

The New Development Bank in the Global Financial Architecture

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This article addresses the question of whether the New Development Bank (NDB) will promote the role of the BRICS countries of Brazil, Russia, India, China and South Africa in the global financial architecture and foster their development. It begins by comparing the key multilateral development banks (the World Bank, the Asian Development Bank, the African Development Bank and the Inter-American Development Banks, the European Bank for Reconstruction and Development) and the national development banks of the BRICS countries with the newly established institution. The purpose of the NDB is to mobilize resources for infrastructure and sustainable development projects in the member countries. This purpose, as determined by the analysis in this article, partly duplicates the existing institutions. However, the NDB could add to the functions of the existing institutions and become a significant development bank for member countries. The best way to achieve this goal is to implement multilateral projects in the areas listed above. Second, the article examines the current role of the BRICS countries in the global financial architecture and the potential for their increased participation, which has arisen with the establishment of the NDB. The founding countries will jointly determine the volume and direction of the financial aid to the third countries. In contrast to the Bretton Woods institutions, the BRICS countries could change the rules of development aid, in particular, the conditions and systems for monitoring results. The article concludes that the BRICS countries have the potential to change the current system of development finance and therefore to increase the role of the BRICS countries in the global financial architecture.

Key words: BRICS, New Development Bank, development finance, global financial architecture, sustainable development, Bretton Woods institutions

Financial and economic issues have been among key items of the agenda of the BRIC group of Brazil, Russia, India and China, and have remained when South Africa joined to form the BRICS. Since its first meeting, the group has been interested in changing the global financial architecture. That architecture is “a loose set of multilateral agreements and understandings, among a core group of powerful capitalist states, about the rules and norms that govern, and/or should govern, cross-border money and credit transactions of all kinds” [Armijo, 2002, p. 3]. Given the existing system of multilateral financial institutions, the establishment of the New Development Bank (NDB) by the BRICS will have an impact on that global financial architecture.

The BRICS leaders agreed to establish the NDB at the Durban Summit in 2013 [BRICS, 2013]. The agreement establishing the bank itself was signed at Fortaleza Summit [BRICS, 2014]. This undoubtedly important decision shows that the BRICS countries can create a joint product with the potential to change global financial architecture. The question is whether the NDB will deliver any tangible results and facilitate the role of the BRICS in the global financial architecture and the development of the BRICS countries. It was previously thought that the

newly established bank should not compete with existing institutions and cooperation mechanisms, and many existing institutions consider it a competitor [*Central Asia Monitor*, 2013]. This question is easily resolved, however, by comparing the NDB's activities as specified in its establishing agreement with the activities of existing institutions and mechanisms. There are identifiable spheres of possible duplication and complementarity.

According to the agreement establishing the NDB, the purpose of the institution is to “mobilize resources for infrastructure and sustainable development projects in BRICS and other emerging economies and developing countries, complementing the existing efforts of multilateral and regional financial institutions for global growth and development ... It shall also cooperate with international organizations and other financial entities, and provide technical assistance for projects to be supported by the Bank” [BRICS, 2014]. To compare, the purpose of the Asian Development Bank (ADB), similar to that of the African Development Bank (AfDB) and the Inter-American Development Bank (IADB), is to “contribute to the acceleration of the process of economic development of the developing member countries in the region, collectively and individually” [ADB, 1965, art. 1; see also AfDB, 2011; IADB, 1996]. The purpose of European Bank for Reconstruction and Development (EBRD) is to “foster the transition towards open market-oriented economies and to promote private and entrepreneurial initiative in the Central and Eastern European countries committed to and applying the principles of multiparty democracy, pluralism and market economics” [EBRD, 2013, p. 4].

Multilateral financial institutions are an important part of the global financial architecture. They finance development and sustainability and provide technical assistance and advisory services to the member countries. Key multilateral financial institutions are the World Bank, the ADB, the AfDB, the IADB and the EBRD. They finance projects in the energy sector (26.8% of ADB loans, 16% AfDB loans, 21% EBRD loans), in public management (26.2% of World Bank loans), in transport infrastructure and communication (24.5% of ADB loans, 33.2% of AfDB loans, 17.6% of World Bank loans, 20% of EBRD loans, 20.2% of IADB loans), and health care and social security (14.3% of World Bank loans, 14.9% of IADB loans (see Table 1). This corresponds to the national priorities of the BRICS countries, which include the development of the human capital (education, health care and social security), agriculture, infrastructure, public management, environmental and energy efficiency, and innovation. Thus projects in those priority areas could be financed under the current framework. The specific feature and contribution of the NDB could be an opportunity to involve experts and equipment from the BRICS countries, in contrast to projects financed by the International Monetary Fund (IMF) or the World Bank, which usually deploy resources from western countries.

