Risk Management Report – Pillar 3





Historical Resubmission

Version	Reasons for resubmission	Date of change
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Some numbers included in this report have been subject to rounding adjustments.

As a result, some amounts indicated as total amounts in some tables may not be the arithmetic sum of the preceding numbers.

Additionally, the values indicated as percentage variation in some tables may not be the arithmetical application of the preceding numbers.

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PRESENTATION OF THE REPORT

1. Presentation of the Report

Financial market globalization has prompted the appearance of financial activities and instruments that are outside the reach of domestic bank oversight authorities. On the other hand, differences in national regulations to which banks were subject created inequalities in international competitive conditions. To mitigate the effects of these gaps and conditions, the Basel Committee on Banking Supervision was create in 1974 with the mission of promoting international convergence in capital standards and bank management practices. The need to add other financial segments to the convergence process led to the creation of the Financial Stability Board, in 2009, to coordinate the work of the Basel Committee and other financial activity supervisory bodies.

Currently, the banking segment guidelines defined by these two bodies are organized in accordance with a structure known as "the three pillars":

Pillar 1 – Capital Requirement: Sets the minimum capital standards to be required from the banks, as well as the methodologies to be used to measure credit, market, and operational risks.

Pillar 2 – Supervision Process: Establishes the performance principles of the banking system supervisors and sets criteria to address risks not covered under Pillar 1. The risk management processes are also included in this part of the guidance.

Pillar 3 – Market Discipline: Recommends banks to disclose broadly a set of basic information in such a manner as for financial market participants to be able to undertake well-grounded assessments of the risks these institutions incur.

The Banco Bradesco Pillar 3 report complies with Basel Committee on Banking Supervision's recommendations (Pillar 3 – Market Discipline) and other Central Bank of Brazil's (BCB) rules, as required by Resolution 54/20. This report seeks to provide stakeholders with information access on Bradesco Organization (herein also referred to as "Organization") risk management, presenting a detailed picture of the procedures and controls of the main risks to which it is exposed, thus allowing market agents to appraise the Organization capital adequacy.

The Organization believes that risk management is essential to enable the long-term stability of financial institutions and that transparency in the information disclosure strengthens the Organization's Risk Culture, contributing to the solid health of the national financial system and society in general. As a consequence of the continuous risk management process and adoption of the best practices, the Organization was the first financial institution¹ in Brazil authorized by the BCB, since January 2013, to use its internal market risk models to calculate regulatory capital, which were already in use for managerial purposes.

It is recommended that this Report be read with other documents disclosed by the Organization, such as the Report on Economic and Financial Analysis, the Consolidated Financial Statements and the Appendix indicated in this document², which presents other information about the Organization's activities. For more information, access our Investor Relations website at <u>www.bradescori.com.br</u>.



¹As per BIS document named "Regulatory Consistency Assessment Programme (RCAP) – Assessment of Basel III regulations in Brazil", of December 2013.

 $^{^{2}}$ The information related to the G-SIB (indicators that feed into the Committee's methodology for assessing the systemic importance of global banks) and Remuneration of Directors, will be disclosed according to the terms established by BCB Resolution 54/20, on <u>bradescori.com.br</u> – Market Information – Risk Management.

PRESENTATION OF THE REPORT

1.1. **Key Indicators**

The Organization carries out the risk and capital management aligned to the strategic guidelines, involving the Control and Business areas, according to the Executive Board and the Board of Directors guidance, aiming to provide conditions to the Organization strategic targets achievement and support the inherent risk to its activities.

Below are presented the Organization key indicators, obtained under the viewpoint of the Prudential Conglomerate:

Total Capital Ratio	Tier I Ratio	Common Equity Tier Ratio	Leverage Ratio
14.8%	12.4%	11.0%	7.4%
-1.0 p.p. in the quarter	-1.2 p.p. in the quarter	-1.1 p.p. in the quarter	-0.2 p.p. in the quarter
3Q22: 15.8%	3Q22: 13.6%	3Q22: 12.1%	3Q22: 7.6%
Total RWA ¹	Credit Risk RWA ¹	Market Risk RWA ¹	Operational Risk RWA ¹
R\$ 971,611	R\$ 883,428	R\$ 8,844	R\$ 79,339
-1.7% in the quarter	-1.8% in the quarter	-1.9% in the quarter	Without changes in the quarter
3Q22: R\$ 988,412	3Q22: R\$ 900,057	3Q22: R\$ 9,016	3Q22: R\$ 79,339
	LCR	NSFR	
	160.1%	120.5%	
	-14.6 p.p. in the quarter	-0.8 p.p. in the quarter	
	3Q22: 174.7%	3Q22: 121.3%	

RWA' Quarterly Evolution¹



The minimum regulatory requirements determined by Central Bank of Brazil are presented below:

Basel Ratio² 11.50% as of April/2022	Tier I Ratio² 9.50% as of April/2022	Common Equity Ratio ² 8.00% as of April/2022
Leverage Ratio ³	LCR ⁴	NSFR ⁵
3.0% as of January/2022	100% as of January/2019	100% as of October/2018

¹ Amount in million (BRL).

² The Total Capital Ratio, the Tier I Ratio and the Common Equity Tier I Ratio encompass the Additional CET1 buffer requirements of Conservation, Systemic and Countercyclical, as per the CMN Resolution 4,958/21 and BCB Circular 3,768/15 and 3,769/15, respectively. ³ The minimum requirement for the Leverage Ratio was defined by CMN Resolution 4,615/17.

⁴ The minimum requirement for the LCR was defined by CMN Resolution 4,401/15. ⁵ The minimum requirement for the NSFR was defined by CMN Resolution 4,616/17.

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2. Risk Management

The activity of risk management is highly strategic due to the increasing complexity of products and services and the globalization of the Organization business. The dynamic nature of the market is conducive to the constant improvement of risk management activity.

The Organization conducts corporate risk control in an integrated and independent manner, preserving and valuing an environment of collective decision-making in which methodologies, models and tools to measure and control risks are developed. Promotes the dissemination of the risk culture to all employees, at all hierarchical levels, from business areas to the Board of Directors.

2.1. Key Prudential Metrics

Since January 2015, financial institutions based in Brazil calculate their capital requirements on a consolidated basis with the institutions that are part of their Prudential Conglomerate.

The following table shows the prudential key metrics related to regulatory capital, leverage ratio and liquidity.

Key Metrics (KM1)

	а	b	С	d	е
R\$ million	Dec-22	Sep-22	Jun-22	Mar-22	Dec-21
\\ Available capital (amounts)					
1 Common Equity Tier I (CET1)	106,501	119,903	115,825	121,300	119,107
2 Tierl	120,624	134,271	129,636	132,801	130,565
3 Total Capital	144,283	156,322	152,504	152,490	150,236
3b Excess of resources invested on permanent assets	-	-	-	-	-
3c Total Capital Detachments	-	-	-	-	-
\\ Risk-weighted assets (amounts)					
4 Total risk-weighted assets (RWA)	971,611	988,412	974,639	972,604	953,326
\\ Risk-based capital ratios as a percentage of RWA					
5 CET1 ratio	11.0%	12.1%	11.9%	12.5%	12.5%
6 Tier I ratio	12.4%	13.6%	13.3%	13.7%	13.7%
7 Total Capital Ratio	14.8%	15.8%	15.6%	15.7%	15.8%
\\ Additional CET1 buffer requirements as a percentage of RWA					
8 Capital conservation buffer requirement	2.5%	2.5%	2.5%	2.0%	2.0%
9 Countercyclical capital buffer requirement	0.0%	0.0%	0.0%	0.0%	0.0%
10 Systemic capital buffer requirement	1.0%	1.0%	1.0%	1.0%	1.0%
¹¹ Total of bank CET1 specific buffer requirements ⁽¹⁾	3.5%	3.5%	3.5%	3.0%	3.0%
CET1 available after meeting the bank's minimum capital	3.0%	4.1%	3.9%	5.0%	5.0%
requirements	5.070	4.170	5.570	5.070	5.070
\\ Leverage Ratio (LR)					
13 Total exposure	1,639,736	1,774,994	1,591,967	1,563,044	1,530,419
14 LR	7.4%	7.6%	8.1%	8.5%	8.5%
\\ Liquidity Coverage Ratio (LCR)					
15 Total high-quality liquid assets (HQLA)	198,601	207,870	183,156	165,226	177,885
16 Total net cash outflow	124,039	119,004	108,693	120,295	128,780
17 LCR ratio	160.1%	174.7%	168.5%	137.4%	138.1%
\\ Net Stable Funding Ratio (NSFR)					
18 Total available stable funding (ASF)	877,735	872,617	846,809	817,519	803,600
19 Total required stable funding (RSF)	728,634	719,140	707,600	692,403	686,072
20 NSFR ratio	120.5%	121.3%	119.7%	118.1%	117.1%

(1) The no comply with Additional CET1 buffer rules causes restrictions on the dividends payment and interest on shareholders' equity, net surplus, share repurchase, reduction of capital, and variable compensatio to its administrators.



Comments

Our ratios remained above regulatory limits. The Basel ratio was 14.8% in the quarter, a reduction of 1.0 p.p., due to a regulatory change regarding the treatment of tax credits from tax losses arising from foreign investment hedge, greater prudential adjustments and the payment of interest on shareholders' equity.

2.2. Bank Risk Management Approach

2.2.1. Scope of Risk Management

The scope of the Organization risk management achieves a broadest view, allowing the risks of the Economic-Financial Consolidated³ to be supported by the Risk Management Corporate Process (chapter 2.2.4). For this purpose, the Organization is structured through the three lines model in which all contributes in order to achieve the objectives with a reasonable margin of security:

- **First line**, represented by businesses and support areas, responsible by identifying, reporting and managing inherent risks as part of day by day activities, besides that, responsible for controls execution, in response to risks, and/or for defining and implementing action plans to ensure the effectiveness of the internal control environment while maintaining risks within acceptable levels;
- Second line, represented by oversight areas, responsible for establishing risk management policies and compliance procedures for establishment and/or monitoring of first line, in addition to the activities and responsibilities associated with independent model validation. In this line, may be highlighted the "Integrated Risk Control Department", "Compliance, Conduct and Ethics Department", Legal, Corporate Safety, among others;
- **Third line,** represented by Audit and General Inspectorate Department, which is accountable for independently evaluate the effectiveness of the risk management and internal controls, including how the first and second lines reach their objectives, reporting the results of their work to the Board of Directors, Audit Committee, Fiscal Council and Senior Management.

2.2.2. Risk Appetite Statement (RAS)

Risk appetite refers to the types and levels of risks that the Organization is willing to accept in the conduct of its business and objectives. The Risk Appetite Statement (RAS) is an important tool that synthesizes Organization's risk culture.

At the same time, RAS emphasizes the existence of an effective process of responsibilities in the operational management of risks and in the execution of control functions, as well as for mitigating and disciplinary actions, escalation procedures and notification to the Senior Management when the risk thresholds and established control processes are breached.



³ Includes the regulatory scope of the Prudential Conglomerate and other companies in the Consolidated.

The Risk Appetite Statement is annually⁴ reviewed or whenever it is necessary by the Board of Directors, besides being continuously monitored by Senior Management's forums, as well as by business and control functions.

The RAS reinforces the dissemination of risk culture by enabling all your members to be aware of the main aspects of Organization's risk appetite.

Risk Appetite Dimensions

For the various types of risks, which are measurable and non-measurable, the Organization has established controls approaches, observing the main global dimensions:

Solvency: the Organization seeks to maintain, on a permanent basis, a solid capital base to support the development of activities and to address the measurable incurred risks (in normal or stressful conditions), as well as to withstand any losses arising from risks that do not have capital allocation and to enable possible strategic acquisitions. In order to meet this objective, capital buffers have been established, which are part of the risk appetite framework and are defined and approved by the Board of Directors.

The Organization established Total Capital, Tier I, Common Equity Tier I and Leverage Ratios as the indicators monitored in this dimension.

Liquidity: the Organization aims be able to honor efficiently its obligations through pulverized and low cost sources of funding, to ensure a cash structure compatible with the size of its obligations, assuring survival in adverse scenarios, without affecting its daily operations and without incurring significant losses.

For this dimension, Long and Short Term monitoring indicators have been established. The Liquidity Coverage Ratio indicator (LCR) for short term correspond to the ratio between the stock of High Quality Liquidity Assets (HQLA) and the total net outflow, calculated as per the stress scenario standardized by the Central Bank of Brazil. The Net Stable Funding Ratio (NSFR) for long term, correspond to the ratio between the available stable funding and the required stable funding.

Profitability: the Organization zeal for sustainable growth of its businesses and results and the adequate remuneration of its capital, seeking to meet the shareholder's remuneration expectation in relation to the risks incurred in its business.

The Organization monitors the main performance indicators in periodically basis by line of business, segments and products. Based upon these indicators, a number of analyzes, projections and studies are made in order to inform the business areas and Senior Management about the individual and consolidated results, thus allowing conscious decision-making and eventual strategic reviews.

Credit: the Organization focuses on domestic customers, in a diversified and pulverized manner, both in terms of products and segments, striving for the portfolio's quality and solidness, with guarantees consistent with the undertaken risks, considering the amounts, the purposes and terms of the granted loans and maintaining adequate levels of impairment allowances as well as portfolio concentration.



⁴ The Risk Committee, related to the RAS, has the following attributions: a) assess the risk appetite levels stated in the Risk Appetite Statement and its management strategy, considering the risk individually and on an integrated basis; and b) supervise the fulfillment of the RAS terms by the Senior Management.

The credit risk valuation is performed through the continuous monitoring of portfolios and exposures, covering assessment of its volumes evolution, problematic assets/restructuring, delinquency, impairment allowances, vintage analysis, capital, comparison with the market, among others. Furthermore, the Organization has a credit approval limits and recovery debts structured governance process.

Regarding to risk appetite, the Organization established limits on the concentration of operations to Economic Group, Economic Activity sector and Transfer (Country). In addition to the concentration indicators, a specific indicator was established for the delinquency over 90 days for Individuals, an indicator of Credit Risk Economic Capital Margin, with the purpose of monitoring and control the capital in the economic and regulatory perspectives and an indicator for Problematic Assets level.

Market: the Organization aims to align the exposures to the strategic guidelines, with specific limits established in an independent manner and with the risks properly mapped, measured and classified as to probability and magnitude.

The possibility of financial loss is monitored and controlled by the Organization due to the fluctuation of prices and market rates of its financial instruments, since its assets and liabilities portfolios may present mismatches of maturities, currencies and indexes. Considering the dynamics of this type of risk and the characteristics of each investment portfolio, the Organization has established a number of risk limits and results.

Regarding to Trading Book, the risk appetite includes Value at Risk (VaR), Stress Scenarios for one month, Monthly and Quarterly Result Management (negative). For the Banking Book, Δ EVE Internal Model, Δ EVE Outlier Test, Δ NII Internal Model and Evolution of Market Valued Positions are monitored.

Operational: the Organization acts towards to provide assurance regarding suitable conduct to the Organization's businesses, observing compliance to the law, regulations and rules, ensuring that processes comprise efficient controls.

Given the wide range of products and services offered, as well as an expressive volume of activities and operations performed, the Organization may incur on losses resulted by failures, internal process deficiency or inadequacy, personnel and systems, or external events.

Regarding this, within the Prudential Conglomerate framework, the Organization set appetite limits and tolerance to operational losses, monitored on a monthly basis. Additionally, the Organization established a monitor availability indicator of the main service channels and systems, aiming to provide an ongoing readiness on customer service.

Reputation: the Organization monitors its reputation before clients, employees, regulators, investors and the market in general, aiming to assure the timely identification and assessment of potential sources of this risk and act a preventive manner for its mitigation.

The reputational risk control aims to ensure that the Organization monitors and assesses the various stakeholders' perception, seeking to detect potential sources of risk on reputation and if necessary take actions on a timely basis in order to mitigate.

This risk control is performed through a Consolidated Index of Reputation, subdivided into dimensions, from which is possible to determine the Organization's reputation vis-a-vis customers, employees, regulators, investors and market in general.



Model: The Organization uses models to support decision process, financial and regulatory reporting, and to provide predictive information in various businesses' areas. In this context, the Organization recognizes the existence of the associated risk using models and the importance of its management process.

The Organization manage and control model risk through assessment, inventory and classification relevance and model risk, supported by governance processes.

Qualitative Risks: in addition to the risks described above, the Organization is exposed to the risks of Contagion, Strategy, Social, Environmental, Climate, Insurance, Cyber Security and Compliance. These risks are managed through processes and a governance structure that is comprised of Departmental Commissions, Executive Committees and Senior Management. The management of these risks is supported by policies, standards and procedures that contribute to their adequate management and control.

Risk Appetite Monitoring

The risk appetite monitoring takes place through effective control processes, in which managers are informed about the exposures to risks and the respective usage of current limits. The report is carried through an alert system, which eases communication and highlights exceptions to the limits, which requires discussion, authorization for the exceptions and/or adequacy measures, permeating all Organization's spheres, supporting the Senior Management in the assessment whether the results are consistent with the risk appetite.

2.2.3. Risk Map

Given the complexity and variety of products and services offered to its customers in all market segments, the Organization is exposed to diverse types of risks stemming from both internal and external factors. Thus, it is very important that the Organization constantly monitors all risks in order to provide all stakeholders with security and comfort. The relevant risks for the Organization are listed below:

- **Credit Risk** Represented by the possibility of losses due to the borrower or the counterparty not meeting their respective financial obligations under the agreed-upon terms, as well as, the depreciation of the credit agreement, resulting from the downgrading of the borrower's credit rating, the reduction of gains or remuneration, advantages granted in renegotiation, recovery costs, and other amounts related to the counterparty not meeting its financial obligations. Also includes **Transfer (Country) Risk**, represented by the possibility of losses related to non-fulfillment of obligations associated with a counterparty or the mitigating instrument located outside of the Country, including sovereign risk and the possibility of losses due to, issues in the currency
- Country, including sovereign risk and the possibility of losses due to, issues in the currency exchange of amounts received outside of the Country associated with the operation subject to the credit risk. The **Counterparty's Credit Risk** is represented by the possibility of loss due to the non-compliance by the counterparty with the obligations relating to the settlement of operations involving financial asset trading, including the settlement of derivative financial instruments or decrease of the counterparty's credit standing and **Concentration Risk** is represented by the possibility of loss due to significant exposure to a counterparty, risk factor, product, economic sector, geographic region, mitigator, etc.

Market Risk – Represented by the possibility of financial loss due to fluctuating prices and market interest rates of the Organization's financial assets as its asset and liability portfolios may show mismatched amounts, maturities, currencies and indexes.

Operational Risk – Represented by the possibility of losses arising from faulty, deficient or inadequate internal processes, people and systems, or external events.



Insurance Risk – Resulting from an adverse economic situation, which is contrary to insurance
 company's expectations upon the preparation of its insurance policy, as well as the uncertainties in estimated provisions.

Liquidity Risk – Represented by the possibility of the Organization not being able to efficiently meet its obligations, without affecting its daily operations and incurring significant losses, as well as the possibility of the Organization not being able to trade a position at market price due to its high amount when compared to the usually traded volume or due to some market discontinuation.

Social, Environmental and Climate Risks – Represented by potential damages that a business may cause to the society, the environment and climate. These risks, when associated with financial institutions are mostly indirect and result from business relations, including those with the supply chain and customers through financing and investing activities. **Social Risk** comprises the

fundamental rights violation and guarantees such as the practice of slave labor and child labor. Environmental Risk encompasses environmental degradation and excessive use of natural resources. Climate Risk refers to impacts from the transition process to a low carbon economy (transition risk) as well as changes in weather patterns, frequency, and intensity of extreme events (physical risk).

Strategy Risk – Represented by the deterioration possibility in results, capital and/or strategic indicators (in relation to plan) due to business decisions not according with the strategy, inadequate decisions in the process of implementation, as well as lack and/or insufficient reaction to changes in the business environment.

Reputational Risk – Represented by the loss of credibility before customers, counterparts,
 government agencies and market or community, resulting from undue and improper actions, acts and behavior.

Model Risk – Represented by the possibility of losses due to models with failures or deficiencies in the development process, or inappropriate use.

Step-in Risk – Represented by the possibility of financial loss, resulting from the Organization's relationships (contractual or not) with subsidiaries, affiliates, parallel structures, parent companies, investment funds, foundations, suppliers and partners not consolidated in the Prudential Conglomerate.

Compliance Risk – It is the risk arising from legal or administrative sanctions, financial losses, reputational damage and others due to non-compliance or failure to observe the legal framework,

the infralegal regulation, the recommendations of regulatory bodies and of self-regulatory organizations and ethical conduct codes applicable to the developed activities by the Organization.

Cyber Security Risk – Represented by the possibility of cyber incidents, including attacks,
 intrusions and leakage, that could compromise the confidentiality, integrity and/or availability of the Organization's critical business processes, assets and/or critical infrastructure.



