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**BRICS JOINT FINANCIAL ARCHITECTURE:
THE NEW DEVELOPMENT BANK**

Luciana Acioly

DISCUSSION PAPER



BRICS JOINT FINANCIAL ARCHITECTURE: THE NEW DEVELOPMENT BANK¹

Luciana Acioly²

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ABSTRACT

The present text aims to analyze the New Development Bank (NDB) established by BRICS as part of the group's financial architecture, focusing on the main motivations for its creation, ways of acting and governance structure. Although focused on providing credit for infrastructure and sustainable development projects and acting through different practices of financial institutions established after the Second World War, NDB still faces important challenges to meet those goals.

Keywords: financial institutions; international capital markets; multilateral development banks; international lending; emerging markets; international institutional arrangements.

1 INTRODUCTION

The unfolding of the international financial crisis that started in September 2008 and the failure of the institutions responsible for global financial governance to promote the reforms discussed and approved in the Group of Twenty (G20) to give more representation to the emerging economies and the developing countries were factors that contributed to the decision of the BRICS (Brazil, Russia, India, China, and South Africa) to create the New Development Bank (NDB) and the stabilizing fund nominated Contingent Reserve Arrangement (CRA).¹ These initiatives were designed in 2012 and then introduced in 2014 at the VI BRICS Summit, in the city of Fortaleza, Brazil.

With functions similar to those of the World Bank and the International Monetary Fund (IMF), respectively, some analysts received the creation of NDB and CRA with some skepticism regarding their ability to make a difference as complementary mechanisms to the existing financial system.² Others saw this initiative not only as a concrete action to build the BRICS joint financial architecture but also as an important step in establishing new international financing instruments in the face of huge infrastructure investment shortages and the strengthening of the global network of financial protection. These institutions may in the future compete with the World Bank and the IMF.³ Also, the announcement of the creation of the Asian Infrastructure Investment Bank (AIIB) in October 2013 by China has led other observers to affirm that a new

1. The developed and developing countries that comprise the financial G20 are: Germany, South Africa, Saudi Arabia, Argentina, Australia, Brazil, Canada, China, South Korea, the United States, France, India, Indonesia, Italy, Japan, Mexico, UK, Russia and Turkey. The European Union is represented by the Presidents of the European Council and the European Central Bank. Spain and the Netherlands participated in the first meetings invited by developed countries hosts. Representatives of the International Monetary Fund (IMF), the World Bank, the International Labor Organization (ILO)/London Summit – largely as a result of the insistence of Brazil – the Organization for Economic Cooperation and Development (OECD), the World Trade Organization (WTO) and the Secretary-General of the United Nations (UN). This set of countries accounts for about 90% of world GDP, 80% of international trade – including trade between EU countries – and 2/3 of the world’s population. For an overview of the role of the G20, see, among others, Viana and Cintra (2010), Galvão (2010) and Scandiucci Filho (2018).

2. Eichengreen (2014) exemplifies the skepticism of some analysts as to the real reach of NDB and CRA.

3. For a synthesis of this question, see Desai (2013).

international order was emerging, weakening US leadership in financial cooperation illustrated by the emergence of these new institutions.^{4,5}

In spite of this debate, BRICS addresses the launching of these initiatives as a complementary and partnership role of these institutions with the World Bank and the IMF and as an instrument of financial cooperation resulted from the deepening of relations between their founding countries (Brazil, 2014a). Regarding the CRA, the Decree of the Presidency of the Republic of Brazil presents it as a platform for mutual support among the Group's countries, with liquidity and precautionary instruments in response to short-term pressures (actual or potential) on the balance of payments. It would, therefore, be an initiative to strengthen the global financial security network and complement the existing international monetary and financial arrangements (Brazil, 2014b). It was established that to constitute the "arrangement," each BRICS country shall place part of its reserves in US dollars or other convertible currency available to any of the other members of the group, in case of difficulties in the balance of payments.

This financial mechanism is around US\$ 100 billion to protect the BRICS against lines, a drop in investments, speculative attacks or problems in the balance of payments. The individual commitments of the countries will be as follows: China, US\$ 41 billion; Brazil, India and Russia, US\$ 18 billion each; and South Africa, US\$ 5 billion. The Parties' access to resources is subject to ceilings, which will be equal to a multiple of the individual commitment of each Party so that each country would have the right to withdraw a proportion of what contributes to the fund, and South Africans could withdraw more than they have promised to offer. The mechanism does not require immediate disbursement from countries, only the commitment to offer

4. In a report to the US Congress on AIIB, Weiss (2017), analyst of Congressional Research Service, points to the United States' strong concern about the creation of China-led economic institutions like AIIB (Have little or no influence) as an alternative to the World Bank and other institutions traditionally led by the United States.

5. For a discussion on the emergence of a new international order and the decline of US power see Scandiucci Filho (2018). The success of the United States at the Bretton Woods Conference was reflected in the building of international institutions such as the World Bank and the IMF as an expression of American hegemony in international financial cooperation. In this direction, the author points out in his thesis that after the crisis of 2008, the G20 protagonism was presented as one of the faces of the so-called "new economic geography" in which developed countries lose relative space vis-à-vis developing countries. This phenomenon would be, for some authors, the manifestation of the crisis of American hegemony by the weakening of the leadership role of the United States that had been questioned since the beginning of the new millennium. For other analysts, these claims are far from a consensus. The military power of the United States and the role of the dollar in the international system preclude a simplistic image of American decadence (Scandiucci Filho, 2018, p. 22-26).

the resources if triggered. It is a virtual fund, actionable in case of need, with quotas for each. It is important to note that access by the parties depends not only on the ceilings but also on the existence of an agreement with the IMF and that the applicant undertakes to comply with the agreement with the Fund.⁶

As for the NDB, which was the object of the present study, it was established with a capital of US\$ 100 billion and was designed to be a bank focused on the financing of infrastructure and sustainable development projects, operate globally and be led only by developing countries. Besides, the bank was idealized to differentiate itself from post-Second World War financial institutions, in this case, the World Bank regarding the mandate, *modus operandi* governance, and decision-making structure. Since the 1980s with the developing countries' debt crisis, the World Bank has been criticized for imposing certain lending conditions to these countries, by diverting its initial focus and the asymmetry of its internal decision-making process.

Specifically, the NDB would have to fulfill its role in international financing taking into account so many huge infrastructure shortages – which account for an annual *deficit* of more than US\$ 1 trillion in developing countries – such as the objectives of the Sustainable Development Agenda post-2015. In this role, it intends to strengthen the alliance between BRICS countries and increase its voice and presence in international financial governance, a demand presented several times to the G20 and introduced into the agenda of reforms after the start of the 2008 crisis.

After two years of drafting its Constitutive Agreement and having received approval from the founding countries' congresses, the NDB came into operation in 2015, and its first loan portfolio was structured in mid-2016. With almost three years in operation, the bank still has many challenges to be faced to fulfill its mandate: to develop operations of global reach, to institute and consolidate new practices in the supply of financing and to establish a governance structure that avoids the concentration of real power in one or two countries.

6. For more details on obligations, access limits and types of instruments provided for in CRA, see Presidential Decree n. 8.702, of April 1, 2016. Available at: <<https://bit.ly/2xWPXmR>>.

The objective of this text is to analyze the NDB established by the BRICS in its *rationale* and *modus operandi*, seeking to point out some challenges that must be faced in the fulfillment of its mission. For this, the text is divided into four sections, including this introduction. The second section presents a summary of the motivations and moves that shaped the BRICS' creation of its development bank; contextualizes the NDB's role in international financing; and analyzes the key aspects of its Constitutive Agreement (mandate, operations, and decision-making structure). The third section presents the main achievements throughout the bank's first years of operations, as well as consolidated information about its portfolio of operations and guidelines of operational and financial policies. The fourth and last section will be devoted to the final considerations of the study.

It is important to emphasize that this Discussion Paper is the result of exploratory research that intends to understand, by approximations, a new and under construction objects such as the NDB that does not yet have information and long series data. In this sense, the information available on the bank's website, such as minutes of meetings, reports on institutional performance, and financial statements, press releases, presentation to investors, legal instruments of partnerships were analyzed for analysis. Senior bank officials, press articles and expert papers on financing gave further pronouncements and interviews. It is hoped that this document will bring elements that contribute to an overview and reflection on the possible challenges posed to the NDB trajectory and, particularly, the potential benefits of Brazil's participation in this institution.

2 THE CONSTRUCTION OF A JOINT FINANCIAL ARCHITECTURE: THE SEARCH FOR DIFFERENCE

2.1 Motivation

The systemic nature of the international financial crisis in 2008 with the collapse of the American investment bank Lehman Brothers led to the need to find some global coordination mechanism to deal with the serious effects that the crisis could have on international transactions and the level of employment and income. This time, the crisis had as its epicenter the Group of Seven (G7) countries and not the developing or transition economies as observed in 1994 (Mexican crisis), 1997 (Asian crisis) and 1998 (crisis of the ruble), 1999 (Brazilian crisis) and 2001 (Turkish and Argentine crisis). In this context, the G20 – the group of the world's richest countries – proved to

be the appropriate institution for international dialogue since it already incorporated all countries as full members with equal participation.⁷

The world had changed. The share of emerging economies and developing countries in the global product went from 1/5 in 1990 to 1/3 in 2008, reaching almost 40% in 2014. These economies have accumulated immense volumes of international reserves; applications totaled billions of dollars (Unctad, 2011). Fundamental to such changes was China's rise to economic power with its high rates of economic growth and international presence regarding trade, investment, and technology, shaping some issues relating to the possible shift of the world economic axis to Asia.

In 2003, Goldman Sachs Bank economist Jim O'Neill coined the acronym BRIC (Brazil, Russia, India, and China) in his report to name a group of developing or newly industrialized countries characterized by the size of their territories, the rapid growth of their economies, income, demographics and global demand pattern. In his projections, O'Neill drew attention to the emergence of "a dramatically different world" in 50 years, in which such countries would play a fundamental role in economic dynamics (Wilson, 2003).

All ongoing changes in the international economy were not reflected in the governance of financial institutions set up in Bretton Woods, even taking into account that some initiatives have been taken to increase the representativeness of developing countries in international forums, such as the invitation by the G7 and Group of Eight (G8) after the 1999 crisis for some of these economies to attend their meetings as observers. With the cooling of the crisis and the emergence of a favorable international scenario after 2002, the necessary changes to a new global configuration of decision-making processes have been postponed, and the legitimacy *deficit* of financial institutions has not diminished. It was only with the break out of the 2008 financial crisis that the need to build broader and more globally articulated responses to the current crisis became acute, and developing countries could not be excluded from this discussion (Cozendey, 2010).

7. The so-called Group of Eight + Five (G8 + 5), i.e., the group of more developed countries (Canada, France, Germany, Italy, Japan, Russia, United Kingdom and United States) plus five emerging economies (South Africa, Brazil, China, India and Mexico) resulted from the attempt to give more legitimacy to the G7's decision-making process by incorporating the emerging ones into its meetings. However, this arrangement, in addition to preserving the differentiation between the two groups of countries, moved very slowly towards the desired change (Cozendey, 2010, p. 84).

Under the leadership of Brazil, the first meeting of the G20 took place in November 2008 in Washington, and the Group was declared the main body of economic coordination among its members and the center of global financial governance. This choice of the G20 as the main forum for global economic and financial issues was considered the biggest change in international financial governance since World War II due to the transformation of the group into a forum of leaders – hitherto composed of finance ministers and central banks – as well as for the consistency and quality of the interaction among its members. This change was the result of the demands made by Brazil in that year in which the country held the rotating presidency of the Group (Galvão, 2010).

At this meeting, the measures discussed and recommended for the stabilization and recovery of the world economy were recorded in the final declarations of the meetings starting from the reading that the period of global growth with increasing capital flows and economic stability since the beginning of the 2000s had led markets seeking higher returns without adequate risk assessment and therefore failed to adopt safer procedures in conducting their business. Thus “weak standards” of underwriting, risk management, and the creation of financial products (more complex and obscure), and excessive leverage⁸ of institutions have created vulnerabilities for the system as a whole.⁹

In the same direction, criticisms have been directed at policymakers, regulators, and supervisors of some developed countries who have failed to keep the pace with financial innovations and the systemic implications of national regulations. International financial institutions also performed poorly in their roles in monitoring the financial system, providing liquidity and long-term investment. In this way, the lack of systemic regulation and supervision led to the outbreak of the crisis, the unfolding of which created an environment of uncertainty and risk aversion, conducive to retention of liquidity by economic agents and the adoption of protectionist policies by the countries (G20 2008, Final Declaration, items 8 to 15).¹⁰

8. According to Caldenty (2009), this issue can be exemplified with the cases of pre-crisis profitability strategies of US investment banks such as Lehman Brothers, Merrill Lynch, Morgan Stanley and Goldman Sachs. Between 1990 and 2007, the level of leverage of these institutions was above 20%, up to 30%, with the exception of Goldman Sachs, which means that these banks financed more than 95% of their assets with debt issuance.

9. This diagnosis can be identified in the Final Declaration of the G20 meeting in 2008, particularly in two items: Root Causes of the Current Crisis and Common Principles for Reform of Financial Markets. See Declaration of the Summit on Financial Markets and the World Economy. Available at: <<https://is.gd/SZ9Y9p>>.

10. G20 Declaration on the Summit of Financial Markets and the World Economy. Washington DC, November 15, 2008. Available at: <<https://is.gd/TQM5M9>>.

On the basis of these findings, the G20 recommendations to address the crisis and avoid its deepening addressed, basically, five dimensions:¹¹ *i*) countercyclical measures by economies affected by the crisis; *ii*) introducing new rules providing for increased prudential capital reserves in lending operations (improving Basel II Accord) and mechanisms to reduce the degree of leverage; and minimum capital rules to control liquidity risk; *iii*) adoption of measures to regulate and supervise the national and international financial system; *iv*) studies to regulate the different commodity markets; and *v*) reforms of the multilateral financial institutions, the IMF and the World Bank. Also, the removal of protectionist measures was agreed.

For this paper, it is worth mentioning the recommendations on IMF and World Bank reforms. It was suggested that the fund should act more as a global supervisor and lender for less developed countries. To that end, the IMF would be provided with a US\$ 500 billion reinforcement in New Arrangements to Borrow (NAB) by member countries, in addition to the US\$ 283 billion Special Drawing Rights (SDR).¹² The World Bank recommended that at least 3 percent of quotas and voting power be transferred to developing countries and that its agencies and banks should focus on food security, human development, support for infrastructure development in countries and the financing of green technologies and climate change (Viana and Cintra, 2010, p. 18).

As a follow-up to these recommendations, G20 leaders committed themselves to laying the groundwork for reforms of these institutions, emphasizing changes in their governance structures, focus and types of operations, with the aim of giving greater voice to emerging economies, developing countries and poorer countries, thereby increasing the legitimacy and effectiveness of these Bretton Woods organizations. Also, the proposal to expand the Financial Stability Forum (FSF) to enable emerging

11. For a discussion of the measures suggested by the G20 in coping with the 2008 crisis, and Brazil's contribution to this issue, see Viana and Cintra (2010), Galvão (2010) and Scandiucci Filho (2018). For a discussion of specific measures adopted by countries in this context, see Acioly, Chernavsky and Leão (2010).

12. It is a "virtual currency" issued by the IMF and a reserve asset used only between central banks and the IMF. The SDR were allocated on three occasions. In the first, between 1970-1972, SDR 9.3 billion was distributed among the member countries; in the second, between 1979-1981, plus SDR 12.1 billion; and in the third, the G20 agreed in 2009 to strengthen the IMF's lending capacity – from US\$ 250 billion to US\$ 750 billion – of US\$ 250 billion through a new SDR issue. Still in the late 1960s, the value of the SDR was defined as equivalent to 0.8888671 gram of gold, which corresponded to US\$ 1.00. After 1973, with the demonetization of gold, the SDR price was redefined from a basket of currencies – and since 2016, the dollar, euro, yen, pound and renminbi (Cintra and Martins, 2013, p. 220). For a definition of the IMF, see: Special Drawing Rights (SDR). Available at: <<https://is.gd/C6rXVR>>.

economies and other international standardization bodies to join, and the IMF to work with the FSF to better identify vulnerabilities and anticipate crises in potential. In this regard, the Basel Committee (BCBS), under the supervision of the BIS (International Bank for Compensation), invited Brazil to become a member of the Committee, as well as Australia, China, India, South Korea, Mexico, and Russia. The difficulty of improving global regulation was precisely the limited participation, until then, of only 13 developed countries in this forum.