Table 1: Multilateral Development Bank Loan Portfolios by Sector, %, 2013

	ADB	AfDB	EBRD	IADB	World Bank
Agriculture and natural resources	5.0	12.3	16.0	4.2	6.9
Education	3.7	5.2	–	5.4	8.9
Energy	26.8	16.0	21.0	3.8	7.5
Finance	14.2	8.1	28.0	14.9	6.7
Health care and social security	2.6	4.2	–	16.4	14.3
Industry and trade	0.3	0.0	15.0	8.8	4.7
Public management	5.7	–	–	16.7	26.2
Transport and communication	24.5	33.2	20.0	20.2	17.6

	ADB	AfDB	EBRD	IADB	World Bank
Water supply and other municipal infrastructure and services	9.1	8.4	–	9.5	7.3
Multisector	8.0	12.6	–	–	–
Total	100	100	100	100	100

Note: Numbers may not add up to 100% because of rounding.

Sources: Asian Development Bank (ADB) [2013], African Development Bank (AfDB) [2013], European Bank for Reconstruction and Development (EBRD) [2013], Inter-American Development Bank (IADB) [2013], World Bank [2013], and Leonid Grigoriev and Alexandra Morozkina [2012].

The BRICS countries are not the only borrowers and members of multilateral development banks. Therefore, there is a question of whether the BRICS countries receive any assistance from these institutions. They are large borrowers from the World Bank. India and China are most active (8.3% and 9% of the World Bank's loan portfolio in 2013 was allocated to these countries). Brazil is slightly behind (8%); loans to Russia and South Africa amount to significantly lower sums, although they also use this opportunity to fund development projects in priority fields. Loans to Russia and South Africa in 2013 accounted for 1% and 0.9% respectively of the total loan portfolio (see Table 2).

Table 2: World Bank Loan Portfolio by Country, %, 2013

Argentina	Brazil	China	Columbia	Egypt	India	Indonesia	Kazakhstan	Mexico	Morocco	Peru	Philippines	Poland	Romania	Russia	South Africa	Turkey	Ukraine	Other	Total
4.1	8.0	9.0	5.3	2.3	8.3	7.3	1.9	10.4	2.4	1.3	2.3	4.7	2.4	1.0	0.9	9.0	2.3	17.4	100

Source: World Bank [2013b]

China and India are also members and the largest borrowers of the Asian Development Bank. Loans to China amount to 26.2% of its loan portfolio in 2013; loans to India were 22.8% (see Table 3). In 2013, the ADB approved 12 projects in China with a total volume of \$1.54 billion. Funds were allocated to projects in different sectors such as natural resources and agriculture, energy, transport, and urban and social infrastructure. The ADB thus contributes to the financing and realization of projects in priority sectors in China. These sectors are highlighted in “12th Five-Year Plan for 2011–2015,” which states as priorities economic growth, reorientation of domestic demand, environment protection and clean energy, agriculture, human development, social support, public management [National People's Congress of the People's Republic of China, 2011]. The ADB is, in fact, financing projects in energy sector, agriculture and social sphere.

In India, large projects in energy and transport (such as an \$800 million project to develop rural roads) account for 67% of the ADB's loan portfolio in this country. These projects are mostly aimed at solving issues of poverty and inequality, which corresponds to the national priorities set in “12th Five-Year Plan (2012–2017)”': the development of human capabilities, institutions and infrastructure [Planning Commission, 2013]. Energy and transport projects contribute to the third priority.

Table 3: Asian Development Bank Loan Portfolio by Country, %, 2007–2013

	2007	2008	2009	2010	2011	2012	2013
China	24.4	23.6	23.1	23.5	24.4	24.9	26.2
India	16.5	18.0	18.7	20.4	21.1	21.8	22.8
Indonesia	31.2	28.3	24.0	22.5	20.1	18.1	16.2
Pakistan	9.2	12.1	11.3	11.4	11.0	9.9	9.3
Philippines	11.1	10.9	11.9	10.7	9.9	10.0	7.7
Vietnam	0.6	0.5	2.0	2.2	2.8	3.1	4.1
Bangladesh	1.3	1.4	2.9	3.0	2.9	3.1	3.1
Other	5.7	5.1	6.0	6.3	7.7	9.2	10.7
Total	100	100	100	100	100	100	100

Note: Numbers may not add up to 100% due to rounding.

Source: Asian Development Bank [2007–2013].

South Africa is a large customer of the African Development Bank. Loans to this country amounted to 26.7% of its portfolio in 2013 (see Table 4). Projects in the financial sector account for about two thirds of total loans and infrastructure projects about one fifth. These two sectors correspond to South Africa’s long-term priorities of the reduction of poverty and inequality set out in its “National Development Plan 2030: Our Future – Make It Work” [National Planning Commission, 2012].

