

RESOLUTION CMN 4,557 OF FEBRUARY 23, 2017

Provides for the implementation of a structure for risk management and a structure for capital management.

The Central Bank of Brazil, in the form of art. 9 of Law 4,595 of December 31, 1964, announces that the National Monetary Council, at its meeting held on February 23, 2017, based on art. 4, item VIII of this Law, art. 2, section VI, and art. 9 of Law 4,728 of July 14, 1965, art. 20, paragraph 1 of Law 4,864 of November 29, 1965, art. 7 and art. 23, sub-item “a” of Law 6,099 of September 12, 1974, art. 1, item II of Law 10,194 of November 14, 2001, art. 6 of Decree-Law 759 of August 12, 1969, and art. 1, paragraph 1 of Complementary Law 130 of April 17, 2009,

RESOLVES:

Art. 1. This Resolution provides for the implementation of a structure for risk management and a structure for capital management.

CHAPTER I SCOPE OF APPLICATION

Art. 2. Financial institutions and other institutions licensed by the Central Bank of Brazil that are allocated to Segment 1 (S1), Segment 2 (S2), Segment 3 (S3) or Segment 4 (S4), as defined in Resolution 4,553 of January 30, 2017, must implement, in accordance with arts. 5 to 60 and 65 to 67 of this Resolution:

I - a structure for continuous and integrated risk management; and

II - a structure for continuous capital management.

Paragraph 1. The structures mentioned in the heading must:

I - be commensurate with the business model, nature of operations and complexity of the institution’s products, services, activities and processes;

II - be proportional to the magnitude and materiality of risk exposures, according to criteria defined by the institution itself;

III - be adequate to the institution’s risk profile and systemic importance; and

IV - allow for the assessment of risks arising from the macroeconomic environment and the markets in which the institution operates.

Paragraph 2. Each management structure mentioned in the heading must be unified for institutions in a same prudential conglomerate, as defined in Resolution 4,280 of October 31, 2013.

Paragraph 3. The institutions mentioned in the heading must adopt a forward-looking stance in managing risks and in managing capital.

Art. 3. Institutions licensed by the Central Bank of Brazil that are allocated to Segment 5 (S5), as defined in Resolution 4,553 of 2017, must implement a simplified structure for continuous risk management in accordance with arts. 61 to 67 of this Resolution.

Paragraph 1. The simplified structure mentioned in the heading must:

I - be commensurate with the business model, nature of operations, and complexity of the institution's products, services and activities;

II - be proportional to the magnitude and materiality of risk exposures, according to criteria defined by the institution itself; and

III - be adequate to the institution's risk profile.

Paragraph 2. The management structure mentioned in the heading must be unified for institutions in a same prudential conglomerate, as defined in Resolution 4,280 of 2013.

Art. 4. A credit cooperative system may implement a centralized risk management structure and a centralized capital management structure, regardless of the categories its cooperatives are allocated to.

Paragraph 1. The centralized structures mentioned in the heading must consider, for each constituting member of the system:

I - material risks incurred by the institution;

II - impacts caused by the risks mentioned in item I on the institution's liquidity and capital;

III - risks related to companies controlled by the institution or to entities in which the institution has an equity interest.

Paragraph 2. The exercise of the discretion mentioned in the heading implies documentation, in internal bylaws and policies, of the functions performed by each institution included in the centralized structures.

Paragraph 3. The structures mentioned in the heading must be located in a credit cooperative system member that is supervised by the Central Bank of Brazil.

Paragraph 4. The member of the credit cooperative system mentioned in paragraph 3 must be indicated to Central Bank of Brazil.

Paragraph 5. The exercise of the discretion mentioned in the heading does not waive the responsibilities of each cooperative in its own risk management and capital management according to this Resolution, including the indication to the Central Bank of Brazil of the directors mentioned in arts. 44 and 47, or 62.

CHAPTER II
RISK APPETITE STATEMENT (RAS)

Art. 5. Risk appetite levels must be documented in the Risk Appetite Statement (RAS).

Paragraph 1. The following aspects must be reflected in the RAS:

I - the types and levels of risks that the institution is willing to assume;

II - the institution's ability to manage its risks in an effective and prudent manner;

III - the institution's strategic goals; and

IV - the competitive conditions and the regulatory landscape in which the institution operates.