In addition to the risks described in this map and considering the business environment in which the Organization operates, we are constantly monitoring macroeconomic risks that may adversely affect the Organization's exposures. These risks are assessed through consistent processes and a sound governance structure. In this way, the macroeconomic risks identified by the Organization are listed below:

- Risk of global financial instability: in a scenario of higher interest rates in developed economies, persistent inflation, worsening growth and high uncertainties, there may be unforeseen consequences on liquidity, credit and global financial stability;
- Risk of fiscal regime weakening in Brazil: measures that compromise the spending cap or the Fiscal Responsibility Law and weaken the Brazilian fiscal framework, increase risk premiums, with adverse impacts on the domestic assets prices, the neutral interest rate of the economy, the confidence of economic agents and future growth. This situation can be enhanced by the absence of structural reforms that lead to potentially greater GDP growth;
- Inflation persistence risk: disinflation does not materialize, either due to new shocks or the inflationary pressures generalization on goods and services. In this context, the Central Bank could adopt an even more restrictive monetary policy, being led to raise interest rates again, with negative implications for economic activity and confidence;
- **Geopolitical risks:** further developments in the war in Ukraine or the intensification of tensions between West and East, such as the dispute between China and Taiwan, could further deteriorate expectations for world growth and keep global inflation under pressure;
- Social, environmental and climate risks: events that can impact the perceptions and confidence
 of economic agents, with the potential of negatively affect economic growth and business in
 general, in addition to causing deterioration of the country's image at the international level.



2.2.4. Risk Management Corporate Process

The risk management corporate process allows the proactive identification, measurement, assessment in specific governance, monitoring and reporting of risks, which is necessary for the complexity of financial products and services and the profile of the Organization's activities, is made up of the following stages:

Identification	 Identifying risks related to the Organization's activities, regarding business, products and services evaluation and classification in the risk scope.
\checkmark	
Measurement	Calculates expected and unexpected losses through internationally known methodologies, either under ordinary market conditions or under stressful situations. Compatible measurement tools are used due to the complexity of existing operations, products and services.
·	Risk Assumption: represented by the decision to incur the risk according the appetite;
	Risk non-acceptance: Organization's decision where the risk is outside its appetite; and
Governance	 <u>Mitigation</u>: represents the measures taken by the Organization to reduce risks by adopting actions that minimize the probability or the impact should there be contrary events. For instance, it comprises internal control activities, the use of security interest, fiduciary contract, hedges, subscription policies, among others.
\checkmark	
Monitoring	The Organization has several activities focused on ensuring the proper behavior of risks, respecting the policies and established limits, and also verifies the effectiveness of internal controls and correct design of processes and their updates.
\checkmark	
Reporting	 Focuses on all actions involving the disclosure of risk and control information, carried out on a timely basis, involving all levels of the Organization, market and domestic and foreign regulators.
	↓ Measurement ↓ Governance ↓ Monitoring



2.2.4.1. Internal controls

The Integrated Risk Control Department (DCIR), through the Internal Controls area, works proactively in managing the risks and controls existing in the processes, in order to keep them at acceptable levels by the Organization.

The Internal Controls methodology is in line with the Frameworks issued by COSO - Committee of Sponsoring Organizations of the Treadway Commission (Internal Control - Integrated Framework and Enterprise Risk Management - Integrated Framework) and with the guidelines established by the Information Systems Audit and Control Association (ISACA) through the Control Objectives for Information and Related Technology (COBIT 5).

The Internal Controls area, in support of the first line areas, challenges the identification and assessment of risks and controls, and the result of this activity is reflected in the Entities' risks maps, which are reviewed according to the Internal Controls area's annual action plan. Additionally, it carries out thematic reviews (Swat Team), with the objective of deepening the control environment evaluation of given theme, whose results are presented through specific reports, and the identified risks and weaknesses are incorporated into the risk maps of each Entity.

The risk maps, in turn, are reported monthly to department directors, containing information of all risks, problems and action plans under their responsibility and, periodically, the Very High and High residual risks are reported to the Risk Monitoring Committee, Risk Management Committee and Integrated Risk Management and Capital Allocation Committee – COGIRAC, for knowledge or approval, according to the Governance Structure described in the Internal Controls System Standard.

In addition, an annual report is sent to the Board of Directors and the Audit Committee – COAUD, consolidating the assessments and conclusions of all the work carried out by the Internal Controls teams.

Trained professionals, well-defined and implemented processes, as well as technology compatible with business needs, pursuant to CMN Resolution 4,968/21, support the effectiveness of internal controls.

2.2.4.2. Risk and Capital Management Policies

Regarding the risk culture dissemination, the Organization has policies, rules and procedures to manage risks and capital. These instruments establish the basic operational guidelines laid out by Senior Management in accordance with the institution's standards of integrity and ethics and cover all the activities performed by the Organization and associated companies.

Policies, standards and procedures ensure that the Organization is structured in accordance with the nature of its operations, the complexity of its products and services, activities, processes, systems and the dimension of its risk exposure.

The risk and capital management policies are in line with the Organization's strategic objectives, the best national and international practices and in compliance with laws and regulations issued by oversight bodies. They are reviewed at least once a year by the Board of Directors and disseminated to all employees and associated companies via the corporate portal.





The Organization has its Corporate Information Disclosure Policy, which strives to guarantee the stakeholders access to clear and accurate information according to each topic, as well as ensure that the reliability of the information to be disclosed is continuously assessed and confirmed, among others guidelines.

Further details on the Corporate Information Disclosure Policy are available on the Investor Relations website (<u>bradescori.com.br</u> – Corporate Governance – Corporate Bylaws, Policies, Guidelines and Indemnity Agreements – Policies and Guidelines).

2.2.4.3. Risk and Capital Management Structures

The risk and capital management structures are made up of several committees, commissions and departments that assist the Board of Directors, the CEO (Chief Executive Officer), the CRO (Chief Risk Officer) and the Board of Executive Officers in their decision-making process.

The Organization has the Integrated Risk Management and Capital Allocation Committee – COGIRAC, whose duty are which supports the CEO on the performance of its attributions related to the management and control of all risks and the Organization's capital.

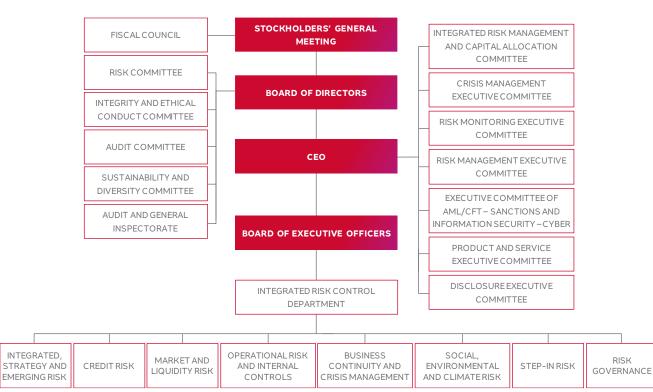
This risk management structures also includes, with the Executive Committees of: a) Risk Monitoring, b) Risk Management, c) AML/CFT – Sanctions and Information Security – Cyber Executive Committee. In addition, it also is supported by the Products and Services Executive Committee and the Executive Committees in business areas which, among other duties, suggest exposure thresholds for their respective risks and prepare mitigation plans to be submitted for evaluation by the Risk Committee and deliberation by the Board of Directors.



Additionally, the Risk Committee is responsible for evaluating the Organization's risk management framework and, occasionally, to propose improvements, and challenging the Organization's risk structure in the face of new trends and/or threats, as well as advising the Board of Directors in the performance of its duties in the management and control of risks and capital.

The Organization's Board of Directors approved the information disclosed in this report regarding the Risk and Capital management structure description.

It is worth highlighting the Integrated Risk Control Department (DCIR), responsible for implementing risk control and capital allocation through solid practices and certification of the existence, execution and effectiveness of controls which ensure acceptable risk levels in the Organization's processes, on an independent, consistent, transparent and integrated manner. This Department is also responsible for complying with the Central Bank of Brazil rules for risk management activities.





3. Risk and Capital Management Governance

All the levels of the Organization participate in its corporate governance with the aim of optimizing the company's performance and safeguard stakeholders' interests, also facilitating access to capital, adding value to the Organization and contributing to its sustainability, mainly through transparency, equal treatment and accountability. This framework complies with guidelines laid out by the Board of Directors.

In this context, risk and capital are managed through collegiate decisions based on specific committees. This process relies on the participation of all corporate governance segments, ranging from Senior Management to the diverse business, operational, product and service areas.

Board of Directors	Approves and revises risk management strategies, risk and capital management structures and policies, including risk appetite and exposure limits by types of risk, as well as the stress testing program, its results, scenarios and assumptions applied.
	Evaluates risk appetite levels set in the Risk Appetite Statement (RAS) and the strategies for its management; Oversees the CRO's activities and performance; Supervises the fulfillment of the RAS terms by the Senior Management;
Risk Committee	Evaluates the levels of adherence of the risk management processes structure to established policies; Proposes recommendations to the Board of Directors on policies, strategies and limits for risk and capital management, stress
Audit Committee	Revises the integrity of financial statements; Recommends to the Board of Executive Officers corrections or improvements to policies, practices and procedures identified within the scope of its duties.
Integrity and Ethical Conduct Committee	actions, regardless of hierarchical level, and without prejudice to applicable legal penalties; Ensures that the Board of Directors is aware of matters that may
Audit and General Inspectorate	Certifies the business risk management process; Ensures compliance with policies, rules, standards, procedures and internal and external regulations; Recommends improvements to the internal control environment.



Executive Committee	
Disclosure	Supports Senior Management in evaluating the disclosure of transactions and relevant information related to the Organization; Evaluates reports to ensure they are prepared in accordance with controls and procedures defined for their preparation.
Integrated Risk Management and Capital Allocation (COGIRAC)	management policies; Validates and submits for evaluation by the Risk Committee and deliberation by the Board of Directors the stress testing program, including the parameters, scenarios, its probabilities, assumptions, its results and the management mitigating actions for the impacts; Ensures compliance with risk and capital management policies; Monitors risk profile, performance, capital requirements and
Risk – Risk Monitoring – Risk Management	 Guarantee policies compliance and ensure effectiveness of the risk and capital management; Approve and follow up consideration of definitions, criteria and procedures to be adopted, in addition to methodologies, models and tools used in management and measurement of risk and capital; Approve and monitor information on risk exposure level, both consolidated and by area; Evaluate and submit policy, structure, roles and responsibilities, risk appetite, adequacy assessment and capital plan to COGIRAC validation; Monitor market movements and developments, evaluating the implications and risks and capital; To be aware of the rules, guidelines and orientations issued by national and international regulatory bodies; To be aware of the work performed by internal and external audits related to risk management.
Crisis Management	Evaluates the crisis event and deliberates on possible actions to mitigate and contain the crisis event.
AML/CFT – Sanctions and Information Security – Cyber	terrorism financing processes; Evaluates and submit to COGIRAC validation the policy and



Product and Service	Ensures that all risks have been pointed out and are acceptable, resolving on the creation, change, suspension or discontinuity of products and services, taking into consideration the customer's profile.
	 Resolves on proposals for the renegotiation of debts overdue or with potential risk loss;
Collection and Recovery	Approves corporate rules, procedures, measures and guidelines related to the Credit Collection and Recovery;
	 Defines limits of authorization to approve debt renegotiation.
Credit	Makes collegiate decisions to verify limits or operations involving credit risk, proposed by Organization's Premises and Companies.
Treasury for Asset and	 Defines strategies for managing assets and liabilities based on an analysis of the domestic and international political and economic scenarios and for pricing asset, liability and derivative operations with Organization customers;
Liability Management	 Evaluates external asset hedging strategies;
	 Validates the proposed risk exposure tolerance limits and liquidity rule and submit them for approval to the Integrated Risk Management and Capital Allocation Committee.
	 Defines Treasury strategies to optimize results based on the analysis of domestic and international economic and political scenarios;
Treasury	 Validates and submits for the Integrated Risk Management and Capital Allocation Committee's approval of the proposals for tolerance thresholds of exposure to Treasury risks;
	Monitors results, behaviors and risks of the Trading Portfolio, the mismatches of assets and liabilities, and the clients' portfolio.
Strategic Planning	Evaluates positions on the strategy risk and defines actions for its mitigation.

Aiming at the search for the best practices of Governance and Corporate Conduct within the highest ethical standards and principles, it has been created The Compliance, Conduct and Ethics Department (DCCE), whose mission is to ensure that the Organization is aligned with its principles, legal, non-legal, internal and external regulations, contributing to the sustainability and ethics of its business.



3.1. Stress Testing Program

The risk management framework relies on a stress-testing program, which is defined as a coordinated set of processes and routines, endowed with its own methodologies, documentation and governance, with the main objective of identifying potential institution's vulnerabilities. The stress tests are forward looking exercises of potential impacts of specific events and circumstances on the capital, liquidity or in value of particular portfolio within the Organization.

In the stress test program, scenarios are prepared by the Studies and Economic Research Department – DEPEC and discussed with Business, Integrated Risk Control Department (DCIR), Controllership Department, among other areas. Those scenarios and results are discussed and approved by the Stress Testing Technical Commission – COTES, being validated by COGIRAC. Subsequently, they are submitted for evaluation by the Risk Committee and deliberation of the Board of Directors that besides scenarios and stress tests results is responsible for approving the program and the guidelines to be followed.

Stress tests are used as a tool for risk management, in the identification, measurement, evaluation, monitoring, control and mitigation of the institution's risks. The stress tests results are inputs for assessing the institution's capital and liquidity levels, for the preparation of respective contingency plans, for the capital adequacy assessment and for the recovery plan. Likewise, the results are taken into account in the decisions related to strategic guidelines, in the definition of risk appetite levels and limits applied to risk and capital management, as well as in the definition of governance actions with the objective of mitigating identified risks, aligning them with the Organization's risk appetite.

3.2. Capital Management

The Organization manages capital involving the control and business areas, in accordance with the guidelines of the Board of Executive Officers and Board of Directors, and has a governance structure composed by Commissions, Committees and have the highest level on the Board of Directors.

The Controllership Department is responsible to comply with the determinations of the Central Bank of Brazil, related to capital management activities and support the Senior Management by providing analyses and projections of capital requirements and availability, identifying threats and opportunities that help plan towards the sufficiency and optimization of capital levels.

3.2.1. Capital Management Corporate Process

The Capital Management Corporate Process provides the conditions required to meet the Organization's strategic goals and support the risks inherent to its activities.

The Organization adopts a three years prospective approach when developing its capital plan, forecasting capital needs and setting procedures and contingency actions that might be considered in adverse scenarios, taking into account possible changes in the conditions of the regulatory, economic and business environment in which operates.



In order to permanently ensure a solid capital composition to support the development in its activities and ensure appropriate coverage of the risks incurred, the Organization periodically monitors capital projections considering a managerial capital margin (buffer), which is added to the minimum regulatory requirements.

The management buffer definition is aligned to the market practices and regulatory requirements, observing aspects such as additional impacts generated by stress scenarios, qualitative risks and risks not captured by the regulatory model.

The results of the Organization's capital projections are submitted to the Senior Management, pursuant to the governance established. In addition, the Organization's regulatory capital sufficiency is periodically demonstrated by calculating the Total Capital Ratio, Tier I Ratio and Common Equity Tier I Ratio.

3.3. Overview of Risk-Weighted Assets (RWA)

In Brazil, the Central Bank of Brazil determines through CMN Resolution 4,958/21 that institutions must permanently maintain minimum capital compatible with the risks of the operations carried out by them, which refers to the calculation of the capital requirement.

The financial institutions activities risk is represented by the calculation of RWA. The RWA amount is defined by the sum of the following installments:

RWA = RWA_{CPAD} + RWA_{OPAD} + RWA_{MPAD/MINT}

- **RWA**_{CPAD} Risk-weighted assets portion relating to credit risk, standard approach;
- RWA_{OPAD} Risk-weighted assets portion relating to operational risk, standard approach;
- RWA_{MPAD/MINT} Risk-weighted assets portion relating to market risk, standard approach/ internal approach.

The following table provides an overview of total RWA used to calculate minimum capital requirements, as established in art. 4 of CMN Resolution 4,958/21.





Overview of Risk-Weighted Assets - RWA (OV1)

		RW	A	Minimum capital requirements ⁽²⁾	
		а	b	С	
R\$ million		Dec-22	Sep-22	Dec-22	
0 Credit	Risk - standardised approach (SA)	883,428	900,057	70,674	
2 Credit	Risk ⁽¹⁾	805,297	792,803	64,424	
6 Counte	rparty credit risk (CCR)	24,823	27,148	1,986	
7 Of CCF	which: standardised approach for counterparty credit risk (SA- R)	17,762	19,561	1,421	
7a Of	which: CEM approach	-	-	-	
9 Of	which: other CCR	7,061	7,587	565	
10	e related to the adjustment associated with the variation in ivatives value due to the credit valuation adjustment (CVA)	8,950	9,390	716	
12 Equity	investments in funds – look-through approach	3,543	4,262	283	
13 Equity	investments in funds – mandate-based approach	-	-	-	
14 Equity	investments in funds – fall-back approach	246	1,460	20	
16 Securit	isation exposures in banking book	632	597	51	
25 Amoun	ts for exposures not deducted from total capital calculation ⁽²⁾	39,938	64,396	3,195	
20 Marke	t risk ⁽³⁾	8,844	9,016	708	
21 Of v	which: standardised approach (SA)	8,275	11,270	662	
22 Of 1	which: internal model approach (IMA)	8,844	8,600	708	
24 Operat	ional Risk	79,339	79,339	6,347	
27 Total (2+6+10+12+13+14+16+25+20+24)	971,611	988,412	77,729	

(1) Does not include Credit Risk and Counterparty operations.

(2) As established in art. 5 of Resolution 4,955/21.

(3) Composed of a maximum between 80% of the standardised model (SA) and internal model (IMA), according to Circulars 3,646 and 3,674.

Comments

The RWA variation in relation to the previous quarter is mainly due to CMN Resolution 4955/21 effect on the treatment of tax credits from tax losses not capital deducted, with an impact on the Credit Risk installment.



LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES

4. Linkages Between Financial Statements and Regulatory Exposures

The regulatory scope for assessing capital sufficiency, since January 2015, is the Prudential Conglomerate, according to the Central Bank of Brazil's regulations. It is worth mentioning, however, that the other companies that are part of the Economic-Financial Consolidated are also part of the Organization's risk management process. For these companies, all the risks inherent to their activities are evaluated, with emphasis on the companies that are part of the Grupo Bradesco Seguros, which also follow regulatory capital standards, either by the Superintendence of Private Insurance (Susep) rules or by the National Regulatory Agency for Private Health Insurance and Plans (ANS), depending on the activity field of each.

The following table allows to identify the differences between the scope published on the financial statements (column a) and the scope of regulatory consolidation (column b). Columns "c" to "g" details the amounts by risk categories.

Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories (LI1)

	а	b	С	d Dec-22	е	f	g			
			Carrying values of items:							
R\$ million	Carrying values as reported in published financial statements	values as ported in ublished financial values under scope of regulatory consolidation		Subject to counterparty credit risk framework	Subject to the securitisation framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital			
\\ Assets										
Cash and cash equivalent	20,548	19,949	19,949	-	-	9,692	-			
Financial instruments	1,665,002	1,345,785	1,229,638	110,225	1,339	116,280	4,584			
Leases	3,574	3,574	3,574	-	-	-	-			
Provision for Expected Credit Loss Associated with Credit Risk	(57,741)	(57,740)	(57,740)	-	-	-	-			
Deferred tax assets Investments in associates	91,519	85,224	65,128	-	-	-	20,096			
and Jointly Controlled Entities	9,042	52,492	35,645	-	-	-	16,847			
Premises and equipment	20,965	11,505	11,505	-	-	-	-			
Intangible assets	42,225	36,036	-	-	-	-	36,036			
Depreciation and amortization	(39,281)	(30,782)	(6,586)	-	-	-	(24,196)			
Provisions for Impairment of Assets	(3,132)	(2,993)	(1,838)	-	-	-	(1,155)			
Others Assets	26,601	43,272	43,131	-	-	-	142			
Total assets ⁽¹⁾	1,779,324	1,506,324	1,342,406	110,225	1,339	125,972	52,354			
\\ Liabilities										
Deposits and other financial instruments	1,229,647	1,294,693	13,869	247,528	-	51,665	1,033,296			
Provisions	359,978	28,559	3,912	-	-	932	24,647			
Deferred income tax assets	5,707	5,059	-	-	-	-	5,059			
Others Liabilities	28,992	22,282	-	-	-	-	22,282			
Total liabilities	1,624,323	1,350,593	17,782	247,528	-	52,596	1,085,284			

(1) The sum of the values reported in columns "c" to "g" may differ from the value reported in column "b", since the values considered for the purposes of prudential regulation may be associated with more than one risk category.



LINKAGES BETWEEN FINANCIAL STATEMENTS AND REGULATORY EXPOSURES

The amounts considered in the financial statements (column "a" of table LI1) are not reconciled with the values reported in the regulatory consolidation (column "b" of table LI1), mainly due to the non-consolidation of non-financial companies (with emphasis on the companies that are part of the Grupo Bradesco Seguros) in the regulatory consolidated.

The LI2 table provides information on the main sources of differences between the column "b" amounts of table LI1 and the exposure amounts.