Table 4: African Development Bank Loan Portfolio by Region, %, 2007–2013

	2007	2008	2009	2010	2011	2012	2013
North Africa	23.1	26.1	14.1	35.2	44.1	48.9	40.2
West Africa	9.8	19.3	16.2	16.6	5.9	3.4	13.2
Southern Africa excluding South Africa	7.4	8.6	22.1	2.7	20.6	1.2	10.9
Central Africa	16.8	2.4	3.7	7.0	4.2	2.8	2.2
East Africa	22.5	18.1	6.9	16.8	3.8	2.1	2.2
South Africa	13.0	6.5	23.2	12.1	14.9	36.5	26.7
Multinational	7.5	19.0	13.8	9.6	6.5	5.1	4.5
Total	100	100	100	100	100	100	100

Note: Numbers may not add up to 100% due to rounding.

Source: African Development Bank [2007–2013].

Increase in income per capita and inclusiveness in South Africa is achieved mainly by developing projects in financial sector, such as support for small and medium-sized enterprises (SMEs). Projects in the infrastructure sector (energy, transport, communications, water supply, etc.) directly influence the quality of life.

Russia is among the largest borrowers at the EBRD – it received 21.4% of the bank’s portfolio in 2013 (see Table 5). EBRD projects are allocated to different sectors of the economy,

including agriculture (a loan to salad producer Belaya Dacha, a share in the Khlebprom confectionary), banking industry (syndicated loan to Rosbank), energy (financing the development of the heating system in the Sakha Republic), private sector (investments in private equity funds operated by Baring Vostok in Russia and members of the Commonwealth of Independent States), transport (loan to the Servisnaya Holdingovaya Kompaniya, which provides information technology services; co-financing the western high-speed diameter of St. Petersburg), science and education (syndicated loan to the Pulkovo technopark), health care (loan to the Geropharm-Bio pharmaceutical company). Some of these projects correspond to Russia's national priorities on health care, education and agriculture, as announced in 2005 [Putin, 2005]. Some of the measures taken are financed from the federal budget, but could also be financed by development banks, including regional and national banks.

Table 5: European Bank for Reconstruction and Development Loan Portfolio by Region and Country, %, 2007–2013

	2007	2008	2009	2010	2011	2012	2013
Central Asia	11.1	11.3	7.2	10.8	5.2	9.8	6.5
Central Europe and Baltic countries	9.8	6.4	21.0	16.5	15.3	13.6	18.9
Eastern Europe and Caucasus	20.1	25.8	18.4	17.4	20.5	16.8	17.8
Russia	41.1	35.7	30.1	25.6	32.4	28.9	21.4
South-Eastern Europe	17.9	20.8	21.4	24.2	16.9	17.1	19.4
Turkey	N/A	N/A	1.9	5.5	9.8	11.8	10.8
Southern and Eastern Mediterranean	N/A	N/A	N/A	N/A	N/A	2.0	5.3
Total	100	100	100	100	100	100	100

Source: European Bank for Reconstruction and Development [2007–2013].

Brazil has been among the largest borrowers from the IADB for a long time. Loans to this country amounted to 19.5% of the bank's portfolio in 2013 (see Table 6). The largest volume in the last five years was allocated to infrastructure development (transport) and amounted to \$5.2 billion. The IADB allocated \$3.1 billion to modernizing and reforming public management in Brazil, \$2.5 billion to water supply and sanitation, \$1.7 billion to financial markets and \$1.1 billion to energy. These projects contribute to overcoming the 11 challenges identified by Brazil in the "Multiyear Plan for 2012–2015: Plan More Brazil" [Ministério do Planejamento, 2011]. Among them are national development projects and the eradication of extreme poverty, and cover the areas of science, education, culture, sport, health care, social protection, infrastructure, democracy and social inclusiveness, integrity and national security, and public management.

The BRICS countries thus have opportunities to finance projects in priority fields and they take advantage of those opportunities. At the same time existing institutions have been providing advisory services and financing for development for a long time. They are solvent, credible and efficient, mostly profitable (with the exception of the World Bank, which had a loss in 2012 but at \$0.55 billion had a positive average profit from 2007 to 2013), although financial efficiency is not a priority. All of them are financially sound; loans amounts to less than 80% of their liability, which is normal even for the commercial banking sector. A quarter of the total volume of loans is financed from the equity capital, and all have a high AAA credit rating (see Table 7).