Paragraph 2. The exercise of the discretion mentioned in art. 4 entails the documentation of risk appetite levels, considering each member of the credit cooperative system allocated to S2, S3 or S4.

CHAPTER III
RISK MANAGEMENT STRUCTURE

Section I
Risk management structure requirements

Art. 6. The risk management structure must allow for the identification, measurement, evaluation, monitoring, reporting, control and mitigation of:

I - credit risk, as defined in art. 21, when deemed material by the institution;

II - market risk, as defined in art. 25, when deemed material by the institution;

III - interest rate risk in the banking book (IRRBB), as defined in art. 28, when deemed material by the institution;

IV - operational risk, as defined in art. 32;

V - liquidity risk, as defined in art. 37;

VI - socio-environmental risk, as defined in Resolution 4,327 of April 25, 2014;
and

VII - other risks deemed material according to criteria defined by the institution, including those risks not considered in the calculation of the risk-weighted assets (RWA), according to Resolution 4,193 of March 1, 2013.

Sole paragraph. The risk management must be integrated across risks, allowing for the identification, measurement, evaluation, monitoring, reporting, control and mitigation of adverse effects arising from interactions between them.

Art. 7. The risk management structure must comprise:

I - clearly documented policies and strategies for risk management, establishing limits and procedures designed to maintain the exposures to risks at levels consistent with the ones set in the RAS;

II - effective processes for tracking and timely reporting exceptions to the risk management policies, limits and levels of risk appetite set in the RAS;

III - risk management systems, routines and procedures;

IV - periodic assessment of the adequacy of risk management systems, routines and procedures;

V - adequate policies, procedures and controls to ensure a prior identification of risks inherent to:

a) new products and services;

b) material modifications to the existing products or services;

c) material changes in processes, systems, operations and the institution's business model;

d) hedge strategies and risk-taking initiatives;

e) material corporate reorganizations; and

f) changes in the macroeconomic perspectives;

VI - clearly documented roles and responsibilities in risk management that establish duties to the different levels of the institution's personnel, as well as to providers of outsourced services;

VII - stress test programme, as defined in art. 11;

VIII - continuous evaluation of the effectiveness of the risk mitigation strategies, considering, among other aspects, the stress tests results;

XIX - clearly documented policies and strategies for business continuity management;

X - timely reports for the senior management, the risk committee and the board on:

a) aggregate risk exposures and their main determinants;

b) compliance of risk management with the RAS and with the policies and limits mentioned in the heading;

c) evaluation of the risk management systems, routines and procedures, including the identification of any deficiencies in the structure, as well as actions to address them;

d) actions to mitigate risks and the assessment of their effectiveness;

e) current state of the risk culture; and

f) stress tests assumptions and results.

Paragraph 1. The risk management policies mentioned in the heading, item I, must prescribe:

I - necessary authorizations, as well as timely and appropriate actions to be taken by senior management and, when necessary, the board, in case of exceptions to policies, procedures, limits and RAS stipulations;

II - instruments, financial services and hedging strategies expected to be employed by the institution, in compliance with the RAS terms.

Paragraph 2. The systems mentioned in the heading, item III, include information systems deemed adequate, both under normal circumstances and in periods of stress, to assess, measure and report on the size, composition and quality of the institution's risk exposures.

Paragraph 3. Reporting provided by the information systems mentioned in paragraph 2 must:

I - reflect the institution's risk profile and liquidity needs;

II - be provided, on a timely basis and in a suitable form, to the board and senior management;

III - apprise any deficiencies or limitations in risk estimation and in the assumptions of quantitative models and scenarios.

Art. 8. The following information must be disseminated to all levels of the institution's personnel and to the relevant providers of outsourced services, in a language and a degree of information commensurate with their assignment:

I - risk appetite documented in the RAS, along with its connections with daily risk-taking decisions and activities;

II - procedures for reporting noncompliance with risk appetite expressed in the RAS;

III - risk management policies, strategies, procedures and limits prescribed in the risk management structure.

Sole paragraph. The dissemination of information mentioned in the heading must be carried out through a structured communication process.

Art. 9. Risk management models, when relevant, must be subject to a periodic evaluation of:

I - the adequacy and robustness of assumptions and methodologies;

II - its performance, including backtesting when applicable.

Sole paragraph. The evaluation mentioned in the heading must not be performed by the unit responsible for the development of the models or by a risk-taking unit.

