BRIEF HISTORY OF NATIONAL INFRASTRUCTURE BANKS & SIMILAR FACILITIES

B.1. BACKGROUND AND ESTABLISHMENT

BNDES was founded in 1952 and is the Brazilian federal national economic development bank, initially with a focus on infrastructure, but gradually given a wider remit, covering industry and innovation, regional development, job generation, export finance and import substitution. It started as a government agency, but was converted to a state-owned company in 1971; this was to give it more flexibility to raise and disburse finance, and to limit political interference. Its present group structure emerged in 1982 with the merger of BNDES Participacoes (the equity investment arm) and FINAME (the subsidiary that deals in export and trade finance). A newer subsidiary, BNDES Ltd, deals with the internationalisation of Brazilian firms. Together, the BNDES group is responsible for long-term fund raising and loan activities in Brazil. As an institution, BNDES was, and remains, a key player in domestic privatisation programs which led to a rapidly expanded balance sheet, with substantial direct and indirect shareholdings and loans in the privatised enterprises. It added “social” to its title in 1982 and has become progressively more involved in such initiatives including culture, MSMEs, and the environment. It was used extensively for public counter-cyclical investment from 2008 to 2014.

BNDES is one of the largest national development banks in the world and its evolution is closely tied to the political and economic history of Brazil. Its operations are, therefore, closely integrated with the Government of Brazil’s policy objectives, and its mission has been stretched to meet emerging priorities; these include long-term financing of productive and social infrastructure, counter-cyclical interventions, innovation, financial inclusion of MSMEs, renewable energy and other green initiatives, trade promotion and integration of Brazilian enterprises in the global supply chain.

In 2017, about 30 percent of loans went to infrastructure sectors, 21 percent to industry, 21 percent to trade and services, and 20 percent to agri-business. As a wholesale bank, it operates directly and through a wide range of intermediaries and platforms. In terms of loan distribution value by size of client, about half is for large enterprises but, in terms of number of transactions, the MSME segment dominates. The Central Bank of Brazil has estimated that BNDES provided approximately 70 percent of long-term domestic credit (over a three year tenor) during 2013 – 2015.

Its dominant source of funds has been the National Treasury – which expanded rapidly from 2008 to 2014 – and constitutional payroll taxes and special funds; this has been distributed typically via senior loans at the Taxa da Juros de Longo (TJLP) – a long-term interest rate set by the National Monetary Council - which were provided at a substantial discount to the private market rate, or Sistema Especial de Liquidação e Custodia (SELIC). Some commentators have argued that the reliance on public funding through fiscal or constitutional sources has led to extensive subsidisation, capital misallocation, slower capital market

\[\text{Law 1628 of June 1952.}\]
\[\text{Law 5662 of June 1971.}\]
\[\text{Financiamento de Maquinas Equipamentos.}\]
\[\text{See Decree No 59170 of September 1966: BNDES Participacoes SA can provide equity and quasi-equity.}\]
\[\text{When its remit was expanded to foster sustainable and competitive economic development in Brazil, generating employment, while removing social and regional inequalities.}\]
\[\text{In 2017, the share of direct to indirect was 40 to 60.}\]
\[\text{Disbursements have since declined sharply due to fiscal retrenchment and lower demand due to recession.}\]
development and difficulties in public sector financial management. It has also been argued that insufficient attention was paid to the issue of additionality, and that BNDES loan products had resulted in distortions and sub-optimal capital market development. In early 2017, BNDES issued a new set of Operating Policies to respond to these concerns and the need for greater rigour in determining which specific market gaps are to be addressed by the bank in the future.68

B.2. MANDATE

The legal mandate of BNDES is set out in legislation, which states that “BNDES is the main instrument to implement and carry out the Federal Government’s investment policy, and its foremost purpose is to support programs, projects, construction and services related to the country’s economic and social development.” The legislation also states that BNDES, directly or through subsidiaries, may carry out banking activities and financial operations of any kind, and in particular:

- finance economic development programs, with the resources of the Social Integration Program; promote the application of resources linked to the Social Integration Program (Programa de Integração Social or PIS), Public Server Patrimony Formation Program (Programa de Formação do Patrimônio do Servidor Público or PASEP) Participation Fund, the Merchant Marine Fund and other special funds established by the government; act as an agent of the Federal Government, the states, and municipalities, as well as of governmental agencies, state-owned companies, mixed capital entities, state-owned foundations and private organisations; 69, 70