Table 6: Inter-American Development Bank Loan Portfolio by Country, %, 2007–2013

	2007	2008	2009	2010	2011	2012	2013
Brazil	25.4	24.6	24.2	23.7	21.8	23.0	19.5
Mexico	9.0	8.6	11.4	13.5	14.1	15.0	18.6
Argentina	16.6	15.7	15.6	15.4	15.2	16.1	16.9
Columbia	9.4	10.5	10.2	9.9	9.8	10.4	11.0
Ecuador	3.8	3.6	3.4	3.3	3.5	3.2	3.7
Dominican Republic	2.6	2.4	2.7	3.1	3.3	3.1	3.6
Guatemala	2.8	2.8	2.9	3.2	3.2	3.0	3.3
Peru	7.8	7.9	6.5	5.9	5.6	5.9	3.1
El Salvador	3.0	3.3	3.3	3.0	3.0	2.7	3.0
Other	19.6	20.6	19.8	19.0	20.4	17.7	17.5
Total	100	100	100	100	100	100	100

Note: Numbers may not add up to 100% because of rounding.

Source: Inter-American Development Bank [2007–2013].

Table 7: Financial and Operational Indicators of the Multilateral Development Banks, 2013

	ADB	AfDB	EBRD	IADB	World Bank
Assets	\$116 billion	\$21 billion	\$64 billion	\$97 billion	\$324 billion
Equity	\$17 billion	\$6 billion	\$19 billion	\$24 billion	\$39 billion
Authorized capital	\$164 billion	\$67 billion	\$40 billion	\$171 billion	\$278 billion
Issued capital	\$163 billion	\$65 billion	\$39 billion	\$129 billion	\$223 billion
Paid-in capital	\$17.1 billion	\$5.0 billion	\$8.2 billion	\$4.9 billion	\$13.4 billion
Loans	\$53 billion	\$12 billion	\$25 billion	\$71 billion	\$205 billion
Borrowings	\$62 billion	\$13 billion	\$41 billion	\$67 billion	\$22 billion
Net profit (loss)	\$0.57 billion	\$0.07 billion	\$1.21 billion	\$0.88 billion	\$0.22 billion
Return on total assets	0.49%	0.35%	1.88%	0.91%	0.07%
Return on equity	3.30%	1.25%	6.20%	3.74%	0.55%
Equity-to-loans ratio	32%	50%	79%	33%	28%
Leverage	78%	69%	68%	74%	36%
Year of establishment	1966	1964	1991	1959	1944
Rating	AAA	AAA	AAA	AAA	AAA
Head Office	Manila, Philippines	Tunis- Belvédère, Tunisia	London, United Kingdom	Washington DC, United States	Washington DC, United States

Sources: Asian Development Bank (ADB) [2013], African Development Bank (AfDB) [2013], European Bank for Reconstruction and Development (EBRD) [2013], Inter-American Development Bank (IADB) [2013], World Bank [2013], and author's calculations.

Consequently, the purpose of the newly established NDB in mobilizing resources for infrastructure and sustainable development in the BRICS members and other emerging econo-

mies in some way duplicates the work of these existing institutions. The NDB could cooperate with the existing institutions, and therefore gain expertise. Also, it could support independent resource mobilization and allocation, including involving experts and ordering equipment from BRICS countries. The NDB could also provide a platform for the inter-regional exchange of expert opinions and development of multilateral projects among the BRICS countries. A list of such projects is being developed by the BRICS Business Council. Its annual report lists industries in each country that could be encouraged to cooperate [BRICS Business Council, 2014]. These companies are in the infrastructure, finance, energy and green economy, human development and manufacturing sectors.

Providing advisory services and technical assistance is another function of the existing institutions. Brazil, India, China and Russia have their own partnership strategies with the World Bank. These documents are based on national strategies and consultations with the country authorities (including regional ones) and carefully identify challenges not included in the national strategies. India's current partnership strategy identifies sustainable, inclusive and integrated growth. China's partnership strategy includes green growth, regional integration and the development of international relations. Brazil's strategy highlights the second-generation issues of energy efficiency and climate change control. Russia's strategy includes the modernization and reform of the public management system. Thus, partnership with the World Bank resolves some of the BRICS members' priority issues. The NDB could complement these existing strategies. It could consult not only countries individually but also in groups on common issues such as the middle-income trap issue, inequality and SME support [Grigoriev and Morozkina, 2012; Unger, 2013; Grigoriev and Morozkina, 2013b, a].