Art. 10. The institution must allocate a sufficient quantity of technically qualified personnel to risk-taking areas.

Section II

Stress test programme

Art. 11. For the purposes of the stress test programme, the following definitions apply:

I - stress test programme: a coordinated set of procedures and routines, comprehending specific methodologies, documentation and governance, aiming mainly at the identification of potential vulnerabilities;

II - stress test: a defined-purpose exercise that involves a forward-looking assessment of potential impacts arising from adverse events and circumstances related to the institution itself or to a specific portfolio;

III - sensitivity analysis: a stress test methodology that allows for the assessment of the impact of variations on a specific material parameter on the institution's capital, liquidity or on a portfolio value;

IV - scenario analysis: a stress test methodology that allows for the assessment of the impact, over a specific time horizon, of simultaneous and coherent variations on a range of material parameters on the institution's capital, liquidity or a on portfolio value;

V - reverse stress test: a stress test methodology performed to identify adverse events and circumstances related to a predefined result, capital or liquidity value, including those that may threaten the institution viability; and

VI - feedback effects: adverse consequences arising from actions taken by the institution or the market in response to an original scenario.

Art. 12. The stress test programme must:

I - comprise the material risks mentioned in art. 6;

II - assess the impact of significant risk concentrations;

III - use, accordingly to risk management needs, the following stress test methodologies:

a) sensitivity analysis;

b) scenario analysis;

c) reverse stress test;

IV - prescribe the use of assumptions and parameters that are adequately severe;
and

V - be clearly documented and detail the following aspects:

a) governance and processes related to the programme;

b) object, frequency and methodology of each stress test;

c) actions to correct weaknesses revealed by the programme, including an assessment of their feasibility in periods of stress;

d) methodologies for defining relevant scenarios, when such methodologies are employed;

e) role played by the institution's experts in definitions related to stress tests; and

f) methodological limitations of stress tests, including those related to model selection, its assumptions and databases used.

Sole paragraph. In conducting the stress test programme, the institution must consider the collaboration of experts from relevant units, including those related to risk-taking, risk management, and economic, financial and capital management activities.

Art. 13. The institution must ensure, relative to the stress test programme:

I - the use of its results in identifying, measuring, evaluating, monitoring, controlling and mitigating risks;

II - its complementary use in assessing the adequacy and robustness of the assumptions and methodologies related to the models mentioned in art. 9.

Art. 14. The stress tests must:

I - be performed in an integrated manner across risks and business areas, considering:

a) different levels of aggregation of exposures, in accordance to the tests purposes; and

b) the prudential conglomerate as a whole;

II - consider adverse effects arising from interactions between risks and prescribe the use of a common scenario, when the scenario analysis methodology is required.

Art. 15. In developing scenarios, the following aspects must be considered, when relevant:

I - historical and hypothetical elements;

II - short- and long-term, idiosyncratic and systemic risks, from a national or an external origin;

III - risk interactions;

IV - risks related to the prudential conglomerate as a whole, as well as to its individual components;

V - risk of granting financial support to an entity not belonging to the institution's conglomerate (step-in risk);

VI - asymmetries, non-linearities, feedback effects, and breakdown of correlations and other assumptions.

Paragraph 1. Each scenario and its severity must be consistent with the stress test purpose.

Paragraph 2. The low probability of a scenario should not necessarily imply its exclusion from the stress test programme.

Art. 16. The systems used in the stress test programme must be flexible enough to allow for the:

I - inclusion of and changes in scenarios, when the scenario analysis methodology is required;

II - consideration of changes in the business model; and

III - aggregation of operations by risk sources, counterparties and business lines.

Art. 17. Stress test results must be considered in:

I - strategic decisions;

II - the revision of risk appetite levels;

III - the revision of the policies, strategies and limits established for risk and capital management purposes;

IV - the structured communication process mentioned in art. 8;

V - the assessment of the institution's capital and liquidity, as well as in the development of contingency plans;

VI - the capital adequacy assessment mentioned in art. 40, item VI; and

VII - the recovery plan, as established by Resolution 4,502 of June 30, 2016.

Art. 18. The senior management and the board must be actively involved in the stress test programme, indicating guidelines and approving scenarios when the scenario analysis methodology is required.

