



GRI INDICATOR:
201-4

FINANCIAL SUSTAINABILITY

SOURCES OF RESOURCES

We count on several sources of resources for our performance. The return of our own operations along with the resources from the Workers' Assistance Fund (FAT), PIS-Pasep Fund and National Treasury represent a significant portion of our structure of financing. Other government funds, fundraising abroad, public issuances of BNDESPAR debentures and banking instruments complement this structure.

With the TLP, in a scenario of convergence with the market until 2023, and the advance payment to National Treasury, we have been structured to seek new funding options. Facing this challenge is a concern present in our strategic planning, discussed in the Funding corporate project. In addition to structuring funding through financial letters, which reinforce the capacity for source diversification, guidelines for a new asset securitization policy were defined and adjustments in financing contracts were proposed, in order to allow securitization in the future. Next, get to know our sources of resources.

NEW POLICY OF SECURITIZATION OF ASSETS

Approved in October 2018, this policy regulates the objectives, conditions and operational flow of asset securitization, in order to prepare BNDES to carry out these operations backed by its asset portfolio, in view of the TLP convergence scenario with the market rates and the need for seeking greater diversification of fundraising sources.

GOVERNMENT SOURCES

National Treasury

Between 2008 and 2014, we received expressive funds from the **National Treasury** to perform our operations. From 2015, there was no more fundraising from this source and the return of these funds started.

In 2018, we completed the payment of the remaining R\$ 130 billion (R\$ 30 billion in March, R\$ 30 billion in June and R\$ 70 billion in August) to make a total of R\$ 180 billion officially requested from our Board of Directors by the National Treasury Secretariat in August 2017. In order to base the payment, several analyses were conducted, considering also the possibility of demands for new returns, such as extraordinary amortizations to the FAT and PIS-Pasep Fund.

Between December 2015 and December 2018, we **returned to the Federal Government** a total of R\$ 309 billion, and the balance of liabilities, at the end of 2018, was approximately R\$ 270 billion in financing agreements and R\$ 35.5 billion in instruments eligible for capital core.

In October, the renegotiation of contracts with the Union in the amount of R\$ 264 billion was concluded. The contractual conditions for TLP were updated and the amortization, interest and contract maturity dates were considerably anticipated, as authorized by Law 13,483 of September 21, 2017.

Learn more at:
www.bndes.gov.br/fat-futuro-do-trabalho

Find out more about the allocation of National Treasury resources at: www.bndes.gov.br/operacoes-recursos-tesouro

Follow the progress of the returns at:
www.bndes.gov.br/recursos-do-tesouro-nacional

FAT and PIS-Pasep Fund

The 1988 Federal Constitution allocated 40% of the PIS-Pasep collection to the financing of economic development programs through BNDES, to generate job opportunities, as well as protecting the unemployed worker. In 1990, with the extinction of PIS-Pasep and creation of FAT, it became one of our main sources of resources.

These resources are called Constitutional FAT and it is up to us to decide in which economic development programs to apply them. We also collect funds from FAT in the form called FAT Special Deposits, which are for specific programs and sectors, previously determined and approved by the Executive Secretariat of the Deliberative Council of the Workers' Assistance Fund (Codefat).

THIRTY YEARS OF FAT

In November, in commemoration of the thirty years of the allocation of 40% of PIS-Pasep collection and, later, of FAT collection to BNDES for the financing of economic development, BNDES held the seminar "FAT and the Future of Work," organized jointly with the then Ministry of Work. Topics addressed were: the history of the creation of FAT; results obtained with the applications of its resources by the worker support system; transformation of the industry and some possible impacts on the new work, and impact of economic transformations on education and workforce qualification.



Law 13,677/2018 authorized any holder of a PIS or Pasep individual account to withdraw the amount available until September 28, 2018. As a result, there was return of R\$ 8.8 billion to the payment agents.

Other governmental sources

The most representative values refer to the Merchant Marine Fund (FMM), whose resources are directed to financing national shipping companies, Brazilian shipbuilders and the Brazilian Navy; and the FI-FGTS, whose funds were raised in 2008 to be applied in infrastructure projects.

In 2018, as Funttel's financial agent, we raised R\$ 94 million to be used in projects aimed at the development and diffusion of technology in the telecommunications sector.

FUNDRAISING ABROAD

Bonds issuance

We have been issuing bonds for more than 30 years, having accessed different types of markets, such as US dollars, euros, Swiss francs and yen. Issuance of bonds aims to increase and diversify our sources of funds and our investor base; encourage the access of other Brazilian issuers to the bonds market; and build new benchmarks in our international interest rate term structure.

Green bonds, issued in 2017, also provided a number of benefits, such as strengthening the priority of socioenvironmental sustainability; dissemination of best socioenvironmental management practices; and stimulus to other Brazilian issuers' access to the green bond market.

Learn more in the section
[Our performance > Infrastructure](#) (page 33)

Public offering for repurchase of foreign securities

In 2018, we held a public offering of voluntary repurchase of securities issued in the international market with maturities in 2019 and 2024. We repurchased US\$ 143.48 million in face value (without discount) of the security maturing in 2019, and US\$ 503.20 million in face value (with a 4.30% discount) of the security maturing in 2024. In total, securities with face value of US\$ 646.68 million were repurchased.

Thus, within a week, it was possible to repurchase about 40% of the securities in the market whose total (original) offering was US\$ 1.64 billion. After the transaction, the market value of the two securities (2019 and 2024) was around US\$ 500 million, which is considered a suitable benchmark in the international market due to its high liquidity.

The completion of this repurchase transaction will produce a very positive financial result of US\$ 178 million – both in capital gains, given the repurchase prices with a discount of US\$ 21 million, and in financial terms, given the cancellation of the bonds and the consequent extinction of future charges on external debts that are no longer generated (savings of US\$ 157 million up to 2024).

The transaction, in the form of any-and-all tender offer was aimed at demonstrating that we did not agree with the price level in which these securities have been traded in the international market and that we have attractive alternatives of financing in the local market.

GREEN BONDS

In 2018, we produced our first *Green Bond Annual Report*, which was a finalist in the International Standards of Accounting and Reporting (Isar) Honors, a prize granted by the United Nations Conference on Trade and Development (Unctad). The document, first of its kind among Brazilian banks, provides information on wind energy projects supported with the amount of US\$ 1 billion, fundraised by BNDES in the international market and directed at financing environmentally sustainable projects.

Access at: https://web.bndes.gov.br/bib/jspui/bitstream/1408/14763/1/BNDES_Relatorio_Green_Bond_ingles_P_BD.pdf

Fundraising from multilateral institutions and government agencies

This type of fundraising is performed with partner institutions. Unlike bond issuances, the funds raised with these institutions have, in general, specific destination to entrepreneurial sectors or segments and must meet the creditor's conditions. The main advantages of these sources are stable cost and a longer financing term in relation to market fundraising, besides its countercyclical character.

In 2018, a new operation was contracted with the Japan Bank for International Cooperation (Jbic) in the amount of US\$ 100 million to support renewable energy projects.

Funding disbursements for the year totaled US\$ 550 million, of which the amount of US\$ 250 million was from the Sustainable Energy Program contracted with the IDB in 2017 and US\$ 300 million from the contract

made with the NDB, also in 2017, to support renewable energy projects.

In a scenario of lesser availability of resources from domestic institutional sources, there is potential to expand cooperation with traditional partners, as well as to establish new partnerships with international organizations.