- contract operations in Brazil or abroad, with foreign or international entities, finance the acquisition of assets and investments made by nationally owned companies abroad; finance and promote the exports of products and services;

- make non-reimbursable investments in educational and technological research programs;

- make non-reimbursable social investments, in the areas of employment and income generation, urban services, health, education and sports, justice, housing, environment, water resources and rural development, as well as projects of a cultural nature;

- contract technical studies and generally provide technical and financial support for projects that promote Brazil’s economic and social development; and

- engage in capital markets operations, both domestic and foreign, to implement the above mandate.

At present, BNDES can invest or operate in any sector other than financial/banking services, defence, motels, adult leisure and gambling. The last three years have seen an attempt to create a new strategic framework around fewer themes – mainly MSMEs and infrastructure – and a more targeted focus on current market gaps. These include a separation of interventions that are designed to improve access to capital and those where externalities justify the use of subsidies.


69 The PIS and PASEP are social contributions payable by companies to finance the funds for insurance for unemployment, child benefits and allowances for low-paid workers.

70 For example, the Fundo Amazônia, a grant fund to contain deforestation and encourage sustainable development in the Amazon.
The reliance on public funding, rather than bond or other capital market mechanisms that could lead to the widening and deepening of those markets, has also been questioned, as has the reliance on senior debt and the limited use of guarantees, warrants, securitisation or syndication. 71

The vision statement on the BNDES website still relates to the wider public sector model:

“To perform its duties as the development bank of Brazil, an institution of excellence that is innovative and proactive in light of the challenges in our society. In keeping with the Bank’s Mission and Vision, three integrated issues were selected as the new challenges to be tackled: innovation, socio-environmental development, as well as local and regional development, prioritizing the less developed regions in Brazil.”

B.3. INSTITUTIONAL STRUCTURE

BNDES is a wholly owned federal entity, with the Ministry of Development, Industry and Foreign Trade as its sponsor, and operates as a company under private law. The most recent bylaws of BNDES are those passed by the General Assembly of 20 February 2017. Its authorised share value is BRL 100 billion (USD 27 billion). It presently has some 2,710 employees, mainly in Brazil, but it also now has representative offices in Montevideo, Johannesburg and London; its head offices are in Rio de Janeiro. There are no specific plans to change or diversify ownership, but recent moves to improve corporate governance include greater future participation of independent financial sector appointees and this may accelerate a partial divestment.

B.4. GOVERNANCE STRUCTURE

The Supervisory Board of Directors, as per bylaws published on the BNDES website, consists of eleven members, all appointed for two years but able to continue for a maximum of three terms. The most senior governing body of BNDES is the Advisory or Supervisory Board, which is responsible for approving the bank’s policies and programs and signing off financial accounts. The Advisory Board comprises:

- five members nominated by the Ministry of Development, Industry and Foreign Trade;
- one member nominated by Minister of Planning, Budgeting and Management;
- one member nominated by the Minister of Labour and Employment;
- one member nominated by the Minister of Finance;
- one member nominated by the Minister of Foreign Affairs;
- a representative of the BNDES staff chosen among the active employees by direct vote; and
- the President of BNDES, who performs the duties of Vice-President of the Advisory Board.

They are assisted by Fiscal and Audit Committees and oversee the Executive Board, which comprises the President, the Vice President and seven Managing Directors. 72 Again, members are all appointed by the President of Brazil and subject to dismissal by presidential order.

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71 In May 2018, BNDES issued its first two-year bonds for cash flow management; the amount was BRL 1.7 billion (USD 450 million). It was oversubscribed.

72 As of June 2018, only six positions were active.
BNDES' governance is, therefore, dominated by political appointees, with 90 percent being nominated by government ministers and all requiring formal approval by the President. This structure has been criticised for allowing political interference in policies and operations. In accordance with the recommendations contained in a recent World Bank report, BNDES' Advisory Board is restricted by statute to only providing guidance and sign-off of financial accounts, with day-to-day management being the responsibility of the Executive Board.