Art. 19. The Central Bank of Brazil may determine:

I - adjustments to the stress test programme, including the use of scenarios that differ from those originally used, as well as additional stress tests if deficiencies are identified in the original programme; and

II - stress tests runs on scenarios provided by the supervisor.

Section III Business continuity management

Art. 20. The policies for the business continuity management mentioned in art. 7, item IX, must establish:

I - a business impact analysis that includes:

a) identification, classification and documentation of critical business processes;

b) assessment of potential effects arising from disruptions to the processes mentioned in sub-item "a";

II - strategies to ensure the continuity of activities and to limit losses in the event of a disruption to critical business processes;

III - business continuity plans that establish procedures and deadlines for resumption and recovery of activities, as well as communication actions, in case of a disruption to critical business processes;

IV - tests and revisions of business continuity plans with an adequate frequency.

Paragraph 1. Business continuity policy and plans must consider the outsourced services, when relevant.

Paragraph 2. The management reports mentioned in art. 7, item X, must comprise the results of the tests and revisions mentioned in the heading, item IV.

Section IV

Credit risk management

Art. 21. For the purpose of this Resolution, credit risk is defined as the possibility of losses deriving from:

I - a counterparty's failure to meet its obligations under the contracted terms;

II - a devaluation or a reduction in remunerations or expected earnings of a financial instrument arising from a deterioration in the credit quality of the counterparty, the intermediary party or the mitigation instrument;

III - a forbearance of financial instruments; or

IV - recovery costs of problem assets, as defined in art. 24.

Paragraph 1. For the purposes of credit risk management, the following definitions apply:

I - counterparty: the borrower, guarantor or issuer of an acquired security;

II - forbearance of financial instruments: a renegotiation that implies advantages being granted to the counterparty as a result of deterioration in the credit quality of the counterparty, the intermediary party or the mitigation instrument.

Paragraph 2. The advantages mentioned in paragraph 1, item II, include those embedded in the original financial instruments or in new instruments used to liquidate or refinance them.

Paragraph 3. The definition of credit risk comprises:

I - counterparty credit risk, understood as the possibility of losses deriving from non-compliance with obligations related to the settlement of operations that involve bilateral flows, including the negotiation of financial assets or derivatives;

II - country risk, understood as the possibility of losses deriving from non-compliance with obligations of a counterparty or a mitigation instrument located abroad, including the sovereign risk, when the exposure is incurred against the central government of a foreign jurisdiction;

III - transfer risk, understood as the possibility of barriers to the currency conversion of values received abroad;

IV - the possibility of disbursements to honor financial guarantees, as defined in Resolution 4,512 of July 28, 2016;

V - the possibility of losses associated with the non-compliance with obligations under the contracted terms by an intermediary party, a provider of a mitigation instrument or a collector of debts;

VI - concentration risk, understood as the possibility of losses deriving from significant exposures:

- a) to the same counterparty;
- b) to counterparties in the same economic sector, geographic region or industry;
- c) to counterparties whose revenues depend on the same commodity or activity;
- d) to financial instruments whose risk sources, including currencies and indexes, are materially related;
- e) to the same financial product or service; and
- f) that have their risk mitigated by the same type of instrument.

Art. 22. Connected counterparties must constitute a single counterparty for the purpose of credit risk management.

Paragraph 1. Connected counterparties are those that share the credit risk incurred by the institution, including through a control relationship.

Paragraph 2. For the purposes of this Resolution, the control relationship must be substantiated in the occurrence of at least one of the following criteria:

I - one counterparty directly or indirectly owns more than 50% of the voting rights of the other counterparty;

II - a voting agreement between one counterparty and shareholders of the other counterparty ensures the former a preponderance in organizational deliberations of the latter;

III - one counterparty has the power to appoint or remove the majority of the administration members of the other counterparty; or

IV - one counterparty has the power to exercise a significant influence in decisions related to the operational management of the other counterparty.

Paragraph 3. The institution must document the criteria that uphold the identification of each group of connected counterparties.

Paragraph 4. In exceptional cases, the institution is waived from considering counterparties connected by control as a single counterparty, as long as it can be demonstrated that such counterparties do not share the credit risk incurred by the institution.

Paragraph 5. For the purposes of credit risk management, the Central Bank of Brazil has the discretion to consider two or more counterparties as connected, in case they verifiably share the credit risk incurred by the institution.