Main sources of differences between regulatory exposure amounts and carrying values in financial statements (LI2)

		а	b	С	d	е
				Dec-22		
				ltems su	ıbject to:	
R\$	million	Total	Credit risk framework	Counterparty credit risk framework	Securitisation framework	Market risk framework
1	Asset carrying value amount under scope of regulatory consolidation	1,453,969	1,342,406	110,225	1,339	125,972
2	Liabilities carrying value amount under regulatory scope of consolidation	265,309	17,782	247,528	-	52,596
3	Total net amount under regulatory scope of consolidation	1,719,279	1,360,188	357,753	1,339	178,568
4	Off-balance sheet amounts	142,738	142,738	-	-	-
5	Differences in valuations	-	-	-	-	-
6	Other differences	45,519	-	45,519	-	-
7	Exposure amounts considered for regulatory purposes	1,907,536	1,502,926	403,271	1,339	178,568

In the line "Other Differences" of the table LI2 considers non-accounting exposures subject to counterparty credit risk (SA-CCR approach).

The following table presents information on the elements considered in the calculation of prudential adjustments, used in the financial instruments process pricing measured at market value, as provided in CMN Resolution 4,277/13.

Prudent Valuation Adjustments – PVA (PV1)

		а	b	С	d	е	f	g	h
		Dec-22							
R\$	thousand	Equity	Interest rates	Foreign exchange	Credit	Commodities	Total	Of which: In the trading book	Of which: In the banking book
1	Closeout uncertainty, of	_	_	_	_	_	_	_	_
	which:								
3	Closeout cost	-	-	-	-	-	-	-	-
4	Concentration	-	-	-	-	-	-	-	-
5	Early termination	-	-	-	-	-	-	-	-
6	Model risk	155	-	-	-	-	155	155	-
7	Operational risk	-	-	-	-	-	-	-	-
8	Investing and funding costs	-	-	-	-	-	-	-	-
9	Unearned credit spreads	-	-	-	-	-	-	-	-
10	Future administrative costs	-	-	-	-	-	-	-	-
11	Other	-	-	-	-	-	-	-	-
12	Total adjustment	155	-	-	-	-	155	155	-

Regarding to pricing, the Organization has a careful process and in line with the principles determined by CMN Resolution 4,389/14. The details of this process are described in item 12.3.7 Financial Instrument Pricing.



CAPITAL COMPOSITION

5. Capital Composition

According to the rules established by CMN Resolution 4,955/21, the Total Capital of a financial institution is represented by the sum of Tier I and Tier II Capital and will be used in determining its operational limits.

Tier I Capital: seeks to ensure the financial institution solvency, ensuring the continuity of its operation. With the entry into Basel III force, Tier I Capital was divided into two new subgroups:

- Common Equity Tier I (CET1): basically composed of shares and reserves;
- Additional Capital: basically composed of instruments similar to hybrid capital instruments and debts.

Tier II Capital: constitutes contingent capital that can be converted into effective capital in the insolvency event.

5.1. Capital Breakdown

The following are details on the required Total Capital of the Prudential Conglomerate, under the regulatory approach.

R\$ million	Dec-22	Sep-22	Dec-21
\\ Tier I Capital	120,624	134,271	130,565
Common Equity Tier I	106,501	119,903	119,107
Shareholders' Equity	154,263	156,884	147,121
Non-controlling Interest	(114)	81	(27)
Prudential Adjustments ⁽¹⁾	(47,649)	(37,062)	(27,987)
Additional Capital	14,123	14,368	11,459
Subordinated Debt (according to CMN Resolution 4,955/21)	14,123	14,368	11,459
\\ Elegible Instruments for Tier II Capital	23,659	22,052	19,671
Subordinated Debt (according to CMN Resolution 4,955/21)	23,659	22,052	19,671
\\ Total Capital	144,283	156,322	150,236

(1) According to CMN Resolution 4,955/21.

For more information and details, see "CC1 – Composition of regulatory capital", "CCA – Main features of regulatory capital instruments" and "CC2 – Reconciliation of regulatory capital to balance sheet", available on the Investor Relations website (<u>bradescori.com.br</u> – Market Information – Risk Management – Exhibits Pillar 3).





MACROPRUDENTIAL INDICATORS

6. Macroprudential Indicators

As defined by BCB Resolution 171/21, the Organization discloses the calculating of information for the assessment of global systemic importance (IAISG), calculated on a consolidated basis, which establishes an additional capital requirement for financial institutions classified as systemically important.

Disclosure of Global Systemically Important Bank – GSIB Indicators (GSIB1)

For more information and details, see "GSIB1: Disclosure of Global Systemically Important Bank – GSIB Indicators", available on the Investor Relations website (<u>bradescori.com.br</u> – Market Information – Risk Management – Exhibits Pillar 3) within 90 (ninety) days from the base date December 31, according to the deadline defined by BCB Resolutions 54/20 and 171/21.

The table CCyB1 provides an overview of the geographic distribution of credit risk exposures to the private non-banking sector for the purpose of calculating the countercyclical buffer, with the calculation methodology applied according to the rules of BCB Circular 3,769/15.

Geographical distribution of credit exposures used in the countercyclical buffer (CCyB1)

	а	b	с Dec-22	d	е	
	Countercyclical	Exposure values and assets used in the co countercyclical	omputation of the	Bank-specific	Countercyclical	
R\$ Million	capital buffer rate	Exposure values	Risk-weighted assets	capital buffer rate	buffer amount	
Geographical breakdown						
BRAZIL (BR)	0.0%	1,440,218	765,950		- 8	
UNITED KINGDOM (GB)	0.5%	1,454	1,134		6	
SWEDEN (SE)	2.0%	321	321		6	
OTHER COUNTRIES	0.0%	34,444	19,598			
Sum		1,476,437	787,003			
\\ Total		1,476,437	787,003	-	12	

Comments

The Organization (prudential consolidated) has in its portfolio exposure to 21 jurisdictions, 2 of which have Countercyclical Capital buffer (ACPPi) - United Kingdom and Sweden. Regarding the RWA quarter variation, there was an increase of 0.6% in relation to 3Q22, with Brazil concentrating 97% of the Credit RWA.



LEVERAGE RATIO

7. Leverage Ratio (LR)

In compliance with Basel Committee's recommendations, the Leverage Ratio (LR) started on October 2015. This ratio, combined with Total Capital Ratio, limits the risk exposure level assumed by financial institutions. This index evaluates leverage using only exposure values with no risk weighting.

In 11/30/2017, the National Monetary Board published the Resolution 4,615, which defined the minimum level for Leverage Ratio in 3% effective as of 01/01/2018.

The following table details the adjustments made on the total asset value to obtain the Total Exposure used in calculating the Leverage Ratio, as defined according to Circular 3,748/15.

Summary comparison of accounting assets vs Leverage Ratio exposure measure (LR1)

R\$ mil	lion	Dec-22
1	Total consolidated assets as per published financial statements	1,779,324
2	Adjustment arising from accounting consolidation differences	(270,867)
1+2	Total assets of individual balance sheet or of the prudential conglomerate, in the case of LR calculation on consolidated bases	1,508,457
4	Adjustments for derivative financial instruments	1,477
5	Adjustment for repurchase transactions and asset loans	20,793
6	Adjustment for off-balance sheet items	155,002
7	Other adjustments	(45,992)
8	Total Exposure	1,639,736

Comments

The Total Exposure decrease in 4Q22 compared to 3Q22 was due to the reduction in Total Assets of Balance Sheet.





LEVERAGE RATIO

The LR2 table provides a detailed breakdown of the components of the leverage ratio denominator, as detailed in Circular 3,748/15.

Leverage Ratio common disclosure template (LR2)

	а	b	
R\$ million	Dec-22	Sep-22	Dec-21
\\ On-balance sheet exposures			
Balance sheet items other than derivative financial instruments, securities received on loan and resales for settlement under repurchase transactions	1,392,638	1,487,705	1,322,440
2 Adjustments for equity items deducted in calculating Tier I	(52,688)	(42,566)	(33,048)
3 Total on-balance sheet exposures	1,339,950	1,445,139	1,289,392
\\ Transactions using Derivative Financial Instruments			
4 Replacement value for derivatives transactions	11,382	11,971	18,438
5 Potential future gains from derivatives transactions	9,580	8,748	7,988
7 Adjustment for daily margin held as collateral	-	-	-
Adjustment related to the deduction of the exposure related to qualified central counterparty (QCCP) in derivative transactions on behalf of clients in which there is no contractual obligation to reimburse due to bankruptcy or default of the entities responsible for the settlement and compensation of transactions	(7,016)	(8,901)	(9,984)
9 Reference value of credit derivatives	1,477	1,476	1,602
10 Adjustment of reference value calculated for credit derivatives	-	-	-
11 Total exposure for derivative financial instruments	15,423	13,293	18,044
\\ Repurchase Transactions and Securities Lending			
12 Investments in repurchase transactions and securities lending	108,100	144,037	67,206
13 Adjustment for repurchases for settlement and creditors of securities lending	-	-	-
14 Amount of counterparty credit risk	6,697	6,860	4,563
15 Amount of counterparty credit risk in transactions as intermediary	-	-	-
16 Total Exposure on Repurchase Transactions and Securities Lending	114,797	150,897	71,769
\\ Off-balance sheet items			
17 Reference value of off-balance sheet transactions	433,005	429,187	411,348
18 Adjustment for application of FCC specific to off-balance sheet transactions	(263,439)	(263,522)	(260,134)
19 Total off-balance sheet exposure	169,566	165,665	151,214
\\ Capital and Total Exposure			
20 Tier 1 capital	120,624	134,271	130,565
21 Total exposure	1,639,736	1,774,994	1,530,419
\\ Leverage ratio			

Comments

The decrease of the Leverage Ratio in 0.2 p.p. in relation to the previous quarter was mainly due to reduction in Tier 1 capital.



8. Liquidity Risk

The Liquidity Risk is represented by the possibility of the institution not being able to efficiently meet its obligations, without affecting its daily operations and incurring significant losses, as well as the possibility of the institution not being able to trade a position at market price due to its high value when compared to the usually traded volume or due to some market discontinuity.

Knowledge and monitoring of this risk is crucial to enable the Organization to settle operations in a timely and safe manner.

8.1. Liquidity Risk Management Process

Liquidity risk management is carried out by the Organization in a corporate manner and permeates all governance layers. The following are the departments' attributions that stand out in the liquidity risk management and control:

	 Performs daily cash and liquidity management;
Treasury Department	 Proposes limits for liquidity risk control indicators, as well as levels for alert flags;
	 Complies with the strategic and operational limits established;
	Reports matters related to the liquidity management of the Treasury for Asset and Liability Management Executive Committee.
	Proposes the liquidity and concentration control metrics, paying attention to their due approval in the established governance process;
Integrated Risk Control Department	Calculates and disseminate the liquidity monitoring and control indicators in the established periodicities;
	 Provides simulation tools for the main indicators implemented;
	Reports matters related to the control and monitoring of liquidity risk in commissions and executive committees where the topic is addressed.
	 Perform cash flow projection for liquidity monitoring, including intraday;
Support Areas (Shares and Custody	Prepare the expected cash flows up to the 12-month horizon and refer to the areas of interest;
Department, International and	Check and ensure the consistency, integrity and completeness of the database made available daily to liquidity risk managers and controllers;
Exchange Department and Controllership Department)	Provide cash management information to Treasury Department, as well as any significant changes in the Conglomerate Banks reserves levels;
	Provide management information about mismatch maps available to the Treasury Department.



Policies and Standards

The liquidity risk management process is comprised of policies and standards that establish diversification criteria related to Organization's financing sources.

The Liquidity Risk Management Policy ensures that there are standards, procedures and controls that guarantee the Organization an adequate liquidity level and diversification of its funding.

In turn, the Liquidity Risk Standard for the Prudential Conglomerate describes the Organization's procedures and controls for liquidity risk, including controlling the concentration of funding by product and counterparty.

On the Organization's executive committees are reported product funding concentrations, counterparty and terms.

8.1.1. Control and Monitoring

The Organization's liquidity risk management is carried out through tools developed on robust platforms and validated by the independent areas of the Organization. Among the main metrics and indicators considered in the liquidity risk framework, it is highlight:

- Liquidity Coverage Ratio (LCR): consists of verifying the liquid instruments sufficiency to honor the Organization's net cash outflows in the next thirty days in a stress scenario;
- Net Stable Funding Ratio (NSFR): consists of verifying the structural funding sufficiency to finance the long-term assets of the Organization's balance sheet;
- Deposit losses for different time horizons;
- Funding concentration maps in different views (product, term and counterparty);
- Integrated stress exercises which different risk dimensions are addressed.

For the main metrics, limits were established, which can be strategic (approved up to the level of the Board of Directors) or operational (approved by the Executive Committee), based on flags, which trigger different levels of governance according to the percentage of use (consumption) of their respective limits.

8.1.2. Liquidity Risk Mitigation

The governance established for the liquidity risk management includes a series of recommendations for mitigating liquidity risk, among the main strategies, the following stand out:

- Financing diversification in counterparty, product and term;
- Adoption of managerial liquidity limits, in addition to those required by the regulator;
- Prior products analysis that may affect liquidity before implementation;
- Portfolio liquidity stress simulations.





8.1.3. Stress Tests

Due to the dynamics and criticality of this topic, the management and liquidity risk control must take place on a daily basis and be based on stress scenarios. Thus, the main metric used to monitor the liquidity risk of the Prudential Conglomerate is the Liquidity Coverage Ratio (LCR), which measures the liquid resources sufficiency to honor commitments in the next thirty days considering a stress scenario. Therefore, daily management is already carried out through stress testing.

Anyway, in addition to LCR and other monitoring metrics, simulations of long-term stress scenarios are carried out, within the integrated stress test program (ICAAP for example), to also assess a possible liquidity indicators deterioration for different time horizons.

8.1.4. Contingency Plan

According to Art. 38, item II, of BCB Resolution 4,557 of February 23, 2017, all institutions must have a liquidity contingency plan. The Organization's liquidity contingency plan covers the following points:

- Crisis management group;
- Main responsibilities of the crisis management group;
- Monitoring indicators;
- Crisis mitigation actions;
- Plan review frequency.

8.1.5. Internal Reporting

Internal communication about liquidity risk, both between departments and between the different layers of internal governance is through internal reports and committees involving both areas (Treasury and DCIR) and the Organization's Senior Management.

Additionally, reports are distributed daily to the areas involved in management and control, as well as to Senior Management. This process comprises several analytical instruments used to monitor liquidity, such as:

- Daily distribution of liquidity control instruments;
- Automatic intra-day update of the liquidity reports for appropriate management by the Treasury Department;
- Preparation of reports with past behavior and future simulations based on scenarios;
- Daily verification of compliance with minimum liquidity levels;
- Preparation of further reports where the funding concentrations by sort of product, maturity and counterparty are presented;
- Weekly reports to the Senior Management, showing the behavior and expectations related to the liquidity situation.

The liquidity risk management process also has an alert system that selects the appropriate reporting level according to the percentage of use of the established limits. Thus, the lower the liquidity ratio, the higher Organization levels who receive the reports.



8.2. Liquidity Coverage Ratio (LCR)

The Liquidity Coverage Ratio (LCR) aims to ensure that the Organization maintains a sufficient level of liquid assets to cover liquidity needs on an eventual stress scenario. The LCR is the ratio between the stock of High Quality Liquid Assets (HQLA) and total net cash outflow, calculated based on a generic stress scenario.

The following formula shows the main components of the indicator:



The stress scenarios parameterization was conducted by the Regulator to capture idiosyncratic and market shocks, considering the period of thirty days. The items below show some of the shocks included in the methodology:

- The partial loss of retail and uncollateralized wholesale funding, as well as short-term funding capacity;
- The additional outflow of funds, contractually foreseen, due to the downgrading of the institution's credit rating by up to three levels, including eventual additional collateral requirements;
- An increase in the factors' volatility that impact collateral quality or the potential future exposure of derivative positions, resulting in the application of larger collateral discounts or a call for additional collateral or in other liquidity requirements;
- Higher withdrawals amounts than expected from credit/liquidity lines granted; and
- The potential need to repurchase debt or honor non-contractual obligations in order to mitigate reputational risk.

High Quality Liquid Assets (HQLA)

HQLA are assets that maintain their market liquidity in periods of stress and that meet the minimum requirements established by the Central Bank of Brazil, such as, among others, being free of any legal impediment or restriction; suffering little or no loss in market value when converted into cash; having a low credit risk; easy and accurate pricing; and being traded in an active and important market, with little difference between the purchase and sale price, high traded volume and a large number of participants, among other criteria. These assets are subject to weighting factors, which may reduce their value, for example in accordance with the risk rating of their issuer or the historic variation in their market price, among other requirements.



Cash Outflows and Inflows

Cash outflows are the result of a reduction in deposits and funding; the maturity of securities issued; scheduled contractual obligations for the next thirty days; margin adjustments and calls in derivative operations; the utilization/withdrawal of credit and liquidity lines granted by the Bank; and contingent cash outflows.

Cash inflows for the next thirty days correspond to the expected receipt of loans and financings; deposits; securities; and margin adjustments and easing in derivative operations.

The LIQ1 table presents the information of Liquidity Coverage Ratio - LCR indicator, regarding cash outflows and cash inflows, as well as its available high-quality liquid assets (HQLA), as measured and defined according to Circular 3,749/15.

Liquidity Coverage Ratio – LCR (LIQ1)

		а	b				
		Dec	-22 ¹	Sep	-22 ²	Dec	:- 2 1 ³
R\$ t	housand	Unweighted Amount ⁽⁴⁾	Weighted Amount ⁽⁵⁾	Unweighted Amount ⁽⁴⁾	Weighted Amount ⁽⁵⁾	Unweighted Amount ⁽⁴⁾	Weighted Amount ⁽⁵⁾
\\ H	ligh Quality Liquid Assets (HQLA)						
1	Total High Quality Liquid Assets (HQLA)		198,600,676		207,869,713		177,885,181
۱۱ ۵	ash outflows						
2	Retail funding, of which:	370,582,741	36,861,192	361,295,097	35,613,514	332,878,995	31,000,878
3	Stable funding	173,707,698	8,685,385	171,239,152	8,561,958	168,845,964	8,442,298
4	Less stable funding	196,875,043	28,175,807	190,055,946	27,051,557	164,033,031	22,558,580
5	Non-collateralized wholesale funding, of which:	255,199,169	101,799,588	247,468,203	97,846,633	244,007,852	96,469,966
6	Operating deposits (all counterparties) and affiliated cooperative deposits	14,355,798	717,790	14,446,917	722,346	15,517,776	775,889
7	Non-operational deposits (all counterparties)	237,942,861	98,181,288	232,919,428	97,022,429	228,310,153	95,514,154
8	Non-collateralized obligations	2,900,510	2,900,510	101,858	101,858	179,923	179,923
9	Collateralized wholesale funding		4,671,371		4,251,151		3,435,073
10	Additional requirements, of which:	143,535,972	15,670,004	142,423,104	15,763,875	128,955,006	15,742,405
11	Related to exposure to derivatives and other collateral requirements	11,556,740	5,532,548	10,631,524	5,484,105	10,013,058	5,208,552
12	Related to funding losses through the issue of debt instruments	45,718	45,718	135,698	135,698	1,254,451	1,254,451
13	Related to lines of credit and liquidity	131,933,514	10,091,738	131,655,883	10,144,073	117,687,498	9,279,401
14	Other contractual obligations	39,648,114	37,134,959	38,797,922	36,294,013	37,670,084	35,552,953
15	Other contingent obligations	144,774,157	6,544,360	145,762,927	6,646,477	134,939,284	6,617,524
16	Total Cash Outflows		202,681,474		196,415,664		188,818,798
\\ c	ash inflows						
17	Collateralized loans	114,631,125	269,762	121,349,664	858,410	86,149,418	2,290,542
18	Outstanding loans whose payments are fully up-to-date	46,345,202	32,190,174	46,322,691	31,816,948	36,543,661	23,122,824
19	Other cash inflows	60,640,558	46,183,036	58,165,526	44,736,032	44,199,210	34,625,477
20	Total Cash Inflows	221,616,885	78,642,972	225,837,881	77,411,390	166,892,289	60,038,844
			Total Adjust.		Total Adjust.		Total Adjust.
			Amount ⁽⁶⁾		Amount ⁽⁶⁾		Amount ⁽⁶⁾
	Total HQLA		198,600,676		207,869,713		177,885,181
	Total net cash outflows		124,038,502		119,004,274		128,779,954
	Liquidity Coverage Ratio (LCR)		160.1%		174.7%		138.1%

Calculated based on the simple daily average of the quarters (62 observations).
 Calculated based on the simple daily average of the quarters (65 observations).

(3) Calculated based on the simple daily average of the quarters (63 observations) (4) Total balance of cash inflow/outflow item.

(5) Total balance of cash inflow/outflow item after application of weighting factors.

(6) Total balance of cash inflow/outflow item after application of weighting factors and limits.

The net assets (HQLA) amounted R\$ 198.6 billion on average in the 4Q22, versus R\$ 207.9 billion, on average, in the 3Q22. Related to the cash outflows, based on the regulatory stress scenario (item 16), about 68.4% are redemptions and non-renewal retail and wholesale funding without collateral (unsecured), as shown in items 2 and 5 in the table. Another relevant group refers to the item "Other contractual obligations" (item 14), which mainly includes the output streams of on lending operations, credit cards and trade finance. Regarding to cash inflows, corresponding to R\$ 78.6 billion on average in the 4Q22, the highlights are the receiving of credit operations (partial renewal) stand out, the inflows of Trade Finance operations, cash and redemptions of securities, besides the inflow of transfer and credit card operations.