BNDES is supervised and regulated by the Central Bank of Brazil. BNDES is expected to pay dividends of between 25 percent and 60 percent of adjusted net profits to the National Treasury each year. It also pays income taxes, and the cost of any contingent liabilities that arise for the Government of Brazil from BNDES operations.

With its current operations, there is some overlap with other public banks, both national and regional, as well as related institutions and programs.

There is no published historical information given on project origination or how pipelines were developed, either directly or indirectly, but the World Bank has recently reported that BNDES largely provided subsidised credit without meaningful targeting across a range of sectors, programmes and themes. It did not screen eligibility to the subsidised long-term TLJP interest rate on economic or social grounds and did not address the additionality of BNDES financing via any counterfactual approach based on identified externalities. In short, it historically acted more as a publicly-funded wholesale bank than as a catalyst.

**B.5. CAPITAL STRUCTURE AND SOURCES OF FINANCE**

As of mid-2018, the capital structure of BNDES was as follows: National Treasury - 44 percent; institutional funding - 34 percent; foreign funding - five percent; net equity - nine percent; and other liabilities - eight percent. The institutional segment is mainly from the Workers Assistance Fund, which is linked to the federal Constitution and not the budget. The Workers Assistance Fund is collected via corporate taxes and at least 40 percent is transferred to BNDES as Tier 2 capital with no amortisation required. The residual 60 percent has to be spent on social programs, but any balance can be lent to BNDES or other financial intermediaries.

The National Treasury provides Tier 1 equity and credit with a tenor up to 2060; no Treasury transfers have been made since 2015 and BNDES has returned some BRL 300 billion to the Treasury from 2016 to 2018. There is a legal channel for BNDES to write off infrastructure bad debts under Law 12,404/11. Capitalisation is strong, with a Bank of International Settlements Total Capital Ratio of 29 percent, split between: Tier 1 capital at 19.3 percent and Tier 2 capital at 9.7 percent. BNDES has not traditionally issued bonds in domestic capital markets and it has not established a benchmark yield curve across different capital maturity dates.

In terms of consolidated assets at mid-2018, loans made up 69.7 percent; equity - 8.9 percent; securities - 10.7 percent and other assets - 10.7 percent. Financial leverage – in terms of total assets/average shareholder equity was 14.6. BNDES ratings are as for sovereign debt: Moody’s give Ba2 and stable for long-term local and foreign currency issues and S&P’s rate I BB - and stable. Fitch is BB – for foreign currency.

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73 See Footnote 69, above.
74 See Footnote 69, above.
75 See Annex A Glossary for a definition of Tier 2 capital.
FINANCING ACTIVITIES

As of June 2018, BNDES’ total assets are USD 216.5 billion with equity of USD 18.5 billion and net income of USD 1.2 billion, based on a solid capitalisation. The average rate of return on assets is 1.15 percent and the rate of return on equity 18.3 percent. Some 93 percent of liabilities are debt, principally federal securities. 86 percent of the net loan portfolio is in local currency and the rest foreign.

Based on annual and quarterly reports, the aggregate loan balance portfolio at mid-2018 was:

- electricity and gas - 25 percent;
- agri-business - 11 percent;
- transport - six percent;
- public administration - seven percent;
- trading - three percent;
- construction - three percent;
- transport equipment - five percent;
- food products - two percent;
- pulp and paper - two percent; and
- other - 23 percent.

Senior loans are the primary product, typically with 10 to 25-year tenors. While detailed information on the exact terms is not in the public domain, they have typically been based on the benchmark long-term TJLP rate. These are often floating but can be fixed and, in recent years, have ranged from five percent to 7.5 percent and are now around 5.5 percent. These loans all require substantial collateral assets.

BNDES, despite having significant expert and professional resources in the head office and subsidiaries, has never provided technical assistance nor consultancy services as a business service line. This has limited its ability to get involved in early stage project preparation or later structuring and operation. Due to the subsidy in the TJLP interest rate and the positioning of the bank in the financial system, infrastructure projects were channelled to BNDES, either individually or through programs. For MSME or other smaller-scale credit operations, the use of intermediaries limited BNDES’ direct involvement in project preparation and structuring; it also spread risk and lowered operational cost. Nevertheless, BNDES has invested in its high-level public policy design and advisory capacity, seeking to become a federal ‘think tank’ in regional development, infrastructure, industry and trade. It has been very active in the design and implementation of infrastructure concession and PPPs\(^\text{76}\); this has included procurement, guidelines and advice to national and local government.