NATIONAL FUNDING

BNDES Financial Letters (LF)

Financial Letter is a registered, transferable and freely negotiable credit instrument issued exclusively by financial institutions and other institutions authorized to operate by the Central Bank of Brazil.

In 2018, BNDES issued LFs for the first time. These operations are part of the strategy to develop new market raising instruments in addition to traditional funding sources, in order to meet the needs of our investment budget and future disbursements.

BNDES issued R\$ 2.3 billion in LFs, with demand superior to R\$ 21 billion, a two-year term and a rate of 101.9% of CDI. The first operation was in May, in the amount of R\$ 1.7 billion, and the second, in December, of R\$ 587.4 million.



We do not receive emergency financial aid from the government, since BNDES is a nondependent state company with direct control of the Union, according to current legislation.

INTEREST RATES

TLP

In 2018, TLP entered into force, replacing the TJLP as the basis for the remuneration of FAT, PIS-Pasep, FMM and National Treasury contributions to the BNDES.

The TLP is composed of a fixed portion and a variable portion, as shown in the table on the right.

Learn more in the section *What we do* (page 19)

The full transition will take place within five years. During this period, the difference in relation to the market rate will be progressively reduced.

Capitalization of monthly variation of IPCA for TLP financing

In 2018, we enabled the option of granting credit in financial conditions referenced by TLP, with capitalization, that is, incorporation of the debt of monthly variation of IPCA, which corresponds to the variable part of the rate, in the principal.

This new possibility, in relation to the collection of the full TLP (without capitalization of any component), allows greater leverage of financing in the **project finance** modality.

Financing in this modality is dimensioned by the ability to pay each project, which is the ratio of cash generation to the debt service. With the capitalization of the monthly variation of IPCA, there is a payment schedule curve smoothing, so that there is less need to generate cash from the project to pay the debt service.

This methodology is in line with the pattern observed in the Brazilian public debt securities market, which also facilitates the securitization of our loans.

BNDES FIXED RATE (TFB)

In order to reduce the uncertainty regarding the variation in the cost of financing, especially for small and medium-sized companies that would have difficulties in managing inflation-linked liabilities, we created TFB, which aims to provide a fixed-rate financial cost and offer the option of determining it on the contracting date, and not on the date of release of resources.

As TLP has a methodology based on market parameters, it is possible to use efficient market instruments to minimize the risk arising from such conversion. In this context, we developed a methodology for transforming TLP into a nominal interest rate determined on the contracting date, which now represents another financial cost alternative for indirect operations with MSMEs.

TLP

FIXED INSTALLMENT



INFLATION

It is defined at contracting

It does not change up to the end of financing

Announced by the BCB every month

It is calculated based on the average of the last three months of a five-year NTN-B, multiplied by a decreasing reducer until 2022

It varies with IPCA (published monthly by IBGE)

Inflation is the only risk component of TLP

When contracting a financing with TLP, the risk of cost increase is related only to the portion that varies with IPCA, since the fixed part of the rate is known for the entire payment flow

PERFORMANCE AS CENTRAL BANK OF BRAZIL (BCB) DEALER

In 2018, we consolidated our operation as accredited to act as a BCB dealer, which gives us access to direct contracting with the bank for go-around operations (informal auction held every morning to provide adequate liquidity to the financial market), and post-Copom bank liquidity leveling.

The financial volume that we operated is quite high, and the operations performed as dealer are important instruments for cash management. The prerogative to operate directly with the BCB without dependence on another financial institution provides flexibility in the face of contingencies in cash flow, reduction of application risks and maximum profitability of resources.

Operating as dealer of the BCB's Open Market Operations Department (Demab) also promoted the expansion of our relationship with the market, continuing the relationship deepening that resulted from our adherence to the Brazilian Payment System (SPB). We maintained a relatively constant position in the BCB's overall performance rating throughout the year, which allowed us to remain as a dealer.

CREDIT RISK

DEFAULT

The **default** in the BNDES's loan portfolio reached 2.95% (90 days) on December 31, 2018, slightly above the rate of the National Financial System, which reached 2.87% (90 days) in December 2018. It is higher than that observed at the end of 2017 (2.08% – 90 days) and is above historical levels, due to the slow recovery

Learn more in the section *Our performance > Financial performance* (page 27)

of economic activity and the increase of risk in specific sectors. Disregarding the operations with full guarantee of the Union, our default rate would be 1.67%, lower than the SFN index.

We continually monitor our borrowers' **credit risk**. As required by BCB, we have constituted provisions in accordance with the classification of operations risk and the default period of payment of financial obligations. We also periodically analyze the need for constituting additional provisions due to other factors, such as sectoral risk, for instance. Thus, we maintain sufficient capital to absorb eventual losses.

Although the unfavorable economic scenario and the increase in credit risk in 2018 implied the provisioning of R\$ 22.8 billion, we had credit recovery of R\$ 6.010 billion resulting in an expense of R\$ 5.898 billion at the end of the year.

CREDIT RECOVERY

Although operations financed by BNDES are subject to careful analyses, we are still subject to the risk of debtors facing difficulties in honoring their debts and other obligations.

Throughout 2018, we developed studies aimed at increasing the success rate of renegotiations, reducing process times and segmenting jobs according to different debt profiles in order to obtain more efficiency and maximize the recovery of problematic credits.

The renegotiation index reached 4.43% of the credit portfolio and onlendings in 2018, higher than the 3.62% registered in 2017.

Asset research

The use of the asset search service is another tool to assist BNDES in the

Learn more in the section *Risk management* (page 63)

recovery of credits, either through administrative or judicial proceedings. In 2018, we performed an equity research on 59 people, of which 17 were legal entities and 42 were individuals. We extended the equity research contract for another year, until June 2019.

GUARANTEES

We have as practice the requirement of credit guarantees in our operations for regulatory purposes and for transaction risk pricing. At the beginning of 2018, the consolidation of the standards for the constitution of guarantees of the BNDES System's operations was approved, with improvement of the rules for automatic and nonautomatic indirect operations, microcredit and credit rights, as well as for structured operations in the project finance modality. In the second half, we made adjustments to the standard to fit the products inserted in the newly created **automatic and simplified workflows**.

Exports Guarantee Fund (FGE)

In addition to guaranteeing operations of municipalities and states, the Union also provides guarantees for **Brazilian exports** to several countries financed by public and private financial institutions. In the latter case, through FGE, a Union's accounting fund. FGE has a low level of losses and has collected a significant amount of insurance premiums (about US\$ 1.3 billion) since its creation. In December 2018, BNDES recorded US\$ 441 million in delinquent installments related to the exports of both goods and services of Brazilian companies to Venezuela, Cuba and Mozambique. The amount of US\$ 208 million has already been indemnified by the FGE and the rest are in indemnity process.

Learn more in the section *What we do* (pages 19 and 21)

GOVERNANCE, ETHICS AND INTEGRITY



GRI INDICATORS:

102-16 | 102-17 | 102-18 | 102-19
 102-20 | 102-22 | 102-23 | 102-24
 102-26 | 102-27 | 102-28 | 102-30 | 102-31
 102-33 | 202-2 | 205-2 | 205-3 | 308-1

GOVERNANCE

CHANGE OF MANAGEMENT

On April 9, 2018, economist Dyogo Oliveira took office as BNDES's President, replacing economist Paulo Rabello de Castro. He holds a degree in Economics from UnB, has a specialist title in Public Policy and Government Management from Enap, and in Foreign Trade, International Negotiations and Foreign Exchange from Brasilia FGV, besides holding a master's degree in Economics from UnB. He has been a public servant since 1998 and was Minister of Planning, Development and Management before becoming BNDES's President.