In the meetings that followed, between 2009 and 2013, the theme of the reforms has always returned to the agenda, due to the difficulties of being specific regarding the decisions taken and agreed with the developed countries. In 2010, at the Toronto meeting, the G20 reaffirmed in an official document that it approved the reforms agreed by shareholders at the World Bank to increase the voting power of the developing and transition countries by 4.59% and that it awaited the ratification of the quota reforms and voice of the IMF, as agreed in 2008. In 2011 and 2012, at the Cannes and Los Cabos meetings, respectively, the G20 recalled the commitment to reform the governance of the World Bank and IMF, warning of the expiration of the review period of the formula for calculating quotas in 2012. This whole process should be finalized by 2014. As far as these requests concern, little progress happened in the reforms.

It is worth mentioning that the G20, IMF, FSB, and BIS made moves to better coordinate financial and governance policies. Again, as the crisis subsided in the United States and other advanced countries; this movement lost its momentum and continued much of the financial practices that triggered the global crisis (Carvalho, 2012). By 2014, after many promises and postponements, the Barack Obama administration had still not been able to enter the IMF reform agenda in Congress as the deadline for agreed changes expired.

2.1.1 The movement of the BRICS

The point to be highlighted here is that throughout this period of discussion and decisions of the G20 on the Bretton Woods institutions' reforms, the participation of the BRICS countries was active and fundamental. In the group's meetings since 2008, the very pattern of the crisis became the agenda for the meetings, which has had important political consequences for the strengthening of cooperation relations among its member countries. Initially BRIC in 2006, still without South Africa, the group held diplomatic,

regular and informal coordination meetings that took place on the fringe of the UN General Assembly until 2008, when it decided to raise the dialogue among its countries at the level of heads of state in annual summit meetings (Brazil, 2018).

In 2009, BRIC hosted the first summit in Yekaterinburg, Russia, in 2010 the meeting took place in Brasilia (Brazil) and 2011 in Sanya (China) when South Africa was included in the group at the invitation of China. From that year, BRICS established dialogues based on two axes of common interest: *i*) the construction of mechanisms of cooperation agreements among its member countries, in several areas of knowledge; and *ii*) coordination for political action in the area of economic and financial governance and multilateral forums. In the latter, they discussed the international financial crisis, its causes and the means to deal with it, questioning the real capacity of the crisis avoidance system, and insisted on reforming the United Nations and its Security Council to improve its representativeness and promote the democratization of international governance.¹³ However, the group's efforts began to address the demands of reforms of the IMF and the World Bank (Brazil, 2017).

The main claims made by the BRICS to the G20 were reform of the quotas and votes of the IMF and the World Bank and redistribution of the representation of the Executive Board and its Financial Committee. BRICS countries accounted for 26.5% of real income and 42.2% of the world population at that time, but they held only 14.2% of IMF quotas and 11.3% of voting rights in the World Bank.

The Group has made some progress in meeting its proposals for reform of the IMF's decision-making system. With the mediation of the United States in 2009, that the European Union agree to extend the participation of developing countries in the fund quotas from 40% to 45%. The same happened to the World Bank, which should increase developing country participation from 44% to 47% in total votes. The group also had political gains in its effective capacity to veto decisions on the use and governance of the NAB policy, managed by the IMF, as the second international to run until 2012.

13. China and Russia which were already members of the UN Security Council avoided giving clear support to Brazil's aspiration to join the council as a permanent member. However, in Joint Statement they defended the aspiration of the other BRICS countries to participate in this forum (BRICS Communiqué, 2014, available at: <<https://is.gd/O6tExX>>).

However, faced with resistance in the implementation of the second phase of the reforms, the presidents of Brazil, Russia, India, China, and South Africa discussed during the BRICS 2012 Summit held in New Delhi (India) the possibility of establishing a development bank. A working group was set up to study its feasibility and report on the subject at a later meeting. In 2013, at the meeting in Durban (South Africa) and after the presentation of the study by finance ministers, the BRICS leaders decided to announce the creation of the NDB and CRA.¹⁴

Thus, when it became clear that IMF and World Bank reforms would not be ratified in July 2014, the BRICS leaders reiterated their position and signed, at the meeting in Fortaleza (Brazil), the agreements that created the two mechanisms of the group's financial cooperation: NDB and CRA. In a Joint Statement at the meeting, the group reaffirmed that the NDB would have the role of strengthening the cooperative relations between its founding countries and complementing the efforts of other multilateral and regional financial institutions for global development. The NDB would initially have a capital of US\$ 50 billion and the CRA with a value of US\$ 100 billion.

The decision to create such mechanisms was for BRICS leaders a firm response and concrete action by the group to secure the alliance established by the then four countries in 2006¹⁵ and was, above all, the first step in the construction of joint financial architecture.¹⁶

In the case of NDB, the bank was presented as the improvement of the global financial architecture, specifically focused on the deficit narrowing infrastructure in developing countries and support for environmentally sustainable projects, thus offsetting the lack of credit in the main international financial institutions. Also, the bank would fulfill a sui generis role in history by giving voice to developing countries and increasing their presence in international financial governance.

14. Press Information Bureau Government of India Prime Minister's Office. Available at: <<https://is.gd/zad8Ff>>.

15. In the words of the Brazilian ambassador, José Alfredo Graça Lima, at the time of the Statement: "The completion of these two initiatives will send a strong message about the BRICS' willingness to deepen and strengthen their economic and financial association," and stressed that their importance would lie in the fact that "the largest emerging economies have been able to start a project like this, otherwise its credibility as a group would be questioned" (González, 2014).

16. The term "architecture" is generally set as a form or unified structure implying coherence of actions or conscious attitude, we must consider that such attributes are something the financial markets, institutions and policies do not have. Rather, international arrangements evolve, as in the Bretton Woods experience, as most often unintended consequences of past actions regarding the political inability of permanent consensus. For a discussion on this point, see: Barry Eichengreen. Available at: <<https://is.gd/wx9yyT>>.

The concerning motivation to establish the CRA was attributed to the need for new funds to prevent short-term pressures on the balance of payments, providing mutual support between countries in crises, and strengthening the global network of financial protection for maintenance of stability, in addition to the existing international monetary and financial arrangements. Both the NDB and the CRA were also announced as being the result of insufficient reforms and the underrepresentation of emerging and developing countries in global governance, incompatible with their weight in the world economy regarding output, population, and territory.¹⁷

Some analysts received the creation of the NDB as necessary and timely in reflecting changes in world economic power and in redirecting resources to finance infrastructure and combat the effects of climate change, according to Stiglitz:

It is worth noting that the BRICS countries had become richer today than the advanced economies when they founded the World Bank and the IMF, and although the world has changed, the old institutions have not. They held up the agreement reached within the G20 to introduce changes in its governance with the US Congress refusing to put the IMF and the BM into the 21st century. In this sense, NDB is justified and can make the difference in facing the democracy *deficit* in global governance.¹⁸

Others saw this BRICS movement not only as a result of the pursuit of specific goals through the NDB and the CRA but the desire to set the group's path – particularly China – to achieve global ambitions for international power projection.¹⁹ Other initiatives led by the Chinese giant, such as the Asian Infrastructure Investment Bank (AIIB) proposed in 2013. These arrangements would be a sign of changes in the order created after World War II – represented by those institutions that already do not fulfill your paper – and that it was slowly being succeeded by another, albeit slowly.²⁰

17. These arguments were present in the statements made by the presidents of the five countries after a meeting held at the sixth BRICS summit, as reported by several media outlets. See Após dois anos... (2014).

18. Interview given July 15, 2014 to the Democracy Now! Program, Stiglitz drew attention to China's contribution to the NDB that would be to use US Treasury reserves with falling revenues to fund the real needs that could bring better returns. He also pointed out that Brazil could contribute by sharing the experience of National Bank for Economic and Social Development (BNDES). In addition, the bank could introduce changes in at least three aspects: establishment of a broader mandate, use of new financial instruments, and design of another governance structure. Available at: <<https://is.gd/CbW9Ho>>.

19. Many of these positions were passed on to the international press. See Corrêa (2014); Costas and Fellet (2014); and Duarte (2014).

20. Illustrative of this issue was the decision of the United Kingdom (as well as other European countries) to join the newly created IIAF in China, despite the United States' strongly opposing stance on the accession of its allies to such an institution. In this regard, see Jacques (2015).

It should be noted that the debate about the emergence of new institutions outside the Northern Axis occurred at a time of great euphoria in the face of the growth of emerging and developing countries, including the change in relative weights in the global product, the accelerated growth of their reserves and the resilience shown by these countries in the face of the shocks of the 2008 international financial crisis. This optimism was especially reiterated in the case of the BRICS countries, hailed as ascendant leadership in the world political economy.²¹

As early as 2010, *The Economist* magazine had drawn the attention of its readers to the growth of emerging countries and strengthening their institutions with important repercussions on commercial and development banks. He pointed out that while the crisis in the Western banking sector was still reverberating, the banking sector “in most emerging markets banks are seen as engines of development rather than parasitic rentiers” and that strengthening of the muscles of these banks would be increasingly needed internally to sustain the rapid growth of credit demanded by its population. According to the weekly, the crisis had altered the role of the state in the sector and strengthened the role of creditor and countercyclical mechanism of development banks, particularly in Brazil, India, and Russia.²²

Under the umbrella of this post-2008 environment, the creation of financial mechanisms by the BRICS was understood as both an opportunity for the five countries to strengthen their position and reiterate their dissatisfaction with the conduct of international financial governance by the World Bank and the IMF, as question the very role of the dollar in the global monetary system²³. It should be noted that the share of the dollar in international reserves was above 60% at the time of the launch of the NDB, with 85% of the world transactions denominated in US dollars. In Eichengreen’s words (Eichengreen, 2014):

Given the reluctance of the under-represented countries to enroll in the IMF’s preventive credit lines, central banks desperate for dollars can only obtain them from the Federal Reserve System.

21. See Velloso (2009).

22. Available at: <<https://is.gd/nH16zs>>.

23. In spite of this dissatisfaction, it should be considered that the vice-presidency of the World Bank was occupied by a Chinese between 2008 and 2012.

The Fed was reasonably cautious in allowing swaps of dollars in the last crisis in 2008; but there is no guarantee that this behavior will be repeated.²⁴

In addition to these issues, the author raises another reason for the establishment of the NDB. The fact that developing countries generally have large infrastructure needs would have led China to have a special motivation in encouraging cooperation, since that country:

may not have an infrastructure deficit, but there is something else: large construction companies are grateful for the opportunity to undertake additional projects abroad. Hence the mood and alignment between NDB's creditors and future borrowers (op. cit.).

In this question, questions arose as to what would be China's weight in the conduct of the bank's business and/or how important that institution would be to the country. This point refers the issue of NDB governance to the problem of China's "real" interests in financial institutions under its control or in which it has a stake and which has been raised in the literature. Some papers argue that the reorientation of China's foreign policy – which marks the year 2012 – whose contours have become clearer since 2014 (Lawrence, 2014; Is China..., 2017) and which should influence the way in which China will conduct its international cooperation on several fronts.

This new policy would focus on connecting economic issues with internal and external security issues (Rosenberger, 2017), with a central focus on expanding business through large-scale financing and acquisitions, creating additional business opportunities for infrastructure throughout Asia, Africa, and Latin America, and more recently in Afghanistan (Nolan, 2013). Also, China's *modus operandi* in approximating and providing resources to countries through its financial institutions includes unconventional types of co-operation regarding the requirement of conditionalities (Cipoletta, 2017, p. 17). This mode of action differs a great deal from the ideas sought and announced by the NDB in the conduct of its relations with the countries.

24. In October 2008, the Fed authorized currency swaps (US\$ 30 billion) with the central banks of Brazil, Mexico, South Korea and Singapore to provide temporary liquidity in the face of financial turmoil. See: *Federal Reserve, Central Bank of Brazil, Bank of Korea, Bank of Korea, and Monetary Authority of Singapore announce the establishment of temporary reciprocal currency arrangements*. Available at: <<https://is.gd/saU6kr>>.

Another order of issues relating to the establishment of the NDB concerned its viability as a financial institution that is intended to be global, given the size of its capital. The bank's initial allocation of funds was considered small compared to this objective, taking into account that the volume of investments required to reduce infrastructure needs is not trivial and grows year by year. Consequently, some analysts saw this as an obstacle that would hardly enable it to challenge the World Bank or make a difference in project impacts (Eichengreen, 2014; Griffith-Jones, 2014).

In light of these observations, the presidents of the five BRICS countries presented the NDB as an institution created to complement the efforts of other similar banks and to respond to the need to build a modern development agenda geared towards issues of the 21st century, thus representing an inflection in the performance of multilateral development banks in terms of operations focus and decision-making structure. That is to say, establishing with the NDB a channel to support the infrastructure agenda and sustainable development, and a new model of governance with equal power distribution among the founding partners in which none of them would have sole veto power over in any matters of the institution. As for the level of resource endowments, the bank's operations should be made with caution allowing the continuous growth of credit volume and increasing access to the capital market.

In this sense, the construction of the difference, of an identity proper to the bank would mark a type of strategic alliance between the BRICS countries in a context of important changes in the international economy. It is, therefore, the Bank's ability to adopt a mandate compatible with contemporary development issues by counteracting the most critical and obvious aspects of the institutional evolution of the "old" institutions born in Bretton Woods, particularly in the case of the World Bank.

2.2 The role of the NDB in international financing

The NDB aims to mobilize resources for infrastructure and sustainable development projects in a way complementary to the efforts of multilateral and regional financial institutions. While the need to increase investments for sustainable development projects is relatively recent, the role of multilateral banks in financing infrastructure is not new.

Although it is not the purpose of this paper to discuss the functions of development banks, it should be pointed out that for reasons such as divergences

between private returns and social returns, capital scale, high risks (technical, financial and regulatory) and time involved in particular in cases of interregional projects, the private sector is finding it difficult to provide resources at an optimal level for investment in infrastructure.²⁵ Thus, the task of providing long-term financing has historically been delegated to governments and development banks (national and international) because of the risks that banks usually do not want to take, including due to the composition of the funding, usually in the short term. Thus, many of today's largest multilateral development banks have been established, to a greater or lesser extent, to increase infrastructure investment, covering the lack of private investment (Griffith-Jones, Xiaoyun and Spratt, 2016).²⁶

With the 2008 international financial crisis, the role of national and international development banks has returned to the debate both for the countercyclical role they can play and for the contribution they can make to achieving the Sustainable Development Goals – Post 2015 agenda.²⁷ The financing offered by these institutions has the function of reducing the infrastructure deficit, which is on a considerable scale, and of supporting projects related to mitigating the impacts of climate change and the sustainable use of ecosystems. That is, contributing to economic transformation has been the main feature of these banks.

Unctad (2016) points out some reasons for stimulating the creation of new development banks, due to at least two important functions that they can fulfill: i) to promote economic transformation, without which one cannot attain and maintain socio-economic objectives; long-term financing for the creation of productive capacities and infrastructure projects. These projects are the basis of industrial activities for their role in reducing bottlenecks in the production of goods and services; and ii) support more autonomous development strategies, owing to the fragility of the world economic

25. For a theoretical discussion on the role of public banks in general, and of development banks, in particular, see Freitas (2010) and Martni (2014).