The BNDES equity portfolio was valued at USD 22.2 billion in mid-2018; this was mainly invested in Petrobras (41.5 percent), Vale (23.2 percent) and JBS (6.7 percent). Overall, through BNDES Participacoes, there are direct investments in 140 firms and 40 funds. In terms of total net income, loans account for about four times the income from equity realised by divestment or financial intermediation.

\(^\text{76}\) BNDES and IFC are currently jointly reviewing how PPPs can be best structured and transacted in the light of the former’s change in strategy.
International bond issues in recent years include: 2017 USD 1 billion at a coupon of 4.75 percent, maturity to 2024; 2014 USD 1 billion at four percent to 2019; 2014 EUR 650 million at 3.62 percent to 2019; and 2013 USD 1.25 billion at 3.375 percent to 2016 and USD 1.25 billion at 5.75 percent to 2023.

BNDES also has cooperation and partnership arrangements with multilateral banks and DFIs such as the Agence Française de Développement (AFD) and KfW. In June 2018, BNDES and the Inter-American Development Bank were joint sponsors of a USD 1.5 billion infrastructure credit fund for Brazil; they contributed 30 percent and 10 percent respectively, and the rest was allocated to institutional investors. The investment objectives cover both social and productive infrastructure. BNDES has also partnered extensively with organisations such as the World Bank Group, the Japan Bank for International Cooperation (JBIC), the EIB and the Development Bank of Latin America.

As noted earlier, electricity (generation and transmission) and transport (roads, rail and ports) have been priority sectors; in renewable energy, the bank has been the major senior lender in a range of hydroelectric, wind and solar projects. Recent examples of transactions supported by BNDES include:

- **The Pirapolar Solar Farm Complex.** This was BNDES’ first major solar project with a first phase of 150MW, scalable in two additional phases to 400MW, with BNDES providing senior debt of BRL 529 million (USD 140 million, 18-year maturity) in an overall investment total of BRL 940 million (USD 250 million). The owners are Canadian Solar Inc (20 percent) and EDF Energies Nouvelles (80 percent). The transaction was finalised in 2017 and operation is scheduled for 2018 based on a 20-year power purchase agreement (PPA).

- **The Serra De Babilonia Wind Complex.** This USD 750 million, 223MW project was supported by USD 266 million in senior debt from BNDES, with additional debt from commercial banks.

- **The Santo Antonia Hydroelectric Dam.** A 5.5 billion, 3.5GW generation project which was financed in 2009 using a USD 1.27 billion BNDES A loan and a USD 1.25 billion B loan with participation by eight other banks. This was part of a controversial program of major dams in the Amazon Basin with high profile social displacement and environmental consequences; the project consortium included the participation of Electrobras as the power generator. BNDES owns a large share in Electrobras – which is scheduled for restructuring and privatisation – and the dam investments were later linked with corruption. Official government policy, as set out in the annually updated ten-year national energy expansion plans, is now to avoid such megaprojects and focus instead on wind, solar, small hydro and decentralised power generation projects.  

- **The Autopista Dom Pedro I Toll Road.** BNDES provided senior debt of USD 520 million and a further USD 620 million financed through project bond issues.

### B.7. GREEN FINANCING

BNDES issued its first Green Bond in May 2017 for USD 1 billion with a rate of 4.8 percent, a premium of 269 basis points on US Treasury securities, and 60 basis points over Brazilian federal securities. The proceeds of the Green Bond have been fully allocated to eight wind power generation projects with a total installed capacity of 1,323MW. BNDES also announced in 2017 a USD 300 million loan from the New Development

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77 For example, see Plano Expansao de Energia 2030. Following extensive droughts in 2015, solar, wind and biomass have been promoted via auctions and a mix of incentives; the aim being to reduce hydro from 65 percent of installed generating capacity to around 50 percent by 2030.
Bank for investment in five renewable energy projects, which included provision for on-lending in debentures. About 60 percent of recent BNDES energy investments have been in alternative technologies and energy is the fastest growing infrastructure segment.