With the change of government, after the October 2018 elections, Joaquim Levy was chosen to assume the position,

taking office on January 7, 2019. Levy has a degree in Naval Engineering from UFRJ, a PhD in Economics from the University of Chicago, and a master's degree in Economics from FGV. He occupied various positions in public administration, including Finance Minister. He was also World Bank Group Chief Finance Officer before taking office as BNDES's President.

GOVERNANCE MODEL

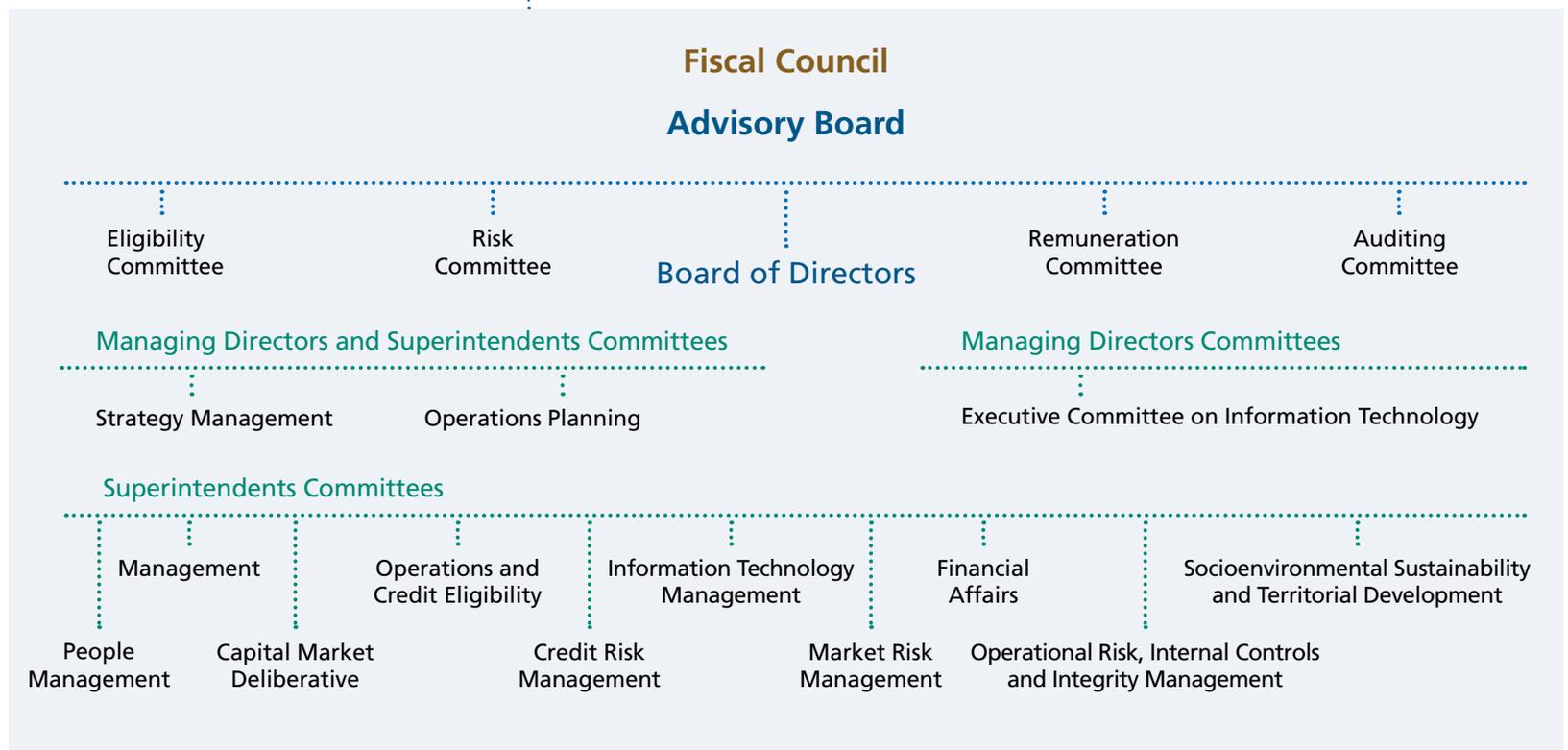
Our **structure of governance** has as a principle addressing issues with transparent and collective decision-making. It is composed of six collective bodies: Advisory Board, Fiscal Council, Auditing Committee, Eligibility Committee, Remuneration Committee and Executive

Board of Directors. In addition, there are specific committees created by the Advisory Board and the Board of Directors to support their decisions.

All committees analyze the efficacy of the process pertinent to their operation spheres and report, directly or indirectly – in some cases the matter is previously addressed in the Management Committee, composed of all our managing directors –, to the Executive Board of Directors, which meets once a week.

Each BNDES System company has its own **Advisory Board, Fiscal Council and Board of Directors**.

Learn more at: www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/The_BNDES/boards_bndes.html



Advisory Board: our highest governance level. Among its attributions are to opine on relevant issues regarding the country's economic and social development more directly related to BNDES's actions; advise the Bank's president on the general guidelines for his/her actions; approve the Bank's general policies, including corporate governance; and to opine on the financial statements of the institution. The president of the BNDES's Advisory Board does not perform any other executive function at the Bank.

Fiscal Council: composed of three members, two appointed by the Ministry of Planning and one by the Ministry of Finance. It oversees the acts of the managers and verifies compliance with their legal and statutory duties; analyzes the Bank's quarterly financial statements; and evaluates and opines on BNDES's half-yearly financial statements.

Executive Board of Directors: the Executive Board has deliberative power and counts on a wide structure of specific advisory committees that act as instrument of strategic alignment, congregating several hierarchical instances, as directors, superintendents and heads of department, according to the finality.

Eligibility Committee: composed of the same members of the Auditing Committee, it assists the controlling shareholder in the appointment of members of the Board of Directors, Advisory Board and Fiscal Council and verifies the conformity of their evaluation process.

Risk Committee: it proposes recommendations to the Advisory Board on policies, strategies and limits for risk and capital management, stress testing program, business continuity management policy, liquidity and capital contingency plan, and capital plan; assesses levels of risk appetite; analyzes the risk environment of the BNDES System; among others.

Remuneration Committee: composed of three members appointed by the Advisory Board, it prepares and oversees the implementation and operation of the remuneration policy for the managers of BNDES and its subsidiaries.

Auditing Committee: composed of three members, appointed by the Advisory Board, it opines on the hiring and dismissal of independent auditors; reviews the half-yearly financial statements, including explanatory notes, management report and independent auditor's report; evaluates the effectiveness of independent and internal audits; among other duties.

Strategy Management Committee: it directs the corporate strategy and monitors the performance of key strategic management indicators.

Operations Planning Committee: it accompanies operational matters, the performance of internal management indicators and the main variables of the external environment that directly or indirectly affect the Bank's management.

Executive Committee on Information Technology: it deliberates on priorities and allocation of IT resources; ensures the adoption of established IT governance practices; among other responsibilities.

Management Committee: it works to normalize management standards, promotes the strengthening of relations among our fundamental units, and oversees the implementation of the strategic guidelines defined by the Board of Directors and the Planning Committee, provided for in our corporate plan and approved by the Advisory Board and the Board of Directors. It also represents the first level of debates of relevant themes for later submission to the Board of Directors and other spheres of our governance.