Cooperation among national banks is also a part of the global financial architecture. In 2010, the BRICS members' national development banks actively cooperated. The development of this cooperation already facilitates the exchange of experience in financing national development projects and making payments in national currencies. At the Sanya Summit in April 2011, the development banks signed the Framework Agreement on Financial Cooperation within the BRICS Inter-Bank Cooperation Mechanism. At the New Delhi Summit in 2012 the national development banks signed the Master Agreement on Extending Credit Facility in Local Currencies and the BRICS Multilateral Letter of Credit Confirmation Facility Agreement. In 2013 in Durban they signed the BRICS Multilateral Cooperation and Co-financing Agreement for Sustainable Development, which applies primarily to projects in energy efficiency and green growth. In 2014 the national development banks signed one more agreement – the Cooperation Agreement on Innovation – and now have the opportunity to finance projects jointly in common fields of interest. The BRICS now has a mechanism for mutual financing and therefore for receiving finance from its partners. Given that the primarily goal of the NDB is to mobilize resources to finance projects in infrastructure and sustainable development, the bank can rely in part on mechanisms that are already in place. For example, the members of the boards of the national development banks could be included in the NDB's board.

The breakdown of the loan portfolio of the national development banks by sector corresponds to the priorities of the national strategies. India is represented by the Export-Import Bank of India (Exim Bank), whose key sectors are infrastructure, energy and construction. The Bank of Industrial Development, which is a larger development bank, latter supports such sectors as industry and trade, finance. The priority sectors for the China Development Bank (CDB) are energy (including energy efficiency) and municipal services. The Development Bank of South Africa (DBSA) focuses on energy, transport and communication. The Brazilian Development Bank (BNDES) allocates its resources to industry and trade, as well as transport and communications. Russia's Vnesheconombank (VEB) invests in industry and trade, construction and real estate, and finance (see Table 8).

Table 8: Loan Portfolios of the BRICS Development Banks, by Sector, %, 2013

	Exim Bank	CDB	DBSA	BNDES	VEB
Agriculture and natural resources	17.7	2.8	–	8.9	6.1
Education, health care and social security	–	0.6	14.4	–	1.1
Energy	26.7	17.9	31.0	7.9	7.3
Finance	–	29.1	–	–	18.8
Industry and trade	–	1.5	–	54.2	28.9
Construction and real estate	38.9	6.1	4.9	1.2	22.7
Transport and communication	12.3	27.3	40.9	26.4	12.8
Water supply and other municipal services	–	14.8	8.8	1.3	0.0
Multisector	4.4	–	0.03	–	2.3
Total	100	100	100	100	100

Sources: Author's calculations based on annual reports [see Brazilian Development Bank (BNDES), 2013; China Development Bank (CDB), 2013; Development Bank of South Africa (DBSA), 2013; Export-Import Bank of India (Exim Bank), 2013; Vnesheconombank (VEB), 2013].

The national development banks have a large potential for lending (see Table 9). The largest are the CDB, which loaned in excess of \$1 trillion at the end of 2013, and BNDES with loans of \$271 billion. These amounts both exceeded the amount loaned by the World Bank. Thus, the NDB should make use of these existing mechanisms of BRICS cooperation for multilateral financing. Moreover, the national development banks are already cooperate in one priority fields of the NDB – sustainable development.

Table 9: Financial and Operational indicators of BRICS National Development Banks, 2013

	Exim Bank	CDB	DBSA	BNDES	VEB
Assets	14	1 334	51	353	90
Equity	1.4	528	16	29	16
Authorized capital	1.7	49.71	0.02	17.79	12.60
Loans	12	1 164	40	271	58
Borrowings	11	1 242	35	324	74
Net profit (loss)	0.06	13.02	–0.78	3.46	0.23
Return on total assets, %	0.39	0.98	–1.53	0.98	0.26
Return on equity, %	3.92	14.22	–4.94	12.02	1.47
Equity-to-loans ratio, %	11.59	7.86	39.20	10.63	26.97
Leverage, %	89	93	69	92	83
Year of establishment	1982	1994	1983	1952	1922*
Rating	BBB-	AA-	BBB+	BBB+	BBB

Note: *Became a development bank in 2007.

Sources: Author's calculations; Brazilian Development Bank (BNDES) [2013], China Development Bank (CDB) [2013], Development Bank of South Africa (DBSA), [2013], Export-Import Bank of India (Exim Bank), [2013], Vnesheconombank (VEB) [2013].

Thus in the global financial architecture, there are institutions and mechanisms for financing two priority areas of the NDB: infrastructure and sustainable development. However, the newly established bank could add to the existing system and become an important institution for its member countries. Its key advantage is an opportunity to combine the efforts of the BRICS countries in the fields relevant for all five members. This would include urban infrastructure such as water supply, waste processing and the development of smart cities [Rogatnykh, 2013]. Despite the efforts of the existing institutions, infrastructure is relatively underdeveloped in BRICS countries compared to developed countries (see Table 10).