26. After World War II, the emergence of these public banks was marked by major changes in development finance, when less emphasis was placed on private finance for a mixed approach to resource sources. It was the recognition that private finance alone might not adequately distribute the long-term financing needed to develop key sectors of an economy (Griffith-Jones, Xiaoyun and Spratt, 2016).

27. The Sustainable Development Goals (SDGs) were finalized in August 2015 by the United Nations (UN). In addition to objectives related to mitigating the impacts of climate change and sustainable use of ecosystems, the themes of poverty eradication, education for all, inclusive growth, full employment, and inequality reduction are included. For details of the objectives, see: <<https://is.gd/Bd4VQf>>.

restructuring since 2008 and the uncertainty about the role of developed countries as a source of demand and capital for developing countries. The post-2008 scenario has shown that the latter need a more autonomous development strategy, needing to rely on alternative sources of credit.

BOX 1

Development Bank: functions and definitions

According to Unctad in its report *The Role of Development Banks in Promoting Growth and Sustainable Development in the South*, development banks perform their functions in a variety of ways: they provide long-term investment financing not only through loans but also through participation in the capital for the interest they have in closely monitoring projects, being able to appoint directors and other high-level employees to the companies to which they lend and in which they hold stock positions; provide guarantees; have technical teams with expertise that enable these banks to make important decisions, and have the ability to raise capital anywhere through the underwriting of securities, which implies leverage. Also, development banks play important countercyclical role, helping to maintain investments and protect the productive structure in times of financial crises (Unctad, 2016, p. 7).

Its definition of development bank differs fundamentally from the definition of the World Bank. For the latter, a development bank is "a bank or financial institution that owns at least 30% of the state capital and has an explicit legal mandate to achieve socio-economic objectives in a specific region, sector or market segment" (Unctad, 2016, p. 8, in free translation). Unctad uses another concept: development banks are "financial institutions that have a clear mandate to support development-oriented projects and a funding base where liabilities are predominantly long-term and aligned with the bank's mandate."

For Unctad, these characteristics matter more than ownership of capital, since public resources can be hanneled into commercial (though very important) activities, but this would not agree with the bank's mandate to achieve socioeconomic goals or even to exercise counter-cyclical role in financing developing countries in the face of a global financial crisis. In addition, while development banks are generally public, some experiences show banks with mixed participation, but with long-term liabilities, as well as other characteristics compatible with their mission.

Source: Unctad (2016, p. 7-8).

With these functions, development banks can contribute to the financing of longer-term projects of higher risk. Note in table 1 that the amount of investments required to support the Sustainable Development Goals is of considerable magnitude. Only the global infrastructure investment deficit accounts for US\$ 5 trillion to US\$ 7 trillion per year. For developing countries, the estimated annual value is between US\$ 1 trillion to US\$ 1.5 trillion.

TABLE 1

Infrastructure financing needs (annual)

(In US\$)

Global investment	5 to 7 trillion
Investment in countries in development	1 to 1.5 trillion
Investment in Asia	620 billion
Investment in Latin America and Caribbean	300 billion

Source: Unctad (2016).

To meet the infrastructure demands of the newly emerging countries of the

Second World War, the IBRD (now the World Bank Group’s lending window) was created and the regional banks for long-term financing to support programs and projects in developing countries. Despite the important role that these institutions have played since then, the major multilateral or regional banks are still in small numbers, and their volumes of loans are limited. The World Bank and the three major regional banks – the African Development Bank (AfDB), the Asian Development Bank (AsDB) and the Inter-American Development Bank (IADB) – jointly lent US\$ 69 billion (Unctad, 2016, p. 5).

On the other hand, global financial assets totaled US\$ 325 trillion in 2015, and annual global savings (as a sum of domestic savings) account for US\$ 19.5 trillion (table 2). Therefore, it can be concluded that this is not a problem of scarcity of resources. The developed countries concentrate most of these financial assets that offer low returns to their holders. Some of these applications could be attracted to long-term investments, and this would be the role of new development banks, national or multilateral.

TABLE 2
World financial assets (2015)
(In US\$ trillion)

Worldwide stock in financial assets ¹	325
Global savings (annual)	19.5

Source: Global Shadow Banking Monitoring Report/2017 and World Bank Data.
Note: ¹ They refer to total assets held by financial corporations.

In this context, the creation of new development banks at all levels – national regional and international – has been seen as beneficial and necessary for its role in providing long-term credit for investments in the real economy. The Addis Ababa Program (2015)²⁸ – which deals with financing for development – drew attention to the fact that short-term investment in the last 15 years has shown its volatile nature and therefore manage and address these risks, including through the sharing of technical and information expertise at the regional, interregional, and global levels. The document also noted that the 2008 financial crisis created an enabling environment for the promotion of development banks, particularly in the countries of the Southern

28. This is the Addis Ababa Action of the Third International Conference on Financing for Development, the text of which was adopted and endorsed by the UN in July 2015, Ethiopia.

Hemisphere that would also have the capacity to mobilize regional resources and support the development process, according to the Unctad document (2016, p. 6).

The Statement also emphasized the importance of the World Bank in engaging in the agenda of the new times, but especially the initiatives for the establishment of banks such as the – AIIB and the NDB, and from other sources of finance for the same purpose.²⁹ Some key points in the document are the importance given to the increase in the lending in national currency by the new multilateral development banks and the encouragement of them to use all risk management tools, including diversification, to support long-term investments.³⁰

The Economic Commission for Latin America and the Caribbean, in a document entitled *Financing for development in Latin America* (ECLAC, 2015), discussed the role of national and regional development banks and sought to show their importance in mobilizing resources as a complement to the internal efforts of countries – in the context of restrictive fiscal policy measures – in financing development.³¹ These institutions have been a successful source of medium – and long-term resources for investments in infrastructure, productive and social development and, more recently, in mitigating the effects of change climate change. Also, development banks have assumed other functions over time, including the fostering of financial institutions and markets that facilitate the mobilization of resources for real assets.

The space for development banks was expanded in the 2000s, in the case of Latin America and the Caribbean, according to ECLAC. Between 2000 and 2010, the net lending volume of national development banks grew by 15% and sub-regional development banks increased their presence in loans relative to the total loans granted to the Region by the multilateral banks. It is important that the sub-regional participation was 36%, compared to 34% of the IDB and 30% of the World Bank. The contribution

29. Other initiatives aimed at reducing deficiencies in infrastructure investments are: Global Infrastructure Hub, the Asia Pacific Project Preparation Facility, the World Bank Group's Global Infrastructure Facility, and the Africa50 Infrastructure Fund.

30. Since the Monterrey Consensus (2002), presented in the Monterrey Consensus of the International Conference on Financing for Development (2003), international financial institutions, including development banks, have been called upon to support economic and social development. In the case of international, regional and subregional development banks, they were urged to complement the domestic financing effort of infrastructure projects and regional integration between developing and transition economies.

31. See Cepal (2015).

of development banks to economic transformation, according to ECLAC, should now include a long list of concerns regarding the post-2015 agenda of the Sustainable Development Goals.

There is, in fact, a large gap to be met by multilateral development banks in meeting adequate credit needs for infrastructure and sustainable development. Particularly for the NDB, the challenge of its mandate is, among other tasks, to contribute to reducing the persistent deficit in infrastructure investments that may jeopardize the growth of emerging economies and developing countries (the focus of their mandate). The annual need for infrastructure (excluding its operation and maintenance) in emerging and developing economies will increase from US\$ 0.8 billion to US\$ 0.9 billion in 2012 to approximately US\$ 1.8 trillion and US\$ 2.4 trillion in 2020. That is, it will have an impact of between 6% and 8% GDP of these economies. It includes US\$ 200 billion to 300 billion to ensure that infrastructure results in lower CO2 emissions and can withstand climate change (Batacharya, Romani and Stern, 2012).

According to these projections, concerning space, the largest infrastructure needs will be in Asia by 2020: East Asia, including China (35% to 50%), South Asia (20% to 25%), Latin America and the Caribbean 10% to 15%). Of the four major sectors of infrastructure, electricity is the one that demands the largest share of the distribution of investments, from 45% to 60%, followed by water and transportation, both with 15% to 25% and telecommunications, around 10% to 15%. Due to these deficits, there is an investment gap to be diminished by the performance of the NDB.³² However, for this to be effective, it will be necessary for the bank to have a considerable amount of capital if it wants to make a difference in international financing.

2.3 Constitutive aspects and counterpoints with the World Bank

The Articles of Agreement establishing the NDB sought to reflect, to a large extent, the position agreed between the BRICS countries on the objective, scope, governance and decision-making structure that this institution should have to become a truly development

32. It should be noted that the emergence of these banks is associated with the high volume of international reserves accumulated by the emerging economies throughout the 2000s, which exceeded their immediate liquidity needs, as evidenced by the growth in the number of sovereign wealth funds. Most of these reserves are invested in assets of developed countries, but have enabled the creation of new property banks in developing countries (Griffith-Jones and Hertova, 2008; Griffith-Jones, 2014).

bank and make a difference in international financial architecture. Therefore, the text incorporated premises and guidelines that express another view on the performance of a multilateral development bank regarding principles and practices, so that the NDB can differentiate itself from financial institutions such as the World Bank.

The main criticisms made to the World Bank have intensified since the mid-1980s in the context of the debt crisis in developing countries. Founded in 1945 to finance infrastructure and serve the reconstruction of Europe destroyed by World War II, the IBRD (currently part of the World Bank Group) the bank gradually directed its resources to developing countries, in particular in the 1960s, due to a number of factors such as: the greater importance of the Marshall Plan in financing the reconstruction of war-affected countries, the recovery of Japanese and European economies, the increase in the number of developing countries as members of the IMF and the Bank that resulted of the movement of national liberation struggles and decolonization, as well as the acceleration of the industrialization process of most developing countries (Lichtensztejn and Baer, 1987).³³

During this period, IBRD has financed infrastructure projects, productive investments, social projects, energy development, poverty reduction, and even structural adjustments in public investments and the manufacturing and of export. The IBRD came to assume the perspective of the security and governance of the international system as a whole, having to make several adaptations in its original functions (op. cit., p. 114). This movement resulted in significant changes in the lending system (products and conditionalities) and the Bank's sources of funds, adversely affecting developing countries in crises.

It is worth highlighting that these changes reflected both the changes in the international economy in the 1960s and 1970s in the context of the Cold War – which brought new topics to the discussion agenda of economic development, such as stimulating economic growth, productive development, the decisive weight of the

33. The creation of the IBRD was a result of the successes made by the United States and the United Kingdom during the Bretton Woods Conference (1944), when the IMF was also created. Although it was created to finance the reconstruction of Europe, it was up to the Marshall Plan to fulfill that mission. While IBRD lent less than US\$ 800 million by 1954, the Marshall Plan reached US\$ 46.8 billion (including military aid) in that period. As Lichtensztejn and Baer (1987) point out, in this first moment, the bank's international projection was small. From the mid-1960s, the bank turned its agenda to finance projects in developing countries and achieved a global role.

developed countries (particularly the United States) in the definition of their strategic guidelines contributed to this institutional behavior (Weiss, 2017, p. 4).

It is worth highlighting, in summary that the main criticisms that have been addressed to the World Bank follow in three directions:³⁴

- constant changes in the mandate and functions of the bank as a result of changes in the international context of redefining the international division of labor and the interests of developed countries, particularly the United States;
- changes in lending systems both through the introduction of conditionalities on lending to structural adjustment programs for developing countries with balance of payments problems, and changes in the source of lending. These with the growing predominance of resources from private banks to the detriment of governments' contributions (with a different approach to lending); and
- maintenance of an asymmetric governance structure in the internal decision-making process, with excessive centralization of power in the hands of a few developed countries and a predominance of the United States in terms of voting, administrative, and political controls of the institution.

Therefore, while the BRICS countries recognize the contribution and experience of the World Bank in financing development throughout its history and have reaffirmed in their speeches that the role of the NDB is similar and complementary to it, the decision to establish a multilateral development bank with new characteristics is associated, among other issues, with the counterpoints to the three dimensions of the World Bank's action, albeit implicitly. It should also be noted that these criticisms of the bank performance were present in one way or another in the various demands and discourses for the institution's reforms (and the IMF) during the post-2008 G20 meetings, where BRICS played an important role in the defense of a new global financial governance.

The following will be a brief presentation and analysis of the Agreement Establishing the NDB, focusing on its proposal of performance in terms of terms of reference, types of operations and governance structure. It is a question of raising the most central points of the Agreement that incorporate or reflect the institution's

34. Lichtensztejn and Baer (1987) emphasized in their study these three dimensions in the mid-1980s as pillars for understanding the institutional evolution of the World Bank. Weiss (2017), in a recent study commissioned by the American Congress on the Asian Infrastructural Investment Bank (AIIB), takes up these points in order to situate the aforementioned Congress on the use that China can make of this bank.

aspirations for its role as a new source of international financing and mechanism of financial cooperation among its founding members.

2.3.1 Mandate

In its Chapter 1, Article 2, the Agreement establishes the purpose of the NDB and how it intends to achieve it.

The Bank's objective will be to mobilize resources for infrastructure and sustainable development projects in the BRICS countries and in other emerging economies and developing countries to complement the existing efforts of multilateral and regional financial institutions for global growth and development.

To fulfill its purpose, the Bank was authorized to perform the following functions:

- i) use resources available to support public and private infrastructure and development projects (...) through loans, guarantees, equity and other financial instruments;
- ii) cooperate in a manner deemed appropriate by the Bank and, within its mandate, with international and national organizations, public or private, and in particular with financial institutions and national development banks;
- iii) provide technical assistance for the preparation and execution of projects approved by the Bank;
- iv) support infrastructure and sustainable development projects involving more than one country;
- v) establish or be in charge of the administration of Special Funds created to serve its purposes (Brazil, 2015).

This is a very strong mandate, given that the financing needs of infrastructure investments and sustainable development projects are enormous, and that such needs are not fully met by the private financial market. One issue raised by the analysis was that the definition of infrastructure should be broad enough to allow the inclusion of projects involving other crucial aspects of development such as innovation, including adapting technologies and supporting small and medium-sized enterprises (Griffith-Jones, 2014).

While the mandate focused on infrastructure and sustainable development has been criticized for its narrow nature, this choice was thought to be deliberately narrow compared to the WB's mandate, according to a vice president of the institution. In other words, it

is restricted for the NDB not to influence the internal policies of borrowing countries, including in this concern the Bank's own definition of a bank of projects rather than programs, as the World Bank was at the beginning of its mandate (Batista Junior, 2016).³⁵

Among the functions to be performed by the NDB, its founders considered the cooperation as the most appropriate way for the institution to gain experience and strengthen its capacity for evaluation without taking excessive and unnecessary risks in the conduct of business. Following these directives, the first operations should be carried out by means of sovereign loans to governments or through the national development banks, thus availing themselves of the expertise of these institutions in their home countries (Batista Junior, 2016). An important aspect to be emphasized in working through local financial agents is that, in addition to knowing the real internal needs for better project selection, this mechanism would also serve to avoid a mistaken practice by the World Bank to suggest that governments finance certain projects (often associated with broader programs) aligned with their own country needs assessments.

The function of providing technical assistance was introduced in the Constitutive Agreement as a fundamental action because it minimizes the risks of inadequacy of projects submitted for evaluation, especially in the case of assistance offered to low-income borrowing countries, one of the focuses of loans considered by the bank.

Special funds have also been envisaged and are important instruments for the bank since they can be used both to finance the institution's operating costs and innovative projects and country-specific activities under more favorable conditions provided that it is within the bank's focus. Many multilateral banks have used such funds, such as the World Bank, through trust funds that manage donor contributions to clients. From the point of view of the scale of resources, the use of this instrument by the NDB can expand the loans beyond the restrictions of the bank's base capital and increase its financing capacity.

35. In a speech held at BNDES on Jan. 26, 2016 on the role of the NDB vice president Paulo Nogueira Batista Junior presented the main points of discussion made by the initial team about the characteristics that the bank should have and the main challenges to be faced in its structuring process. Available at: <<https://is.gd/FyMSFT>>. Accessed on: Sept. 14, 2017.