Operations and Credit Eligibility Committee: it discusses and deliberates on operational matters of eligibility and credit related to requests for financial collaboration.

Information Technology Management Committee: it accompanies the portfolio of information technology (IT) projects and deliberates on its changes; establishes IT priority issues; monitors IT service levels and proposes improvements whenever necessary; among other responsibilities.

Financial Affairs Committee: it assesses financial, accounting and equity matters and ensures consistency between operational, financial and credit dimensions.

Socioenvironmental Sustainability and Territorial Development Committee: it leads the processes of review, monitoring, evaluation and dissemination of PRSA and of regional development policies; ensures that social, environmental and territorial dimensions are incorporated into the Bank's corporate strategy; coordinates the elaboration of the Multi-Year Plan for implementation of the PRSA; and promotes and disseminates the culture on these two themes internally.

People Management Committee: it supports and directs the Human Resources Division's activities, ensuring the adequacy and optimization of people management policies, and of the processes of internal movement of personnel, employee training, and organizational adequacy.

Capital Market Deliberative Committee: it discusses instruments of variable income securities and participation in investment funds.

Credit Risk Management Committee: it evaluates and approves methodologies for the global management of credit risks, counterparties and concentration credit; evaluates the strategies for the global management of these risks, submitting them to the approval of the Board of Directors; assesses and proposes the revision of limits of exposure to those risks; among others.

Market Risk Management Committee: it evaluates and approves methodologies for market and liquidity risk management; evaluates the strategies for managing these risks, submitting them to the approval of the Board of Directors; assesses and proposes a revision of exposure limits to those risks; among others.

Operational Risk, Internal Controls and Integrity Management Committee: it evaluates and approves the methodologies for operational risk management, compliance, internal control, business continuity management, and information security; evaluates the strategies for managing these risks, submitting them to the approval of the Board of Directors; assesses and proposes a revision of exposure limits to those risks; among others.

HOW ARE ADVISORY BOARD MEMBERS SELECTED?

Considering the ministries in force in 2018, the Advisory Board is composed of 11 members: one appointed by the Ministry of Labor, one by the Ministry of Finance, one by the Ministry of Foreign Affairs, one by the Ministry of Foreign Trade, three by the Ministry of Planning, Development and Management, one elected by direct vote of BNDES's employees, and three independent members, appointed by the Ministry of Planning.

The nominees have to meet specific requirements, such as having knowledge and academic training compatible with the position.

The Secretariat of Coordination and Governance of State-owned Enterprises (Sest) conducts a preliminary analysis of the nominee's supporting documents and consults the Chief of Staff Office of the Presidency of the Republic to confirm the nomination. If there is no objection, the Ministry of Planning sends the documentation for analysis by the BNDES Eligibility Committee.

After the Committee, by absolute majority, has verified the fulfillment of all requirements and the absence of impediments, the ministry responsible for the nomination should forward its final decision to the Attorney General of the National Treasury (PGFN). The nomination is then submitted to the BNDES General Assembly, which is responsible for deciding on the election and dismissal of the members of the Advisory Board.

The General Assembly is led by BNDES's President. At least one member of the Fiscal Council and a prosecutor of the Attorney General of the National Treasury, representing the Federal Government, which is the sole shareholder of BNDES, must be present.

The economic, social and environmental aspects are treated in all spheres of our governance, and they are assigned to managing directors and heads of department, as defined by the BNDES Basic Internal Organization.

The main changes in relation to 2017 were: transformation of the Risk Management Committee, before a committee of managing directors, into the Risk Committee, directly linked to the Advisory Board; creation of the Capital Market Deliberative Committee; and the merger of the Operational Risk Management and the Internal Controls Committees, forming the Operational Risk, Internal Controls and Integrity Management Committee.

OUR ORGANIZATION STRUCTURE

We are organized into specific **managements**, composed of divisions. Each division is the responsibility of a superintendent.

In March, faced with novel needs, we created two new areas: the Communication and Institutional Relations Division, with

the objective of acting in a proactive and planned way in communication activities and in the relationship with strategic audiences; and the Business Promotion and Origination Division, aimed at organizing our promotion actions.

Seeking to optimize resources and processes, we merged the Primary Industry Division with the Industry and Services Division, and the Integrity and Risk Management Division with the Controllershship Division.

Organization and Management

The diagnosis made in our **strategic planning** pointed to some needs related to our structure, such as the rebalancing of the quantitative of employees and functions between divisions, considering our priorities; the revision of the control scope, that is, the number of employees per manager; and the better allocation of the work force, considering the nature of the activities of the positions (secondary education and higher level education).

These and other issues were addressed by the Organization and Management

corporate project, composed of four axes: review of the organizational pyramid and sizing of division; definition of desirable profile attributes to fill the jobs created to meet our new strategy; new governance model proposal, including a working model per project; and a new conceptual model of performance management and incentives proposal.

Among the measures adopted to reorganize our organizational structure, we highlight the centralization of the transactional processes, previously performed in a dispersed manner by the operational divisions, in a new division specialized in back-office activities (Business Support Division); and the segregation of analysis and monitoring activities.

AUDITING

Our internal auditing unit is directly linked to the Advisory Board and its mission is to strengthen corporate governance, risk management and the internal control system through objective assessments and consultancies, as well as centralizing the demands of external control and supervision bodies, such as TCU, CGU and BCB.

In 2018, these bodies made 2,241 demands, between diligences and audits, to which we gave due treatment. During the year, we received 47 notes, among recommendations and determinations, of which 33 were met or answered. The others have been monitored. In addition, we monitor 200 ongoing external control and supervision bodies processes or audits.

In response to the notes from Internal Auditing work, we presented 139 action plans, of which 59 were executed in the same period. The others have deadlines for implementation after 2018 and will continue to be monitored and reported periodically by the Internal Auditing to the Auditing Committee, Advisory Board and Fiscal Council.

View our organization chart in 2018 at: www.bndes.gov.br/ra2018-chart

Learn more in the section *Our strategy* (page 11)

COMPLIANCE WITH THE LAW OF STATE-OWNED COMPANIES

In 2018, the second and third cycles of the IG-Sest were carried out. The IG-Sest is an evaluation performed by Sest, since 2019 linked to the newly created Ministry of Economy, to measure compliance of federal companies with Law 13,303/16 (Law of State-owned Companies). We were among the 25 federal companies – considering public companies and mixed-capital companies – that obtained level 1 in corporate management, among the 54 evaluated. This result presents the best score among the four existing classification levels.

The statutes of FINAME and BNDESPAR were updated to comply with the new law. It was also necessary to edit, through public bidding, the Divestiture Regulation of the assets owned by the companies that are members of the BNDES System.

Annual Letter of Public Policies and Corporate Governance

One of the obligations created by the Law of State-owned Companies was the need for preparing the **Annual Letter of Public Policies and Corporate Governance**. The document highlights the commitments to achieve public policy objectives, including the definition of resources to be used and the economic and financial impacts of the implementation of these objectives. It also provides a timely and up-to-date transparency of different information on corporate governance, such as developed activities, control structure, risk factors, and economic-financial data, among others.

COMPLIANCE WITH IFRS 9

We completed the plan of compliance with the requirements of the technical pronouncement of the Accounting Pronouncements Committee (CPC) 48, which deals with financial instruments correlated to International Financial Reporting Standards (IFRS 9).

Access BNDES annual letters at:
www.bndes.gov.br/cartas-anuais

Since then, financial assets have been classified according to the business models established in the standard, and the characteristics of their cash flows, their management and how these assets will be realized are observed. Depending on the business model, financial assets may be measured at cost or at fair value, with the latter reflecting either the result or the net equity.