Table 10: Infrastructure Quality Indicators, 2013–2014

	Overall	Roads	Rail	Ports	Air Transport	Electricity Supply
Brazil	3.4	2.8	1.8	2.7	3.3	4.8
China	3.9	3.6	4.8	4.2	4.8	3.2
India	4.3	4.5	4.7	4.5	4.5	5.1
Russia	3.8	2.5	4.2	3.9	3.9	4.5
South Africa	4.5	4.9	3.4	4.7	6.1	3.8
United Kingdom	5.4	5.3	5.0	5.7	5.6	6.7
Germany	6.2	6.0	5.7	5.8	6.1	6.1
United States	5.7	5.7	4.9	5.7	5.9	6.2
Korea	5.6	5.8	5.7	5.5	5.8	5.7
Japan	6.0	6.0	6.7	5.2	5.4	6.0

Note: Scores on a scale of 1 to 7, with 7 being the most desirable outcome.

Source: Klaus Schwab [2014].

Sustainable development projects could include the development and implementation of high technology. The cost of research and development in BRICS countries is relatively low compared to developed countries (see Table 11). It could be more efficient for BRICS members to develop technologies jointly, for example in nanotechnology or energy efficiency, than to act independently. They could thus benefit from the NDB here.

The NDB also could perform analytical and advisory functions regarding common BRICS challenges such as the middle-income trap, agriculture in tropical environments and the development of SMEs. All BRICS countries are struggling with issue of domestic inequality, both socially and regionally [Grigoriev and Morozkina, 2013b; see also Silvério, 2012].

As an institution that can integrate, identify and resolve issues relevant to all five BRICS countries, the NDB could complement the existing system of institutions and mechanisms. In this function, it could increase the role of the BRICS in the global financial architecture. At the moment, that role does not correspond to the role of the BRICS in global economy and is expected to increase [Armijo and Roberts, 2014; Preksin, 2013; O’Neill, 2013]. The BRICS members’ role in the in the Bretton Woods institutions could be considered as one indicator. BRICS members’ voting power in these institutions is much less than the that of the developed countries, and often less than the BRICS share in the global economy (see Table 12). The BRICS countries insist on reforming the governance system and quota formula, but such reform make no sense as the reform agreed to in 2010 has not been ratified by all members. That reform would increase share of each BRICS country except South Africa.

Table 11: Key Technology Development Indicators, 2007

	R&D Expenses, % GDP	Employed in R&D, % Population	High-Tech Exports, % Manufactured Exports	Patent Applications
Brazil	1.1	0.1	11.9	21,800
China	1.4	0.1	26.7	245,200
India	0.8	0.0	6.4	28,900
Russia	1.1	0.4	6.9	39,400
South Africa	0.9	0.1	5.6	10,800
Japan	3.4	0.6	18.4	396,300
Germany	2.5	0.5	14.0	61,000
Korea	3.2	0.5	30.5	172,500
United Kingdom	1.8	0.5	18.9	25,000
United States	2.7	0.5	27.2	456,200

Note: R&D = research and development; GDP = gross domestic product.

Source: Leonid Grigoriev and Alexandra Morozkina [2013b].

Table 12: Gross Domestic Product and Bretton Woods Quotas, 2013

	Share in Global GDP by PPP	IMF Quota Post 2008 Reform	IMF Voting Power Post 2008 Reform	IMF Quota Post 2010 Reform	IMF Voting Power Post 2010 Reform	World Bank Voting Power, 2013
China	15.84	4.00	3.81	6.39	6.10	5.43
India	6.65	2.45	2.34	2.75	2.63	2.90
Russia	3.43	2.50	2.39	2.71	2.59	2.35
Brazil	2.96	1.79	1.72	2.32	2.22	1.75
South Africa	0.65	0.79	0.77	0.64	0.63	0.80

Note: GDP = gross domestic product; PPP = purchasing power parity; IMF = International Monetary Fund.

Source: IMF [2011], IMF [2014], IBRD [2015].

Thus, the BRICS countries cannot influence activities of the Bretton Woods institutions, although this could change after the establishment of the NDB. First, the BRICS countries will determine the volume and direction of financial assistance to countries (the share of the BRICS countries, according to the agreement, should not decrease below 55%), in contrast to other multilateral financial institutions. At the same time, the equal distribution of voting power among the five founding BRICS members (parity could also remain later) means their opinions will be equally taken into account.

Second, the BRICS countries could determine lending conditions, in contrast to the IMF and the World Bank, and even to establish their own system of financing for development. There has been much public debate over the Bretton Woods institutions, including the opinion that they have deepened Asian and European debt crisis by their lending conditions. The BRICS countries have created the possibility of changing the current system of financing development,

providing lending conditions and monitoring results. But the question remains of whether this potential will be realized or the five countries will follow the traditional path.

