5-year global benchmark for US\$4.5 billion, issued in March 2019 at 2.5% fixed (compared to 2.23% for 5-year US Treasuries from March 2019) (World Bank 2019b).⁴⁶ AIIB appears well positioned to establish itself as a regular hard currency benchmark issuer along with the other AAA-rated MDBs.

Other currencies

While the US dollar and Euro capital markets are by far the deepest and most liquid in the world, other capital markets are also potential sources for MDB borrowing. These will be highly relevant for NDB in the medium term, due to its stated goal of providing local currency financing to borrowers. AIIB has indicated that it will focus mainly on leveraging its AAA rating in international markets in the medium term, and only move slowly toward raising resources in other markets as opportunities arise.

NDB was awarded a AAA bond rating by two Chinese credit rating agencies, China Chengxin International Credit Rating and China Lianhe Credit Rating, shortly after its launch. On the back of these ratings, NDB issued its inaugural bond in 2016, for 3 billion yuan (US\$450 million equivalent), and followed that with a second bond issue for another 3 billion yuan in February 2019. With yields of 3.0-3.3%, the bonds were priced tight to China government’s own bonds, which yielded about 3.1% for a five-year bond at end-2018 (Asian Bonds Online 2019). Both bond issues were three times oversubscribed, which bodes well for NDB continuing raising resources regularly in what is already the world’s third-largest bond market (BIS 2019).

The resources raised in yuan are obviously most useful for on-lending to projects within China itself, but they can also be swapped into other currencies (at a cost) for lending in other countries. NDB has indicated that 80% of its 2016 yuan bond issue was swapped into other currencies. The cost of the swap was not made public, and it is not possible to determine the financial soundness of the transaction and how it would impact NDB’s net income. NDB has indicated that it intends to issue debt in other BRICS capital markets. Although these markets are considerably smaller than China’s, they do offer opportunities to raise resources for on-lending within the same country. NDB has officially registered a bond program with regulators in South Africa (April 2019) and Russia (November 2019), which is a positive step. However, despite repeated comments by NDB officials that bond issues were

⁴⁵ This assertion is based on interviews with 15 major institutional investors and 17 MDB and DFI staff regarding investor mobilization in the context of a separate consultancy undertaken by the author in spring 2019. The preference of investors to work with AAA-rated MDBs was highlighted repeatedly.

⁴⁶ The difference in interest rates may have been due to the World Bank bond’s larger size, which plays a role in pricing.

imminent in India and South Africa,⁴⁷ they had not occurred as of January 2020. The hold-up, according to a top NDB financial official, is obtaining regulatory permits in the other four BRICS nations (Xinhua 2019a). The reasons behind the delays are unclear, but resolving them is essential to facilitate NDB's expansion.

NDB can also utilize offshore capital markets, which generate funds in various local currencies but are repaid in hard currency. This would require NDB to purchase hedging instruments to manage currency risk, but the financial terms are often much better than issuing directly in local capital markets. The fact that NDB was recently awarded a AAA rating by the Japan Credit Rating Agency is useful for this funding strategy, as substantial offshore emerging currency bond investors are in yen. NDB management has indicated it is likely to move in this direction in the near future, possibly in 2020.

4. Conclusions and Policy Implications

The creation of two new multilateral finance institutions to help tackle the investment gap for urgently-needed sustainable infrastructure is a hopeful sign. The fact that China and a group of other EMDCs have dedicated their time and resources to lead the creation of the Asian Infrastructure Investment Bank (AIIB) and New Development Bank (NDB) indicates that they are well aware of these global challenges, and that they see cooperation in a multilateral framework as the best way to address them. In a geopolitical context where international cooperation is under pressure, this is a welcome development.

The first four years of AIIB and NDB operations have, on the whole, been remarkably successful. Both banks have quickly designed an initial set of operational policies and administrative procedures, begun building out their staff expertise and ramped up operation financing. Should this promising trajectory continue, AIIB and NDB have the potential to promote improvements to the international development finance landscape. Both banks have a dramatically different balance of power among member countries compared to the legacy MDBs, which may encourage the much-needed global governance reform. AIIB and NDB are both attempting to define new MDB operational policies that balance quality and development impact with the need to empower borrowers to take charge of their own development path. Debates over these issues have long plagued the legacy MDBs, and the experiences of AIIB and NDB can help shift these debates and find new solutions. As well, the operational collaboration of AIIB and NDB with other MDBs and national development institutions can point the way toward a more efficient use of scarce development resources.

AIIB and NDB are charting very different paths (Table 8). AIIB is in many ways closely following the template of the existing legacy MDBs, although with a more streamlined and “borrower-friendly” approach. This responds directly to the balance of power amongst its shareholders: AIIB has a similar mix of country members as the legacy MDBs, but China and other borrowers have majority control. Wealthy non-borrower shareholders have insisted on certain policies in line with the legacy MDBs— notably environmental and social safeguards, international staff and greater transparency. China has been willing to accommodate these requirements in recognition of the international credibility and financial strength the non-borrowers bring, but has the power to ensure certain attributes like a leaner administration, streamlined business processes, a non-resident board and an empowered president, among others. The result is an MDB that is perceived as a financially stable and legitimate member of the set of international development institutions, although with some unease among external observers about its link to China.