No significant changes were identified from differences in classification between the current standard and the previous standard. However, senior management decided to irrevocably designate investments in nonaffiliated equity interests in the business model “Fair value through other comprehensive income.” The main consequence is that the mark to market of these investments will have the net equity as counterpart, which already occurred under the previous rule.

The standard is applicable from January 1st, 2018, specifically for **BNDESPAR's balance sheet**, as well as for **BNDES's consolidated balance sheet in IFRS**. It is not yet applicable to BNDES's individual balance sheet in accordance with corporate rules, as the BCB is expected to adopt IFRS 9/CPC 48 only from 2020.

FX GLOBAL CODE

BNDES adhered to the FX Global Code, a set of principles of good practices developed to provide common guidelines for the integrity and effective functioning of the foreign exchange market, which moves about US\$ 5 trillion daily.

The code contains 55 principles, organized around six key pillars: ethics, governance, enforcement, information sharing, risk and compliance management, and settlement processes. We adhere to the principles that apply to us, considering the nature and scope of our participation in this market.

Learn more at: www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Investor_Relations/Financial_Information/

REVIEW AND UPDATE OF CONTRACTUAL CLAUSES

We constantly update the clauses of our contracts to adapt them to regulatory changes and to reviews of processes and OPs. Among 2018 occurrences are, for example, a clause amendment to mitigate the risk of default in case of serious deterioration of the company's financial health, and changes in the clause of the client's declarations, to be in line with normative changes related to the qualification phase.

MANAGEMENT RESULT

The main objective of the Management Result corporate project was to revise the conceptual model for calculating and monitoring financial results of our institution. The model, broken down by business segment and products, has been revisited and validated with regard to result dimensions, business indicators and expenditure allocation rules.

The validation and improvement of the current managerial model allow us to monitor our consolidated performance, besides a more informed and agile decision making.

DATA FOR DECISION MAKING

We internally promoted an initiative aimed at generating digital solutions and stimulating the culture of data use for decision making. Datalab was conducted in a marathon format and mobilized 58 employees from Human Resources, Planning and IT areas. The teams sought to provide solutions to some of our everyday challenges, using 38 internal and external databases. Several solutions are already being implemented, such as an approach to support the development of indirect operations and the construction of a portal to monitor support to SDGs.

PUBLIC BIDDINGS AND CONTRACTS

We use in our public biddings the criteria of judgment stipulated by art. 54 of the Law of State-owned Companies, or the trading modality, pursuant to Law 10,520/2002.

The contracts signed in 2018 are public and can be accessed on our [website](#).

See below the contracting total in the period and the public biddings made with sustainability criteria.

SUSTAINABLE PUBLIC BIDDINGS AND TOTAL

	TOTAL	WITH SUSTAINABILITY CRITERIA
Lower price (Law 13,303/2016)	2	2
Contest	3	0
Electronic trading	51	10
Total	56	12

COST MANAGEMENT

We performed the cost calculations of BNDES System's companies by department. The main objectives of our cost system are, among others (i) determination of the administrative expenses of each department and division; (ii) comparison of costs between similar departments, allowing the identification of improvement points in the processes; (iii) estimation of incremental costs in the creation of new organizational structures; (iv) calculation of results (revenues, costs and profits) of departments and operational divisions; and (v) estimation of the costs of the lines and programs operated.

Cost reports are presented to the Operations Planning Committee and are available to division interlocutors, heads of department, superintendents and directors. The greater involvement of the managers in the management of the administrative expenses of their units aims at a better expense allocation and management.

Access at:
www.bndes.gov.br/licitacoes-contratos

The Federal Government's Costs Information System (SIC) is not adopted as the main costing system because it is a tool for direct public administration bodies, independent bodies and foundations.

ETHICS AND INTEGRITY

Ethics is a duty of our employees, managers and service providers. Commitment to ethics is expressed in our statement of values and our code of ethics, which is also applicable to those who interact with us, including clients and financial institutions accredited to transfer resources.

In 2018, there were no losses due to fraud and no cases of corruption or fines were identified for noncompliance with laws and regulations. Fines were recorded for late payment of taxes, but the total amount is not considered relevant, based on the limits of the operational risk appetite framework.

ETHICS MANAGEMENT

BNDES Ethics Committee and its executive secretary – both linked to our presidency – are responsible for ethics management at the Bank. In 2018, 111 preliminary procedures, such as consultations on ethical conduct, were carried out and internal preventive actions were performed to disseminate ethical values, such as communication campaigns, courses and events. We also had an active participation in the coordination of the National Forum on Ethics Management in State-owned Enterprises.

WEEK OF ETHICS AND INTEGRITY

We promote the 3rd BNDES Week of Ethics and Integrity to celebrate the International Anti-Corruption Day – December 9. Aiming to stimulate the culture of integrity, the week covered the following initiatives:

- Customized corporate game for BNDES in ethics and integrity.

- Online training related to the "Conduct and Integrity Guide," mandatory for all employees.
- Mandatory online training for our senior management and our tax advisors on the Anti-Corruption Law and on operational risk and internal control, in accordance with the Law of State-owned Companies.
- Launching of the "Conduct Guide for BNDES Service Providers" with presentation of their content to third parties (cleaning teams, reception, service center and maintenance of the condominium).
- Publication on our website of the document "Ethics and Integrity – 10 BNDES Relationship Guidelines," which synthesizes the conduct to be observed by third parties – especially clients and suppliers – in the relationship with the Bank.
- Publication of a document on our website with basic and conceptual content on anticorruption and integrity programs aimed at empowering the general public on preventing and combating corruption.

CORRECTIVE SYSTEM

The conduct of disciplinary administrative processes follows internal regulations and is the responsibility of inquiry or investigation committees, composed of employees from our various divisions designated by the Administration and Human Resources Management in response to a specific motivating fact (complaint, direct noncompliance with regulations, etc.).

In August 2018, the new Disciplinary Determination of the BNDES System was scheduled for appreciation by the Board of Directors, whose purpose is to adjust the current rules to the provisions of the CGU (Final Report 36/2014 – CGU – Guidelines and Recommendations) and detail the procedure and the disciplinary administrative process (PAD). The matter was not appreciated since unification of the process and the disciplinary rules into

one unit is planned. This new unit will also be responsible for internal audits and for the coordination of independent investigations and special auditing.

During the 2018 fiscal year, 12 PADs, four reports and one special account were established.

INTERNAL ENFORCEMENT COMMITTEES

We set up internal enforcement committees to verify the possible occurrence of irregularities in the processes of certain financings and shareholdings. Of the committees established in the last three years, five have already been completed and one is in progress. The committees completed did not find irregularities but indicated opportunities for improvements in processes and controls.

INDEPENDENT INVESTIGATION

As a result of the Operation Bullish of the Federal Police and the Federal Public Prosecutor's Office, BNDES's Board of Directors and the Advisory Board approved an independent investigation procedure for certain operations with the J&F Group, conducted by a law firm, to carry out inspection of specific operations, with the purpose of ascertaining any act performed in violation of anticorruption laws applicable to BNDES System's transactions. External enforcement work, which runs under secrecy, is still in progress.

PROCESS OF INTEGRITY FOR CLIENTS

In 2018, we improved our continuous enhanced monitoring procedures for clients characterized as deserving of "special attention" due to, for example, the result of the integrity questionnaire applied during the

registration analysis. The questionnaire allows for the obtaining of information about their level of interaction with the public power and their anticorruption measures, among others.