2.3.2 Scale of capital and types of operations

The volume of capital with which the NDB must operate initially is established in Chapter 2, Article 7:

The authorized initial capital of the Bank will be one hundred billion dollars (US\$ 100,000,000,000.00). (...) will be divided into 1,000,000.00 (one million) shares, with a nominal value of one hundred thousand dollars (US\$ 100,000.00) each, which will be available for subscription only by members according to the provisions of this Agreement. (...) The initial subscribed capital of the Bank will be fifty billion dollars (US\$ 50,000,000,000.00). (...). Shares with a nominal value of 10 billion dollars (US\$ 10,000,000,000.00) will be paid-up shares and shares with aggregate nominal value of forty billion dollars (USD 40,000,000,000.00) will be callable capital (Brazil, 2015).

In comparative terms, the amount of NDB's authorized capital (US\$ 100 billion) is less than half the capital of the World Bank (US\$ 252.8 billion) and of the European Investment Bank (€ 243 billion). With US\$ 50 billion of subscribed capital and only 20% of that amount for payment, that is, the Bank will have available US\$ 10 billion in initial loans that will be completed in seven years for the installments paid by the founding partners, without computing the accumulated operations (paid-in capital plus reserves, retained earnings and capital surplus). Considered low for its purposes, this level of funding has raised doubts about the bank's real funding capacity, especially if the lending scale may be large enough to make a difference in terms of overall impact.

It should be emphasized that the scope of the NDB's operations is also conditioned on its capacity to leverage and co-finance projects with the public sector and the private sector, including partnerships with other multilateral, regional and national development banks. In this case, there would be additional gains related to risk reduction and sharing of international experiences in terms of institutional engineering and financial package design (Griffith-Jones, 2014, p. 8).

Taking into account these considerations, the question of the volume of capital announced by the bank must also be seen in the light of the real capital needs for lending and the types of demand-side operations required, such as voluntary lending which come in addition to the commitments made by the institution with the Sustainable Development Agenda (Agenda 2030) and the Paris Agreement on Climate Change (2015), which are highlighted in a document on the NDB's General Strategy for 2017-2021 (2017, p. 13).

Also on the increase in the volume of credit, some experts even suggested to the NDB that in order to access the international capital markets, the credit rating agencies should discuss the impacts of different levels of capital on their lending capacity of the bank questioning whether its callable capital (US\$ 40 billion) should be given some weight, which represents the commitment of the founding countries to meet the call of capital whenever necessary, thus allowing the creation of a larger base for additional loans . The argument is that this change would be fair with the individual ratings obtained by the BRICS countries in 2013, rated by Moody's with investment grade ratings. Alternatively, that the NDB worried less about getting an international rating early in its operations and assuming a higher level of leverage, perhaps twice as much as the Andean Development Corporation (CAF), around 4 percent (Griffith-Jones, 2014).

The entry of emerging, developing and highly rated developing countries as NDB shareholders could contribute to the capital increase, if these countries' ratings were higher than those of the BRICS countries and remained so. This option raised by analysts had as its starting point the case of the CAF, which has two developed countries as partners, Spain and Portugal, which were invited precisely because they had positive valuations in that period, but soon thereafter obtained a lower rating than that of own CAF (Griffith-Jones, 2014).

Another point raised during the drafting period of the Constituent Agreement was to think of a greater contribution from China with an alternative to accelerate the amount of capital and the rating of the NDB, given that Moody's agency granted it an investment grade rating (high quality and low credit risk). However, this option could not be made because it was considered that this would imply a greater dominance of China on the bank's governance due to the greater voting power that would have and, consequently, the greater weight of that country in the domestic decision-making process. This could weaken the principle of equal participation of voting power between the founding members (Batista Junior, 2016; Stiglitz, 2014).

As to the division of resources for NDB operations, two accounting categories have been created, classified according to their functions (Article 18):

The ordinary operations and special operations. Ordinary operations shall be those financed with the ordinary capital resources of the Bank. Special operations will be those funded by the Special Funds (Brazil, 2015).

The available ordinary capital finances all ordinary operations of the institution, consisting of paid-in capital and callable capital (less the separate portion for the Special Funds), added by funds raised by loans taken by the bank, funds received in repayment of loans or guarantees, and procedures from the disposal of equity investments, income derived from loans and equity investments, any other resources or revenues received by the bank that are not part of the resources of the Special Funds. These may have the general function of supplying the bank's operational and administrative costs, as well as financing specific activities, similar to the Asian Infrastructure Investment Bank (AIIB), which also has its own institute to manage these resources.

The Article 19 establishes that the NDB's ordinary operations may be carried out through collateral, loans and equity investments; subscription of securities and other financial instruments that are convenient to facilitate access to the international capital markets. These instruments should be used to support public or private projects, including public-private partnerships, in any member country, involving any business or industrial, agricultural or service enterprise with projects in the territories of borrowing member countries. Alternatively, investments in an emerging or non-member developing economy, as long as it involves a material interest of a member (Articles 19, 20 and 21).

Extending the operations of the NDB to non-member countries has positive aspects by implying greater geographical diversification of its portfolio by preventing a disproportionate amount of its resources from being used for the benefit of a specific member. This proviso brings, in theory, lower political and financial risks for the operations, and it is up to the Board of Governors to decide on this matter, according to its statute.

A relevant issue regarding the use of the above mentioned instruments is their degree of financial sophistication. The more complex the products, the longer their design and execution will take. Thus, plain vanilla loans using simple financial instruments are recommended in the early stages of the bank because they can be carried out more quickly than the more complicated financial structures. Simplicity and transparency in investments – avoiding the short-term pursuit of profits as made by some development banks that have invested in assets that later proved to be disastrous – can reduce the risk of financial loss and pave a safer path for sustaining and feasibility of the bank (Griffith-Jones, Xiaoyun and Spratt, 2016, p. 22).

Another important point is the operations foreseen in local currencies, which was considered by the NDB as one of its main innovations, although they depend on adequate conditions for its realization (Article 24):

The Bank, in its operations, may provide financing in the local currency of the country in which the operation is carried out, provided that appropriate policies are put in place to avoid significant currency mismatch (Brazil, 2015).

The purpose of such local currency loans is to reduce risks to borrowers as well as to promote local capital markets. It is also foreseen in the Agreement Establishing the use of local currencies in situation in which the bank calls the capital (Article 9). It should be noted that the use of local currency is considered an institutional innovation of NDB not because it is new (other banks work with this modality), but because of the centrality it will have in its operations with significant participation on the dollar and the euro, according to projections of the (NDB, 2017, p. 14).

The discourse of the BRICS leaders in favor of the use of local currencies is based on the assumption that this mechanism will help promote economic cooperation among their countries, mitigate exchange rate risks, increase trade and facilitate companies' access to capital markets. In that direction, part of the international press and influential people have argued that with the increase in lending, the Chinese currency will tend to take a dominant position in the operations inside and outside the BRICS Group, even challenging the role of the dollar.³⁶

However, even though the renminbi has increased its circulation as a means of payment in the international trade chain and is part of the basket of currencies that make up the IMF's Special Drawing Right (SDR) since October 2017, the dollar remains uncontested as the dominant currency. It should be noted that more than 60% of international reserves are denominated in US dollars at central banks around the world.³⁷ The contracts denominated in the Chinese currency represent only 10% of the total and its participation in the foreign exchange market did not exceed 2% overall

36. Available at: <<https://is.gd/WY04qv>>.

37. In fact, renminbi-denominated international business has gone from zero to 10 percent in a decade, but most of it relates to China's current trade payments (including Hong Kong), and the market share of the renminbi exchange rate accounts for only 2% of the total, according to the BIS survey (2016).

(BIS, 2016). Therefore, it seems that the increasing dominance of Chinese currency in business tends to be a still regional phenomenon and should not threaten the dollar pattern at least in the short and medium term (Eichengreen, 2017).³⁸

As regards the diversification of the markets for raising funds in the composition of funding, the Articles of Agreement provide for borrowing, both in the markets of its member countries and in other countries, and must provide the necessary guarantees as determined by the Bank, and provided approved by the countries concerned (Article 26). Increasingly accessing the capital market is among the strategies outlined by the NDB for the next five years.

Finally, to realize all these aspirations, NDB must first be feasible. It means that at the operational level, the NDB's actions must take into account the close relationship between the quality of the loans and the use of the appropriate financial instruments. There is a trade-off between the speed with which a bank's loan portfolio grows and its quality since the high quality of the loans made is necessary to maximize project impacts and minimize the risk of defaults. Thus, in addition to the question of the number of loans, it is necessary to ensure that the bank obtains profits that can be reinvested, allowing capital expansion and increasing its portfolio of loans with lower risk in the long run (Griffith-Jones, Xiaoyun and Spratt, 2016, p. 20).

In this regard, the NDB established the operational and financial principles to be followed, which are described in Article 3 of its Articles of Agreement, establishing that the bank must adopt sound operating principles in the execution of its loans, always by banking regulations. Also, the bank is required to publish annual reports with an audited balance sheet of its accounts, as well as other reports that it deems appropriate for the fulfillment of its objectives and functions, involving the form, terms, and conditions of the financing (Article 21).

38. For a discussion of China's ambition to make its currency an internationally circulating asset and the conditions necessary to achieve that goal, see Eichengreen (2017) on the motivation and real weight of the renminbi in the basket of currencies of the IMF, see China... (2015).

2.3.3 Governance structure and decision-making power

Firstly, the statute establishes the founding members of the NDB: the Federative Republic of Brazil, the Russian Federation, the Republic of India, the People's Republic of China and the Republic of South Africa, but provides for new members to join the bank (Chapter 2, Article 5):

- a) membership shall be open to Members of the United Nations at such time and such terms and conditions as the Bank shall determine by a special majority of the Board of Governors. (...)
- b) membership of the Bank shall be open to borrowers and non-borrowers.
- c) the Bank may accept, as decided by the Board of Governors, international financial institutions as observers during meetings of this Council. Countries interested in becoming members may also be invited as observers to these meetings (Brazil, 2015).

In this configuration, the voting power of the founding members of the NDB (BRICS countries) is equal to each other and equal to the number of its shares subscribed in the Bank's share capital, so that they jointly hold 55% of the total voting power. Unless otherwise specified, all decisions shall be taken by a simple majority of the votes cast, and that 55% of the voting power may not be reduced, and the shareholder control of the founding members shall be maintained (Article 8):

No increase in the subscription of any member in the share capital shall become effective, nor shall any right of subscription be waived if it has the effect of: *i*) reducing the voting power of the founding members below fifty-five (55) percent of total voting power; *ii*) increase of voting power of non-borrower members above 20 (twenty) percent of total voting power; and *iii*) an increase in the voting power of a non-founding member above seven (7) percent of the total voting power (Brazil, 2015).

In this arrangement, there are two types of members: those who can take loans, which are emerging and developing countries whose joint participation can reach up to 25% of voting power, and those who can not take loans, which are the developed countries, which as members can contribute to capital, but with a maximum total voting power of 20%. It should be noted that this participation of developed countries in the membership is important both for the bank's rating process and for its potential to bring knowledge to the institution.

The new members' entry dilemma

Although the entry of new members into the NDB is provided for in its Agreement, the admission process involved intense discussion about its impact on the bank's decision-making structure. It is particularly the criteria to be used to make a country eligible for membership status and, as one of the vice presidents pointed out at the time and this is not an easy decision and must pass through the Board of Governors, the highest instance of the institution that decides by a qualified majority on that point. On the other hand, the bank aims to give emerging and developing countries greater voice and leadership power in this multilateral institution, in line (Batista Junior, 2016),³⁹ with criticisms made concerning the World Bank governance.

Nevertheless, the opening of capital was a major source of concern for the Bank's management, and the following dilemma was established: if, on the one hand, the entry of new members could not be a time-consuming process reinforce the understanding that the NDB would have been constituted as a "closed club", on the other hand, such a decision could not be taken hastily. The geopolitical aspects involved in the bank's opening process required a more informed choice as new members' holdings relate not only to the conduct of internal bureaucratic processes but involve often sensitive external political relations relating to cooperation with countries, national, multilateral and other non-financial institutions with great potential to present irreconcilable interests.⁴⁰

For these reasons, the initial NDB team was involved in drafting the Articles before opening the capital to other countries to ensure that the decision-making system strengthened common positions among the five founding countries and thereby minimized potential conflicts in their management. It is contrary to what happened with the Asian Bank for Investment in Infrastructure (AIIB), whose capital was opened before it even concluded its Constitutive Agreement, and at the time of its launch 57 member countries. But in this case, China has established 26% of its total voting power, which allows it to influence not only the bank's course but to veto issues that are not in its interests (Weiss, 2017).

39. Lecture delivered at the BNDES by the then NDB vice president, Paulo Nogueira Batista Junior, on Jan. 26, 2016, on The Role of the New Development Bank established by the BRICS. Available at: <<https://is.gd/FyMSFT>>.

40. This point can be illustrated by the position recently expressed by Russian President Vladimir Putin regarding the entry of new members into the NDB that includes the developed countries. In his view, countries that are part of Russia's economic sanctions policy since 2014 cannot be accepted in the bank (Moreira, 2017).

Hierarchical structure

Regarding the formal hierarchy designed to NDB, it incorporates, as in other similar institutions, a set of rules and procedures that guide the organization and how they are taken their internal decisions to achieve the objectives of the bank. Such decisions assume an internal chain of command based on skills, responsibilities and delegated powers distributed in several representative and deliberative bodies. In the case of NDB, Article 10 Constitutive Agreement provides that:

The Bank shall have a Board of Governors, a Board of Directors, a Chair and Vice-Chairmen as decided by the Board of Governors, and such other officers and officials as may be deemed necessary (Brazil, 2015).

Therefore, the internal organization of the bank relies on five decision-making bodies, in a formal order of importance: *i*) Board of Governors; *ii*) Board of Directors; *iii*) President; *iv*) Vice-presidents; and *v*) Staff.

According to Article 11, “All powers of the Bank are vested in the Board of Governors, constituting a governor and a substitute appointed by each member” (Brazil, 2015).

It is the highest instance of the institution, operating at ministerial level is responsible for the bank’s overall strategy and sets the guidelines for its operation. It is also incumbent upon the Board to annually select one of the governors as its president and to delegate to the Directors authorization to exercise any of the powers of the Board (exceptions in the cases provided for in the Agreement). The Board shall meet annually or when it is convened by the directors at the request of the members, with the presence of a majority of the governors, who exercise at least 2/3 of the voting power.⁴¹ The members of the Board do not receive remuneration but are responsible for establishing the salary and contractual conditions of the president of the bank.

41. Certain decisions can only be taken by qualified majority voting understood as an affirmative vote of two-thirds of members total voting power. Voting with special majority is understood as affirmative vote of four of the founding members, concurrent with affirmative votes of two thirds of the total voting power of the members. In voting in the Board of Governors, each governor may deposit of the member votes representing; the votes of the Board of Directors (Brazil, 2015, Article 6).

The Board of Governors (and can not delegate to the Board of Directors) shall exclusively: admit new members and determine the conditions of their admission; increase or decrease the share capital; suspend a member; to amend the Agreement; decide on appeals against interpretations given to the Agreement by the Board of Directors; authorize the conclusion of general co-operation agreements with other international organizations; determine the distribution of the bank's net profits; decide to close the bank's operations and distribute its assets; decide on the number of additional vice presidents; elect the president; approve proposal of the Board of Directors for call of capital; and approve the Bank's General Strategy every five years.

1) Board of Directors

Political representation body of the countries is composed of five directors. The direct attributions and delegations of powers to the Board of Directors are established in Article 12, which reads:

The Board of Directors shall be responsible for the conduct of the Bank's general operations and for this purpose may exercise all the powers delegated to it by the Board of Governors, in particular: (...) make decisions regarding business strategies, countries, loans, guarantees, equity investments, loans taken by the Bank, establishment of basic operating procedures and charges, provision of technical assistance and other operations. (...) present the accounts of each financial year for approval by the Board of Governors at each annual meeting, and approve the Bank's budget.