8.3. Net Stable Funding Ratio (NSFR)

The Net Stable Funding Ratio (NSFR) aims to assess whether the Organization is financing its activities (assets) with sources of funding more stable (liabilities). NSFR corresponds to the ratio between Available Stable Funding (ASF) and the Required Stable Funding (RSF), which are defined according to the assets and liabilities structures of the institution that are weighted as per the Regulator definitions.

The following formula shows the main components of the indicator:



Available Stable Funding (ASF)

The available stable funding are represented by Liabilities and Net Equity, which are weighted as per its stability, and the resources considered more stable are determined mainly by the behavioral aspects of the clients, considering also its relationship with the institution, legal aspects and other implicit variables.

Required Stable Funding (RSF)

The required stable funding are determined according to the Balance Sheet assets and the other financial instruments, for example, credit limits and guarantees provided, which are weighted by aspects, related to the operation, maturity, counterparty, among others.

The following table provides details of a bank's NSFR and selected details of its NSFR components, according to Circular 3,869/17.



LIQUIDITY RISK

Net Stable Funding Ratio – NSFR (LIQ2)

		a	b	د Dec-22	d	е	Sep-22
		Unweighted value by residual maturity ⁽¹⁾					
	nousand	No maturity	Less than six months	More or equal to six months and less than one year	More or equal to one year	Weighted value ⁽²⁾	Weighted value ⁽²⁾
	vailable Stable Funding (ASF) Capital	194,504,958	_	_	12 772 706	207 277 665	211,464,444
2	Total Capital, gross of regulatory deductions	194,504,958	-	-	12,732,700	207,237,665 194,504,958	193,383,946
3	Other capital instruments not included on line 2	194,304,938	-	-	12,732,706		
	Retail funding, of which:	161,063,321	227,624,340	785,459		362,024,904	
5	Stable funding	92,321,502	89,907,124		139,091	173,303,960	169,813,609
6	Less stable funding	68,741,819	137,717,216	735,275	2,246,065	188,720,944	183,868,027
7 \	Wholesale funding, of which:	46,131,289	544,639,710	29,771,509	134,167,397	303,471,569	302,181,470
8	Operating deposits and affiliated cooperative deposits	14,817,753	-	-	-	7,408,876	7,295,594
9	Other wholesale funding	31,313,536	544,639,710	29,771,509	134,167,397	296,062,693	294,885,876
	Operations that the institution acts exclusively as an intermediary, assuming no rights or obligations, even if contingent:	-	48,034,107	4,624,503	291,373	-	-
	Other liabilities, of which:	60,315,427	44,690,339	-	-	5,000,559	5,289,559
12	Derivatives in which replacement value is less than zero Other liabilities elements or shareholders' equity not included in the			11,536,080			
13	previous lines	60,315,427	33,154,259	-	-	5,000,559	5,289,559
	Fotal Available Stable Funding (ASF)					877,734,697	872,617,110
15 1	equired Stable Funding (RSF) Fotal High Quality Liquid Assets (HQLA)					13,266,331	12,832,493
	Deposits held at other financial institutions for operational purposes	-	-	-	-	-	-
17 f	Bonds, securities and operations with financial institutions, non- inancial institutions and central banks, of which:	5,638,770	320,873,501	107,333,087	345,675,815	458,036,028	466,163,035
18	Operations with financial institutions collateralized by Level 1 HQLA	-	13,895,843	-	-	1,389,584	1,209,253
19	Operations with financial institutions collateralized by Level 2A, 2B HQLA or non-collateralized	-	110,710,187	5,952,050	3,304,491	8,781,810	7,236,947
20	Loans and financing granted for retail and wholesale customers, central government and central banks operations, of which:	-	170,792,047	80,959,063	218,840,135	315,827,313	313,981,804
21	The Risk Weighting Factor, referred by Central Bank Circular 3,644, from 2013, is less than or equal to 35% (thirty five percent)	-	-	-	267,600	175,315	180,039
22	Performing residential mortgages, of which:	-	3,973,195	3,601,356	58,037,580	52,679,390	50,651,456
23	Referred by Central Bank Circular 3,644 from 2013, article 22	-	3,973,195	3,601,356	58,037,580	52,679,390	50,651,456
24	Bonds and securities non eligible to HQLA, including shares traded in the Stock Market	5,638,770	21,502,230	16,820,619	65,493,608	79,182,616	92,903,536
	Operations that the institution acts exclusively as an intermediary, assuming no rights or obligations, even if contingent	-	49,353,708	4,861,968	490,497	-	-
26 0	Other assets, of which:	246,499,573	44,295,157	2,309,330	22,935,277	241,482,077	224,498,456
27	Gold and commodities transaction, including ones with physical settlement	-				-	-
28	Assets provided, due to initial margin deposit as collateral for derivatives operation and participation in mutualized guarantee funds of clearing house or service providers of clearing and settlement that may arbitrate as central counterparty			6,358,239		5,404,503	4,522,563
29	Derivatives in which replacement value is more than or equal to zero			14,237,426		-	-
30	Derivatives in which replacement value is less than zero, gross of any collateral deduction due to deposit for variation margin			-		4,318,330	4,187,268
31	Other assets not included in the previous lines	246,499,573	30,057,731	2,309,330	16,577,038	231,759,243	215,788,625
	Off-balance sheet operations		418,479,069	-	-	15,849,279	15,646,478
	Total Required Stable Funding (RSF)					728,633,715	
34 N	NSFR (%)	1//////////////////////////////////////				120.5%	121.3%

Corresponding to the total of the balance sheet.
 Corresponding to the value after applying the weighting factors.

The long-term indicator NSFR, presented weighted volume of available stable funding, higher than the required stable funding, exceeding the weighted balance around R\$ 149.1 billion, resulting the indicator in 120.5%. The amount of available stable funding (ASF) is largely composed by customer funding, considering the level of stability as the main factor supporting the ASF. The verification of the ASF in December/2022, presented a sharing of 41%, originated from Retail funding and 35% of Wholesale funding. The required stable funding (RSF) are composed by assets and items off-balance sheet. These balance are weighted according to the respective liquidity profile, so the items related to lending and other assets in low or non-liquidity are highlighted in the RSF (high weight), while high liquidity operations, e.g. free federal government bonds, receive low weight. For December/2022, the lending operations (item 20) represented 43% out of the total of RSF, while other assets (Item 31) shared 32% of the RSF.

9. Credit Risk

Credit risk refers to the possibility of losses associated with the borrower's or counterparty's failure to comply with their financial obligations under the agreed upon terms; as well as the depreciation of loan agreements resulting from deterioration, in the borrower's risk rating; the reduction in gains or remunerations and also with benefits granted in renegotiations; recovery costs and other amounts related to the counterparty's default with their financial obligations. Also includes concentration and transfer (country) risk.

Credit risk management in the Organization is a continuous and evolving process of mapping, development, assessment and diagnosis through models, instruments and procedures that require a high degree of discipline and control during the evaluation of credit proposals in order to preserve the integrity and autonomy of the processes.

The Organization controls its exposure to credit risk, which mainly results from credit operations, credit commitments, financial guarantees provided, securities and derivative financial instruments.

In order to ensure the quality expected from the portfolio, special attention to all aspects of the lending process, credit concentration, guarantee requirements, maturities, amongst others has been given.

The Organization continuously maps all the activities that could possibly generate exposure to credit risk, classifying them by their probability and magnitude, identifying their managers, as well as their measurement and mitigation plans.

9.1. Lending Process

The diversified business model allows support several audiences, in direct and convenient channels in the different regions of Brazil. Segmentation strategies, both for Individuals and Legal Entities, also support a good relationship with customers and to accurate offers of products and services.

This positioning has a positive impact on the Organization's credit profile, being translated into a diversified and dispersed portfolio, both in terms of products and segments. This is consistent with the risks assumed and with adequate provisioning and concentration levels.

In the Credit Department, the lending process is based on the Organization's Credit Policy, which lays emphasis on safety, quality and liquidity while investing in credit assets. The risk management governance permeates the entire process, which fully complies with Central Bank of Brazil rules.

The methodologies adopted value business agility and profitability, with targeted and appropriate procedures, oriented to the granting of credit transactions and establishment of operating limits.

The assessment and classification of the total risk of customers and economic groups, the Organization considers the quantitative (economic and financial indicators) and qualitative (registration, behavioral and transactional data) aspects of the customers' capacity to pay their debts.

All business proposals are subject to operational limits, which are included in the Loan Guidelines and Procedures. At branches, the delegation of power for proposals submission depends on its amount, the customer's total exposure to the Organization, the collaterals and guarantees posted the level of restriction and their credit risk rating. All business proposals are submitted to technical analysis and approval by the Credit Department.



The Executive Credit Committee was created to decide, within its authority, on queries about assignment of limits or operations proposed by business areas, previously analyzed and reviewed by the Credit Department. Depending on the financial amount, operations/limits proposed, from this Committee, may be submitted for approval by the Board of Directors.

Loan proposals pass through an automated system with parameters to provide indispensable information for analysis and granting of loans, in addition to the follow-up of the loans granted, minimizing the risks inherent to the operations.

There are exclusive Credit and Behavior Scoring systems for the assignment of mass loans in the Retail segment, intended to provide speed and reliability, while standardizing the procedures for loan analysis and approval.

Business is diversified, widespread and aimed at individuals and companies with a proven payment capacity and solvency, seeking to support them with collaterals and guarantees that are adequate to the risk assumed, considering the credit lines, amounts and the maturities of the granted loans.

9.2. Credit Risk Rating

The Organization has a robust governance, practices and follow-up process. Among these practices, we can mention the Governance of Concessions and Credit Recovery Levels, which, depending on the size of the operation or the total exposure of the counterparty, require approval at the level of the Board of Directors. In addition, frequent portfolio monitoring is evaluated, with assessments of its evolution, defaults, provisions, vintage studies, capital, among others.

In addition to the process and governance levels of approval for credit and recovery operations, the risk appetite defined by the Organization is followed by concentration limits of operations for Economic Group, Sector and Transfer (concentration by countries). Besides concentration indicators, a specific indicator was established for delinquency level over 90 days for Individuals, indicator for Problematic Assets and an indicator of Credit Risk Economic Capital Margin, in order to monitor and control capital from an economic and regulatory point of view.

The credit risk assessment methodology, in addition to providing data to establish the minimum parameters for lending and risk management, also enables the definition of special Credit Rules and Procedures according to customer characteristics and size. Thus, the methodology provides the basis not only for the correct pricing of operations, but also for defining the appropriate guarantees.

The methodology used also follows the requirements established by National Monetary Council (CMN) Resolution 4,945 and includes analysis of social and environmental risk in projects, aimed at evaluating customers' compliance with related laws and the Equator Principles, a set of rules that establish the minimum social and environmental criteria, which must be met for lending.

In accordance with its commitment to the continuous improvement of methodologies, the credit risk rating of operations contracted by the Organization's economic groups/customers is distributes on a graded level scale, ensuring greater compliance with the requirements of the Basel Capital Accord, preserving the criteria set forth by National Monetary Council Resolution 2,682 for recording the necessary impairment allowances.

In a simplified way, the operations risk ratings are determined according to the credit quality of the economic groups/customers defined by the customer risk rating, contract guarantees, credit product modality, late due behavior, notes/restrictions and the contracted credit face value.



The customer risk ratings for economic groups are based on parameterized statistical procedures, using quantitative and qualitative information and judgments. Classifications are made by economic group and periodically monitored to preserve loan portfolio quality.

With respect to individuals, customer risk ratings are generally defined based also in statistical procedures and analysis of variables that discriminate risk behavior. This is made by applying statistical models for credit assessment.

The customer risk rating is used, in sets with several decision variables, for concession and/or renewal analysis of operations and credit limits, as well as for monitoring the customers' risk profile deterioration.

9.3. Credit Risk Management Process

The credit risk management process is conducted in a corporation-wide approach. This process involves several areas with specific duties, ensuring structural efficiency. Credit risk measurement and control are conducted in a centralized and independent manner.

Both the governance process and existing limits are sanctioned by the Integrated Risk Management and Capital Allocation Committee, which are submitted for the approval of the Board of Directors, and are revised at least once a year.

The credit risk management structure performs a fundamental role in the Organization's second line, actively participating in the process of improving customer risk classification models, periodically monitoring major risks by main default events, level of provisioning in view of expected and unexpected losses.

This structure continuously reviews the internal processes, including the roles and responsibilities, Information Technology training and requirements, as well as conducts periodically reviews of risk evaluation processes to incorporate new practices and methodologies.

The attributions of the credit risk management structure faithfully follow the compliance precepts defined by the Organization. Integration with other lines occurs continuously and frequently, enabling assertiveness in the identification, measurement and control of credit risk.

9.4. Credit Risk Mitigation

Potential credit losses are mitigated by the use of a series of collaterals formally stipulated through legal instruments, such as conditional sales, mortgages, by guarantees such as third-party sureties or guarantees and also by financial instruments such as credit derivatives. The efficiency of these instruments is evaluated considering the time to recover and realize an asset given as collateral, its market value, the guarantors' counterparty risk and the legal safety of the agreements. The main types of collaterals include, term deposits; financial investments and securities; residential and commercial properties; movable properties such as vehicles, aircrafts; furthermore, security interest also include commercial bonds such as invoices, checks and credit card bills. Securities and guarantees may also include bank guarantees.

Credit derivatives are bilateral agreements where one of the counterparties buys hedge against credit risk of a specific financial instrument and its risk is transferred to the selling counterparty. Usually, the later receives a linear remuneration during transaction's effectiveness. In the event of default, the counterparty who bought the hedge will be paid, the purpose of which is to mitigate the financial instrument impairment. In this case, the selling counterparty receives the underlying asset in exchange for referred payment.



9.5. Control and Monitoring

The Organization's credit risk is controlled and monitored by the Credit Risk area of the Integrated Risk Control Department (DCIR). The department advises the Risk Management Executive Committee, in which methodologies for credit risk measurement are discussed and formalized. Significant issues discussed in this committee are reported to the Integrated Risk Management and Capital Allocation Committee, which is subordinated to the Board of Directors.

Additionally, to the committee, the area holds monthly meetings with all product and segment executives and officers, with a view to informing them about the evolution of the loan portfolio, delinquency, problematic assets, restructurings, adequacy of allowance for loan losses, loan recoveries, losses, portfolio limits and concentrations, regulatory and economic capital allocation, among others. This information is also reported to the Audit Committee on a monthly basis.

The area also monitors any internal or external event that may cause a significant impact on the Organization's credit risk, such as mergers, bankruptcies and crop failures, in addition to monitoring industries in which the company is exposed to significant risks.

9.6. Internal Reporting

Credit risk is monitored on a daily basis in order to maintain the risk levels within the limits established by the Organization. Risk control management reports are provided to all levels of business, from branches up to Senior Management.

Pointing out the risk situations that would impact the liquidity of loans granted to customers, the credit risk monitoring area provides daily reports, through a corporate system, to the branches, national management, business segments, as well as the lending and loan recovery areas. This system provides dynamic information about the loan portfolios and credit bureau information of customers, in addition to enabling comparison of past and current information, highlighting points requiring a more in-depth analysis by managers such as: assets information by segment, product, region, risk rating, delinquency and expected and unexpected losses, amongst others, allowing both a macro-level and detailed view of the information, and also enables a specific loan operation to be viewed.

The information is viewed and delivered via reports, allowing queries at several levels such as business segment, divisions, managers, regions, products, employees and customers, and under several aspects (asset, delinquency, provision, write-off (loss), restriction levels, use of collaterals and portfolio quality by rating, among others).

9.7. Details of Credit Risk Exposures

The quality of exposures subject to credit risk related to credit operations, debt securities and operations off-balance sheet are detailed below.





Credit quality of assets (CR1)

	а	b	С	g	
		Dec-	22		
	Gross va	lues of	Allowances,		
R\$ million	Defaulted exposures	Non-defaulted exposures	advances and unearned income	Net Values (a+b-c)	
1 Loans	62,893	607,148	57,740	612,301	
2 Debt Securities	10,040	372,994	2,164	380,870	
2a of which: national sovereign bonds	-	253,070	-	253,070	
2b of which: other bonds	10,040	119,924	2,164	127,800	
3 Off-balance sheet exposures	7,669	353,155	1,761	359,063	
4 Total (1+2+3)	80,602	1,333,297	61,665	1,352,234	

Note: According to instructions for filling Circular Letter 3,936, loans, financing, leasing operations, interbank liquidity operations and other similar operations were considered as Credit Concessions.

Comments

There was a 1.2% increase in total exposure compared to the previous quarter, mainly due to the growth in loans exposure.

Gross exposures are exposures before the application of the Credit Conversion Factors (CCF) and before the deduction of their provision, with an operation being considered default when its exposures are characterized as problematic assets, according to CMN Resolution 4,557/17.

Changes in the stock of defaulted loans and debt securities operations in progress between two periods, considering the operations reported in table CR1, are detailed in table CR2.

Changes in stock of defaulted loans and debt securities (CR2)

R\$ million	Dec-22 a Total
1 Defaulted loans and debt securities at end of the previous reporting period	75,048
2 Loans and debt securities that have defaulted since the last reporting period	19,219
3 Returned to non-defaulted status	(1,953)
4 Amounts written off	(4,846)
5 Other adjustments	(6,866)
6 Defaulted loans and debt securities at end of the reporting period (1+2+3+4+5)	80,602

Comments

Default Loans and debt securities increased by 7% compared to the 3Q22, in line with the increase in delinquecy over 90 days by individuals and micro and small companies and due to a specific case of Large Corporates.

Additionally, information on the credit quality of assets reported in table CR1, is shown in the CRB tables from "a" to "e".



Breakdown of exposures by geographical areas, industry and residual maturity (CRBa)

			Dec-22		
-		Contracts w	ith Remaining N	Maturity	
R\$ million	Up to 6	Between 6 months	Between 1 year	Above 5 years	Total
Economic Sector	months	and 1 year	and 5 years		TOLAL
Retail	36,436	11,459	23,779	610	72,284
Real Estate and Construction Activities	12,592	7,787	17,097	4,048	41,523
Transportation and Concession	13,950	5,473	19,324	4,316	43,062
Miscellaneous Services	16,731	7,116	13,532	1,659	39,039
Holding	18,887	1,594	4,865	3,864	29,21
Automotive industry	9,063	3,577	5,714	96	18,450
Financial	199,471	42,872	36,527	47,364	326,234
Wholesale	22,912	6,660	8,492	574	38,638
Electrical energy	8,559	3,969	14,842	2,342	29,713
Oil and Petrochemical	2,502	91	3,150	4,143	9,886
Steel and Metallurgy	5,741	1,378	4,491	336	11,945
Food Industry	14,791	2,835	4,572	2,371	24,570
Smoke and drinks	12,344	2,523	267	197	15,330
Paper and Pulp	6,100	3,059	1,542	2	10,704
Extraction	6,248	482	1,380	75	8,185
Telecommunications	8,478	231	626	2,729	12,064
Health	9,528	1,140	3,295	741	14,704
Sugar and ethanol	7,902	1,162	958	300	10,322
Chemistry	8,032	1,508	1,967	120	11,628
Construction Material	2,825	563	1,293		4,702
Leisure and tourism	2,407	1,158	2,035		5,655
Capital goods	2,236	1,279	1,974		5,68
Cooperative	2,445	2,099	1,368		6,72
Education	3,146	582	1,487		5,588
Hygiene and Cleaning Products	2,321	669	314	1	3,305
Textile	1,831	677	1,369		4,448
Appliances and electronics	3,774	730	471		5,018
General Industry	1,772	672	1,344	43	3,830
Trading	3,514	1,069	604	44	5,232
Information Technology	1,809	1,262	980		4,059
Agriculture	1,509	505	1,403		3,828
Packaging	2,937	541	,	5	4,22
Furniture and wood	782	631	1,208		2,762
Other sectors	10,521	7,190	18,229		36,989
Individual	135,554	89,261	100,575		482,703
\\ Total Exposure	599,648	213,805	301,813		1,352,234
Geographic Region	333,048	215,805	501,815	230,308	1,332,234
\\ Domestic Market	595 2 <i>65</i>	212.002	700 915	276 0.91	1,334,164
Southeast	585,265	212,002	300,815		
	330,404	127,767	189,815		774,33
South	40,497	20,028	35,324		117,707
North	9,171	5,958	10,502		33,952
Northeast	27,808	17,828	26,474		102,680
Mid-West	177,385	40,421	38,701		305,495
\\ Foreign Market	8,203		2,245		18,071
\\ Total Exposure	593,469	215,664	303,060	240,041	1,352,234



Total defaulted loans operations segregated by geographical areas and industry (CRBb)

		Dec-22	
R\$ million	[efaulted Loans	
Economic Sector	Total	Provision	Write-offs
Retail	8,680	7,700	51
Real Estate and Construction Activities	7,309	3,156	27
Transportation and Concession	5,159	2,232	8
Miscellaneous Services	2,710	2,003	18
Holding	4,701	1,069	
Automotive industry	116	81	
Financial	351	201	
Wholesale	1,054	753	8
Electrical energy	427	271	
Oil and Petrochemical	66	12	
Steel and Metallurgy	934	779	
Food Industry	390	289	
Smoke and drinks	60	51	:
Paper and Pulp	760	240	
Extraction	753	283	
Telecommunications	4,028	743	
Health	256	172	
Sugar and ethanol	901	796	
Chemistry	185	147	
Construction Material	264	223	
Leisure and tourism	714	498	
Capital goods	886	833	
Cooperative	3	2	
Education	294	209	
Hygiene and Cleaning Products	24	18	
Textile	523	293	
Appliances and electronics	162	128	
General Industry	392	307	
Trading	123	120	
Information Technology	123	73	
		116	
Agriculture	153		
Packaging	66	59	
Furniture and wood	135	104	1
Individual	132	101	10
Other sectors	37,784	24,619	3,2
\ Total Exposure	80,602	48,680	4,84
Geographic Region			
\ Domestic Market	77,684	47,277	4,80
Southeast	56,583	33,189	3,1
South	6,560	4,523	44
North	3,149	2,105	2
Northeast	7,421	4,887	6
Mid-West	3,972	2,573	3
\\ Foreign Market	2,918	1,403	3
\\ Total Exposure	80,602	48,680	4,84



Total past due loans exposures segmented by past due loans band (CRBc)

			Dec	-22					
	Past due operations								
R\$ million	Less than 30 days	Past due 31 to 90 days	Past due 91 to 180 days	Past due 181 to 365 days	Past due more than 365 days	Total			
Total	15,508	8,945	7,695	9,800	2,359	44,307			

Segregation of total restructured exposures (CRBd)

	Dec-2	2
	a	b
R\$ million	Defaulted Loans	Others
Total Restructured Exposures	30,702	3,652

Concentration (CRBe)

% From the total book	Dec-22
10 largest	6.2%
100 largest	15.8%

9.8. Details of Credit Risk Mitigation Exposures

Information regarding the amounts considered for prudential regulation purposes before and after the use of credit risk mitigation instruments, as established on Circular 3,809/16, are detailed in table CR3, in which the exposures are mitigated essentially by Fiduciary Assignment of Financial Investments, Fiduciary Assignment of Credit Bills, Pledge of Financial Investments, Credit Bills and Treasury Bills.