**B.8. PROJECT PREPARATION AND TECHNICAL ASSISTANCE ACTIVITIES**

The 2017 Annual Report only provides a summary description of the project preparation framework and methodology for projects directly financed with values exceeding BRL 20 million (USD 5 million). It refers to a “Project Eligibility, Credit and Capital Markets Committee” that appraises the economic, financial, social and environmental aspects of projects and eventually make recommendations through executive management to the Advisory Board. Within the teams, there was access to different types of sectors or technical expertise, but with some 90 percent of staff based in Rio de Janeiro. There are no numbers available on the size of project preparation in staff or budgets. Pipeline generation was largely outside BNDES, through sector plans or privatisations or unsolicited private sector or mixed consortia projects. Since BNDES provided some 70 percent of all long-term finance in infrastructure at subsidised rates, all earmarked projects graduated to it. In terms of regional development and sector policies, BNDES was also a major institutional source of advice and influence.

BNDES has provided technical assistance and knowledge/capacity support to a wide range of its public sector clients, particularly local and state governments and even to project developers and consortia – but this was not proactively done, nor was it a core business service offer.

**B.9. PERFORMANCE MONITORING**

The BNDES website provides access to quarterly financial and management reports, as well as annual statements and accounts.

BNDES has a remarkably low historic default rate that has only marginally increased during the difficult last few years. The ratio of Non-Performing Loans to Total Loans for 30 and 90 days was 2.36 percent and 1.45 percent respectively. These were below the Brazilian financial sector average. There is continuous monitoring of the portfolio and use of a standard national risk classification system; here AA is the least risk and H the worse. In June 2018, BNDES classified 96 percent of its portfolio as being in AA to C and only 0.4 percent in H. Again, this compares well with the Brazilian financial sector average scores.

There is no reporting by projects or programs. Instead, performance monitoring is now aggregated into three business lines: fixed income (project financing by loans and debentures); variable income (capital markets and equity) and treasury/asset liability management. This reflects the new more flexible and market price led BNDES model that emerged in 2017/18.

There appear to be comprehensive lists of risk management and internal/external controls but it is difficult to judge how far these feed back into operations or products as, historically, the business model involved two channels: direct long-term low cost senior debt, and indirect (and smaller) MSME client transactions. There is clearly a challenge to make monitoring and evaluations systems fit for purpose in the more agile, flexible, crowding-in model.

Until 2017, BNDES had no economic or social monitoring and evaluation capacity. Accordingly, it was unaware of the effectiveness of its loan interest subsidisation policy or overall long-term impact at the firm, regional or national level. In the Operating Policy revision, a new Monitoring and Evaluation Department was
created. The attempt to report developmental, social or environmental impacts is still under development, with job creation evaluations being the most robust and clearly formulated.

B.10. **KEY LESSONS LEARNED**

BNDES has responded to new challenges by adding lending platforms and second tier channels to cover diverse clients and industry/thematic segments while keeping the same Treasury/public funded, single subsidised product. It has become very dominant in the market and faces risks of capture by political interests or those who can gain rents on its subsidised funding. This lifecycle is not uncommon in national development banks and the remedy lies in making it more agile and focused on specific market gaps that a range of financial service products can address through appropriate pricing of different instruments to crowd-in other financing sources. Examples of such new products include credit enhancement, syndication, debentures, corporate bonds and loan securitisation.

BNDES is now starting a process to revise its medium- and long-term strategy to 2030, and in 2018, it retired the TJLP mechanism with the gradual introduction of a new benchmark based on a consumer price index and a spread based on five-year yields from government bonds. It wants to move away from its sole or anchor lending role in earmarked projects and increase co-financing, syndication and use of capital market instruments. This will eventually transform the project finance market in Brazil but the process is only just starting.

In September 2016, the new Law no 13,334 was passed, bringing into being the Programa Parcerias de Investimentos; this aimed at enabling the infrastructure financing transition process by creation of a prioritised pipeline of major projects, mainly concessions and PPPs. Programa Parcerias de Investimentos is based on complementary financing from public and private sectors with an enhanced capital market development role for BNDES (corporate bonds, liquidity in secondary markets, structuring of credit funds, new packaging of insurances and enhanced credit enhancement products). BNDES is experimenting with other DFIs and private sector institutions on how best to move to this new mixed funding model; this includes allowing other lenders access to collateral and local currency guarantees.

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78 Called Taxa de Long Prazo (TLP).
80 Initially, 145 proposed projects were identified.