In addition to conducting the general operations of the NDB, it is also appropriate to approve the organization of the institution by a proposal by the chair, including the number and general responsibilities of the main administrative and professional positions of the staff. It shall also appoint a Credit and Investment Committee and other committees, as it deems appropriate. Each founding member shall appoint a Director and an Alternate who shall hold office for two years and may be re-elected. The board has an executive president elected from among the directors.

Unlike the World Bank, the NDB Board of Directors is non-resident (as well as the CAF and AIIB) and based on the five capitals, but the Agreement provides for the situation where, by the decision of the Board of Governors, by a qualified majority, the May become a resident. In this case, the president of the bank would become the chairman of the Board of Directors.

2) President

The Board of Governors shall elect the President from one of the founding members on a rotating basis, who is not a governor, director or alternate. The chairman shall be a member of the Board of Directors, but shall not be entitled to vote, unless in case of a tie and may attend meetings of governors, but without the right to vote (Brazil, 2015, Article 13).

Regarding attributions, the president exercises his or her role as head of the bank's operational staff and conducts, under the guidance of the Directors, ordinary business, such as approving the basic organization of the institution, indicating the admission and dismissal of employees, including vice to the Board of Governors. He chairs the Credit and Investment Committee (CCI), also composed of the vice-presidents, being responsible for decisions on loans, guarantees, investments in shares and technical assistance not exceeding a limit value to be established by the Board of Directors, provided that there is no objection from that council.

The president and each vice-president shall serve a term of five years, non-renewable, except in the case of the first term of office of the first vice-presidents, whose term shall be six (6) years and shall report on matters under their responsibility to the directors.

3) Vice-Presidents

Article 13 further states that there shall be at least one vice-president of each member country, except the country represented by the president, and all are appointed by the Board of Governors on the recommendation of the president. It is an innovation of the bank about its peers. The vice presidents have specific functions within the bank acting in thematic areas, as determined by the Board of Directors. As in the case of the President, the vices have a non-renewable term of office of 5 years, except in the first period of operation of the bank where the term of office is six years.

4) Staff

It is a contingent of qualified employees responsible for playing the day-to-day affairs of the bank headed by the president who has the power to admit and dismiss these employees. This group includes area directors (loans, treasury and portfolio management, human resources, etc.), heads of departments and others. In the search for a

lean, flexible and flexible administrative structure, the number of employees should be supervised so as not to create unnecessary bureaucracy and represent a high administrative cost. Consequently, staff growth should be consistent with the institution's portfolio growth targets, and performance and structure indicators should be developed covering all areas in which they are in place.

Another important guideline of the NDB refers to the expected behavior of its leaders and other officials to avoid interferences in the internal policies of the countries, as described in Article 13 of the Agreement. In short, the bank, its officers and employees, may not interfere in the political affairs of any member, nor be influenced in their decisions by the political character of the member or members under consideration. Only economic considerations are relevant to their decisions and should be weighed impartially to achieve the purpose and functions. In this way, the officials in the exercise of their functions are subordinated exclusively to the Bank and to no other authority.

About the bank's decision-making power

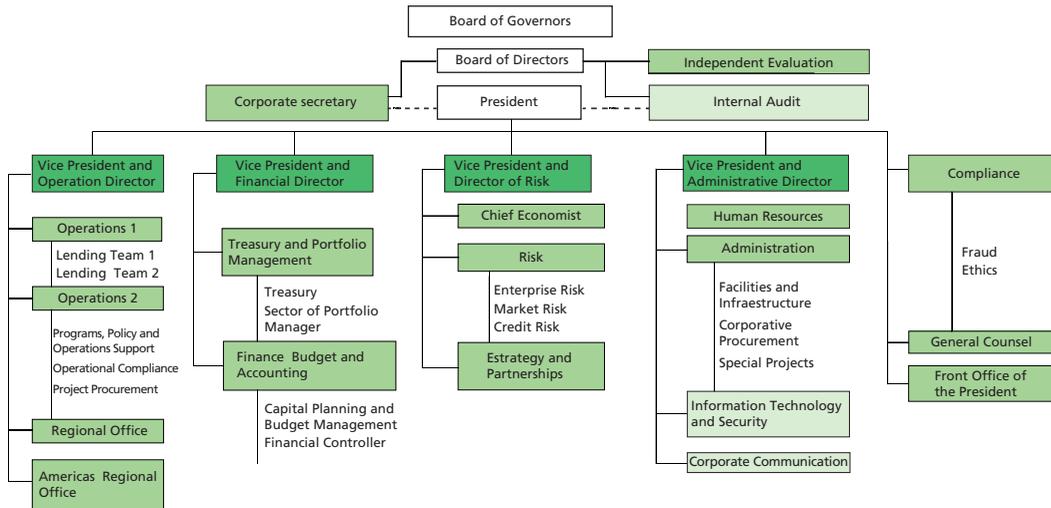
The decision-making structure is the core of a corporation because it determines who can make important decisions about its course in line with its mandate and commitments. In this direction, some considerations must be made regarding certain aspects of the formal organizational structure of the NDB presented in figure 1 below.

The concern with equal voting power of 1/5 of the total for each BRICS member in the NDB is related to the objective of avoiding the repetition of the asymmetries present in similar multilateral institutions regarding voting power and voice of the countries developed and emerging in these institutions. There is a provision that this joint participation cannot fall below 55%, with the entry of new members to ensure a system in which the five countries decide, on an equal footing, the Bank's business goals and strategies and keep it strong the alliance between them expressed in the guiding principles of the institution.

However, keep in mind that, like the World Bank, power can be exercised by other means than by voting power alone. The weight of the United States in the WB, for example, was exercised both by voting power and by the geographical origin of resources (including the size of its capital market); by the exercise of the presidency, and also by the

political and administrative control of the Institution.⁴² In addition, one can consider the possibility of situations of impasse on important and/or sensitive issues to be decided by the NDB, even if by simple majority, but that in practice there are difficulties in making such decisions without a consensus. This is due to the fact that, although all have formally equal political (and geopolitical) importance their weights are different.

FIGURE 1
NDB: organizational structure



Source: NDB, Available at: <<https://fis.gd/9Pez2f>>. Author's elaboration.

Note: Corporate Secretary and Internal Audit functionally report to the Board of Directors and administratively/operationally to the President.

Another point to note is the role of the Board of Directors. Although it is the most important body of the decision-making structure of the NDB, since its power derives directly from the delegation of powers made by the Board of Governors, it has limits of action because it is not a resident board of directors. Unlike the IMF case where the board is a resident, this instance in NDB cannot function as a balance between management and staff nor as a full day-to-day supervisor of the bank's business.

42. Being the strongest economy, the first loans were obtained from the New York financial market, then Germany and other countries were growing in participation within the WB, however the presidency was a position that should be permanently occupied by a US citizen (as well as the presidency of the IMF, by a European) and most of the presidents of the institution were leaders of large American banks. Administrative control was facilitated by the direct or indirect support of a contingent of skilled US officials who worked for the bank (Lichtensztejn and Baer, 1987, p. 158-159).

The argument that the Board of Directors was not a resident was the issue of reducing the administrative cost of the bank and better targeting the focus of directors to higher-level debates, leaving the operational part to staff (NDB, 2017, p. 4). However, this format seems to have impacts on the balance of power within the institution. That is, it can be hypothesized that directors have less power than they appear, since it is a board that meets only four times a year with a short term of only two years. This lack of contact with the daily life of the bank and the distancing of the staff may imply a partial view of the strategies and projects and their negotiation. It should be emphasized in this respect that the design of electronic systems was envisaged that would allow the board to make sensitive decisions at a distance regarding processes such as review and approval of project proposals (NDB, 2017, p. 14).

A different situation is that of the president of the bank who, although he is at a lower hierarchical level than the Board of Directors, participates in the meetings of the Board of Governors (where the general NDB guidelines and strategies are drawn), he is a resident, has a term of five years, chairs the Credit and Investment Committee where the evaluation and approval of loans, guarantees, and other instruments take place. The president still heads the operational staff, indicating the admission and dismissal of presiding officers and vice presidents, and has greater visibility for publicly representing the Institution. This does not mean that the president exercises absolute power, as there are internal mechanisms of control foreseen in the Agreement, in addition to regulatory attributions given to the competent instances, which limit their freedom of action. However, the characteristics of the position associated with the absence of a resident Board of Directors contribute to the president being the person with the greatest political transition, greater access to information and therefore greater relative power within the NDB.

To assess the importance of the balance of power within corporate governance, it should be mentioned that this problem of “formal power versus real power” was raised for the World Bank in its first decades of operation. Although the directors of the WB had the power to vote and veto delegated by the then Board of Governors, the existence of a short term of a nonresident directorate, associated to the compartmentalisation of the projects by area under their responsibility, gave these directors a vision only part of the conduct of the bank’s business, (except for the director nominated by the United States). In this formal structure, the WB presidency appeared as the superior hierarchy of the board of directors (unlike the NDB), but with the function of merely coordinating

the directors. It turns out that in practice the presidency held a considerable amount of power in their hands together with the Staff, where a select set of advisors influenced the bank's decisions (Lichtensztejn and Baer, 1987, p. 156-159).

The existence of four presiding vice presidents in the governance structure of the NDB – a vice for each member country, except for that country that holds the presidency by rotation rules – is, in fact, an institutional innovation. Nevertheless, the fact that the board (body that actually represents the founding countries) is not a resident can lead to an expectation that the vices will somehow play this role. Another issue is the process of isolating this instance with each vice president occupied with the country for which he works and acting in distinct areas and apparently without direct or complementary relations (Moreira, 2018). This fact contributes to the hypothesis that the president of the institution (together with the staff) is, in fact, the figure with more relative power.

Finally, it is worth mentioning the NDB policy of recruiting staff. This policy is based, according to the institution document, on the principle of diversity concerning nationality, meritocracy, specialization, and efficiency, seeking to give broad representation to BRICS members at all hierarchical levels of the bank. The conception of this form of recruitment and personnel allocation seems to reflect the search for the Bank's differentiation regarding the World Bank in this aspect considering that in its first decades of operation the influence of developed countries (especially the United States) was felt in the World bank, as already said, by means of administrative control, involving the nomination of people mostly composed of Anglo-American employees.⁴³

3 THE NDB OPERATION

The NDB started as a legal entity in July 2015 during the inaugural meeting of the Board of Governors held at the 17th BRICS Summit in Ufa, Russia. Also in that meeting was elected the president and the four vice-presidents. In February 2016, an agreement was

43. In the upper ranks of the hierarchy within the World Bank, among the bank's top 22 executives in 1976, 12 were Anglo-American, eight came from other OECD countries, and two were Asian. In addition, the United States received more than 50% of the consulting work that was commissioned by US companies (Lichtensztejn and Baer, 1987, p. 163).

signed with the Government of China and a Memorandum of Understanding with the Shanghai Municipal Government to establish the seat of the bank in that city, making it operational. That same year the institution received the first installments of resources from the BRICS countries as part of the process of paying its capital.

The bank was established with a mission to invest and promote financial cooperation between the countries of the BRICS focusing on resource mobilization for infrastructure projects and sustainable development. The potential of the NDB and multilateral source of financing is anchored in the growth of investment needs in infrastructure, level of capital, and economic performance of its founding members. IMF data for 2018 showed that the BRICS has a 33% share in the global output, 42% of world population and 43% in global output growth, although some of these countries are experiencing more recently by a slowdown or recession.

About the internal organizational aspects of the NDB, its operational, financial and governance policies are important factors in ensuring its viability as a global development bank that seeks to support large public and private sector projects. With authorized capital of US\$ 100 billion and a subscribed capital of US\$ 50 billion, the increase in the bank's lending capacity will depend not only on its level of capitalization, given the amount of capital paid, but also the membership of new members, the establishment of partnerships and, above all, access to the capital market to obtain resources for supply of competitive loans.

Taking into account some of the above considerations, the performance of the NDB in its first three years of operation involved: the approval of 30 projects in the amount of US\$ 8.1 billion; obtaining AAA rating in the Chinese domestic market, and recently, obtained AA+ international credit rating with stable forecast provided by S&P Global Ratings and Fitch Ratings; green bond issuance in China; growth in the amount of capital paid to US\$ 5.3 billion; approval of operational and risk policies; establishment of administrative procedures, covering all its functional areas of the bank; elaboration of the general terms and conditions for the admission of new members; signing cooperation agreements with international and national institutions; establishment of the first regional office in Johannesburg, South Africa; and approval of the bank's general strategy for 2017-2021; and signature for the establishment of the NDB Americas Regional Office in Brazil.

The following will be presented and briefly discussed the main points of NDB’s performance during this period, taking as reference the guidelines and goals set by the institution within its mandate.

3.1 Capital and operations

With an authorized capital of US\$ 100 billion and a subscribed capital of US\$ 50 billion (divided into paid capital of US\$ 10 billion and callable capital of US\$ 40 billion), NDB counts on the contribution of its five founding members to pay the amount of capital paid within seven years. Initial contributions were made in 2016, with Russia, China and South Africa anticipating their plots. Thus, in the middle of 2017, the Bank had already received the sum of US\$ 2.6 billion, in May 2018, contributions totaled US\$ 4.1 billion, and in January 2019 registered US\$ 5.3 billion, according to the Bank’s last report for investors (NDB, 2019).

Note the schedule below (table 3) of projected contributions for the period 2016-2022, published in the Bank’s General Strategy in August 2017, which signaled the commitment made by BRICS to the gradual increase in the NDB loan portfolio. It can be verified that the expected sum of the installments for 2018 was US\$ 3.5 billion, below the US\$ 4.1 billion registered in mid-2018. In 2019 the accumulated value also exceeded the expected result of US\$ 5.3 billion.

TABLE 3
NDB: schedule of paid-in capital (2016-2022)
(In US\$ million)

Year	Part (annual contribution, by country)	Total contribution (annual)	Accumulated
Jan. 2016	200	1,000	1,000
Jan. 2017	240	1,200	2,200
Jan. 2018	260	1,300	3,500
Jan. 2019	300	1,500	5,000
Jan. 2020	350	1,500	6,500
Jan. 2021	350	1,750	8,250
Jan. 2022	350	1,750	10,000

Source: NDB (2017).

For the continual increase in capital and hence the NDB’s borrowing capacity, other sources of funds can be mobilized, allowing the institution to achieve its goal of

global action. These resources can come from the capital increase made by the founding members, the entry of new members and through operations in the capital markets.

The contribution to capital increase from the entry of new members has been discussed within the bank since 2015, particularly about the criteria and procedures to be adopted for this expansion. Although it is stated in the Articles of Agreement that the NDB is open to all members of the United Nations, the terms and conditions for such entry need to be discussed and approved by the Board of Governors by a qualified majority, and such decision cannot be delegated to the governing body. Also, the decision on “criteria” was considered delicate by the Board of Governors because it was a sensitive issue and could affect the internal and operational decision-making processes of the Bank in the future. It was announced, then, that the composition of the new members would include high, middle and low-income countries, obeying the principle of geographical diversification (Scheiber, 2016).

In this context, the leadership of the NDB was authorized in July 2016 to initiate talks with potentially interested countries. On April 1, 2017, during the second Annual Meeting of the Board of Governors held in New Delhi (India), those working for the establishment of the General Conditions for Admission of New Members to the NDB⁴⁴ were discussed. The Board of Governors then approved the document entitled Terms, Conditions, and Procedures for the Admission of New Members to NDB and agreed to prepare a list of countries to be invited to be admitted to the bank by the end of 2017, to be submitted for the approval of the Board.⁴⁵ Until the closing of this work the candidates were not presented and no country signaled their adhesion to the bank.