Thus, the NDB could increase the role of the BRICS countries in the global financial architecture. It will complement the existing system of institutions and mechanisms. It could begin by focusing on the middle-income trap and urban infrastructure development. In the field of financing development, the newly established institution partly duplicates existing institutions and mechanisms, but it could promote the role of the BRICS countries by using resources primarily from the founding countries and considering their interests in the first place. The NDB has the chance to become not only a political initiative but also an instrument for addressing common BRICS issues.

References

- African Development Bank (2007–2013) “Annual reports.” Tunis-Belvédère. Available at: <http://www.afdb.org/en/documents/publications/annual-report/> (accessed 31 May 2015).
- African Development Bank (2011) Agreement establishing the African Development Bank. Tunis-Belvédère. Available at: <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Legal-Documents/Agreement%20Establishing%20the%20ADB%20final%202011.pdf> (accessed 31 May 2015).
- Armijo L.E., ed. (2002) *Debating the global financial architecture*. Albany NY: State University of New York Press.
- Armijo L.E. and C. Roberts (2014) The emerging powers and global governance: why the BRICS matter. In: R.E. Looney, ed. *Handbook of emerging economies*. Abingdon: Routledge, pp. 503–24.
- Asian Development Bank (1965) Agreement establishing the Asian Development Bank (ADB Charter). December. Manila. Available at: <http://www.adb.org/documents/agreement-establishing-asian-development-bank-adb-charter> (accessed 31 May 2015).
- Asian Development Bank (2007–2013) “ADB annual reports.” Manila. Available at: <http://www.adb.org/documents/series/adb-annual-reports> (accessed 31 May 2015).
- Brazilian Development Bank (2007–2013) Annual reports. Brasilia. Available at: http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Investor_Relations/Annual_Report/index.html (accessed 31 May 2015).
- BRICS (2013) “BRICS and Africa: partnership for development, integration and industrialisation.” eThekweni Declaration, Durban, 27 March. Available at: <http://www.brics.utoronto.ca/docs/130327-statement.html> (accessed 25 May 2015).
- BRICS (2014) “Agreement on the New Development Bank.” Fortaleza, Brazil, 15 July. Available at: <http://www.brics.utoronto.ca/docs/140715-bank.html> (accessed 31 May 2015).
- BRICS Business Council (2014) “BRICS Business Council 2013/2014 annual report.” 9 July. Available at: http://arquivos.portaldaindustria.com.br/app/conteudo_18/2014/07/15/6862/BRICSBusinessCouncilAnnualReportDRAFT6-11JulySignature.pdf (accessed 31 May 2015).
- Central Asia Monitor* (2013) Pyat’ “pal’tsev” – v kulak Vliyaniye stran BRIKS usilivayetsya. 10 August. Available at: <http://old.camonitor.com/archives/8543> (accessed 31 May 2015).
- China Development Bank (2007–2013) Annual reports. Beijing. Available at: <http://www.cdb.com.cn/english/Column.asp?ColumnId=91> (accessed 31 May 2015).
- Development Bank of South Africa (2007–2013) DBSA annual reports. Pretoria. Available at: <http://www.dbsa.org/EN/About-Us/Publications/Pages/DBSA-Annual-Reports.aspx> (accessed 31 May 2015).
- European Bank for Reconstruction and Development (2007–2013) “Annual reports.” London. Available at: <http://www.ebrd.com/publications/annual-report> (accessed 31 May 2015).
- European Bank for Reconstruction and Development (2013) Basic documents of the European Bank for Reconstruction and Development. London. Available at: <http://www.ebrd.com/documents/comms-and-bis/pdf-basic-documents-of-the-ebd.pdf> (accessed 31 May 2015).

Export-Import Bank of India (2007–2013) Annual reports. Brasilia. Available at: <http://www.eximbankindia.in/annual-report> (accessed 31 May 2015).

Grigoriev L. and A. Morozkina (2012) BRICS instruments: specifics of objectives. In: H.H.S. Viswanathan and N. Unnikrishnan, eds., *In search of stability, security and growth: BRICS and a new world order*. New Delhi: Observer Research Foundation. pp. 125–34.

Grigoriev L. and A. Morozkina (2013a) Bank razvitiya [Development bank]. In: V. Nikonov and G. Toloraya, eds., *Strategiya rossii v BRIKS: tseli i instrumenty [Russia's strategy in BRICS: goals and instruments]*. Moscow: RUDN. pp. 273–86. Available at: http://www.nkibrics.ru/system/asset_publications/data/53c7/b39f/676c/7631/4009/0000/original/strategiya-rossii-v-briks-tseli-i-instrumenty.pdf?1408705835 (accessed 25 May 2015).

Grigoriev L. and A. Morozkina (2013b) Different economies, similar problems. *Russia in Global Affairs*, pp. 26–40. Available at: <http://eng.globalaffairs.ru/number/Different-Economies-Similar-Problems-16051> (accessed 25 May 2015).