RESPECT TO HUMAN RIGHTS

Since 2010, we have a **PRSA**, in which the respect for human rights is a principle of action. We adopted a set of practices related to this subject, such as verification, during the registration analysis of companies requesting direct financing, of the existence of acts by the applicants that matter in terms of race or gender discrimination, child or slave labor, environmental crime or that which characterize moral or sexual harassment – all of them hindering contracting.

In 2018, we participated in discussions on human rights promoted by government bodies, academia and civil society organizations. In the context of promoting gender equity, the Amazon Fund promoted the Women and Sustainable Development panel in Acre, showing the contribution of women in the value chains of five supported projects. Managers and beneficiaries of the initiatives reported the challenges and advances made in promoting gender equity.

Throughout the year, we continued our activities under the scope of a cooperation agreement signed in 2017 with the IFC, in order to evaluate possible improvements to our practices on human rights issues.

RULE FOR VERIFICATION OF INTEGRITY FOR POSITIONS

Prior to election, appointment or hiring of external advisors and members of statutory bodies, we consult different databases containing negative information on the media, administrative and judicial proceedings,

shareholdings, previous relationship with the Bank, among others. Based on the information collected, we verify the existence of compliance or image risks or of legal impediments to the institutional relationship with the professional. Such evaluation may result in measures such as the nonelection, hiring or permanence of the individual, the establishment of verification procedures and/or the submission of information to the Public Prosecutor's Office, control bodies or regulators. Such verification is renewed annually or whenever there is notice of material fact.

RESULTS OF 2017 CPI

As reported in the last edition of the *Annual Report*, a Parliamentary Inquiry Commission (CPI) was set up in August 2017 in the Senate with the objective of investigating the financing granted under the internationalization program of national companies, as well as operations aimed at supporting public administration.

The CPI was completed in March 2018 without finding any evidence of fraud or wrongful act related to the Bank. Its **final report** presents five recommendations. Among the measures taken to meet them are the approval of resolution that regulates the guidelines for use transfer fund tranches as collateral in operations with public entities and for forecasting the guarantee of the Union in favor of BNDES; and the publication of an AGU opinion, approved by the Presidency of the Republic, which deals with the possibility of linking revenues from transfers of funds from participation in credit operations to public entities and federal financial institutions.

Learn more in the section
[Our performance > Sustainability](#) (page 45)

Learn more at:
<http://legis.senado.leg.br/comissoes/comissao?4&codcol=2109>



TRANSPARENCY AND EFFECTIVENESS

Transparency and effectiveness are two of our principles. As a public company, aware of our responsibility, we seek to make our information accessible to all audiences. We also monitor and evaluate the effectiveness of our actions in relation to our mission and purpose.

ACCESS TO INFORMATION

We have the **Citizen Information Service (SIC)** to receive requests under the Access to Information Law. In addition, our website is structured as an instrument of active transparency, counting on a **section** specifically dedicated to the theme. On the portal, it is possible to consult data on sources of resources, financing contracts and public biddings, as well as reports of accountability and disbursement statistics.

In order to increase our transparency, we implemented improvements on the website and conducted a consultation with the company, in partnership with TCU, to receive suggestions regarding the disclosure of data related to our financing and contributions in companies. We verified the possibility of implementing 74% of the 100 items suggested in the 57 contributions received. Throughout the year, the main portal advances were:

- unification of the operational statistics in the same interactive panel, offering more search filters;
- publication of the amount disbursed, client size, source of financing resources, contract status, degree of innovation and financial instrument, for fixed income financing; and

Access at:
www.bndes.gov.br/transparencia

- disclosure of divestments in companies, remuneration and market value of the portfolio, for variable income operations.

In 2018, we also published the answers to the most frequently asked questions about our export support in order to clarify doubts about our actions.

In 2019, the transparency effort we have made will be strengthened by the elaboration of an open data plan, built with CGU support, representing a further step in the public accountability. The availability of our data in an open format will favor the participation of society in the management and generation of innovative business and services, which create value from data intelligence. Organizations, citizens, scholars, companies and even public institutions will be able to use public data for the production and sharing of new knowledge.

CONFIDENTIALITY

All BNDES information not legally defined as confidential is made available to society, as provided by the Access to Information Law. The main types of confidentiality we are required to maintain are:

BANK SECRECY

The bank secrecy should be understood as the individual right of clients and third parties to the maintenance of secrecy of their economic and financial data. Thus, the financial

Learn more in the section
Our relationships (page 67)

institutions have the duty to not disclose, outside legal hypotheses, the data obtained from their clients and third parties in the exercise of their bank activities. Observance of bank secrecy is a guarantee of public interest, in favor of the credibility, stability and soundness of the financial system.

CORPORATE SECRECY

Corporate secrecy is a guarantee of protection of the data and documents produced by a company in the exercise of its economic activity. The purpose of corporate secrecy is to protect information that provides the entrepreneur or company with competitive advantages essential to the business' success, such as brands, patents, expertise, and industrial secrets, whose disclosure could lead to material or moral damages.

BLOCKCHAIN

We have two ongoing projects using blockchain technology: BNDES Token, in a pilot phase with the Brazilian Film Agency (Ancine), and TruBudget, in partnership with the German development bank KfW to test Amazon Fund operations. These are solutions designed to track the application of public resources, allowing monitoring how resources are being applied.

In order to promote the blockchain ecosystem in Brazil and seek solutions that can be used in our projects, we launched a **public consultation** in

Learn more at:
www.bndes.gov.br/consultas-publicas-2018

which 19 respondents were able to demonstrate their solutions and performed the ecosystem mapping, recording more than 350 ongoing initiatives in the country. In 2019, PUC-Rio is transforming this “photograph” of that moment into a continuous process, with the development of a tool with which people can update their own data.

In addition, in 2018 we became part of the Febraban Blockchain Working Group, in which representatives of financial institutions study ways of adopting this technology in the National Financial System. We have also interacted with companies, research centers and financial institutions that are dedicated to the development of this technology, with the objective of knowing the general panorama of the market, pursuing business opportunities and entering into partnerships.

In conjunction with the Institute for Technology & Society (ITS), we promoted the BlockchainGov Forum, which gathered actors from the Brazilian public sector to present and discuss blockchain initiatives in government services. One of the themes addressed at the event was the relationship between blockchain and public transparency.

FACTS OR RUMORS

Part of the **BNDES News Agency**, launched in December 2018, the Fato ou Boato (Fact or Rumor) section is dedicated to checking facts, providing readers with verified official content

Learn more in the section *Our relationships* (page 69)

and thus reducing the impact of the circulation of fake news on the internet. The section seeks to contribute to the work already done by existing fact checking agencies, focusing exclusively on the information reproduced on social networks about our work.

FAIR FINANCE GUIDE

For the first time, we participated in the *Guia dos Bancos Responsáveis* (Fair Finance Guide), a project of the Brazilian Institute for Consumer Protection (Idec), which annually evaluates the social and environmental policies and guidelines of the largest Brazilian banks.

We obtained the best result among the nine banks analyzed and the best result

Learn more at:
<https://guiadosbancosresponsaveis.org.br>

ever presented by any participant since the beginning of the initiative, which is in its 7th edition. The main highlight was our score in Financial Inclusion, where we reached 8.8, due to our actions in microcredit and actions against extreme poverty. We have also been highlighted in the Corruption theme by addressing issues related to the subject in our OPs and maintaining a consistent integrity program. In the Transparency and Accountability theme, we reached the score of 6.8, while the average of the other banks was 2.5.