In spite of the issue of political sensitivity, the expansion of the shareholder base brings potential benefits to the bank that go beyond the contributions of the shares made by the new members. According to analysts and one of the vice presidents of the NDB, incorporating new members would increase paid-in capital to US\$ 13 billion by 2022. Reasonable value if it is considered that the Asian Development Bank has paid capital of

44. Available at: <<https://is.gd/cjS8kN>>.

45. This issue was considered in the NDB General Strategy document: 2017-2021, published in August 2017, with a specific topic on the importance of expanding the membership of the bank. The need to approve a strategy for the NDB was emphasized by Russian President Vladimir Putin, who stressed the importance of determining the bank's geographical and sectoral priorities, beginning with the development of membership criteria and setting the main parameters of its portfolio investments (Novo..., 2017).

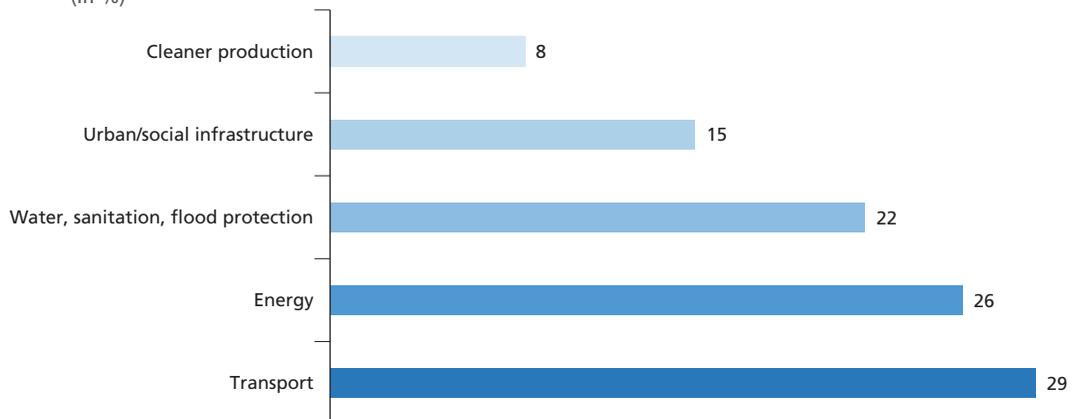
US\$ 7 billion, the Inter-American Development Bank (IDB) has US\$ 6 billion, and the World Bank has US\$ 16 billion (Batista Junior, 2017). In addition to the capital increase, geographic diversification of resources with the presence of countries with satisfactory risk assessments would reduce the risk and would facilitate the Bank’s international rating, expanding its lending capacity at more attractive costs (Griffith-Jones, 2014).

NDB initiatives to access the capital markets are still in their infancy. At the beginning of 2016, it was announced the issuance of renminbi bonds in the Chinese interbank market, both to leverage its capital and to borrow in domestic currency through swap transactions. In July of that year, NDB made its first issue of a greenback in Chinese currency in the amount of RMB 3 billion (about US\$ 448.4 million) and announced other funding in Indian currency. Borrowing in the borrower’s country currency and not just in the dollar was announced as one of the bank’s most innovative features.

3.1.1 Loans

The NDB approved loan portfolio from 2016 to 2018, included 30 projects totaling US\$ 8.1 billion. The approvals registered increasing annual values of approximately US\$ 1.6 billion, US\$ 1.8 billion and US\$ 4.7 billion, with all framed within the mandate of the bank, which has set a priority focus the projects for clean energy, transportation, water, sewage, urban and social infrastructure. In this direction, with almost a third of the total value corresponded to financing in the transportation sector and 26% to clean energy issues (graph 1).

GRAPH 1
Loan approvals, by sector (as at January 2019)
(In %)

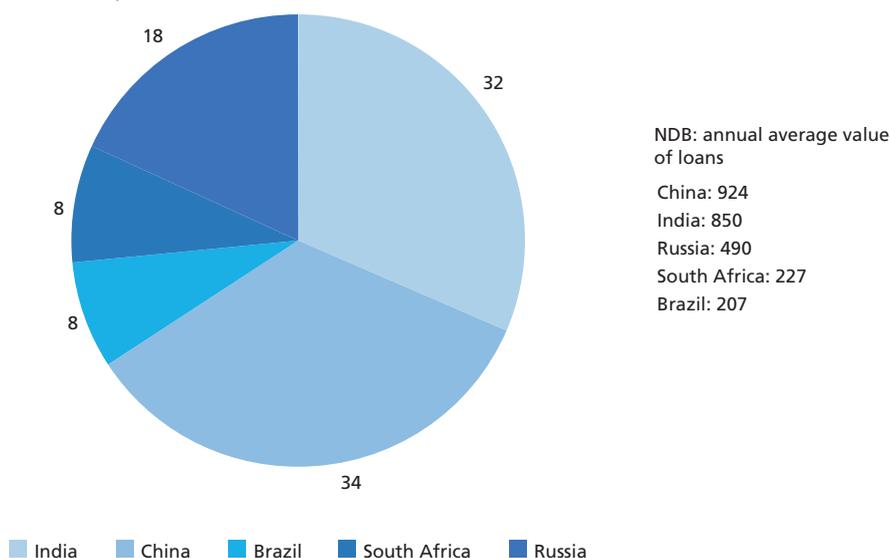


Source: NDB (2019).
Author’s elaboration.

Geographically, China accounted for the largest share of projects approved in those three years, with 34% of the total accumulated, followed by India (32%), Russia (18%), South Africa (8%) and Brazil (8%), as shown in graph 2. The NDB foresees that by 2021 about two-thirds of the resources approved and disbursed will be allocated to projects in sustainable infrastructure.

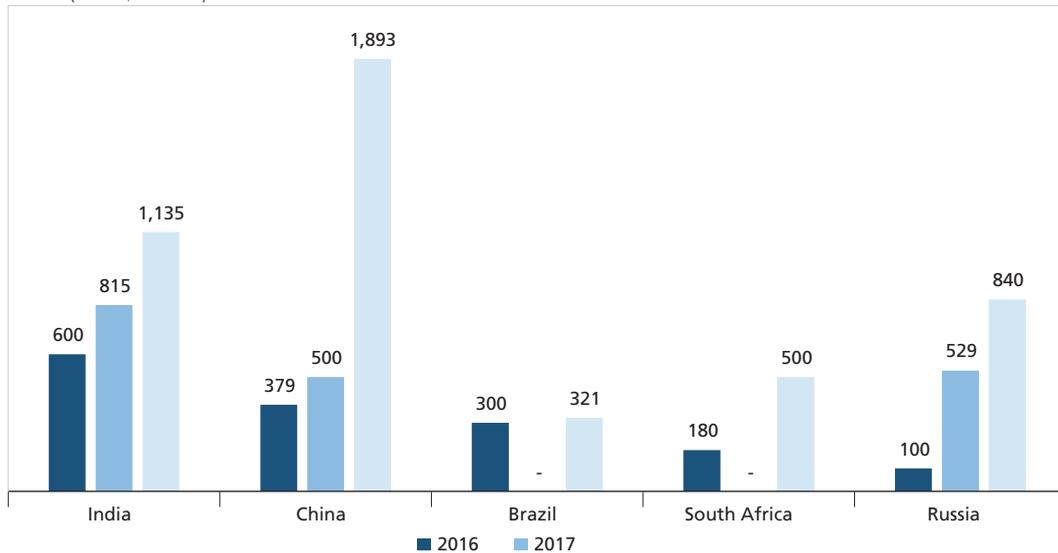
In terms of values, China has accumulated US\$ 2.8 billion in financing, followed by India with US\$ 2.5 billion, Russia with US\$ 1.5 billion, South Africa with US\$ 680 million and Brazil with US\$ 621 million. When analyzing these data in a more disaggregated way, it is possible to identify the annual values of the approved loans by destination country (graph 3), as well as to discuss the allocation of these resources by project, in sectoral terms and by type of risk, as described below.

GRAPH 2
NDB: participation of the five countries in the approved loan portfolio (2016-2018)
 (In US\$ million)



Source: NDB (2019).
 Author's elaboration.

GRAPH 3
Loan approvals, by country (2016-2017)
(In US\$ million)



Source: NDB (2019).
Author's elaboration.

In 2016, seven projects were approved in the NDB with a total value of US\$ 1.7 billion. India has demanded loans to finance two projects, obtaining a 38.5% share of total bank approvals for that year. The first US\$ 250 million project was for the renewable energy, solar, wind and other areas with a capacity to generate clean energy of 500MW. This loan was borrowed by Canara Bank, an Indian financial conglomerate established since 1906 with representation in several countries and operating in a wide range of sectors, particularly in infrastructure financing. This loan had as guarantor the government of India (loan with sovereign guarantee). The second US\$ 350 million projects was aimed at improving the physical infrastructure of 1,500 km of roads in Madhya Pradesh, the largest state in India and located in the central region of the country, with the aim of improving the space and access to markets in the interior regions of the State. It was also a loan operation for the government of India that was the borrower and guarantor of the operation, with the end user being the government of Madhya Pradesh.

China in the same year presented projects totaling US\$ 379 million, accounting for 24.3% of bank approvals. The first project was worth US\$ 81 million for solar energy distribution in the industrial area of Lingang (Shanghai), where facilities for the generation of 100 MW of solar energy will be developed. The project's impact

estimate is that with these facilities it will be possible to avoid the emission of 73,000 tons of CO₂ per year. The borrower of the resources is the government of China, through a sovereign loan, in transfer to Hongbo New Energy Development Co. The second project approved for US\$ 298 million was directed to the generation of 250 MW of wind energy in Pinghai Bay (Putian), an exporting base city of Fujian Province, with a final executive as a subsidiary of China's state-owned Fujian Investment and Development Group. The expected impact of this project is to avoid the emission of 869,000 tons of CO₂ per year in the said Province. The loan also with sovereign risk.

For Brazil, funds totaling US\$ 300 million (19.2% of approvals) have been approved to support renewable energy projects (wind, solar and hydroelectric power), it is estimated that the projects will have the additional capacity to generate 600 MW of clean energy, with estimated environmental impact of reducing 1,000,000 tons of CO₂ per year. Part of these resources (US\$ 67.3 million) will be allocated to the states of Piauí and Pernambuco that are part of the so-called Araripe 3 Wind Complex, involving six parks of the fourteen existing ones with a total installed capacity of 358 MW⁴⁶. The borrower is the BNDES, term for payment of 12 years, a grace period of 3 and a half years and interest rate based on Libor.⁴⁷ Although the NDB information for this operation in Brazil classifies it as non-sovereign, in practice it is almost sovereign, since it is a public development bank with low or no risk of non-payment or default.

South Africa had a total of US\$ 180 million in approved loans (11.5% of the total approved by the bank), the resources aimed at building network infrastructure for renewable energy projects that generate up to 670 MW. The expected positive impact is to eliminate the emission of 48,000 tons of CO₂ per year. The borrower was Eskom Holdings, the state-owned company responsible for 95% of the electricity supply used by South Africa, and 45% of that used throughout Africa. It plays an important role in the generation, transmission and distribution of energy to industry, mining, commerce, agriculture, and residential units, as well as serving the Southern African Development Community (SADC) with 15 members. Eskom-approved loans have the guarantor of the South African government.

46. Available at: <<https://is.gd/9WFfOt>>.

47. London Interbank Offered Rate. This is an average interest rate against which a representative group of banks makes unsecured loans on the London money market.

Russia in 2016 approved a US\$ 100 million project package (6.4% of bank approvals) to support the construction of a small hydroelectric power plant in the Republic of Karelia, Russia's border region with Finland, whose energy matrix is lacking in hydrocarbons, leading the region to seek alternative energy investments. The resources are allocated to two plants (Belopozhskaya 1 and 2) with a total capacity of 50 MW. Two financial institutions were borrowers: the Eurasian Development Bank, a regional development bank established by Russia and Kazakhstan, and the International Investment Bank (IIB), a multilateral development bank with Russian participation. In this case, it was a non-sovereign loan.

In 2017, six projects worth approximately US\$ 1.844 billion were approved, with India (44.2%), Russia (28.7%) and China (27.1%). For India, US\$ 815 million of loans were approved for two projects, one for increasing the supply of water and sewage in rural areas (US\$ 470 million) in Madhya Pradesh province, and another for irrigation of agriculture with the use of water portrayed in the State of Rajasthan. It is an arid region in northwest India, with a population of more than 68 million inhabitants, occupying more than 10% of the country's land and bordering Pakistan. The impact of this investment is estimated to lead to a 10% increase in water use efficiency. Both projects are considered to be sovereign risk loans because they have been borrowed by the government of India which passes on to the final beneficiary states.

Russia's demand was US\$ 68.8 million for infrastructure projects involving road improvements and urban and rural mobility, making traffic safer in its less central areas. One of the objectives is to strengthen the position of the city of Ufa (capital of the Republic of Bashkortostan) as a strategic transport hub since it has more than one million inhabitants and constitutes an important industrial and scientific center. The expected impact of this investment is to promote a more balanced spatial development between residential and industrial areas. The policyholder was the government of Russia, so it was a sovereign loan. Another project presented by this country was the modernization of its judicial system (Supreme Court and district courts) for US \$ 460 million, aimed at improving the transparency of processes and provision of services to citizens. It is considered by the bank as an investment in social infrastructure, with impacts on system efficiency and increased judicial protection of Russian citizens.

China has submitted two requests for loan approvals in the order of US\$ 500 million. One for the water quality improvement and sanitation and flood control (US\$ 300 million)

project in the cities of Changsha, Zhuzhou, and Xiangtan, all of Hunan Province, which is the seventh most populous region in China and the tenth in territorial extension. The other directed to energy conservation and reduction of the use of coal in Jiangxi Province an area rich in natural resources such as copper, uranium, gold, silver, among others, in addition to housing an export processing zone and another industrial development zone of high technology. The expected impacts of the two projects are the increase in water quality and its better use and reduction of CO₂ emissions by 263.4 tons/year. Funding will be provided through sovereign loans assumed by the Chinese government.

For South Africa and Brazil, no records of new projects or projects approved in 2017 were found.

The year 2018 presented some changes. Another seventeen projects were approved by the NDB, totaling approximately US\$ 4.7 billion. China borrowed approximately US\$ 1.9 billion, a significant increase considering that in 2017 and 2016, Chinese demand was US\$ 500 million and US\$ 380 million, respectively. As a result, China's share of NDB's credit portfolio has been growing at around 40% (almost double its position in 2016). There were five projects presented, the first in the amount of US\$ 300 million aimed at the development of the sustainable infrastructure of seven small towns in Chongqing Municipality to improving the living conditions of their populations.

The second project – of equal value to the first – aims to build the first urban rail line in Luoyang city, involving a stretch of 22 km and 18 stations. The third (US\$ 288 million) was presented with the purpose of building an offshore wind farm with capacity to generate 300 MW and provide energy infrastructure for Guangdong Province, seeking to reduce emissions of 499,500 tons of CO₂ per year. The fourth project (US\$ 605 million) is expected to support the construction of a new airport in the city of Hohhot, in Inner Mongolia, with a capacity of 28 million passengers and 320 thousand tons per year. The fifth and last approved project requires a US\$ 400 million loan to enable the construction of gas distribution system natural resources in Jiangxi Province as part of the plan to promote sustainable economic development there. It is important to mention that all approved loans from the government of China are sovereign financing.

India's demand for NDB loans has also increased, however, less than the Chinese: the volume of approved projects increased from US\$815 million in 2017 to US\$ 1.1 billion in 2018. In spite of this absolute increase, its NDB portfolio allocation stood

at 24%, down from 44% in the previous year. These resources sought to support four projects, the first in the amount of US\$ 350 million, focused on the construction and improvement of 4 thousand kilometers of roads in rural areas, involving a belt of 26 districts of Bihar (the 13th largest state in India in terms of territory, and the third in population), benefiting 3,400 households. The second and third projects – of US\$ 175 million and US\$ 350 million, respectively – are focused on the improvement of 350 bridges and highways located in the largest districts of the state of Madhya Pradesh, including the construction of 2,000 kilometers of road. The fourth project, value of US\$ 260 million, seeks to support urban mobility by building three subway lines in Mumbai that will cover 58 km, thus speeding up the public transport service. From the point of view of the risk of the loans, all the four projects have sovereign guarantees from the government of India.