IBRD (2015) IBRD Country Voting Table. Available at: siteresources.worldbank.org/BODINT/Resources/278027-1215524804501/IBRDCountryVotingTable.pdf (accessed 25 May 2015).

IMF (2011) Available at: http://www.imf.org/external/np/sec/pr/2011/pdfs/quota_tbl.pdf. (accessed 25 May 2015)

Inter-American Development Bank (1996) Agreement establishing the Inter-American Development Bank. January. Washington DC. Available at: <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=781584> (accessed 31 May 2015).

Inter-American Development Bank (2007–2013) “Annual reports.” Washington DC. Available at: http://publications.iadb.org/handle/123456789/2/discover?scope=123456789/1&thumbnail=true&rpp=5&page=0&group_by=none&etal=0 (accessed 31 May 2015).

Ministério do Planejamento, Orçamento e Gestão do Brasil (2011) Plano plurianual 2012–2015: plano mais Brasil [Multiyear Plan 2012–2015: Plan More Brazil]. 13 October. Brasilia. Available at: <http://www.secretariageral.gov.br/aceso-a-informacao/acoeseprogramas/ii-ppa-2012-2015-plano-mais-brasil> (accessed 31 May 2015).

National People's Congress of the People's Republic of China (2011) China's twelfth five-year plan (2011–2015). Beijing. Available at: <http://www.britishchamber.cn/sites/default/files/full-translation-5-yr-plan-2011-2015.doc> (accessed 31 May 2015).

National Planning Commission (2012) National development plan 2030: our future – make it work. 12 August. Pretoria: Government of South Africa. Available at: <http://www.poa.gov.za/news/Documents/NPC%20National%20Development%20Plan%20Vision%202030%20-lo-res.pdf> (accessed 31 May 2015).

O'Neill J. (2013) Five surprises ahead. *BRICS Business Magazine*, pp. 28–33. Available at: <http://bricsmagazine.com/en/articles/five-surprises-ahead> (accessed 31 May 2015).

Planning Commission (2013) Twelfth five-year plan (2012/2017). New Delhi: Government of India. Available at: <http://planningcommission.gov.in/plans/planrel/12thplan/welcome.html> (accessed 31 May 2015).

Preksin O. (2013) The great financial construction site. *BRICS Business Magazine*, pp. 44–45. Available at: <http://bricsmagazine.com/en/articles/the-great-financial-construction-site> (accessed 31 May 2015).

Putin V. (2005) “Vystupleniye na vstreche s chlenami Pravitel'stva, rukovodstvom Federal'nogo Sobraniya i chlenami prezidiuma Gosudarstvennogo soвета.” [“Speech of the President of the Russian Federation on the meeting with the Government, Federal Assembly and the members of the State Council.”] Krelmin, 5 September. Available at: http://web.archive.org/web/20140822232143/http://archive.kremlin.ru/appears/2005/09/05/1531_type63374type63378type82634_93296.shtml (accessed 25 May 2015).

Rogatnykh E. (2013) Industrial, agricultural and service sectors in BRICS countries: innovation and mutual reinforcement. Paper presented at the conference on “Complementarity of BRICS National Economies and Mutual Cooperation”, 18 October. Moscow.

Schwab K., ed. (2014) *The global competitiveness report 2014–2015*. Davos: World Economic Forum. Available at: http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf (accessed 5 May 2015).

Silvério M. (2012) “BRICS: desigualdades sociais nos países emergentes.” [“BRICS: social inequality in emerging countries.”] Observatório das desigualdades, Lisbon. Available at: <http://observatorio-das-desigualdades.cies.iscte.pt/index.jsp?page=projects&id=123> (accessed 31 May 2015).

Unger R.M. (2013) Gearing up for a new global order. *BRICS Business Magazine*, pp. 30–33. Available at: <http://bricsmagazine.com/en/articles/gearing-up-for-a-new-global-order> (accessed 31 May 2015).

Vnesheconombank (2007–2013) “Annual reports.” Moscow. Available at: <http://www.veb.ru/en/ifi/rep/annual/> (accessed 25 May 2015).

IMF (2014), World Economic Outlook Database. Available at: <http://www.imf.org/external/pubs/ft/weo/2014/02/weodata/index.aspx> (accessed 25 May 2015).

World Bank (2007–2013) “World Bank Annual Reports and Financial Statements.” Washington DC. Available at: <https://openknowledge.worldbank.org/handle/10986/2127> (accessed 31 May 2015).

World Bank (2013b) “World Bank Annual Report on Portfolio Performance.” Washington DC. Available at: http://siteresources.worldbank.org/CFPEXT/Resources/299947-1339676789554/FY13_BNPP_Annual_Report.pdf (accessed 31 May 2015).