⁴⁷ In interviews, NDB President Kamath stated that the bank expected to issue Indian rupee debt as far back as 2017 (Reuters 2018), and that South Africa bonds would be issued by the first half of 2019 (Xinhua 2019b).

NDB has taken a different approach, responding to the interests of its own shareholders. The BRICS nations chose to negotiate the structure and main policies of NDB on their own, and have not yet admitted new members. While NDB’s governance is egalitarian among the five BRICS, it is also to a degree exclusive vis-à-vis other potential members, as the BRICS will by statute retain substantial control of NDB as founders. NDB policies are closely in line with borrower country views, including full use of national systems rather than safeguards to address environmental, social and procurement risks, a highly streamlined project review process and a focus on engaging with governmental borrowers rather than the private sector. In large part because of its narrow membership, limited transparency and a lower profile in the international arena, NDB is viewed with some uncertainty by the development community, potential member countries and financial markets.

Table 8. Key Characteristics of AIIB and NDB (end-2019)

	AIIB	NDB
Membership	76 full country members with 26 more approved for membership; mix of geographies and income levels	Five BRICS nations only
Governance	Dominated by borrower nations; China alone with veto power over major changes; non-borrowers with just over 25% voting	Divided equally among BRICS; BRICS will dominate regardless of membership expansion (minimum 55% votes); non-borrowers limited to 20% maximum
Project Focus	Infrastructure mainly; open to projects in other productive sectors	Infrastructure mainly; open to other projects as demanded by borrowers
Borrower Focus	Mainly public sector with several private sector operations. Will ramp up private sector going forward. Experimenting with creative financial structures.	Almost entirely public sector, including national development banks, SOEs and sub-national government levels
Approvals Disbursements	Approved: US\$11.7 billion (to 12/19) Disbursed: US\$1.4 billion (to 12/18)	Approved: US\$14.4 billion (to 12/19) Disbursed: US\$630 million (to 12/18)
Environmental and Social Standards	Safeguard policies similar to legacy MDBs, though more streamlined and less prescriptive	Strong push to using national legislation and regulation, though oversight and transparency is weak thus far
Administration	No national limits on hiring; top management fully international with strong background in MDBs	Staffing limited to BRICS nationals; top management with a mix of international and domestic experience
Transparency	Generally in line with legacy MDBs; some complaints by CSOs on lack of detailed project information	Minimal information available on projects, including reports mandated by its information policies. Unresponsive to CSO requests for information.
Bond Rating	International rating: AAA	International Rating: AA+ (S&P, Fitch) AAA (JCRA) Local Rating (China): AAA
Funding Focus	Mainly hard currency capital markets	Thus far only China capital market; plans to expand to other BRICS and hard currency markets
Procurement	Open to firms from any country (member or non-member)	Open only to firms from member countries

None of this is set in stone. Both MDBs are still developing their own institutional cultures and are feeling their way forward with early operations, taking projects that are relatively well developed as they build their own systems and staff capacity. With substantial paid-in capital, they have not yet had

to engage seriously with capital markets to raise funds. The realities of attracting qualified staff, finding sufficient demand to build a loan pipeline, addressing inevitable problem projects and working with investors can focus the attention of shareholders on how they might want to steer the two institutions moving forward.

In short, the initial honeymoon phase of AIIB and NDB's founding is drawing to a close. Now the two banks must move into the more difficult but ultimately more meaningful work of building fully functional MDBs capable of achieving shareholder mandates and offering useful development services to borrowers. Among the many tasks that must be undertaken include:

- Staffing up and building technical expertise to move beyond simply providing finance.
- Defining strategic approach and value-added offer to clarify the banks' purpose and positioning in the international development finance landscape.
- Strengthening institutional culture that is responsive to, but not merely an extension of, shareholder interests.
- Building relationships with and knowledge of borrower member countries—including some degree of local presence.
- Solidifying a strong reputation with capital markets to ensure reliable, low-cost funding.

To add to this already daunting agenda, this study highlights priority areas where AIIB and NDB may wish to consider reforms, as they have potentially major implications for the ability of these institutions to achieve the vision of their founders. Planned transitions at both banks in 2020—the design of AIIB's first institutional strategy and the arrival of a new president at NDB (to be nominated by Brazil)—can provide opportunities to consider reforms.

Reform Options: AIIB

Short-term (1-2 years)

- Develop some type of **presence in borrower countries** to build a project pipeline, ensure smooth and high-quality project implementation and address inevitable problems promptly and efficiently. This does not necessarily require full local offices in most borrower countries along the line of the legacy MDBs, but a headquarters-based team sent to address problems as they arise—as AIIB is reportedly contemplating—is unlikely to be sufficient.
- Keep a **close eye on safeguards**. AIIB is attempting to find a middle ground between the safeguards of the legacy MDBs and reliance on country systems. It is essential to closely monitor how this plays out in practice, and ensure adequate mechanisms to address shortcomings. Bringing the “financial institution” safeguard category in closely alignment with IFC's approach can help address concerns without adding undue bureaucracy.
- **Define green**, and implement concrete **measures to address commitments on climate change**. The credibility of AIIB's commendable commitment to being a “green” bank would be greatly strengthened by clearly defining what this means in operational terms. This should include specific targets and measurement methodologies related to sustainable infrastructure and the emissions of both individual projects and the overall portfolio. The goal should be to increase the support AIIB is providing to sustainable infrastructure projects.