Russia secured loan approvals of US\$ 840 million in 2018, up from US\$ 529 million in 2017, although its share of the bank's total portfolio dropped to 18 percent, compared to 29% in the previous year. As with India, Russia's lower weight in the bank's portfolio results from the considerable advance of Chinese demand for new loans from the bank. Three projects were submitted, one in the amount of US\$ 320 million, aiming at the modernisation and construction of integrated water supply and sanitation systems along the Volga river to combat water pollution. Another, in the amount of US\$ 220 million for the development of tourism infrastructure, focusing on the preservation of cultural heritage, and development of urban infrastructure of nine historic cities of national relevance. And finally, a US\$ 300 million project to build sustainable infrastructure, including water treatment facilities, transport and logistics infrastructure. It should be noted that almost all projects involved sovereign financing to the Russian government.

For South Africa, the NDB approved an amount of US\$ 500 million, which gives the country an 11% share of the total resources allocated by the bank in 2018. One of the projects presented in the amount of US\$ 200 million aims to enhance the capacity of port in Durban, through rehabilitating of container terminal berths and upgrading of port infrastructure to provide additional slots for larger vessels. The other US\$ 300 million project seeks to support the development of the energy sector to achieve greater reductions in CO2 emissions, improvement of energy sector mix and robustness, as well as to the increase of energy efficiency.

Brazil had three approved projects worth a total of US\$ 321 million, corresponding to 7% of the bank's portfolio in 2018. These are: *i)* US\$ 50 million for the of urban roads and drainage, sanitation and telecommunication in small urban cities in 29 municipalities of the State of Pará; *ii)* US\$ 71 million for the Improvement and reconstruction of 143 km of the MA-006 Maranhão State highway; and *iii)* US\$ 200 million for the infrastructure of 2 existing refineries owned by Petrobras company with the objective of reducing harmful emissions and preventing water and soil contamination. As for risk, the first two projects involved financing with sovereign guarantees for the governments of Pará and Maranhão, while for the latter, non-sovereign financing.

As already mentioned, the NDB approved, during its three years of operation, a total of US\$ 8.1 billion of loans corresponding to thirty projects. In terms of growth, the total value of approvals in 2017 increased 18% compared to 2016, and 154% between 2017 and 2018. The average value of approved loans during the period was US\$ 270 million per year.

It is important to emphasize that although the amount of BRICS countries' contribution to the NDB's capital is distributed equally among them, As shown in table 3, the ability of each to present projects and benefit from this source of funding varies greatly what it implies in different "loan/contribution relationships". This point can be verified by the ratio between each dollar of loan approved and taken by one country and each dollar coming out of that country's budget for the payment of the installments of the capital paid by the bank for a given period.

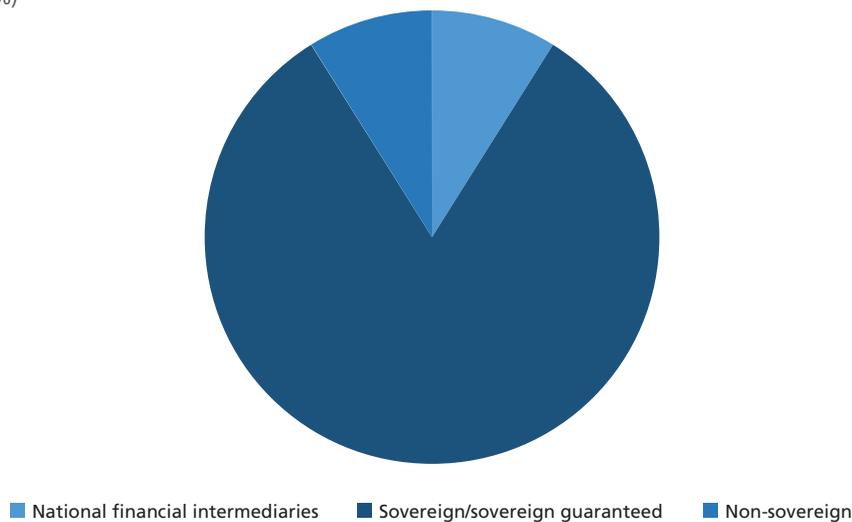
A simple exercise of this BRICS budget effort for the three years of operation of the NDB shows that the largest beneficiaries of this funding source were those with a loan/contribution ratio of more than 1. In this case, China, whose 4.0, i.e. in cumulative terms, this country contributed US\$ 700 million by 2018 and obtained four times that amount in approved loans. Next comes India with 3.6; Russia with 2; South Africa, with 1; and Brazil, with 0.9. However, these relationships may change over the next few years by improving the capacity of countries to develop and submit new projects.

Looking at one of NDB's goals for efficiency in loan approvals, the bank's latest investor report states that all procedures (structuring, negotiating, reviewing, approving loans and disclosing) should be carried out in a maximum of six – less than the World Bank, which is normally 18 months. As previously mentioned, this process raises in the

literature the discussion about agility *versus* quality of the consolidated portfolio. Thus, the NDB has sought to show investors in its presentations that it can excel in the agility of the process without losing the commitment to the standards of risk management and credit quality, something that can only be verified in a longer term of the bank's performance when the volume of disbursements that is still small (as will be seen later) gain greater proportions. However, the NDB ensures that the entire process is focused not only on efficiency, but also on risk management, legality, treasury principles and compliance, and the inclusion of a verification system on issues involving risks involving the environment, terrorism, and other illegalities (NDB, 2018).

The demands evaluation process begins with discussions directly with interested countries, considering that the process requires caution due to the NDB's lack of experience in evaluating the proposals. Given this, the bank has avoided taking unnecessary risks in setting up the first portfolios of projects and has favored sovereign loans made to governments or operations with national development banks, covering more than 90% of operations. In the cases of Brazil and Russia, loans approved have sovereign and non-sovereign risks, as the funds are passed through both National Financial Intermediaries (BNDES and Eurasian Development Bank, respectively) and directly by the corporations, like Petrobras. Graph 4 shows the distribution of total loans approved by type of risk taken by the bank.

GRAPH 4
NDB: loan approvals, by type of loan/risk
(In %)



Source: NDB (2019).
Author's elaboration.

Operations with BNDES, for example, involved mature projects in its portfolio due to the Bank's experience in the selection and evaluation of the borrower. A dollar credit line was opened, specifically linked to such projects, and BNDES was responsible for the loan to the final borrower, in *reais* (Brazilian currency), thus with credit risk, and the NDB with BNDES risk. The NDB intends that non-sovereign operations, particularly with the private sector, to be realized in greater volume in the future when their operational capacity permits.

Another form of lending to be worked out by the NDB is the development of co-financed projects provided for in partnerships established between the bank and other national and global financial institutions such as the European Investment Bank (EIB), the World Bank, the AIIB and CAF, among others. Funding projects in partnership are part of NDB's strategy for the potentially positive aspects they bring about sharing expertise, developing new products, providing technical assistance, lower transaction costs, and further dilution of the risks associated with ventures. This arrangement, however, requires legal, institutional mechanisms and an efficient management system that allows the monitoring of the entire cycle of projects financed in their different stages.

Operations involving the special funds are provided for in the NDB's Constitutive Agreement, as already mentioned. In 2017 and 2018 the NDB gave concrete form to signed agreements with China, Russia and India, and South Africa for the creation of a Project Preparation Fund that should, among other things, facilitate the preparation and study of the feasibility of projects of public and private partnerships between the member countries of the institution.

3.1.2 Disbursements

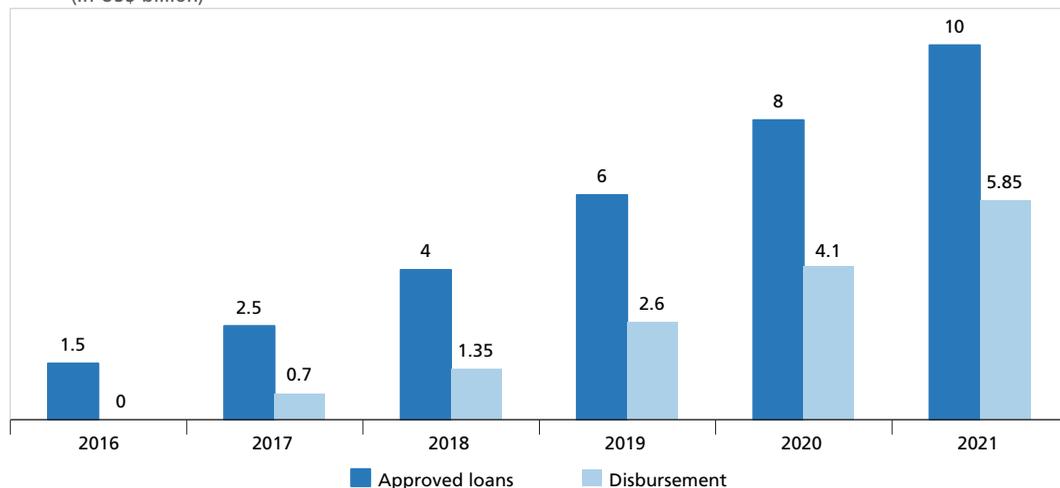
Regarding the disbursement schedule, there is still no official information available from the NDB to assess the ratio of approved loans to actual disbursements. For Brazil, BNDES disclosed in April 2018 the transfer of US\$ 67.3 million as part of the US\$ 300 million closed in a contract approved in 2017 with the NDB, corresponding to 22.4% of total loans contracted.

Information on the disbursements made is of great importance because it allows in the long-term analysis of the conditions regarding costs and rules to be fulfilled for the project framework and the release of loans, taking into account that the approved

resources are not necessarily effective. This question can be illustrated when analyzing World Bank lending data for Latin America in two periods between 1961-69 and 1970-79. In the first period, the ratio disbursements/loans approved was 0.69, and in the second one this ratio fell to 0.53⁴⁸, that is, between 30% and 40% of loans to Latin America were not disbursed. It is explained by factors related to the deterioration of the balance of payments of those countries at the time – which left the institution more cautious in allocating its funds – and the increase in borrowing costs associated with the terms of its release (Lichtensztejn and Baer, 1987).

Despite the absence of this information for the NDB, two projections for the approved loans and their disbursements for the period 2016-2021 were published in June 2017. The first in a conservative perspective regarding the evolution of the number of projects; and the other in one scenario in which this number increases substantially. Taking the conservative perspective, it was estimated that fifteen projects would be approved in 2017 in the total amount of US\$ 2.5 billion and that year’s disbursements would be US\$ 700 million. By 2021, the number of approved projects would reach fifty, totaling US\$ 10 billion with disbursements of US\$ 5.8 billion (graph 5).

GRAPH 5
NDB: projections of approved loans and disbursements – conservative scenario (2016-2021)
(In US\$ billion)



Source: NDB (2017).
Author's elaboration.
Obs.: Estimated average value of each project: US\$ 167 million as of 2017 and US\$ 200 million as of 2018.

48. If we consider the Net Disbursement (defined as gross disbursement less payments or repayments of previous loans) on the approved loans, the fall is even greater between the two periods: from 0.50 to 0.34.

In this scenario, the proportion of disbursements/loans approved as an indicator of effective onlending would have a growing trend: 28% in 2017, 43% in 2019 and 58% in 2021. In cumulative terms, the NDB would have in five years a portfolio of approved projects in the order of US\$ 32 billion and a total disbursement of US\$ 14.6 billion a year, with an approved disbursement/loan ratio of 45%.

In a more optimistic scenario, the number of projects would reach 75 in 2021, totaling US\$ 15 billion of approved loans with disbursements of US\$ 8.1 million. The ratio of disbursements/loans approved would then rise to 54% this year. It should be noted that closed the balance of NDB operations for the year 2017, the number of projects approved was only six, equivalent to the sum of US\$ 1.8 billion, amount indicated in the previous item on the distribution of loans per year/parents. This means that in 2017 the NDB financed less than half the number and value of projects estimated for that year, even considering the conservative scenario.

It should be clarified that the data presented in both scenarios start from the hypotheses that only account for the contributions made by the founding countries to paid-in capital, as a source of funds for loans, thus disregarding the accumulation of reserves, new members and paid amortizations.

In spite of the lack of complete information, estimates for aggregate data on NDB disbursements point to an accumulated value of only US\$ 226 million between 2016 and 2018 compared to a volume of approvals of US\$ 8.1 billion in the period, representing 2.8% of total approved loans. When confirming this estimate, many questions are raised regarding the difficulties for the effective transfer of resources, both on the demand side (difficulty in designing good projects, obtaining sovereign guarantees in the context of fiscal restraint, meeting prerequisites etc.) and on the supply side (institutional rite of approvals, albeit agile, but with deficiencies in the stage of business completion, management problems, among others). In addition, a low proportion of disbursements the bank to fulfill its mission, how to perform operations on a global level and be compelled to access the capital markets and to sophisticate the use of financial instruments.

Finally, another important indicator of the bank's operations is the ratio of disbursements made to equity (shares that make up paid-in capital) available at the institution to honor all of its commitments. Considering the data presented in table 3 on the payment schedule of the member countries' contributions for the

period 2016-2022, as well as projected disbursement data (graph 5) in a conservative scenario for the same period, it is expected that the ratio between the accumulated disbursements on accumulated paid-up capital evolve each year as follows: 0.32 for 2017, 0.93 for 2019, and 1.77 for 2021. This behavior reflects the growth strategy of NDB operations in its initial years, which are deliberately done with great caution to avoid raising the portfolio risk.

3.1.3 Funding

As a source of loanable funds, the NDB basically accounts for the portions of the contributions of its member countries, as well as funding from the capital markets. Currently paid-in capital has been the main funding base offered by the banco, but additionally the NDB launched its first green bond in Chinese currency in mid-2016 in the amount of RMB 3 billion (about US\$ 448.4 million) to finance projects in the BRICS countries, which increased the resources available for the next five years. In the same direction, two other operations were announced by the bank's president, one in renminbi (3 billion) and another in rupees, using masala bonds (bonds in rupees issued outside India)⁴⁹ planning, thus obtaining up to US\$ 500 million as an additional source of funds for new loans. However, such operations – as the president pointed out – would only be realized after the NDB was evaluated by international risk rating agencies.

As it did not have an international rating in 2016, NDB's first unsecured green financial bond was launched on the Chinese interbank market, as set by the Bank of China China (BPC) in 2015. It is five year maturity bond, a 3.07% coupon with China Domestic Rating AAA rating. The main subscribers were BPC, China Construction Bank (CCB), Industrial and Commercial Bank of China (ICBC), China Development Bank (CDB), HSBC and Standard Chartered Bank (SCB), being the custodian of Central China Depository & Clearing Co Which was considered successful due to the final offer of more than 3 times the expected amount and had more than thirty investors (NDB, 2018).

This initiative is part of the bank's strategy to leverage its capital and to lend preferentially in the currency of the claiming country using swap transactions. The NDB considers this operation innovative, since raising funds in the same currency in which the loan is intended to avoid a greater risk of the exchange variation for

49. Available at: <<https://is.gd/GHuthU>>.

investments in infrastructure that have a long maturation period. Dollar operations are also planned, and occasionally in euro. The terms and conditions for the provision of such loans, however, are based on the use of floating interest rates linked to a reference rate (based on borrowing cost), plus a spread that is determined at project approval. In particular, in the case of dollar-denominated loans, the reference is the six-month London Interbank Offered Rate (Libor), and in the case of the euro, the six-month European Interbank Offer Rate (Euribor).