Credit risk mitigation techniques - overview (CR3)

		а	b	С	d	е
				Dec-22		
DĆ	million	Exposures unsecured	Exposures secured	Exposures secured by collateral, of which: secured amount	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1 1	Loans	577,359	34,943	3,299	31,643	
			54,545	5,255	,	
2	Debt securities	380,870	-	-	-	-
Ι	Off Balance sheet	142,422	316	316	-	-
	Others	325,936	-	-	-	-
3	Total	1,426,587	35,259	3,616	31,643	-
4	Of which defaulted	20,780	251	-	251	-

The exposure considers the Credit Conversion Factor (CCF) and mitigation, with 90% covered by financial guarantees and 10% by collaterals.

The effects of credit risk mitigation in the capital requirements calculation, according to Circular 3,809/16, are detailed in table CR4.



Standardised approach – credit risk exposure and Credit Risk Mitigation (CRM) effects (CR4)

		а	b	С	d	е	F
				Dec	-22		
			before CCF CRM		s post-CCF CRM	RWA and R	VA density
R\$	million	On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density [e/(c+d)]
1	Sovereigns and their central banks	419,251	-	419,251	-	1,413	0
2	Non-central government public sector entities (PSEs)	6,068	746	6,067	712	5,764	0.9
3	Multilateral development banks	2,400	-	2,400	-	-	-
4	Banks and other institutions authorized by the Central Bank of Brazil	57,300	9,688	57,300	5,189	28,588	0.5
6	Corporates	354,416	152,948	354,416	96,056	410,429	0.9
7	Regulatory retail portfolios	316,157	195,675	316,157	40,777	251,045	0.7
8	Loans and financing secured by residential property	66,692	-	66,692	-	23,391	0.4
9	Financing for commercial real estate construction	47	5	47	5	26	0.5
10	Equity	30,522	-	30,522	-	30,522	1
13	Other assets	66,255		66,255	-	54,120	0.8
14	Total	1,319,107	359,063	1,319,107	142,738	805,297	0.6

Comments

The RWA increase in relation to the 3Q22 was mainly in corporate exposures.

The exposures reported in table CR4 are detailed by category and weighting factor in table CR5. Both adopt the rules and procedures of BCB Circular 3,644/13.



Standardised approach – exposures by asset classes and risk weights (CR5)

							Dec-22				
	-				I	Risk wei	ght				000000
		а	b	С	d	е	f	f1	g	i	j
-	million	0%	10%	20%	35%	50%	75%	85%	100%	Others	Total credit exposures amount (post CCF and post-
As	set Classes										CRM)
1	Sovereigns and their central banks	412,321	-	6,839	-	91	-	-	-	-	419,251
2	Non-central government public sector entities (PSEs)	-	_	_	-	-	0	6,804	10	-	6,814
3	Multilateral development banks (MDBs)	2,400	-	-	-	-	-	-	-	-	2,400
4	Banks and other institutions authorized by the Central Bank of Brazil	6	_	8,846	-	53,638	-	-	_	_	62,489
6	Corporates	1,418	-	-	-	7,533	-	214,395	227,006	85	450,438
7	Regulatory retail portfolios Loans and financing	2,192	-	-	-	45,338	303,568	-	-	5,836	356,934
8		-	-	-	66,364	328	-	-	-	-	66,692
9	Financing for commercial real estate construction	-	_	_	-	52	-	-	_	-	52
10	Equity	-	-	-	-	-	-	-	30,522	-	30,522
13	Other assets	11,987	-	-	-	13	-	-	54,113	142	66,255
14	Total	430,323	-	15,685	66,364	106,993	303,568	221,199	311,651	6,062	1,461,846

Comments

Total exposure increased by 1.2% compared to 3Q22, mainly in corporates.





10. Counterparty Credit Risk

The counterparty credit risk, to which the Organization is exposed, is represented by the possibility of loss due to the counterparty default of their obligations relating to the settlement of operations involving bilateral flows, including the financial asset trading or derivatives.

The Organization exercises complete control over the replacement cost and the potential future exposure of operations involving counterparty risk. Thus, all exposure related to this risk is part of the general credit limits set for the Organization's customers.

In conclusion, the Counterparty Credit Risk management encompasses modeling and monitoring (i) of counterparties credit limits consumption, (ii) of the adjustment of parcel to the credit fair value of derivatives portfolio (CVA, Credit Value Adjustment) and (iii) of the respective regulatory and economic capital. The methodology adopted by the Organization, establishes that, exposition of the credit portfolio to a given counterparty, can be calculated from the Reposition Cost (RC) of its operations in different scenarios of the financial market, what is possible through the process of Monte Carlo simulation.

In risk management context, the Organization calculates the economic capital related to credit risk, in order to contemplate the portfolio of derivative segregated by counterparty, both for the definition of EAD (Exposure at Default) and CVA (Credit Value Adjustment).

Also in this context, the Organization conducts studies of capital projection, such as the Stress Test of the ICAAP (Internal Capital Adequacy Assessment Process) and TEBU (Bottom-Up Stress Test). These multidisciplinary programs minimally involve the Business areas and the Economic, Budget / Result and Risk departments.

Regarding the mitigation manners of the counterparty credit risk that the Organization is exposed, the most usual is the composition of guarantees like, deposits of margin and disposal of Government bonds, which are, performed by the counterparty in the Organization or in other custodian institution, which has its counterparties risks duly assessed.

In addition, from June 19th, the exposure value calculation related to counterparty credit risk arising from operations with derivatives financial instruments subject to the calculation of the capital requirement through a standardised approach (RWA_{CPAD}) was updated according the BCB Circular 3,904/18.

10.1. Details of Counterparty Credit Risk Exposure

Table CCR1 presents an overview of the approach used to calculate the capital requirement for counterparty credit risk in derivative transactions, repurchase agreements (repo) and asset loan transactions, and provide the main parameters employed, as established in Circulars 3,809/16, and 3,904/18.



Analysis of Counterparty Credit Risk (CCR) exposure by approach (CCR1)

		а	b	d Dec-22	е	f
RŚ	million	Replacement cost	Potential future exposure	Alpha used for computing regulatory EAD	EAD post- CRM	RWA
	SA-CCR Approach	9,423	5,757	1.4	21,252	17,762
	CEM (Current Exposure Method) Approach	-	-		-	-
3	Simple Approach for credit risk mitigation (for SFTs)				-	-
4	Comprehensive Approach for credit risk mitigation (for SFTs)				372,941	6,831
6	Total					24,593

Comments

Compared to the previous quarter, there was a reduction in operations with OTC derivatives and in repo operations.

Table CCR3 details the counterparty credit risk exposures in derivative transactions, repurchase transactions (repo) and asset lending transactions subject to the standardised approach, as established in Circular 3,644/13, by type of counterparty and risk weight factor.

Standardised approach of CCR exposures by regulatory portfolio and risk weights (CCR3)

	Dec-22									
		i								
R\$ million	а	b	С	d	е	e1	f	g	h	Total credit
Regulatory portfolio	0%	10%	20%	50%	75%	85%	100%	150%	Others	exposure
Sovereigns	95,556	-	-	-	-	-	-	-	-	95,556
Non-central government public sector entities (PSEs)	-	-	-	-	_	146	7	_	-	153
Multilateral development banks (MDBs)	-	-	-	-	-	-	-	-	-	-
Financial and other institutions authorized by the Central Bank of Brazil	32,081	-	521	1,776	-	-	-	_	-	34,379
Legal entities, except retail	235,957	-	-	-	-	15,006	10,626	-	-	261,589
Retail	-	-	-	-	-	-	-	-	-	-
Other	2,078	-	437	-	-	-	-	-	-	2,515
\\ Total	365,672	-	958	1,776	-	15,152	10,634	-	-	394,192

Comments

Compared to the previous quarter, there was a reduction in operations with OTC derivatives and in repo operations.



Table CCR5 details the types of collateral received or delivered in derivative transactions, repurchase transactions (repo) and asset lending, as established on Circular 3,809/16, including transactions carried out through central counterparties.

Composition of collateral for CCR exposure (CCR5)

	а	b	С	d	е	f
			De	ec-22	1	
	Collat	eral used in de	rivative transa	actions	Collateral u	sed in SFTs
		of collateral eived		e of posted ateral	Fair value of collateral	Fair value of posted
R\$ million	Segregated	Unsegregated	Segregated	Unsegregated	received	collateral
Cash – domestic currency	-	-	-	-	-	-
Cash – other currencies	-	36	-	69	-	-
Domestic sovereign debt	2,386	-	7,963	-	24,824	160,855
Other sovereign debt	-	-	-	-	-	-
Corporate bonds	-	-	-	-	2,618	9,059
Equity securities	-	-	-	-	-	-
Other collateral	-	-	-	-	-	-
\\ Total	2,386	36	7,963	69	27,442	169,914
	_,		1,000		,	,

Comments

In relation to the previous quarter, there was an increase in posted collateral and collateral received in repo operations.

Table CCR6 presents information on the notional and fair value of credit derivatives (transferred risk and received risk), before offsetting short and long positions.

CCR information regarding credit derivatives exposures (CCR6)

	a	b				
	Dec-22					
R\$ million	Protection bought	Protection sold				
\\ Notionals	1,424	5,735				
Single-name credit default	1,424	3,231				
swaps	1,424	5,251				
Index credit default swaps	-	-				
Total return swaps	-	2,504				
\\ Total notionals	-	-				
\\ Fair values	314	106				
Positive fair value (asset)	314	-				
Negative fair value (liability)	-	106				

Comments

In relation to the previous quarter, there was a decrease in credit derivatives exposures with protection sold and in protection bought.



Table CCR8 presents an overview of exposures to central counterparties.

CCR information regarding exposures to central counterparties (CCR8)

		a Dec-1	b 22
RŚ	million	EAD (post [.] CRM)	RWA
1	Exposures to QCCPs (total)		230
2	Exposures for trades at QCCPs (excluding initial margin and default fund contributions), of which:	8,896	178
3	(i) OTC derivatives	715	14
4	(ii) Exchange-traded derivatives	8,181	164
5	(iii) Asset loans and repurchase operations (repo)	-	-
I	(iv) Other operations	-	-
7	Segregated initial margin	7,963	
8	Non-segregated initial margin	-	-
9	Pre-funded default fund contributions	116	52
10	Unfunded default fund contributions	-	-
11	Exposures to non-QCCPs (total)		-
12	Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	-	-
13	(i) OTC derivatives	-	-
14	(ii) Exchange-traded derivatives	-	-
15	(iii) Asset loans and repurchase operations (repo)	-	-
11	(iv) Other operations	-	-
17	Segregated initial margin	-//	
18	Non-segregated initial margin	-	-
19	Pre-funded default fund contributions	-	-
20	Unfunded default fund contributions	-	-

Comments

In relation to the previous quarter, there was a reduction in exposures for trades at QCCPs and an increase in segregated initial margin.



SECURITISATION EXPOSURES

11. Securitisation Exposures

Securitisation is the process in which the cash flows associated with a set of underlying assets is used for the securities remuneration in accordance with the established governance process, using as a form of Balance Sheet composition.

The portfolio comprises CRA - Agribusiness Receivables Certificate, CRI - Real Estate Receivables Certificate and FIDC - Credit Rights Investment Funds, as shown below:

- CRA Agribusiness Receivables Certificate: Instructed by Law 11,076/2004, constitute a registered credit security, issued exclusively by securitisation companies and backed by Agribusiness Credit Rights;
- CRI Real Estate Receivables Certificate: Instructed by Law 9,154/1997, constitute a nominative credit title, freely negotiated, backed by real estate activities, covering transaction financing or improvements;
- FIDC Credit Rights Investment Funds: Complies with CVM instructions, with the pooling of resources allocating a preponderant portion of the respective shareholders' equity for investment in credit rights (sundry receivables).

Such transactions are consolidated in the Organization's Prudential Balance, according to the following categories:

- Trading Securities: Securities acquired for the purpose of being actively and frequently traded;
- Securities available for sale: Securities that do not fall under the categories of securities for trading and securities held to maturity;
- **Securities held to maturity:** securities that have the intention and financial capacity of the institution to hold them in portfolio until maturity.

Securitised operations with risk retention follow the criteria established by BCB Resolution 3,533/08, in which the seller or assignor retains substantially all the risks and benefits of ownership of the financial asset object of the operation.

The exposures are part of the securitization traditional type, which is the process in which the flow of receipts associated with a set of underlying assets is used for the remuneration of securitisation bonds.

In addition, in the past few years there has been no sale or transfer of assets without substantial risk retention. Since all the assigned operations were subject to substantial risk retention.

11.1. Special Purpose Entity (SPE)

The Special Purpose Entity (SPE) has the institution as a sponsoring counterpart and implicit support, securitised operations with substantial retention of risks and benefits. Below, the SPE(s) that have the Organization as a sponsoring counterpart:

SPE(s)	Consolidation	Activity	Total Assets Dec/22
CIBRASEC - Cia Brasileira de Securitização de Crédito	N/A	Securitisation	R\$ 4,272,535,864.18



SECURITISATION EXPOSURES

11.2. Details of Securitisation Exposures

The total of exposures assigned with substantial risk retention in the last 12 months, which have been honored, repurchase, or written off for losses, broken down by quarter, is detailed below:

Total exposures assigned with substantial risk retention, in the last 12 months (SECAe)

R\$ r	nillion	Oct-22 to Dec-22		Apr-22 to Jun-22	Jan-22 to Mar-22
1	Total exposures assigned with substantial risk retention	8	7	11	16
2	Total honored exposures	-	-	-	-
3	Total repurchased exposures	8	7	11	16
4	Total write-off	-	-	-	-

Securitisation exposures in the banking book (SEC1)

The following table provides information on securitisation exposures classified in the banking book.

		а	С	d	е	g Dec-22	h	i	k	ι	
		Bank a	cts as orig	ginator	Bank a	Bank acts as sponsor			Banks acts as investor		
R\$	million	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	Traditional	Synthetic	Sub-total	
1	Retail (total), of which:	-	-	-	-	-	-	-	-	-	
2	residential mortgage	-	-	-	-	-	-	-	-	-	
3	credit card	-	-	-	-	-	-	-	-	-	
4	other	-	-	-	-	-	-	-	-	-	
5	re-securitisation	-	-	-	-	-	-	-	-	-	
6	Wholesale (total), of which:	-	-	-	-	-	-	1,339	-	1,339	
7	loans to corporates	-	-	-	-	-	-	1,324	-	1,324	
8	commercial mortgage	-	-	-	-	-	-	15	-	15	
9	lease and receivables	-	-	-	-	-	-	-	-	-	
	other re-securitisation	-	-	-	-	-	-	-	-	-	

Comments

In relation to the previous quarter, there was a decrease in Credit Rights Funds.

Securitisation exposures in the trading book (SEC2)

Information on securitisation exposures classified in the trading book, which the Organization does not have exposures for this database.



SECURITISATION EXPOSURES

Securitisation exposures in the banking book and associated regulatory capital requirements – bank acting as originator or as sponsor (SEC3)

Information on securitisation exposures classified in the banking book and the associated regulatory capital requirements when the bank is acting as originator or as sponsor, which the Organization does not have exposures for this database.

Securitisation exposures in the banking book and associated capital requirements – bank acting as investor (SEC4)

Information on securitisation exposures classified in the trading book and the associated regulatory capital requirements when the bank is acting as originator or as sponsor.

		а	b	С	d	е	h Dec-22	i	l	m	р	q
	-			sure va RW ban			Exposure (by regu appro	latory	RWA regula appro	tory	Capi charge ca	after
R\$	million	≤20%	20% < RW < 50%	50% ≤ RW < 100%	100% ≤ RW < 1,250%	1,250%	SA	1,250%	SA	1,250%	SA	1,250%
-	Total exposures	-	942	-	396	-	1,339	-	632	-	51	-
2	Traditional securitisation, of which:	-	942	-	396	-	1,339	-	632	-	51	-
3	Securitisation:	-	942	-	396	-	1,339	-	632	-	51	-
4	retail underlying assets	-	-	-	-	-	-	-	-	-	-	-
6	non-retail underlying assets	-	942	-	396	-	1,339	-	632	-	51	-
8	Re-securisation:	-	-	-	-	-	-	-	-	-	-	-
9	Synthetic securitisation, of which:	-	-	-	-	-	-	-	-	-	-	-
10	Securitisation:	-	-	-	-	-	-	-	-	-	-	-
11	retail underlying assets	-	-	-	-	-	_	-	-	-	-	-
12	non-retail underlying assets	-	-	-	-	-	-	-	-	-	-	-
13	Re-securisation:	_	_	_	_	_		_	_	_	_	_

Comments

In relation to the previous quarter, there was a decrease in Credit Rights Funds.



12. Market Risk

Market risk is represented by the possibility of financial loss due to fluctuating prices and market interest rates of financial instruments held by the Organization, as its asset and liability transactions may show mismatched amounts, maturities, currencies and indexes.

Market risk is identified, measured, mitigated, controlled and reported. The Organization's exposure profile to market risk is in line with the guidelines established by the governance process, with limits timely monitored on an independently way from the businesses areas.

All transactions that expose the Organization to market risk are mapped, measured and classified according to probability and magnitude, and the whole process is approved by the governance structure.

In line with the best Corporate Governance practices, to preserve and strengthen the management of market risk in the Organization, as well as to meet the requirements of CMN Resolution 4,557, the Board of Directors approved the Market Risk Management Policy, reviewed at least once a year by the competent committees and the Board of Directors itself, providing the main operational guidelines for accepting, controlling and managing market risk. In addition to this policy, the Organization has several specific rules that regulate the market risk management process, as follows:

- Classification of Operations;
- Reclassification of Operations;
- Trading of Government and Private Bonds;
- Use of Derivatives; and
- Hedge.

12.1. Strategies used in Market Risk Management

12.1.1. Limit Definition

The trading book market risk limit proposals are validated by specific committees, ratified by the Integrated Risk Management and Capital Allocation Committee and submitted for approval by the Board of Directors.

Trading Book: it comprises all operations involving financial instruments, including derivatives, held-fortrading or used to hedge other instruments in the Trading Book, which have no trading restrictions. Heldfor-trading operations are those destined for resale, to obtain benefits from actual or expected price variations, or for arbitrage. The risks of this portfolio are monitored through of:

- Value at Risk (VaR);
- Stress (negative impact measure of extreme events, based on historical and prospective scenarios);
- P&L (profit and loss); and
- Financial Exposure / Concentration.

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12.1.2. Market Risk Measurement Models

Market risk is measured and controlled using the Stress, Value at Risk (VaR) and Sensitivity Analysis methodologies, as well as limits for the Management of P&L and Financial Exposure. Using several methodologies to measure and evaluate risks is of great importance, because they can complement each other and their combination allows the analysis of different scenarios and situations.

Trading and Regulatory Books

Trading Book risks are controlled, principally, using Stress and Value at Risk (VaR) methodologies. The Stress methodology quantifies the negative impact of economic shocks and extreme economic events that are financially unfavorable to the Organization's positions, the analysis uses stress scenarios prepared by the Market Risk area and the Organization's Economic area based on historical and forward looking data for the risk factors in which the Organization holds a position.