Medium-term (3-5 years)

- Work against perception that AIIB is “**China's bank**”. Especially in the early years, AIIB would be advised to steer clear of projects that are clearly linked to the Belt and Road Initiative, to assuage fears that the bank is a pawn in China's geopolitical strategy. With its top rating and broad membership, AIIB should have no difficulty developing a strong portfolio of non-BRI

projects. China should also follow through with President Jin's indication that it will allow its AIIB shareholding to slide below the 25% level needed to maintain its veto power.

- Consider the **poverty and inequality implications of projects**, not just economic benefits. AIIB is an infrastructure bank and—in line with China's own development trajectory—focused on economic growth as its key mission. But infrastructure investment and economic growth can be achieved in different ways, and some are more beneficial to reducing poverty and inequality than others. AIIB can play a role in promoting pro-poor growth strategies in its member countries without compromising its underlying mission.
- Don't let preserving AAA push AIIB to be **too conservative**. Receiving a top bond rating is an impressive achievement and a sign of strength, but is only a means to an end. AIIB should use its top rating to undertake innovative operations and financial structures with high catalytic potential, to invest in countries and sectors that have high public externalities but are perceived by private investors as overly risk and to promote local currency markets.
- AIIB's early push to **financial innovation and leveraging private investors** is commendable to bring in more resources for development. This should continue, and can encourage other MDBs to be more ambitious in this area. It is nonetheless important that AIIB **ensure projects are truly additional and developmental**. As the experience of the IFC has shown, it is easy for staff and management to become so enamored with financial innovation and closing deals that they lose sight of public policy goals.

Reform Options: NDB

Short-term (1-2 years)

- Work toward a **consensus vision among shareholders for the NDB's role in the international system** and **articulate that vision to the outside world**. External observers are uncertain about what NDB is hoping to achieve and the role it intends to play, and that undermines its ability to have the transformative impact its shareholders intend. The arrival of a new president in 2020 and the design of a new strategy in 2021 are opportunities to reposition NDB and sharpen its value proposition.
- **Increase transparency and international engagement** to benefit NDB's international standing and alleviate misunderstanding among external actors. A first step would be to **release more detailed information on individual projects, country systems reviews and safeguard assessments**, in line with its own policies. More broadly, NDB leadership could be much more pro-active in the international arena to positively shape perceptions of the bank.
- For NDB to live up to its stated goal of becoming a global institution for EMDCs, it should **take on a first tranche of new members by the end of 2020**, with a particular emphasis on a geographic mix of major middle-income countries, in line with the principles of its founding members. Doing so would have the added benefits of increasing the bank's international legitimacy and financial strength. As part of this broader membership, **dilute nationality requirements on hiring** to strengthen professionalism and avoid politicization of NDB staff and management.
- **Clearly define sustainable infrastructure** and design a **viable operational strategy to achieve the targets** NDB has set, in order to give a stronger basis for the bank's laudable commitment to sustainability. Doing so would help establish the bank as a go-to global institution for sustainable infrastructure, enhancing its reputation and more clearly articulating its value proposition to prospective members. Sustainable infrastructure is a key defining feature of NDB, and it should focus intensively on increasing its capacity to support quality sustainable infrastructure projects in member countries.

Medium-term (3-5 years)

- The use of country systems to address environmental, social and procurement risks is a hallmark of NDB. However, NDB's current approach poses substantial risks to the environment, people and the bank itself. **NDB should re-think how it utilizes country systems.** A more systematic approach would involve i) on-going and transparent assessments of borrower country systems, ii) clear and thorough standards for NDB, iii) detailed procedures to fill any gaps between NDB standards and country systems and iv) a strong commitment to not to finance a project if gap-filling procedures are inadequate. Doing so could help spur a broader movement toward country systems use in the development finance community, to the benefit of all.
- Once the first wave of new members have been integrated into NDB governance, the bank should move to **broaden membership further**, and thus, become a truly representative institution capable impacting global development at scale. As part of this shift, NDB shareholders should **dilute the statutory governance control reserved for its founding five member countries.** This would be a sign of confidence that the founders have set NDB on a strong course, and would move the bank decisively away from the unbalanced governance models of the legacy MDBs.
- NDB has a unique opportunity to establish itself as a **global resource for designing, financing and implementing sustainable infrastructure**, in line with the stated vision of its founders. Doing so will require NDB to **invest resources in highly qualified staff and knowledge development** necessary to develop practical technical expertise in sustainable infrastructure: project design, integration with a country's overall infrastructure agenda, financial structuring, managing operational and financial risks, regulatory issues and more. This would firmly anchor NDB's institutional identity and value proposition and—most importantly—help begin to fill the global gap for high-quality, sustainable infrastructure facilities.

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