See below the themes in which we achieved the first position:

FAIR FINANCE GUIDE 2018

THEME	BNDES	*MEAN OF OTHER BANKS
Total	43%	29%
Financial inclusion	88%	54%
Corruption	78%	49%
Environment	71%	57%
Transparency and Accountability	68%	25%
Human rights	55%	36%
Mining	52%	24%
Energy generation	47%	21%
Food	45%	27%
Gender equality	24%	13%

* Banco do Brasil, Banco Safra, Banco Votorantim, Bradesco, BTG Pactual, Caixa Econômica Federal, Itaú and Santander.

PROMOTION OF EFFECTIVENESS

In 2018, we also approved the macroprocess that formalizes the Effectiveness Promotion System (SPE) and represents the coordination of all our efforts in this field. Inspired by international best practices, the SPE operates in three layers. As part of the Effectiveness corporate project, we deploy our vision and our strategic missions in indicators and effectiveness goals, connecting the Bank's objectives to the country's main development challenges.

EFFECTIVENESS REPORT

The *2017 Effectiveness Report* presented, in its section on monitoring, a set of projects supported in 2015 and 2016, with their respective products and services delivered or planned, seeking to place the size of our support in relation to the national economy.

In the section on evaluation, we address impact assessments conducted internally, in partnership or by institutions or external researchers, published on the internet by September 2017. Among the 35 mapped studies, 21 were carried out externally, reflecting, on the one hand, our efforts to increase transparency, and on the other hand the challenge of giving a larger scale to the production of impact assessments through our SPE.

IMPACT EVALUATIONS

In 2018, we conducted five studies on the effectiveness of our performance:

- Evaluation of our local content policy pointed to a positive impact on the billing of capital goods manufacturers' revenues after BNDES accreditation.

Learn more in the section *What we do* (page 21)

Access at:
<https://web.bndes.gov.br/bib/jspui/handle/1408/16046>

EFFECTIVENESS PROMOTION SYSTEM

SYSTEMATIC EVALUATIONS

To monitor and self-evaluate results of operations

Construction of performance narratives and indicators of results for society.

Self-evaluation report encourages organizational learning of operational teams.

IMPACT EVALUATIONS

To coordinate thematic evaluations of effectiveness

Deeper evaluations answer strategic questions about BNDES's performance.

Deeper evaluations answer strategic questions about BNDES' performance.

Effectiveness Evaluation Report provides inputs to senior management and accounts to society.


Elaborate the Effectiveness Report


Identify potential clients


Elaborate the Effectiveness Recommendations Report

- Evaluation of the **BNDES Exim Post-shipment** line revealed positive impacts on the revenue and jobs of companies that supply products to the exporters of civil construction services.
- Evaluation of the impact of the construction of wind power plants provided evidence that the effect on municipalities' per capita GDP is, on average, positive, even though there is a high heterogeneity between impacts on each municipality.
- Evaluation of the **BNDES Card**, carried out jointly with external researchers, found positive effects on local economies – in particular, on the opening or formalization of establishments, average number of jobs per establishment and total number of jobs.
- Evaluation of our support for innovation has identified a positive and expressive impact on the research and development expenditures of the companies financed, which indicates that our performance in these cases complements and enhances Brazilian companies' innovative efforts.

Learn more in the section *What we do* (pages 20 and 21)



RISK MANAGEMENT

We measure and monitor the risks to which we are exposed and periodically evaluate our internal controls.

RISK MATRIX

Throughout 2018, we improved the monitoring of action plans to mitigate the most relevant operational risks and intensified the monitoring of the 15 largest risks (by value at risk) with a quarterly status report to the Auditing Committee and to the Advisory Board.

We observed, during the year, the gradual reduction of the concentration of our credit portfolio. However, more rigorous regulatory concentration limits came into effect on January, 2019 (CMN resolutions 4,677/2018 and 4,678/2018), which will require a new effort to reduce concentration in the coming years. In 2018, the credit portfolio balance kept on being reduced, with a rise in **default**, which was reflected in the increase in provision for credit risk.

In relation to legal risk, we can mention as mitigation actions the acquisition of pieces of software with the objectives of assisting in capturing national legislation and improving the process of formulation and dissemination of internal regulations. Implementation of the processes and tools will take place in stages throughout 2019.

Lean more in the section *Financial sustainability* (page 53)

	MAIN RISKS	MEASURES FOR MITIGATION
MACROECONOMIC	<p>Changes in the macroeconomic conjuncture The financial return of our operations depends on the performance of the Brazilian economy, since the clients' capacity of payment is affected by macroeconomic factors, such as inflation, fall in GDP, falling income levels, rising unemployment, fluctuations in exchange and interest rates etc.</p>	<ul style="list-style-type: none"> Periodic monitoring of the economic performance and analysis of its impact on our operations. Establishment of risk limits, monitored periodically, to assist the decision-making process by the senior management. Diversification of the financial support portfolio. Performance of the Finance Committee.
	SO: Portfolio; Pricing, risk and requirements; Channels and operations; Fundraising and securities; Securitization; Public funding	
MARKET	<p>Volatility of the capital market Considering the volume of our stock portfolio, comprised also of some of the main assets listed at B3, we are subject to the high volatility of the Brazilian stock market, what is reflected on the behavior of our capital over time, offering risks to the compliance with regulatory limits as well.</p>	<ul style="list-style-type: none"> Risk monitoring and control through periodic limits and reports. Performance of the Market Risk Management Committee, with recommendations for improving the management of the variable income portfolio.
	SO: Portfolio; Pricing, risk and requirements; Fundraising and securities	
CREDIT	<p>Concentration of credit portfolio The portfolio reflects the characteristic of concentration observed in the Brazilian entrepreneur market.</p> <p>Deterioration of credit Reduction in the quality of the credit portfolio in times of unfavorable economic conjuncture.</p>	<ul style="list-style-type: none"> Utilization of a methodology of quantification of the individual concentration risk and development of the methodology of quantification of the sectorial concentration risk. Utilization of a methodology for monitoring high risk exposures, aiming to anticipate possible alert states. Adoption of additional provision for doubtful accounts, aiming to act preventively, due to the uncertainties of the market. Revision of risk spread. Development of the risk adjusted return methodology (Raroc).
	SO: Pricing, risk and requirements	
OPERATIONAL	Losses resulting from external events or from failure, deficiency or inadequacy of internal processes, people or systems, inherent to any business.	Identification and systematic analysis of the main operational risks and their internal controls, aiming to implement treatment actions and improve the methodologies used to manage operational risk.
	All strategic objectives	
LEGAL	Non-observance of legal order and internal standards due to the complexity of the legal and normative structures, in addition to alterations in laws or regulations applicable to our operation.	Utilization of methodologies of operational risk management, emphasizing the conformity to laws and standards applicable to our operation and special attention to the determinations from the Administrative and Judicial Courts.
	All strategic objectives	
SOCIOENVIRONMENTAL	Possibility of losses resultant from socioenvironmental damages associated to deterioration of the institution's image.	<ul style="list-style-type: none"> Verification of legal conformity and observance of criteria established in our policies and processes of analysis and monitoring according to the specificities of each operation. Advances regarding the execution of the Multi-Year Plan for Implementation and Monitoring of our Policy of Social and Environmental Responsibility under the management of the Socioenvironmental Sustainability and Territorial Development Committee.
	SO: Sustainability; Pricing, risks and requirements	
REPUTATION	Negative perception about the institution by relevant stakeholders, which could affect the ability to maintain or expand business relationships.	<ul style="list-style-type: none"> Monitoring and management of the institution's image. Clients' registration analysis with identification of points of attention related to integrity. Clients' negative media monitoring. Evaluation and treatment of complaints received by the Ombudsperson's Office.
	SO: Infrastructure; Productive structure; Education, health and safety; Innovation; Capital market; Sustainability; Regional development; Fundraising and securities	

Legend: SO – main strategic objectives impacted

SECTORAL RISK QUANTIFICATION METHODOLOGY

The risk of sectoral concentration comes from significant exposure to a single business sector or groups of economically connected sectors. In a financial institution, quantifying the impact of this type of concentration is important so that it can be aware of the value of capital that can be compromised in case of setbacks and take mitigating actions in advance.