The methodology adopted to calculate VaR is the Delta-Normal, with a confidence level of 99% and considering the number of days necessary to unwind the existing exposures. The methodology is applied to the Trading and Regulatory Books (Trading Book positions plus Banking Book foreign currency and commodities exposures). It is worth noting that the historical simulation and the Delta–Gama–Vega models are applied to measure all risk factors to an options portfolio, whichever is the most conservative. A minimum 252-business-day period is adopted to calculate volatilities, correlations and historical returns.

For regulatory purposes, the capital requirements relating to shares of the Banking Book Prudential Conglomerate are determined through the credit risk evaluation, as per Central Bank of Brazil resolution, i.e., they are not considered in assessing market risk.

12.1.3. Hedge and Use of Derivatives

In order to standardize the use of financial instruments used to hedge the operations and use of derivatives by the Treasury Department, the Organization created specific rules that were approved by the competent Committees.

The hedge operations executed by Organization's Treasury Department must necessarily cancel or mitigate risks related to mismatches quantities, terms, currencies or indexes of the positions in Treasury's books, for which they must use assets and derivatives authorized to be traded in each of their books to:

- Control and classify the operations, respecting the exposure and risk limits in effect;
- Alter, modify or revert positions due to changes in market and operating strategies; and
- Reduce or mitigate exposure of operations in idle markets, under stress or low liquidity conditions.



12.1.3.1. Hedge Accounting

Implemented in order to reduce the volatility of the accounting result, hedge accounting ensures that a gain or loss on a hedge instrument is recognized in the result in the same period in which the hedged item affects the result.

Transactions with derivative financial instruments for hedging are classified in one of the following categories:

- Market risk hedge: financial instruments classified in this category, as well as their related financial assets and liabilities, hedged, have their gains and losses, realized or unrealized, recorded in the income statement;
- Cash flow hedge: financial instruments classified in this category have an effective portion of the recorded valuations or devaluations, net of tax effects, in an account detach in shareholders' equity. The non-effective portion of the respective hedge is recognized directly in the income statement; and
- Net investment hedge abroad: the financial instruments classified in this category are intended to protect the foreign exchange variation of investments abroad, whose functional currency is different from the national currency, being accounted for in accordance with the accounting procedures applicable to the cash flow hedge category cash, that is, with the effective portion recognized in equity, net of tax effects, and the non-effective portion recognized in income for the period.

For derivatives classified in the hedge accounting category, there is the following: (i) effectiveness of the strategy, through prospective and retrospective effectiveness tests, and (ii) mark-to-market of hedge instruments.

12.1.3.2. Standardized Derivatives and Continued Use Derivatives

The Organization's Treasury Department may use standardized derivatives (traded in stock exchanges) and continued use derivatives (traded in over-the-counter markets) to obtain results and create hedges. The derivatives classified as continuous use, ordinarily traded in over-the-counter markets, such as vanilla swaps (interest rates, currencies, Credit Default Swap, among others), forward contracts (i.e., currencies), vanilla options (currency, Bovespa Index), among others. Non-standardized derivatives not classified as continued use or structured operations depend upon the authorization of the competent Committee.

12.2. Market Risk Management Process

The market risk management process is conducted in a corporate manner, comprising from business areas to the Board of Directors. It involves diverse areas, with specific duties in the process, thereby ensuring an efficient structure, and the measurement and control of market risk is conducted in a centralized and independent manner. This process allowed the Organization to be the first financial institution in Brazil authorized by Central Bank of Brazil to use, since January 2013, its internal market risk models to calculate regulatory capital requirements. This process, approved by the Board of Directors, is also revised at least once a year by the Committees and the Board itself.



12.2.1. Control and Monitoring

Market risk is controlled and monitored by an independent area, the Integrated Risk Control Department (DCIR), which, on a daily basis, measures the risk of outstanding positions, consolidates results and prepares reports required by the existing governance process.

In addition to daily reports, Trading Book positions are discussed on a fortnightly basis by the Treasury Executive Committee, in this meeting, results and risks are assessed and strategies are discussed. Both the governance process and existing thresholds are ratified by the Integrated Risk Management and Capital Allocation Committee and submitted to approval of the Board of Directors, and they are revised at least once a year.

In case of any threshold controlled by the Integrated Risk Control Department (DCIR) being exceeded, the Head of the business area responsible for the position is informed that the threshold was reached, and the Integrated Risk Management and Capital Allocation Committee is called upon in a timely fashion to make a decision. If the Committee decides to raise the threshold and/or maintain the positions, the Board of Directors is called upon to approve the new threshold or revise the strategy position.

12.2.2. Internal Reporting

The Market Risk area provides daily managerial control reports on the positions to the business areas and Senior Management, in addition to weekly reports and periodic presentations to the Board of Directors.

Reporting is conducted through an alert system, which determines the addressees of risk reports as a previously determined risk threshold percentage is reached; therefore, the higher the risk threshold consumption, more Senior Management members receive the reports.

12.3. Main Features of Models Used

12.3.1. Value at Risk – VaR

The methodology adopted to calculate VaR is the Delta-Normal, with a confidence level of 99%, and for the managerial model, the horizon applied takes into account the number of days necessary to dispose of existing exposures. The methodology is applied to the Trading and Regulatory Books (Trading Book positions plus Banking Book foreign currency and commodities exposures). In additional, the historical simulation and the Delta–Gama–Vega models are applied to measure all risk factors to an options portfolio, whichever is the most conservative, with this option risk added to the Portfolio's VaR. It is worth noting that this calculation is carried out daily and, for the regulatory model, the value at risk is extrapolated to the regulatory time horizon (greater between 10 days and the portfolio horizon), through the root of time method.



12.3.2. Stressed VaR – sVaR

The Stressed VaR (sVaR) is calculated daily in order to replicate the VaR calculation that would be obtained in a given historical period of stress, but using the Organization's current portfolio. The volatilities and correlations are calculated as of January 2005 for the risk factors present in the current portfolio, and the model for calculating the volatilities and correlations adopted by the Organization, specifically for the Stressed VaR, does not use decay. Once the history of volatilities and correlations is found, the current position VaR is calculated considering the historical parameters, making it possible to determine the date on which the highest VaR for the portfolio was obtained. The selected stress date will also be applied to the Stressed VaR of the options portfolio. The verification of the stress period to be used in the sVaR calculations is carried out monthly. Besides that, similarly to the daily VaR, the Stressed VaR is also extrapolated to the regulatory time horizon (greater between 10 days and the portfolio horizon) through the root of time method and its pricing approach detailed in item 12.3.7 Financial Instrument Pricing.

12.3.3. VaR Internal Model – Backtesting

The risk methodology applied is continuously assessed using backtesting techniques, which compare the one-day period VaR with the hypothetic and effective results.

In the hypothetical view, the result is calculated through the revaluation of positions at new market prices, assuming the maintenance of the portfolio from one day to the next. In the effective view, the impacts of positions reevaluation, the results of new operations carried out during the day, day trades and other items not related to market price variations, for example, fees, commissions and brokerage costs, are considered.

The main purpose is to monitor, validate and assess the adherence of the VaR model, and the number of disruptions occurred must be compatible with the number of disruptions accepted by the statistical tests conducted for the certain confidence level. Another objective is to improve the models used by the Organization through analyses carried out for different periods and VaR confidence levels, both for Portfolio Total VaR and risk factor.

12.3.4. Models – Utilization in the Prudential Conglomerate

The measurement and control of risks associated with the Trading and Regulatory portfolios is carried out in an analogous and joint manner for all companies that comprise the Organization's Prudential Conglomerate.

12.3.5. Differences between Management Model and Regulatory Model

Of a managerial nature, the stress analysis seeks to quantify the negative impact of shocks and extreme economic events that are significantly unfavorable to the Organization and that are not captured by other market risk measures, such as VaR Delta-Normal, for example. On the other hand, the regulatory model used for stress scenarios is the sVaR, whose objective is to replicate the VaR calculation that would be done in a given historical period of stress, but using the institution's current portfolio.

Also, due to the size of some positions, the Organization, in its management model, seeks to quantify the number of days necessary for a given position to be liquidated or hedged, this assessment being made by risk factor. In light of this, its management model makes use of liquidity factors, calculated daily, to calculate VaR. Such methodology differs from that addressed in the regulatory model, since in the latter, a window corresponding to the highest value between 10 working days and the portfolio horizon is adopted, with this window being fixed and the same for all instruments in the portfolio.



12.3.6. Volatility, Correlation and Return

The model adopted by the Organization to estimate volatility is the Exponentially Weighted Moving Averages (EWMA), with daily update, considering in its calculations the continuous return of 1 working day. To estimate the volatility for the reference date, a w252 working days window is used, starting on the working date immediately before the reference date. The parameter related to the weight given to each return is the exponential decay factor, which determines the rate at which past returns lose importance in volatility calculation. To estimate the most appropriate portfolio' decay factor, at least a biweekly study is carried out, based on the main risk factors that make up the Trading Portfolio plus currency and commodity exposures. Regarding the sample size, a minimum 252 working days window is adopted for the determination of volatilities and correlations.

As for the volatility, the model adopted by the Organization to calculate the correlation is the EWMA, with daily update, emphasizing that the daily returns, the sample size (252 working days) and the decay factor are the same adopted for the calculation volatility. As determined by BCB Circular 3,674, and in accordance with governance approved by the Committee, the highest value between VaR calculated with a decay factor (assigns greater weight to the most recent returns) and VaR without a decay factor (returns have equal weights).

12.3.7. Financial Instrument Pricing

To adopt the best market prices related to the assessment of financial instruments' market value, was established the Mark-to-Market Commission (CMM), which is responsible for approving or submitting mark-to-market models to the Market and Liquidity Risk Commission. CMM is composed of business, back-office and risk representatives, and the risks area responsible for the coordination of the Commission and for the submission of the matters assessed to the Risk Management Executive Committee, for reporting or approval, whichever is the case.

Whenever possible, the Bank adopts prices and rates practiced by the Securities, Commodities and Futures Exchanges and the Secondary Markets. Should these market references not be found, prices made available by other sources (such as Bloomberg, Reuters and Brokerage Firms) are used. As a last option, proprietary models are adopted to price instruments, which also follow the Mark-to-Market Commission (CMM) approval procedure and are submitted to the Organization's validation and assessment processes.

Mark-to-market criteria are periodically reviewed, according to the governance process, and may vary due to changes in market conditions, creation of new classes of instruments, establishment of new sources of data or the development of models considered more appropriate.

The financial instruments to be included in the Trading Book must be approved by the Treasury Executive Committee or the Product and Service Executive Committee and their pricing criteria must be defined by the CMM.



The following principles for the mark-to-market process are adopted by the Organization:

- **Commitment:** The Organization is engaged in guaranteeing that the prices used reflect the market value of the operations. Should information not be found, the Organization will use its best efforts to estimate the market value of the financial instruments;
- **Frequency:** the formalized mark-to-market criteria are applied on a daily basis;
- **Formality:** the CMM is responsible for ensuring the methodological quality and the formalization of the mark-to-market criteria;
- **Consistency:** the process to gather and apply prices is carried out consistently, to guarantee equal price to a type of instrument within the Organization;
- **Transparency:** the methodology must be accessible by the Internal and External Audit and Independent Model Validation areas and by Regulatory Agencies.

In December 2014, the Brazilian National Monetary Council published Resolution 4,389, which amended Resolution 4,277. These resolutions set forth the basic procedures that entities must follow in pricing financial instruments to market value and the guidelines to apply prudential adjustments to these instruments. According to the abovementioned procedures, the Organization is already aligned with these resolutions' guidelines, including applying due prudential adjustments required by regulations.

12.4. Details of Market Risk Exposures

The MR1 table provides the components of the capital requirement under the standardised approach – SA (RWA_{MPAD}) for market risk.

Market risk under the standardised approach (MR1)

		a		
		Dec-22	Sep-22	Dec-21
R\$	million	RWA _{MPAD}	RWA _{MPAD}	RWA _{MPAD}
1	Interest rate	5,002	7,555	5,691
1a	Fixed Rate in Reais (RWA _{JURI})	1,261	2,646	949
1b	Foreign Currency Coupon (RWA _{JUR2})	977	1,623	2,636
1c	Price Index Coupon (RWA _{JUR3})	2,764	3,286	2,106
1d	Interest Rate Coupon (RWA _{JUR4})	-	-	-
2	Shares (RWA _{ACS})	937	988	20
3	Foreign exchange (RWA _{CAM})	1,784	2,054	1,704
4	Commodity (RWA _{COM})	552	673	778
9	Total	8,275	11,270	8,193

Comments

In relation to the previous period, the main factor that contributed to the decrease in the Market Risk RWA for the standardised approach (RWAMPAD) was the reduction in fixed rate and foreign currency coupon exposures.





The MR2 table provides the components of the capital requirement under the internal model approaches – IMA (RWA_{MINT}) for market risk, according to Circular 3,646/13, for calculating the capital requirement.

RWA_{MINT} flow statements of market risk exposures under an IMA (MR2)

		а	b	е		f			
		Dec-22							
RŚ	million	VaR	Stressed VaR	Other	Total				
1	RWAmint at previous data base (Sep-22)	3,955	4,645		-	8,600			
2	Movement in risk levels	(298)	(364)		-	(662)			
3	Updates/changes to the internal model	-	-		-	-			
4	Methodology and regulation	-	-		-	-			
5	Acquisitions and disposals	-	-		-	-			
6	Foreign exchange movements	(5)	(9)		-	(13)			
7	Other	17	21		-	38			
	Regulatory Adjustment	(400)	1,282		-	881			
8	RWAmint at end of reporting period (Dec-22)	3,269	5,574		-	8,844			

Comments

Compared to the previous period, the main factor that contributed to the increase in the Market Risk RWA for the internal model approach (RWAMINT) was the increase of the average exposure in inflation coupon rates and shares.

MR3 table, display the values (maximum, average, minimum and end of quarter) resulting from the IMA.

IMA values for trading portfolios (MR3)

		a		
R\$ m	illion	Dec-22	Sep-22	Dec-21
\\ V a	aR (10 day 99%)			
1	Maximum value	83.0	95.1	78.5
2	Average value	46.7	61.5	42.5
3	Minimum value	33.2	37.8	16.4
4	Quarter end	63.1	37.8	30.7
\\ si	ressed VaR (10 day 99%)			
5	Maximum value	192.3	105.4	130.0
6	Average value	79.2	72.4	78.2
7	Minimum value	41.5	53.0	27.4
8	Quarter end	70.1	53.0	40.7

Comments

The increase in exposure to inflation coupon rates influenced the quarter end VaR, compared to the previous period.

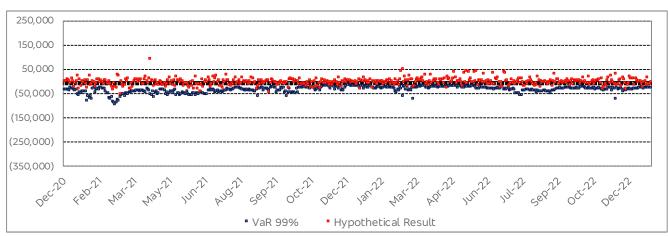
The MR4 table presents a comparison of the results of estimates from the regulatory VaR model with both hypothetical and actual trading outcomes, in market risk RWA determined under the IMA, according to Circular 3,646/13.



Comparison of VaR estimates with gains/losses (MR4)

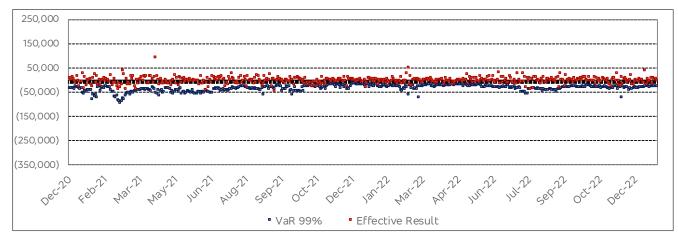
The following two graphs show the VaR of the Regulatory Portfolio for 1 day and the hypothetical and effective results, calculated daily. The actual result includes fees, brokerage, emoluments and commissions.

The Organization uses an internal market risk model, so the capital requirement associated with the model is 100%.



Daily VaR and Hypothetical Regulatory Result

Daily VaR and Regulatory Effective Result



	R\$ thousand								
Opening date			Hypothetical Result	Reasons					
06/17/21	50,630	52,722	54,559	Interest rate curve rises after Copom signals greater monetary tightening.					
09/09/21	34,490	44,830	45,033	Manifestations on September 7th and higher-than-expected inflation increase risk aversion.					
10/29/21	18,457	24,019	18,669	Market concern with fiscal responsibility leads to a rise in the yield curve and losses in Brazilian assets.					
04/22/22	17,647	17,260	23,771	Risk aversion driven by the prospect of further monetary tightening by the Federal Reserve Bank.					



Total exposure associated with derivatives is presented in the table below.

Total exposure associated with derivatives (OPD)

	а	b	С	d	е	f	g	h		
R\$ million	Dec-22									
Position			Long		Short					
Risk Factor	Central Counterparty Non Central			Counterparty	Central Counterparty Non Central Counterpar			Counterparty		
	Brazil	Abroad	Brazil	Abroad	Brazil	Exterior	Brazil	Abroad		
1 Interest Rate	44,497	1,202	96,307	17,470	(145,998)	(1,010)	(74,339)	(16,408)		
2 Exchange Rate	8,202	1	46,758	12,562	(35,151)	-	(36,705)	(14,493)		
3 Stock Prices	18	-	231	526	(1.411)	-	(1,827)	(1,219)		
4 Commodities Prices	-	-	124	443	(84)	-	(400)	(68)		

Comments

Trading and Banking Book Derivatives.



INTEREST RATE RISK IN THE BANKING BOOK

13. Interest Rate Risk in the Banking Book (IRRBB)

The interest rate risk in the banking book (IRRBB) can be understood as the possibility of an institution being negatively impacted in its results and in its capital, due to eventual variations in the level of interest rates and their respective impacts on the bank portfolio.

Banking Book: it comprises operations not classified in the Trading Book, arising from Organization's other businesses and their respective hedges.

13.1. IRRBB Management Process

The interest rate risk in the Banking Book is measured and controlled, mainly, using the Economic Value of Equity (EVE) variation methodologies, and the Net Interest Income (NII), which respectively measure, the economic impact on the positions and the impact on the result of the Organization, according to scenarios prepared by the Organization's economic area. These scenarios determine the positive and negative movements of interest rate curves that may affect Organization's investments and capital raising.

The EVE methodology consists of re-pricing the portfolio subject to interest rate variation based on increases or decreases in the rates used to calculate the present value and the total term of assets and liabilities. Thus, the economic value of the portfolio is calculated both based on the market interest rates on the analysis date as well as on scenarios projected. Thus, the difference between the amounts obtained for the portfolio will be Δ EVE.

For NII, the methodology aims to determine the variation in the net interest income of the Organization (gross margin), due to eventual variations in the level of interest rate, in other words, the difference between the NII calculated in the base scenario and the NII calculated in the increase or decrease of the interest rate scenario, will be Δ NII.

To measure the interest rate risk in the Banking Book, assumptions related to the customer behavior are used when necessary. As a reference, for demand and savings deposits with undetermined maturity, it is studied their historical behaviors and the possibility of maintaining them. Through these studies, are defined the stable amount (core portion), as well as, its criteria for the long-term allocation.

13.1.1. Calculation Metrics

All the mentioned metrics are calculated to meet the Governance of the Treasury for Asset and Liability Management Executive Committee, which provides for a fortnightly measurement. The reassessment of the shock scenarios occurs after each meeting of the Monetary Policy Committee (COPOM). If necessary, due to some specific demand, it is also possible to update the calculation in other periods.



INTEREST RATE RISK IN THE BANKING BOOK

13.1.2. Shock and Stress Scenarios

In addition to the standardized scenarios defined by the Regulator, the Organization's shock scenario generation process, used by the internal model in IRRBB calculating, includes quantitative approaches, based on statistical studies and simulations, as well as a prospective approach, which is under the direct responsibility of Studies and Economic Research Department (DEPEC), with review by the Stress Testing Technical Commission – COTES.

The analysis period is between January 2004 and the end of the month prior to the revaluation of the scenario. This cut-off date was chosen so that, simultaneously: (i) capturing the most recent period of Brazilian economy, considering the various structural changes that occurred and the consequent downward trend of variables under analysis; and (ii) to capture the 2008 global crisis, which, by characterizing a period of stress per se, includes most of the maximum fluctuations observed in the risk factors in question.

13.1.3. IRRBB Measurement

Internal Model

The Organization has, in addition to the standardized methodology defined by the regulator, its own internal models that consider assumptions similar to the regulatory model. Among these assumptions, the following stand out:

- The Non Maturity Deposits (NMDs) are based on statistical studies that take into account evolution and behavior historical;
- Shocks are elaborated by the Studies and Economic Research Department (DEPEC), reviewed by the Stress Testing Technical Commission – COTES and validated by the Treasury for Asset and Liability Management Executive Committee based on historical data, statistical studies and prospective analyzes;
- Shareholders' equity is used to calculate metrics.