The bank's funding strategy also seeks to ensure sufficient resources to meet its liquidity needs by expanding the loan portfolio and meeting its operating expenses. To do this, the bank wants to raise funds in the global capital markets and local markets of member countries, using hedge mechanisms and achieving greater flexibility in the institution's choice of fundraising instruments. For the future, the bank projects growth in the volume of funds taken in these markets to US\$ 3.8 billion in 2018 and could reach US\$ 15.2 billion in 2021. If these projections are made, the debt to equity ratio (debt/equity) will be at 1.85. In a more optimistic scenario, these figures could reach US\$ 7.45 billion and US\$ 21.2 billion, respectively, and the debt/equity ratio to 2.58 (NDB, 2017, p. 24).

For this to happen, the institution will need to pursue good results of indicators such as capital adequacy, liquidity and good performance of the loan portfolio, in addition to the continued commitment of the shareholder countries with the bank to compensate for the lack of financial history of an operating institution some time ago. However, it should be considered that, in addition to these factors, the entry of new partners into the NDB contributing to the geographical diversification of their portfolio may mean a further reduction of the bank's risk, but this is still an obstacle to be solved in the next years. This is not to mention the "unfavorable economic performance" factor of some of its member countries in recent years and the difficulties of coordination among the group which may contribute negatively to the evaluation of the bank, since this is composed not only by the individual credit profile of the stand-alone credit profile (SACP) but due to economic considerations affecting the fiscal situation of the shareholder countries.

3.2 Operational and financial policies

It is also worth mentioning that the operational and financial policies outlined by the NDB are important because they reflect the shareholders' long-term commitment to governance and the soundness of their activities in achieving their objectives.

Punctuality in the payment of the installments of the capital to be paid in, the quality of the loan portfolio, the risk management and the structure of its accounting balance are indicators of strengthening and resilience of the institution.

The NDB has implemented policies in this regard as a way of laying the groundwork for access to external sources of investment (NDB, 2017, p. 21). Besides, the capital paid by the member countries represents an opportunity cost of public budgets that implies fiscal effort, so moving forward in strengthening the governance and risk management and governance structure should be the bank's top priority. The policies adopted are related to projects and other issues involving exchange, liquidity, investment, interest rates, and operational risks, based on the experiences of development banks and private financial institutions. The higher proportion of sovereign risk loans in its portfolio illustrates the institution's concern to minimize uncertainties in its portfolio in its initial operations (graph 2).

Prudential policies throughout the loan portfolio management and evaluation process should ensure a limit to the bank's indebtedness and excessive growth of the available capital (equity) loans ratio, and provide adequate liquidity levels and higher asset quality investments. Thus, sound banking practices can enable the NDB to leverage resources as a reliable debt issuer and thereby bring down the cost of raising funds and accessing a greater variety of financial instruments. The bank will also need to promote the diversification of its portfolio over the next five years and ensure its preferential creditor status.

The metrics adopted by NDB in its risk management structure are divided into two fronts: liquidity policy and capital adequacy policy. The first deals with the Minimum Liquidity Level required to sufficiently ensuring liquid assets for a cash flow provision for at least twelve months, without resorting to additional funding from markets or governments. It, therefore, has functions such as supporting the bank's operations, forming a liquidity buffer to anticipate losses and securing the volume of loans, serving to protect the bank's solvency and maintain a good risk rating.

The balance of operations of the NDB published in 2018 brought some important indicators, on a comparative basis, presented in table 4 below. It can be observed that the Institution's Liquidity Level reaches 41%, expressing the number of net assets over

total assets, a level higher than that of the Asian Development Bank (ADB) and the International Bank for Reconstruction and Development (IBRD). The level of leverage of the institution, which reflects the level of third-party borrowing (borrowing) in the bank's capital structure, is 4% and is the second lowest compared to other banks. Still, the share of paid-in capital in NDB's total capital accounted for 20% in December 2017, a proportion equal to the AIIB and higher than the IBRD.

TABLE 4
NDB and other development banks: indicators of capitalization and liquidity

Credit rating	NDB	AIIB	ADB	AfDB	EBRD	EIB	IBRD	IFC	IADB	CAF
	NDA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA-
Total assets (US\$ billion)	10	19	182	46	68	660	406	92	129	38
Liquidity (%)	41	55	21	39	44	7	18	50	37.5	31
Leverage (%)	4	0	72	77	71	91	90	73	94	85
Total shareholders equity (excluding callable capital, US\$ billion)	10	19	50	10	19	85	40	25	6	4.9
Total subscribed capital (US\$ billion)	50	95	151	93	36	292	253	3	170	7.9
Paid-in-capital as % of total subscribed capital	20	20	5	8	21	9	6	100	3.53	62
Net income (US\$ million)	31	112	31.5226	245	713	3,311	260	1,523	615	76

Source: NDB (2018).

Obs.: 1. Annual Audited Financial Statements of each institution as of 31 December 2017, except for IFC and IBRD, where Annual Audited Financial Statements as of 30 June 2017 were used.

2. EBRD – European Bank for Reconstruction and Development; IFC – International Finance Corporation.

Regarding the credit risk assessment, the NDB had not yet been evaluated in 2017, but shortly before the closing of this work the the bank obtained its first evaluation by the Fitch agency which pointed out the factors that determined its classification in AA + in the long term and F1 + in the short term, with a stable outlook. Liquidity was measured by the AAA note, with the bank's operations being carried out in a medium business risk environment. Capitalisation was considered “excellent” due to the US\$ 10 billion subscribed capital, with a high degree of capital contribution by the end of 2017. The institution's risk profile was considered a “low risk” of credit due to its “Strong” risk management policy. However, the small number of shareholder countries (which are both lenders and borrowers) led the agency to rate the bank's profile as “highly risky.”⁵⁰

50. Available at: <<https://is.gd/mP94EY>>.

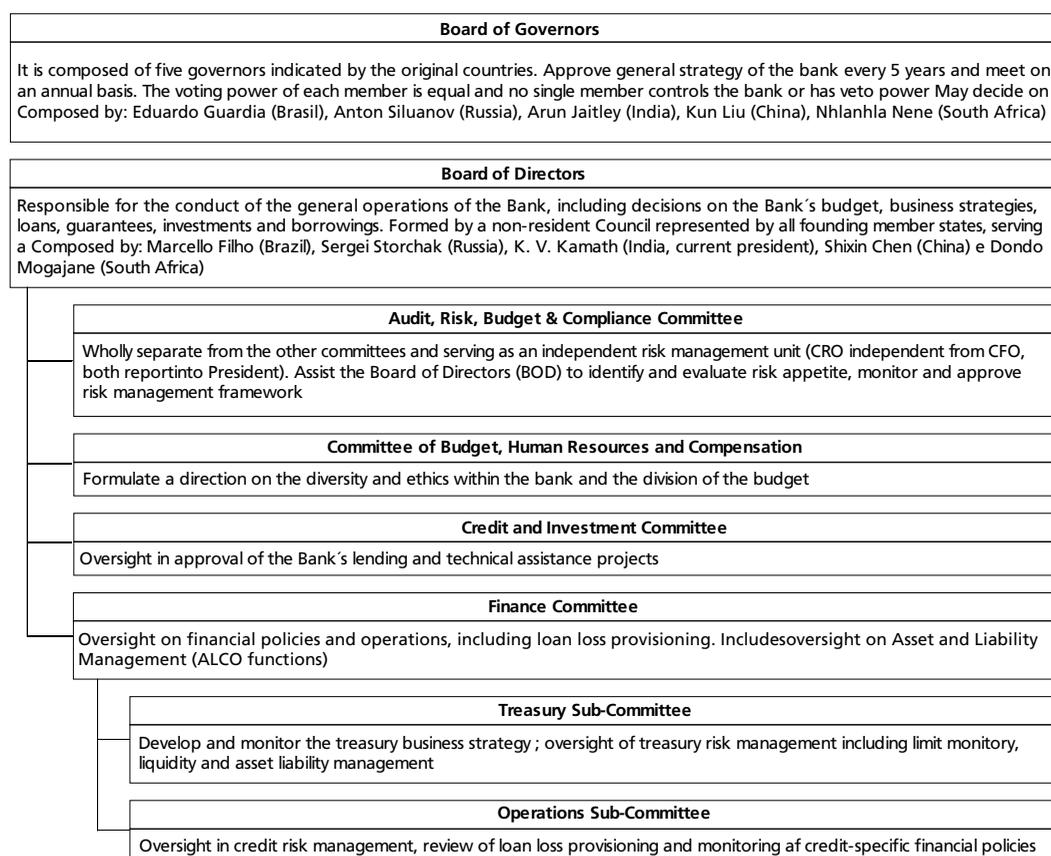
With regard to the governance and risk management structure (Chart), it is composed of three bodies, including the Board of Governors (BoG under its responsibility: the Budget and Credit Audit Committee (ARBC) which oversees the implementation of the bank's risk management policy; the Finance Committee (FC) whose delegation of powers comes from the BoG to supervise the financial risk management policies and, responds to the Audit Committee; and the Investment and Credit Committee (CIC), also with delegated powers of the CG, oversees NDB's credit activities, being in line with the Audit Committee.

The dynamics of this structure are based on two procedural principles: an independent evaluation of investment policies, projects and decisions, and the continuous review of banking practices and their metrics and the continuous review of environmental and social impacts of the policies implemented. Despite this commitment, it is not yet clear what the environmental metrics would be and the positive impacts of the projects, which were published in 2016, are no longer clear as information from the most recent projects.

Finally, it is worth mentioning the structure of personnel that works in the bank. According to the general strategy for 2017-2021, NDB's human resources policy seeks to have a diversified and operationally efficient staff, with a focus on hiring highly qualified young people (42% of employees are under 32), and creation of an environment conducive to innovations and speed in carrying out activities. Regarding nationalities, the policy is comprehensive and attracts employees from different countries.

As already mentioned, one of NDB's goals is to have agility and efficiency in the project approval process, shortening the time needed to complete a transaction. As a result, the bank has chosen to have a small number of employees compared to other development banks and also contributes to a low administrative cost that has been verified in its balance sheets and emphasized among investors, and this contingent should grow according to the following projections: in 2016 the bank had 19 members between staff and executive directors and 39 consultants, totaling 58 employees. By 2017, the number of people will be 106, with 89 staff and executive directors and 17 consultants. According to the General Strategy, by 2021 the NDB intends to have 400 employees in total.

FIGURE 2
NDB: governance structure and risk management (2017)



Source: NDB (2018); Organization Structure. Available at: <<https://is.gd/iAcYep>>. Author's elaboration.

4 FINAL CONSIDERATIONS

The creation of the NDB and the Contingent Reserve Arrangement by BRICS in 2014 took place in a context of relative optimism about the growing role of developing and emerging countries in global output and international reserves and was concrete response of the group to the failure of reforms in global financial governance discussed and approved in the context of the G20 after the outbreak of the 2008 crisis in order to increase the representativeness of these economies in the World Bank and the FMI. In the case of the NDB, this was constituted as a new instrument of international

financing to address the enormous shortages of investments in infrastructure and sustainable development projects and was an important step in establishing a BRICS joint financial architecture.

The Constitutive Agreement establishing the NDB sought to reflect, to a large extent, the positions agreed between its founding countries regarding the bank's mission, scope, governance structure and way of acting, seeking to differentiate it from the “old practices” of financial institutions created post-war period (particularly in the case of the World Bank). In this sense, a more limited mandate was established for the NDB, but with a global scope and lending policies without conditionalities related to the internal policies of the borrowing countries; the governance structure led by developing countries and based on equal voting power for the five founding members of the bank.

To achieve these objectives, the NDB was approved with an authorized capital of US\$ 100 billion, with the subscribed capital being US\$ 50 billion, of which US\$ 40 billion in callable capital and US\$ 10 billion in paid-in capital to be paid in seven years. The bank's first three years of operations have shown that it has many challenges to face if it wants to make a difference in international financing and strengthen the BRICS joint financial architecture. These challenges relate to a set of issues already raised throughout this work but summarized here in three main points.

Firstly, the NDB has adopted a modern mandate that is consistent with contemporary development issues, largely incorporated by the Sustainable Development Agenda (2030). Besides that, there is an important space to be occupied by the bank in the international financing of infrastructure projects, specifically by providing additional credit to developing countries. However, for that, it is necessary for the bank to expand the volume of available capital for loans beyond the current funding structure, consisting mainly of contributions from the BRICS countries (US\$ 5.3 billion) and the recent green bond issue (US\$ 448.4 million), in the Chinese market and gains from financial investments. That is, although the bank's aspirations are compatible with its institutional design, the size of its operations portfolio is still relatively small (US\$ 8.1 billion), and there are difficulties regarding the effectiveness of disbursements.

To increase the volume of capitalisation and loans, the NDB must work both to attract new members and to create conditions for obtaining good risk assessment and access to the international capital markets. In this last point, the bank has been cautiously conducting its operations, avoiding unnecessary risks in the selection of its portfolio, and introducing operational and financial policies within the standards of bank solidity. The bank, therefore, expects adequate returns and returns on its loans and investments, a good risk assessment and greater leverage capacity in the capital markets. However, the bank should consider the challenge of putting a limit to the leverage process, so as not to do as some similar banks that entered the international financial circuit and broke in the crisis of 2008, and thus leave aside its stabilizer, anti-cyclic, and long-term business driver role.

It should also consider that the increase in membership in the NDB is desirable because it contributes to the capital increase and offers a diversified geographic base for its operations that reduce the institution's risk, particularly with the entry of countries with good risk assessments. Today the BRICS countries are lenders and at the same time borrowers. At this point, the question of the political sensitivity claimed by Russia – in the context of the economic sanctions imposed on the country by the United States and the European Union – on the criteria for adherence of developed countries to the bank appears to be far from being considered and should further delay process of adversely affecting the evaluation of the risk profile of the institution already considered “highly risky” due to concentration of the portfolio, according to Fitch Global Ratings.

Second, but not least, is the governance structure of the NDB, on which one can question the extent to which the voting power on an equal basis of the five founding countries (Brazil, Russia, India, China and South Africa) and the rotation system of the presidency is sufficient to avoid the economic dominance of one or another country over the bank's destiny, as has occurred with the United States' power of influence over the World Bank and even because of the strength its economy and its financial market.

The NDB, together with the China Development Bank, the Silk Road Fund and AIIB, is part of a set of financial institutions through which China has sought to open fronts for its new foreign policy. The issue for the NDB is how to avoid or settle conflicts of interest between the bank's role and China's actions in pursuit its strategy of global insertion. The approach of this country to other developing countries for the

provision of resources does not always reflect the vision of the NDB – as evidenced in its Constitutive Agreement – on the form of action it seeks in its negotiations. It should also take into account the rapid changes in the geopolitical sphere involving the United States, China and Russia, raise the question of possible pressures on the bank's modus operandi with the introduction of new policy guidelines for financing and other types of institutional arrangements due to this new configuration in the international economy.

Thirdly, it is important for Brazil in this scenario to establish what its objectives are with the bank and how it intends to participate in the governance of the institution. This involves sizing its real capacity to take advantage of this complementary source of investments for the implementation of priority projects for infrastructure and sustainable development; strengthening their capacity for international coordination; mapping of strategic partnerships (public and private, national and international) that can be leveraged through the bank, including in partnership with the other BRICS countries, particularly with China; and evaluation of the NDB's role in improving Brazil's external insertion.

Without these reflections and definitions, it will be difficult for Brazil to justify the budgetary effort it has made regarding its growing contribution as a founding partner of the bank (contributions in equal amounts to the five members), since at least in the first three years of operation of the bank, the return of its contribution, given by the number of funds for approved loans, has been below potential, accounting for only 8% (equal participation of South Africa); India (32%); China (34%) And Russia (18%). Besides, in 2019 Brazil will assume the rotated presidency of BRICS and will appoint in 2020 the NDB's president. This will give it more relative power, visibility, and responsibility, and the country cannot avoid leading the construction of an investment agenda within the group.

Lastly, it should be noted that one of the arguments used for Brazil's participation in the NDB is related to the economic gains arising from the financing of infrastructure works in the country and the participation of Brazilian companies in bidding processes for works in the member countries financed with funds from the bank, as provided for in its Articles of Agreement. This has been the same motivation used by China and announced by the press to justify its growing engagement in bank structuring.

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