A methodology was developed internally for the sectoral concentration risk quantification, which is currently being tested and validated.

REDUCTION OF RISK SPREAD

In May, the risk pricing models applied in the definition of the credit risk and financial intermediation curves were improved, promoting a reduction of the interest charged on our financing, in addition to the cuts to the basic compensation occurred in March 2018. The credit risk rates charged are now differentiated by additional risk aspects specific to the operation, such as term and structure of guarantees.

INTEGRATED RISK MANAGEMENT

The Advisory Board is responsible for approving corporate risk management and internal control policies, besides determining the implementation and overseeing the risk management and internal control systems for preventing and mitigating the main risks to which the Bank is exposed. The Advisory Board also defines the overall level of risk appetite and approves the stress-testing program.

The board is continuously informed about BNDES's practices of risk management through periodic bulletins and presentations

of specific topics. The main activities and highlights of the year related to operational risk, internal control and compliance are presented in the annual risk management report, which is approved by the Board of Directors and by the Advisory Board.

In 2017, we incorporated into our risk management important concepts brought by Resolution CMN 4,557/2017, issued by the BCB, which signals the need for financial institutions to manage capital and relevant risks in an integrated and continuous manner.

Integrated risk management initiatives have been improved over the years. In 2018, the following stand out:

- Definition of integrated risk limits – based on regulatory capital indicators – formalized in the Integrated Risk Monitoring Policy (PMRI), approved in February 2018 by the BNDES's Advisory Board; and
- Stress tests integrated by means of an internally developed optimization model, called ALM@Risk. The individual and integrated tests are consolidated into a stress testing program, whose results are periodically reported to the Bank's senior management.

In 2018, the risk management policies, which determine guidelines and orientations for the management of the themes, have been reviewed and updated. The following documents have also been updated:

- BNDES Business Continuity Management Program: defines the components of our Continuity Management System and the governance structure for contingency management.
- Incident Management Plan: determines the procedures for triggering the contingency in the institution and the roles and responsibilities of all involved.

INTEGRATED STRESS TESTS

We run three integrated stress tests per year. The first is carried out at the beginning of the year in the context of the internal capital adequacy assessment process (Icaap), an annual regulatory exercise that includes identifying and measuring risks and assessing the adequacy of capital to support such risks. The second is the Bottom-Up Stress Test (Tebu), which is similar to the Icaap, but with macroeconomic scenarios reported by the BCB. The third is the Integrated Management Stress Test (Tegi), which is performed in the middle of the year.

Broadly speaking, the integrated stress tests consist of simulating BNDES's balance sheet, result, capital and credit, market, liquidity and operational risks based on the ALM@Risk simulation model, in order to analyze in a dynamic and prospective way our ability to capitalize on a series of business, market and regulatory constraints.

RISK APPETITE

In 2018, we effectively implemented the risk appetite framework after the appreciation of our collegiate bodies. Besides being a good risk management practice, the framework meets BCB's requirement (Resolution CMN 4,557/2017) on financial institutions to define risk appetite.

The declaration of risk appetite contemplates quantitative and qualitative aspects, as well as the interaction of risk with our strategic planning. The statement is intended for our internal public, in order to guide the actions of all employees, and addresses the different risks of the institution, especially those related to credit, market and operational activities.

CAPITAL INDICATORS

Prudential indicators remained at comfortable levels throughout 2018, with the Basel index reaching values above 30%. The schedule for reframing the exposure limit per client, established by Resolution CMN 4,430/2015, was fulfilled in advance in June 2018. However, new and more stringent regulatory limits came into force in January 2019.

LIMIT OF EXPOSURE TO COMPANIES OF THE SAME GROUP

In June 2018, all our exposures per client were below 25% of the reference equity, therefore, fully framed, according to active resolutions.

For the calculation of the exposure per client, the sum of the debit balances, the balances to be released from contracted operations, the value of the guarantees provided by BNDES and the book value of BNDES shareholdings are taken into account. The interbank onlending operations are excluded from the sum. The companies of Petrobras and Eletrobras groups are considered separately.

However, resolutions CMN 2,844/2001, CMN 3,963/2011 and CMN 4,430/2015 were replaced on January 1, 2019 by resolutions CMN 4,677/2018 and CMN 4,678/2018, which may represent another scenario of noncompliance.

Among other changes, the new resolutions set the exposure limit at 25% of Tier I capital and extinguished the exceptional differential treatment for Petrobras and Eletrobras groups.

EXCLUSION OF FAT FROM REFERENCE EQUITY

As established by CMN Resolution 4,679/2018, FAT's resources will no

OWN RESOURCES AND RISK-WEIGHTED ASSETS (R\$ MILLION)	DEC. 2016	DEC. 2017	DEC. 2018
Reference equity (RE)	135,620	146,368	166,805
(+) Tier I Capital	90,413	97,579	114,126
Core capital (CC)	90,413	97,579	114,126
(+) Tier II Capital	45,207	48,789	52,679
Risk-weighted assets (RWA)	624,850	532,011	574,956
(+) Credit risk	534,199	478,161	468,555
(+) Market risk	58,312	18,465	70,110
(+) Operational risk	32,339	35,385	36,291
Basil Index + ACP (RE/RWA) (regulatory minimum – 10.5%)	21.70%	27.51%	29.01%
Tier I Capital Index + ACP (NI/RWA) (regulatory minimum – 7.875%)	14.47%	18.34%	19.85%
Core Capital Index + ACP (CC/RWA) (regulatory minimum – 6.375%)	14.47%	18.34%	19.85%

longer form Tier II capital (N2), up to 2029, which over time tends to reduce our main prudential indicators.

The limit on the amount of resources recognized in N2 will be reduced by 10% per year – 90% on January 1, 2020 to 0% on January 1, 2029 – considering June 2018 figures.

INFORMATION SECURITY

In 2018, the National Monetary Council (CMN) issued Resolution 4,658, which provides for cybersecurity policy and the requirements for hiring data processing and storage and cloud computing services to be observed by financial institutions authorized by the BCB to operate.

This resolution brought new guidelines to the integration process between cyber risk management and business continuity, which was already underway at our institution.

Based on these guidelines, we were able to improve our methodology for integrated risk management, aligned with our regulator's guidelines and with the objectives of standardizing our management procedures and increasing the institution's resilience.

In relation to the strategic information security plan (2017-2018), the following are highlights, among others: the evolution of the access revision system to contemplate the periodic review; awareness raising actions and information security training for senior management; implementation of the system for the detection and prevention of cyber threats in the network (IPS); and the conformity assessment and planning of actions to meet the requirements of CMN Resolution 4,658/2018.