Modeling and Standardization

We chose to consider the average spread of each product in the discount rate used in the calculation of its present value, that is, the discount rate includes the risk-free rate with the addition of the respective product spread.

The prepayment and early redemption models were based on statistical studies considering harvests and historical evolution of each product.

It is also important to mention that the internal shock scenarios consider consistencies between the risk factors, so that all the results or sensitivities generated can be added up.

Non Maturity Deposits (NMD)

Regarding NMD, both the internal model and the regulatory model have a similar maturity profile according to statistical studies based on aggregate balances. However, the regulatory model respects the average term defined by Circular 3,876.



INTEREST RATE RISK IN THE BANKING BOOK

13.1.4. Hedge and Use of Derivatives

The assets and liabilities mismatches management generated by the Organization's business in Brazil and abroad, in addition to hedging external assets, is carried out based on the analysis of the political-economic, national and international scenarios.

The results, strategies, behaviors and risks of mismatches and indexes maintained by the Organization are monitored and endorsed by the Treasury for Asset and Liability Management Executive Committee.

Asset and Liability management seeks to adjust the accounting treatment of the operations used for hedging with the behavior of the underlying assets and liabilities, in addition to aligning the strategic objective of maintaining the hedge.

13.2. IRRBB Details

The following table provides the variation metrics of Economic Value (Δ EVE) and variation of the result of financial intermediation (Δ NII), as established in Circular 3,876/18, under each of the prescribed interest rate standardized scenarios.

Quantitative information on IRRBB (IRRBB1)

R\$ million	ΔΕΥ	E	ΔΝΠ			
Period	Dec-22	Dec-21	Dec-22	Dec-21		
Parallel up	10,346	10,125	6,321	6,093		
Parallel down	(9,825)	(13,638)	(6,297)	(7,481)		
Short rate up	10,653	10,453				
Short rate down	(11,432)	(12,084)				
Steepener	(5,981)	(6,061)				
Flattener	8,318	8,091				
Maximum	10,653	10,453	6,321	6,093		
Period	Dec-	22	Dec-21			
\\ Tier 1 capital	120,6	24	130,565			

Comments

The metrics were relatively stable in the period, without relevant oscillations.



SOCIAL AND ENVIRONMENTAL RISK

14. Social and Environmental Risk

Social and environmental risk refers to the potential damage that an economic activity can cause to society and the environment. Those risks associated with financial institutions are mainly indirect ones, arising from business relationships, including those in the supply chain and with customers, in the form of financing and investment activities.

14.1. Social and Environmental Risk Management Process

The social and environmental risk management process relies on a governance structure composed of committees, policies, rules and procedures, which proactively ensure proper identification, measurement, mitigation, monitoring and reporting of this risk. This process complies with BCB Resolutions and observes the principles of relevance and proportionality, which are necessary in view of the complexity of the Organization's financial products and the nature of its activities.

The Organization seeks to constantly incorporate and improve the criteria for managing the social and environmental risk arising from business relationships with customers, through credit and financing operations, with the application of a questionnaire that addresses environmental, social and governance aspects, in addition to analyzes of guarantees, suppliers and investments, which make up the scope of analysis reflected in the Organization's Social, Environmental and Climate Risks Standard.

The Organization assumed several commitments related to environmental and social aspects, such as the Carbon Disclosure Project (CDP), the Principles for Responsible Investment (PRI), the Business Charter for Human Rights and the Promotion of Decent Work (Ethos), the United Actions for the Environment (UNEP-FI), the Global Compact, among others.

Equator Principles

The Organization also is signatory to Equator Principles since 2004, which assesses, among other requirements, the working conditions, human rights, impacts on traditional communities and the environment of the projects financed by the Organization, observing the Brazilian legislation and the guidelines of the International Finance Corporation (IFC) and World Bank Group Health, Safety, and Environment Guidelines.

Implementation Process of Equator Principles

For implementation, the Financial Advisory and Project Finance service is provided by Banco Bradesco de Investimentos – BBI, with the support of the Social and Environmental Risk Control area, part of Integrated Risk Control Department (DCIR), which aims to present the content, application and benefits of compliance with Equator Principles by the proposed project.

Transactions involving Project Finance, Project Related Corporate Loans and Bridge Loans are structured mainly for the Corporate customers, which is responsible for obtaining and registering business by means of credit proposals. The economic and financial aspects of these proposals are analyzed by the Credit Department and social and environmental risk is assessed by the Social and Environmental Risk Control Area.

The Social and Environmental Risk Control area assesses proposals, analyzes documents, and categorizes projects under Equator Principles classifications of High Risk (Category A), Moderate Risk (Category B) or Low Risk (Category C). It then issues an opinion on social and environmental risk, according to the guidelines contained in the principles:



SOCIAL AND ENVIRONMENTAL RISK

- **High Risk (Category A)** Projects with potential for significant risks and/or social or environmental impact, which are multiple, irreversible or unprecedented.
- Moderate Risk (Category B) Projects with potential for limited risks and/or social or environmental impact, in small numbers, limited in area, easily reversible and speedily controlled by mitigation measures.
- Low Risk (Category C) Projects with no or very little risk or negative social or environmental impact, or with minimal, reversible risks that can be mitigated.

Loan agreements for transactions approved according to the established internal flow contain social and environmental obligations, which are monitored periodically.

14.2. Control and Monitoring

Credit Operations

The Organization oversees the process of analysis, approval, documentation and subsequent monitoring of transactions covered by Equator Principles. To this end, the following items are analyzed:

- Project Finance Advisory Services for transactions exceeding US\$ 10 million;
- Project Finance for transactions exceeding US\$ 10 million;
- Corporate Project Lending where:
 - a) the greater part of the loan is directed towards a single project over which the customer has effective operating control;
 - b) the total value of the transaction exceeds US\$ 50 million;
 - c) the Organization's individual commitment (as a union member) is exceeds US\$ 50 million; and
 - d) the loan has a duration over two years.
- Bridge loans for less than two years to be refinanced by Project Finance or Corporate Project Lending;
- Refinancing Related to Projects and Acquisition Financing Related to Projects where:
 - a) The referred Project was financed in accordance with the Equator Principles framework;
 - b) There was no significant change in the scale or scope of the Project;
 - c) The physical completion of the project had not yet occurred at the time of signing the credit or loan agreement.

In addition to complying with Equator Principles, the Organization also obeys a set of criteria applying to social and environmental issues in credit analysis for projects where there is potential social or environmental risk.

This analysis includes checking for the existence of contaminated areas, embargoed areas, licenses, certificates and environmental studies. These information help to identify potential social and environmental risks, to be discussed with the customers.

Decisions taken by the Executive Credit Committee take into consideration social and environmental risks as well as other economic and financial aspects. Once a loan has been approved, negotiations take place with the customer and the loan agreement will include social and environmental obligations. Thereafter,



SOCIAL AND ENVIRONMENTAL RISK

projects that represent potential social and environmental risks are regularly monitored to ensure that these contractual obligations are fulfilled.

The subjects related to social and environmental risk are discussed in the risk management forums. In a complementary manner, the Sustainability and Diversity Committee establishes the Corporate Sustainability Policy, and helps senior management to define strategies where involving organizational sustainability and reports to the Board of Directors.

Supply Chain

The Organization conducts a Social and Environmental Assessment for suppliers, to ensure that social and environmental risks in the supply chain are minimized. Under this program, suppliers are constantly and permanently assessed for compliance with environmental, labor and occupational health and safety legislation, and with the international standards and internal guidelines adopted by the Organization.

14.2.1. Transactions required from Equator Principles (October to December 2022)

In the fourth quarter of 2022, the Advisory and Financing Services for Project Finance were not contracted, as well as Corporate Loan to Projects under the criteria of Equator Principles.

14.3. Internal Reporting

The topics relating to the analysis and monitoring of social and environmental risks are reported to the areas involved in the credit transaction and supplier processes, being regularly reported to the Executive Board and to the Board of Directors.



CLIMATE RISK

15. Climate Risk

Climate risk represents the possibility of financial losses for the Organization due to the potential impacts of climate change. These results can derive from physical impacts caused by events such as floods, storms, frosts, landslides, water stress, temperature increase, among others. The set of changes that have such consequences are termed physical risks.

In response to increasing climate related events, regulatory and social responses are rising and tend to amplify and increase efforts aiming to prevent climate change from worsening. This set of initiatives constitute the transition to a low carbon economy, a productive structure for which the volume of greenhouse gas emissions must be drastically reduced in comparison to current levels. To accelerate this transition and mitigate the physical effects, it is expected that there will be changes in market dynamics, regulation and technologies, in addition to an increasing level of organizations accountability for their role and performance in the agenda. The risks associated with this process are known as transition risks.

Climate risk, when associated with financial institutions, is mostly indirect and results from business relations with customers and suppliers.

15.1. Climate Risk Management Process

The management of climate risk has a governance structure composed of committees, policies, rules and procedures, which enable the identification, classification, and monitoring of such risks in accordance with BCB Resolutions. The procedures are also in line with relevance and proportionality principles that are necessary given the complexity of the Organization's financial products and activity profile.

The process is reflected within the Social, Environmental and Climatic Standard, which includes the analysis scope defined by the Organization and consists of identifying, classifying and monitoring climate risk levels. This assessment is being incorporated into the credit granting process for corporate loans. Additionally, the Bank's corporate loan portfolio exposure to the potential impacts of climate change by sector is monitored.

15.2. Initiatives and Commitments

The Organization is committed to a series of climate related initiatives with emphasis on the Net Zero Banking Alliance (NZBA), Principles for Responsible Investment (PRI), in addition to being a signatory to the Global Compact and participating in the United Nations Environment Programme Financial Initiative (UNEP-FI). Since 2019, Bradesco participated in sectoral initiatives focused on the development of methodologies and tools for managing climate risks for the banking industry, in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

15.3. Internal Reporting

The topics related to analysis and monitoring of climate risk are reported to the areas involved in credit granting and supplier processes, being regularly reported to the Executive Board and the Board of Directors.



MODEL RISK

16. Model Risk

Models are quantitative tools that provide the complex issues synthesis, standardization and automation of decision making. The use of models to support business decision-making is an increasingly frequent practice, as it improves efficiency both by reducing the costs associated with analysis and manual decision, as well as by precision.

However, when it comes to reality simplifications, the models are subject to risks, represented by the possibility of losses due to models with failures or deficiencies in the development process, or inappropriate use.

16.1. Model Risk Management Process

To mitigate and control model risk there is a suitable structure of roles and responsibilities, with the involvement of several areas. These areas, in an integrated manner, act to identify, inventory, evaluate, classify and monitor the models, as well as report to Senior Management.

In the Organization, this process is coordinated by the Model Management area, located in the Compliance, Conduct and Ethics Department, which is divided into two main activities: Models Governance and Independent Validation of Models.

Models Governance

It's main role is the establishment of rules aiming the procedures standardization, management of the models inventory of the Organization, the evaluation and classification of model risk and the establishment of the governance, control and reporting process.

Independent Validation of Models

The main purpose of the Independent Model Validation Area – AVIM, is to assess whether the models are working as expected as well as whether their results are suitable to the use, which they have been designed for.

The Independent Models Validation adopts a methodology that includes quantitative and qualitative aspects, assessing the adaptation of processes, governance, construction of models and their assumptions and the use and monitoring of models.



MODEL RISK

16.2. Model Risk Methodology

The model methodology comprises the relevance classification of each model: Tier I, Tier II or Tier III, with Tier I being the most relevant and Tier III, the lowest. This classification occurs through the analysis of three dimensions, being the impact on decisions, materiality and complexity of the model. The model classification determines its prioritization and the criticality, which it will be assessed: review frequency, challenge forms, as well as the required control levels or minimum requirements to be met for model risk mitigation.

The assessment approach of the model risk is through a qualitative analysis through the main dimensions that make up the models. The dimensions are: methodology, data, technology environment, performance and governance. In assessing these dimensions, a rating model is assigned that will result in one of the five levels: Minimal Risk, Low Risk, Moderate Risk, High Risk, and Very High Risk.

16.3. Control and Monitoring

The Model Management area defines the independent validation methodology and also prepare validation schedule based on prioritization criteria (Tier), which are approved by the Integrated Risk Management and Capital Allocation Committee.

Additionally, the report of model risk monitoring is carried out by the Risk Monitoring Executive Committee and Risk Management Executive Committee, the last one responsible for discussing and formalizing the methodologies for controlling and evaluating model risk.



OPERATIONAL RISK

17. Operational Risk

Operational risk is represented by the possibility of losses resulting from failure, deficient or inadequate internal processes, people, systems, or external events.

17.1. Operational Risk Management Process

The Organization adopt the Three Lines model, which consist on identify and assign specific responsibilities to the Departments in a way that the essential tasks of operational risk management are carried out in an integrated and coordinated manner. Therefore, the following activities are carried out:

- Identify, evaluate and monitor operational risks inherent to the Organization activities;
- Assess the inherent operational risks to new products and services in order to adapt to legislation and procedures and controls;
- Map and treat the operational losses records to compose the internal databases;
- Supply analyzes that provide quality information to the Departments, aiming the operational risk management improvement;
- Evaluate scenarios and indicators for the purpose of economic capital composition and Organization's risk map improvement;
- Operational risk regulatory and economic capital assessment and calculation; and
- Report the operational risk and its main aspects reporting in order to support the Organization's strategic decisions.

These procedures are supported by an internal controls system, independently certified as to their efficacy and execution, in order to achieve risk appetite limits established by the Organization.

17.2. Operational Risk Methodology Measure

Pursuant to Central Bank of Brazil Circular 3,640/13, the Organization adopted the Alternative Standardised Approach to calculate the risk-weighted assets corresponding to the Operational Risk (RWA_{OPAD}).

Moreover, the Organization uses the operational losses internal data, which are used to measure the operational risk economic capital based on internal models. In this context, the Organization classifies the operational risk events as follows:



OPERATIONAL RISK

■ Internal Fraud	Damage to physical assets owned or in use by the institution
External Fraud	 Failures in information technology (IT) systems, processes or infrastructure
Labor demands and poor workplace safety	Failures in the execution, in meeting deadlines or in the management of the institution's activities
 Inappropriate practices regarding customers, products and services 	Situations that lead to the institution's activities interruption

Operational Risk Events

Another component that is part of economic capital calculation, and its information is used to analyze scenarios and compare operational losses events against major global banks, are the external data and, therefore, the Organization uses an operational losses database of worldwide consortium called Operational Riskdata Exchange (ORX).

17.3. Control and Monitoring

The operational risk is mainly controlled and monitored by the Integrated Risk Control Department (DCIR), an independent area supported by several areas composing the risk management process.

17.4. Internal Reporting

Issues related to operational losses, as well as controls and initiatives adopted for their mitigation, are presented and discussed periodically with the areas involved in the operational risk management process, including the Senior Management.



BUSINESS CONTINUITY MANAGEMENT

18. Business Continuity Management (BCM)

The Organization establish the Business Continuity program according to ABNT NBR ISO 22301, which defines as "the ability of the Organization to keep on delivering goods or services according to previously defined and acceptable levels after disruption incidents".

The procedures adopted after a disruption, which must ensure an acceptable operational level for critical business processes – whether internal or outsourced –, are included into a Business Continuity Plan (BCP) or in a defined continuity strategy whose purpose is to recovery the activities reducing potential impacts for our customers.

The organizational and the governance structures established regarding Business Continuity include policies and standards that define the roles and responsibilities that must ensure the update and efficiency of the plans and strategies in use through the application of tests and exercises in business units on a regular basis. This process also takes into account the critical processes carried out by service providers who are considered "Material Providers Parties".

These policies and standards are in line with the Central Bank of Brazil regulations and the recommendations of the Basel Committee on Banking Supervision. Business Continuity Management process is under the responsibility of the Business Continuity Management area, part of Integrated Risk Control Department (DCIR).

18.1. Business Continuity Management Process

The business continuity management process is carried out in a corporate and integrated manner, in order to accomplish the annual cycle of this activity in the Organization. According to this process, the units must:

- Review business processes based on the Business Impact Assessment (BIA) on a timely basis;
- Assess Business Continuity strategies;
- Keep all plans duly reviewed and updated in a corporate tool;
- Promote awareness on Business Continuity to the persons involved in the activities;
- Test all plans and strategies according to the annual planning;
- Analyze the outcomes and make the adjustments and improvements required;
- Identify, assess and handle all continuity procedures that involve providers and systems that are deemed material for the unit's activities.

The business continuity actions are developed internally, based on the best practices issued by the key international entities in the sector: DRI International (USA) and BCI – Business Continuity Institute (UK). It also takes into account national rulings and frameworks, such as ABNT NBR ISO 22301 and ABNT NBR ISO 22313 standards.

18.2. Control and Monitoring

All stages of the Management process are controlled and followed up through tests and exercises, whose results are assessed and provided to the respective departments and to forums of the Organization, making available to the Regulatory Agencies, and Internal and External Audits.

18.3. Internal Reporting

All communication actions are accessible to all departments and employees through: Policies and Standards on Business Continuity and Material Providers, available at the Normative system; On-line training programs offered in the corporate intranet system; Meetings held with BCM Representatives; and awareness trainings.



CORPORATE CRISIS MANAGEMENT

19. Corporate Crisis Management

A "crisis" is characterized as the occurrence of an adverse event extremely rare, unstable and complex that may result in a relationship deterioration with stakeholders and also, represent a potential threat to strategic objectives, reputation or even the Organization existence.

19.1. Corporate Crisis Management Process

The corporate crisis management process contributes so that any signs of crisis are timely identified, evaluated, classified according to their severity, in order to actions are promptly taken to reestablish the normal activities course and strengthen the Organization's operational resilience.

The corporate Crisis Management process comprises the following stages:

- Prevention: Identify vulnerabilities and develop scenarios that could result in a crisis;
- Preparation: Develop crisis response plans and conduct training;
- Response: Trigger crisis management and execute response plans;
- **Recovery:** Identify opportunities to improve processes and crisis management plans.

In order to harmonize the severity of a crisis perception, the Organization established 4 'Impacts Levels' that support the resources optimization and dimensioning of the necessary efforts in light of the event that is presented, being low, medium, high or critical impact.

19.2. Corporate Crisis Management Structure

The corporate crisis management structure comprises a robust control process, composed by forums that support the Crisis Management Executive Committee in decision-making, informing and proposing necessary actions and reporting the effectiveness of the actions taken.

19.3. Internal Reporting

The internal communication of corporate crisis management is carried out in a timely manner, through the issuance of newsletters and reports to the Crisis Management Executive Committee and other involved areas.

As necessary, the Organization carries out timely communication with stakeholders informing about the occurrence, ongoing actions and guidance to customers.



STRATEGY RISK

20. Strategy Risk

The strategy risk is represented by the deterioration possibility in results, capital and/or strategic indicators (in relation to plan) due to business decisions not according with the strategy, inadequate decisions in the process of implementation, as well as lack and/or insufficient reaction to changes in the business environment.

20.1. Strategy Risk Management Process

The strategy risk management process is carried out in a corporate and integrated manner, comprising the identification, classification, control and reporting of risks that may compromise the achievement of the Organization's strategic objectives.

The Organization bases its works on four pillars – client, our inspiration; people, our team; digital transformation, how we do it; and sustainability, made to last – that support the corporate purpose of create opportunities for the progress of people and the sustainable development of companies and society.

The management of strategy risk is carried out periodically by monitoring the strategic pillars risk, considering the assessment of strategic objectives and initiatives, critical success factors, competitive advantage and disadvantage, opportunities and threats, among other aspects.

Strategy risk management is supported by Policy and Standard, which describe the assessment scope, methodology and governance of strategy risk, in line with the Organization's guidelines.

20.2. Control and Monitoring

The control and the monitoring are carried out by DCIR and are supported by the Organization's governance structure, made up of Executive Committees where the methodologies for managing and accessing strategy risk are formalized.

20.3. Internal Reporting

The matters related to the analysis and monitoring of strategy risk are periodically reported to the appropriate Executive Committees and to the areas involved in the process of managing this risk.



STEP-IN RISK

21. Step-in Risk

Step-in risk is represented by the possibility of financial loss resulting from the Organization's (contractual or non-contractual) relationships with controlled, affiliated companies, parallel structures, parent companies, investment funds, foundations, suppliers and unconsolidated partners in the Prudential Conglomerate.

21.1. Step-in Risk Management Process

The Organization, in view of the complexity and variety of its activities, interacts with several entities not present in the consolidation of the financial statements and, therefore, is also exposed to various types of risks, whether they arise from internal or external factors.

The step-in risk management process is carried out in a corporate and integrated manner, comprising the evaluation of unconsolidated relationships in the Prudential Conglomerate, in which, regardless of whether or not there is participation in the capital, they may generate a need for a future financial contribution, even if there is no legal or contractual obligation to do so, other than the possibility of impacting the Organization's reputation. With this in mind, this process contributes so that any signs of contagion are identified in a timely manner, evaluated and classified according to their severity, so that actions are promptly adopted in order to subsidize Senior Management in decision-making.

Therefore, the Organization recognized this theme in the Step-in Risk Policy and Guideline, which deals with the scope of assessment, methodology and governance of step-in risk. The methodology comprises a set of financial indicators, the control environment, management and materiality of the entity that aim to capture the probability and impact of a potential step-in risk of the assessed entity, resulting in classification in one of the following levels: Minimum, Low, Moderate, High and Very High.

21.2. Control and Monitoring

The Organization's step-in risk is controlled and monitored by the Step-in Risk Area at the Integrated Risk Control Department - DCIR. The Department is responsible for the Risk Control Commission, where aspects related to methodology, governance and monitoring of step-in risk are discussed. This Commission also advises the Risk Monitoring Executive Committee, where the step-in risk monitoring is reported and also advises the Risk Management Executive Committee, where the methodologies for controlling and assessing the step-in risk are formalized.

21.3. Internal Reporting

Matters related to step-in risk events are reported periodically in the Organization's risk control forums, in a timely manner, including timely communication with stakeholders.



CYBER SECURITY RISK

22. Cyber Security Risk

Represented by the possibility of cyber incidents, including attacks, intrusions and leakage, that could compromise the confidentiality, integrity and/or availability of the Organization's critical business processes, assets and/or infrastructure.

22.1. Cyber Security Risk Management Process

The cyber security risk management framework aims to ensure governance compatible with the Organization's size, risk profile and business model, so that critical IT assets and infrastructure are able to resist cyber attacks. This structure is adopted in a corporate manner and involves Organization's several areas, which have specific attributions, ensuring an efficient structure in the control and mitigation of these risks, allowing them to be identified, measured, manage and communicated, contributing to the achievement of strategic objectives.

To ensure the proper management of cyber security risk, which allows for an adequate assessment of risks and support managers and Senior Management in decision-making, the Organization is based on the pillars of Information Security and Cybernetics:

- **Confidentiality:** With proper classification, encryption, access controls and network segmentation so that the right to read, copy and use information is granted only when necessary and to authorized persons, protecting the Organization against misuse or data leakage;
- Availability: With proper backup, contingency and redundancy procedures, so that critical business
 processes can be performed properly, protecting the Organization's assets against the cyber
 attacks that deplete the capacity of the technology infrastructure and cause instability, deactivation
 or unavailability services;
- Integrity: With proper authentication, traceability and data protection controls to ensure accuracy, consistency and reliability of information, protecting the Organization's assets against malicious software or cyber attacks that cause data to be corrupted, altered or destroyed.

The above principles are followed in adopting the best market practices in processes, methodology and controls for the identification and management of cyber security risk, as well as the prevention and treatment of information security and cyber incidents. For this, the following activities are carried out:

- Threat Identification: Detect and identify threats and vulnerabilities, as well as identify and assess
 risks and define potential scenarios that could affect the Organization's cyber environment. This
 stage also comprises the continuous governance indicators monitoring that contribute to improve
 the trends identification and anticipate possible incidents;
- Protection Against Attacks: Take preventive actions to mitigate or transfer cyber security risk and safeguard critical assets, such as information and cyber security awareness and training, as well as implement security updates, protection against viruses, files and malicious software, managed and periodically updated;
- Attack Detection: Timely monitor and identify the risk materialized in attacks or information leakage, with monitoring tools and investigation processes that inform those responsible for response actions;
- Attack Response and Recovery: Record, analyze the origin and relevant incidents effects, duly
 detailed actions in specific Incident Management regulations, defining the criticality assessment,





CYBER SECURITY RISK

designation of persons responsible and expected action to contain the incident, restore the assets and mitigating the impacts in addition to guiding the actions to be taken in the post-incident to support decision-making that prevents the new similar attacks occurrence.

22.2. Cyber Security Risk Methodology Measure

The Organization uses internal and external information sources about new threats types, vulnerabilities and cyber attacks, in addition to market standards such as ISO/IEC 27005:2018 - Information Security Risk Management, NIST Cybersecurity Framework - NIST CSF (Guide to Improving Cyber Security for Critical Infrastructure) and the Information Security Forum (ISF) for the development of an internal cyber security risk assessment model.

The three lines model adopted by the Organization to carry out the stages of cyber security risk management, consists of identify, classifying the risk and ensure that the responsible areas plan and execute the assigned risk mitigation plans so that the essential tasks of management are carried out in an integrated and coordinated manner.

Incident Severity Graduation

Information and cyber security incidents are graded according to the severity factors defined in an "Information and Cyber Security Incident Severity Matrix", which considers the potential impacts to customers, employees and other related parties, financial, regulatory, reputational, availability of systems or services and the data privacy of holders.

Tactical Actions Group for Information and Cyber Security Incidents (GATI)

The GATI, a multidisciplinary group, aims to conduct the technical analysis and direct timely measures during the security incidents handling of greater severity and potential impacts to the Organization and, also, to support and monitor, in a collegiate manner, the actions and decision-making related to the incident.

Hiring Relevant Service Providers

For data processing and storage and cloud computing service providers classified as a relevant service, there is an information security assessment, as established by CMN Resolution 4,893/2021.





CYBER SECURITY RISK

22.3. Control and Monitoring

The Organization's Cyber Security Risk is controlled and monitored by the Risk Control Commission, where aspects related to methodology, governance and monitoring of cyber security risk are discussed. This Commission advises the Risk Management Executive Committee, where methodologies for cyber security risk control and assessment are formalized, and these topics are occasionally submitted to the Integrated Risk Management and Capital Allocation Committee. Additionally, cyber security risk monitoring is reported to the Risk Monitoring Executive Committee.

In this context, we highlight the monitoring by the Executive Committee of AML/CFT - Sanctions and Information Security - Cyber, supported by the Corporate Security Commission.

In compliance with CMN Resolution 4,893/21, the Organization uses various means such as internal policies and standards revised annually, training and awareness activities in information and cyber security, communication of threats and incidents to stakeholders, Information Security and Cybernetics indicator management process, issuing an annual report, in addition to independent effectiveness tests and periodic carried out in key controls to control and monitor cyber security risk.

22.4. Internal Reporting

Matters related to cyber security risk events are reported periodically in the Organization's risk control forums, in a timely manner, including timely communication with stakeholders.



COMPLIANCE RISK

23.Compliance Risk

It is the risk arising from legal or administrative sanctions, financial losses, reputational damage and others due to non-compliance or failure to observe the legal framework, the infralegal regulation, the recommendations of regulatory bodies and of self-regulatory organizations and ethical conduct codes applicable to the developed activities by the Organization.

23.1. Management Process

The Organization adopts the three lines model, which consists of identifying and assigning specific responsibilities to areas so that essential compliance risk management activities are carried out in an integrated and coordinated manner. In this way, the following activities are carried out:

- Advising the Organization on compliance matters;
- Promoting acculturation actions and promote training and awareness programs on compliance issues;
- Establishment rules and procedures aimed at the Organization's adherence to the Code of Ethical Conduct and to external rules on conduct with the customer, market and anti-corruption;
- Evaluating the legal and regulatory aspects concerning the Organization's products and services;
- Coordination the service to the demands of regulatory bodies, counterparties and correspondent banks;
- Identification, assessment and monitoring compliance risks inherent to the Organization's activities;
- Management the Expected Conduct Program;
- Monitoring and new regulations disclosing and legislation applicable to the Organization's activities; and
- Monitoring the implementation of policies and procedures.

These procedures are aligned with the compliance activities management cycle, distributed in actions focused on strategy, prevention, detection, response and remediation and reporting.

23.2. Control and Monitoring

Compliance risk is primarily controlled and monitored by an independent area, the Compliance, Conduct and Ethics Department – DCCE, and is supported by several areas that are part of the risk management process.

23.3. Internal Reporting

Matters related to compliance are presented and discussed periodically with the areas involved in the compliance risk management process, including the Senior Management.



24. Administrators Compensation

24.1. Remuneration Committee

The Committee shall be composed of three (3) to seven (7) members, chosen from among the members of the Banco Bradesco S.A.'s Board of Directors, except for one (1) member that will be, necessarily, a non-manager, all with two (2) year term of office, and one of them shall be designated as Coordinator.

This Committee has as purpose to assist the Board of Directors in the conduct of the administrator's compensation policy, pursuant to the current legislation.

The Remuneration Committee is composed of the following members (base date December/2022):

Members	Function	
Alexandre da Silva Gluher	Coordinator	
Maurício Machado de Minas	Member	
Samuel Monteiro dos Santos Junior	Member	
Fábio Augusto Iwasaki	Non-Managing Member	

24.2. Remuneration Structure

24.2.1. Compensation Policy

Its objective policy:

- To assure that the remuneration practice is in accordance with the legislation, principles and regulations that control the matters, based on Administrators responsibilities, considering their different positions and functions; the time dedicated to their functions; the professional competency and reputation, considering their experience and qualification; and the value of their services in the market;
- To provide the alignment between the Administrator's remuneration practices and the Organization's interests, so that the decisions made are the best possible, aiming to create value for its shareholders and investors; and
- To guarantee that the remuneration practice is related to objectives that seek the Organization's appreciation, not motivating behaviors that increase the exposure to risks considered above a prudent level, in the short, mid and long term adopted strategies.

The Compensation Policy is revised once a year; the last revision being carried out in March 2022.

24.2.2. Assessment Process

24.2.2.1. Corporate Assessment Process

The uniformity in the treatment of work areas is one of the keys for the Organization's effectiveness, as a manner to inhibit individualism, maintaining a good work environment favourable for teamwork.



The Organization maintains a collegiate management culture, in which all relevant decisions, business or administrative ones, are made by committees composed, primarily, by Administrators.

Thus, even with the establishment of targets and goals for all areas, individually, for the compensation purpose, the overall performance of the Organization prevails, making no segregation of area, whether it is considered a support or business area, technical or relationship area.

This overall performance, denominated in the Corporate Rule as Corporate Assessment Process takes into consideration the outcome of performance indicators, as follows:

- ROAE Return On Average Equity;
- Overall Customer Satisfaction Index;
- Tier I Ratio;
- Operating Efficiency Ratio (ER);
- Social and Environmental Dimension of Market Indexes; and
- Coverage Ratio.

24.2.2.2. Individual Assessment Process

The individual performance of the Administrators, as well as their corresponding areas, is accompanied by their respective superiors, according to the formal evaluation process, in compliance with the requirements of CMN Resolution 3,921/10.

For the formal assessment process, specific indicators are defined for areas and for individual assessment, according to the Administrator's functions, taking into account the business areas, control areas and other support areas.

For **areas assessment**, at least the following groups of indicators are considered:

- Main activity actions: are indicators that suggest the target and goals of the main activities of the area;
- Actions focused on operational efficiency: are indicators that measure the operational efficiency, in order to maximize their results with minimum use of resources;
- Actions directed to risk management: are corporate indicators that measure exposure to risks and internal controls, properly monitored by the responsible Area (Integrated Risk Control Department - DCIR);
- Actions directed to customer service: are indicators that assess the results/levels of satisfaction of internal and/or external customers; and
- Actions directed to socio and environmental aspects: are indicators that assess the degree of compliance with the Strategy of Corporate Sustainability, in conducting the area objectives, considering ESG aspects (Environmental, including Climate Change, Social and Governance) and the performance in the main Sustainability Indexes and Ratings.

For **individual assessment**, at least the following indicators are considered:

 Quality of products/services: aims to evaluate the quality standards of products/services offered/rendered according to the area of the Administrator assessed;



- **Commitment to strategy:** aims to evaluate if its performance reflected positively with material contributions to the Strategic Planning in the period;
- **Participation in collegiate decisions:** aims to evaluate the active participation in summoned meetings and committees, with opinions that contributed to the submitted decisions;
- Team leadership: evaluates the team management process;
- Planning: assesses the ability to plan the activities of their area in the medium and long-term;
- **Overview:** evaluates, mainly, the Administrators' vision about future trends to meet the market demands; and
- Applies to the Board of Directors and its respective members, if suitable, the indicator listed above.

The Administrators performance assessment of the internal control and risk management areas must be based on the achievement of the objectives of their own functions and not specifically on the overall performance of the Organization. Internal control and risk areas within the Organization are considered, the Integrated Risk Control Department – DCIR and the General Inspectorate Department – IGL, as well as the related areas of the other companies of the Bradesco Organization.

24.2.3. Remuneration X Organization Objectives

One of the guidelines of the Administrators Compensation Policy is ensuring that the practice of remuneration is related to goals that value Bradesco Organization and the individual, not encouraging behaviors that increase the exposure to risks above the levels considered prudent in the strategies of short, medium and long-term adopted by the Bradesco Organization.

As a result, by means of the payment of fixed remuneration, Bradesco seeks, in the short-term, to align the interests of administrators to its.

In order to encourage the alignment of medium-term interests, Bradesco can realize the payment of variable remuneration to its managers, as detailed in chapter 24.2.4, that will be deliberated after verifying the satisfaction of the specific indicators.

24.2.4. Remuneration of the Board of Directors and Executive Board

The remuneration structure of Bradesco's Administrators, composed of fixed remuneration (monthly remuneration) and variable remuneration (multiple fixed compensations), in consonance with the guidelines established in its Administrators Compensation Policy, which takes into consideration the requirements of CMN Resolution 3,921/10 and, in addition, the post-employment benefit in the Supplementary Pension Plan, aim to align the interests of administrators with Bradesco's projects and results.

The remuneration composition of the Board of Directors and Executive Board is detailed below:

- **Fixed Remuneration or Monthly Remuneration:** monthly fixed remunerations established for the period of the Administrator's term;
- Variable Remuneration: amount attributed to the Administrators, as performance remuneration, in addition to the Fixed Remuneration, based on the target criteria and performance indicators. It is important to highlight that the total Variable Remuneration will be paid on a date to be defined by the Board of Directors, and 50% (fifty per cent) of the net value of the Variable Remuneration will be in cash and 50% (fifty percent) allocated to the acquisition of PN shares (Preferred Shares) issued by Bradesco or PNB shares issued by BBD Participações S.A (a member of Bradesco's control group), which are recorded and unavailable ("Restricted Shares"). The Restricted Shares are subject to



adjustments if there is a significant reduction in Bradesco's recurring realized profit, or if the financial result is negative, during the deferral period, which become available in 3 (three) equal, annual and successive installments, the first installment being due one year after the date of acquisition of the shares;

- **Overall Amount:** includes the total remuneration (fixed and variable remuneration);
- Additionally, the administrators are entitled to a Pension Plan that aims to ensure their performance in line with the continuity of business and the creation of long-term value for the Organization. This system binds the administrators to a cautious management and in line with the long-term risks, leading to an increase in the amounts distributed to the Organization's shareholders.

For the definition of the global amount of remuneration, the Organization observes the following criteria:

 Organization Remuneration Committee: proposes to the Board of Directors the Global Amount of remuneration (Monthly Remuneration and Variable Remuneration). The payment of the Variable Remuneration will observe the criteria of goals and performance indicators to be established and will be limited to the Global Amount, to be distributed to the Administrators.

To define the Overall Remuneration Amount (Monthly Remuneration and Variable Remuneration), the Remuneration Committee shall observe the following aspects:

- Size and result of the company compared to its competitors;
- Domestic and international economic conditions, considering the past, present and future scenarios;
- Internal and external factors that may affect the Bradesco Organization's businesses (current and potential risks); and
- The Organization's overall performance, involving recurring realized profits and the ability to generate cash flows.

The Remuneration Committee will use other indicators when deemed necessary and appropriate. In addition, it will use studies, evaluations, surveys and other materials prepared by the technical areas, such as the Studies and Economic Research Department – DEPEC, Controllership Department, General Accounting Department and Integrated Risk Control Department – DCIR, besides other departments the Committee deem convenient.

- Board of Directors: the Organization's top management body, which is responsible for evaluating the Remuneration Committee's proposals and deliberating on them;
- **General Shareholders' Meeting:** it is incumbent upon the General Shareholders' Meeting to approve the Overall Amount of the Company's remuneration.

Once all the steps of determining and approving the Overall Amount of remuneration have been fulfilled, it is the responsibility of Bradesco's Board of Directors to define the remuneration of each of its Managers, composed of Monthly Remuneration and, based on the fulfilment of the target criteria and indicators, Variable Remuneration.



24.3. Remuneration attributed

REM1: Remuneration awarded during the financial year

The table below shows the remuneration attributed to the senior management and members of the board of directors during the reference year.

R\$ n	nillion		а	b	
			2022		
		Remuneration amount	Senior management	Board of Directors	
1		Number of employees (qty)	150	11	
2	Fixed remuneration	Total fixed remuneration (3 + 4 + 5)	303	28	
3		Of which: cash-based	303	28	
4		Of which: shares or other share-linked instruments	-	-	
5		Of which: other forms	-	-	
6		Number of employees (qty)	150	11	
7		Total variable remuneration (8 + 10 + 12)	537	46	
8		Of which: cash-based	268	23	
9	Variable	Of which: deferred	-	-	
10	remuneration	Of which: shares or other share-linked instruments	268	23	
11		Of which: deferred	268	23	
12		Of which: other forms	-	-	
13		Of which: deferred	-	-	
14 '	Total remunerati	on (2 + 7)	840	74	

REM2: Special payments

The Organization does not practice extraordinary payments to employees dismissed.

REM3: Deferred remuneration

The table below shows the total deferred remuneration during the reference year.

	а	b	С	d	е
Deferred Remuneration (R\$ million)	of outstanding deferred	Of which: Total amount of outstanding deferred and retained remuneration exposed to ex post explicit and/or implicit adjustment	the year due to ex	Total amount of amendment during the year due to ex post implicit adjustments	
\\ Senior management	171	171	-	-	59
Cash	-	-	-	-	-
Shares	171	171	-	-	59
Cash-linked instruments	-	-	-	-	-
Others	-	-	-	-	-
\\ Board of Directors	35	35	-	-	12
Cash	-	-	-	-	-
Shares	35	35	-	-	12
Cash-linked instruments	-	-	-	-	-
Others	-	-	-	-	-
\\ Total	206	206	-	-	70





I. Appendix

The appendix described below are available on the Investor Relations website (bradescori.com.br – Market Information – Risk Management – Exhibits Pillar 3), as well as all the tables listed in this document.

Institutions Participating in the Prudential Conglomerate – IPCP

Show the scope of the publication, in addition to the Prudential Conglomerate's institutions, the following companies are also part of the consolidation.

Relevant Institutions – IREL

List of the main companies, with a direct and indirect interest, included in the accounting statements.

Equity Interests – PS

Information on the companies' equity interests.





II. Glossary

Α

ABNT – Associação Brasileira de Normas Técnicas (Brazilian Technical Standards Association)
 ACP – Adicional de Capital Principal (Additional CET1 buffer requirements)
 AML/CFT – Prevention and Combating of Money Laundering and to Terrorist Financing
 ANS – National Regulatory Agency for Private Health Insurance and Plans

ASF - Available Stable Funding

AVIM - Independent Model Validation Area

В

BBI – Banco Bradesco de Investimentos

BCB - Central Bank of Brazil

BCI - Business Continuity Institute

BCM - Business Continuity Management

BCP - Business Continuity Plan

BIA - Business Impact Assessment

С

CCF – Credit Conversion Factors

CCR – Counterparty Credit Risk

- **CEO –** Chief Executive Officer
- **CET1 –** Common Equity Tier I

CMM - Mark-to-Market Commission

- CMN National Monetary Council's
- **COAUD -** Board of Directors and the Audit Committee

COGIRAC - Integrated Risk Management and Capital Allocation Committee

- **COTES -** Stress Testing Technical Commission
- **CRA -** Agribusiness Receivables Certificate

CRI - Certificado de Recebível Imobiliário (Securitised Real Estate Loans)

- **CRM** Credit Risk Mitigation
- **CRO –** Chief Risk Officer
- CVA Credit Value Adjustment

D

DCCE - Compliance, Conduct and Ethics Department

- DCIR Integrated Risk Control Department
- **DEPEC –** Studies and Economic Research Department
- Е

EVE – Economic Value of Equity

GLOSSARY

F	
	FIDC – Fundo de Investimento em Direito Creditório (Credit Rights Investment Funds)
н	
	HQLA – High Quality Liquid Assets
Т	
	ICAAP – Internal Capital Adequacy Assessment Process
	IFC – International Finance Corporation
	IMA - Internal Model Approaches
	ISO – International Organization for Standardization
L	
	LCR – Liquidity Coverage Ratio
	LR – Leverage Ratio
Ν	
	NBR – <i>Norma Brasileira</i> (Brazilian Rule)
	NII – Net Interest Income
	NSFR – Net Stable Funding Ratio
	NZBA – Net Zero Banking Alliance
0	
	ORX – Operational Riskdata Exchange

Ρ

P&L – Profit and Loss

PRI - Principles for Responsible Investment

R

RAS – Risk Appetite Statement

RML - Reserva Mínima de Liquidez (Minimum Liquidity Reserve)

RSF - Required Stable Funding

RWA – Risk-Weighted Assets

RWA_{CPAD} – Risk-weighted assets portion relating to credit risk, standard approach

RWA_{MPAD} – Risk-weighted assets portion relating to market risk, standard approach

RWA_{MINT} – Risk-weighted assets portion relating to market risk, internal approach

RWA_{OPAD} - Risk-weighted assets portion relating to operational risk, standard approach

S

SA - Standardized Approach

SUSEP - Superintendence of Private Insurance

Т

TCFD – Task Force on Climate-related Financial Disclosures



U

UK – United Kingdom

UNEP-FI – Principles for Responsible Investment

USA – United States of America

V

VaR – Value at Risk