Art. 23. The framework mentioned in art. 7 must also comprise, for the purposes of credit risk management:

I - the management of exposures with similar characteristics, at both individual and aggregate levels, capturing aspects such as the material sources of credit risk, the identification of counterparties or intervenient parties, the form of aggregating exposures and the use of mitigation instruments;

II - policies that establish criteria for the identification of material risk factors, for the purpose of concentration risk management;

III - mechanisms for managing the credit risk related to:

a) instruments in the trading book, mentioned in art. 26;

b) instruments in the banking book, mentioned in art. 26, paragraph 2;

IV - the management of the credit risk associated with off-balance sheet exposures;

V - the use of relevant and reliable information in the evaluation and measurement of credit risk;

VI - the estimation, according to consistent criteria, of expected losses associated with credit risk, as well as comparisons of such estimates with losses actually incurred;

VII - criteria for reviewing the credit quality of counterparties, intervenient parties and mitigation instruments;

VIII - mechanisms ensuring that the levels of provisions are in compliance with the accounting regulation in force and sufficient to face the expected losses mentioned in item VI;

IX - an adequate assessment of risk retention in sale or transfer of financial assets;

X - the establishment of limits for the exposure to concentration risk as mentioned in art. 21, paragraph 3, item VI;

XI - clearly documented policies and procedures for monitoring the total indebtedness of counterparties, in which all risk factors are considered, including those associated with unhedged foreign exchange exposures;

XII - clearly defined and documented criteria and procedures, accessible to those involved in the processes of granting and monitoring operations subject to credit risk, including:

a) prior analysis, granting and renegotiation of operations subject to credit risk;

b) collection and documentation of the information deemed necessary for a thorough appreciation of the credit risk associated with operations;

c) periodic assessment of the sufficiency of mitigation instruments;

d) identification and prevention of a deterioration in the credit quality of the counterparty;

e) treatment of exceptions to the limits and risk appetite levels established in the RAS;

f) collection of debts;

g) forbearance of exposures characterized as problem assets, in terms of art. 24;

XIII - clearly defined and documented criteria that guide the board's decision on incurring an exposure to credit risk that:

a) exceeds the concentration limit established in risk management policies, either in absolute values or as a percentage of Regulatory Capital (PR);

b) is inconsistent with the risk profile or with the products and services offered by the institution;

XIV - a system that classifies exposures according to the nature of the operation and its credit risk, based on consistent and verifiable criteria, in which aspects as the following are considered:

a) economic and financial circumstances, as well as other updated personal information on the counterparty and, when existent, the intervenient party;

b) use of instruments that provide an effective mitigation of the credit risk associated with the operation;

c) period of delinquency in meeting financial obligations under contracted terms;

XV - criteria and procedures for the identification, monitoring and control of exposures characterized as problem assets, in terms of art. 24;

XVI - documentation and storage of information on losses associated with credit risk, including those related to forbearance, as defined in art. 21, paragraph 1, item II, and to debt recovery;

XVII - information systems to identify and aggregate, on a timely basis, the exposures subject to concentration risk, as defined in art. 21, paragraph 3, item VI.

Paragraph 1. The estimation of the expected losses mentioned in the heading, item VI, must consider:

I - the classification of the exposure, according to the heading, item XIV;

II - the current macroeconomic environment and expected changes in the short term;

III - the probability of the exposure becoming a problem asset;

IV - the expectation of a credit recovery, including advantages granted, costs of collection and deadlines.

Paragraph 2. The expected loss estimate must be revised semiannually or:

I - monthly, when the exposure is past due;

II - immediately, when the exposure becomes a problem asset.

Paragraph 3. The management reports mentioned in art. 7, item X, must comprise the following aspects related to credit risk:

I - exposures subject to country and transfer risks, segregated by jurisdiction;

II - evaluation and estimation of the exposures' performance, including their classification and provisions;

III - exposures subject to concentration risk, as established in art. 21, paragraph 3, item VI;

IV - information on material exposures characterized as problem assets, including their characteristics, track record and recovery expectations;

V - information on triggering of mitigation instruments and exposures under forbearance.

Art. 24. For the purposes of credit risk management, an exposure must be characterized as a problem asset when at least one of the following events occurs:

I - the obligation is more than 90 (ninety) days past due;

II - there are indicatives that the obligation will not be fully paid without a collateral or financial guarantee being triggered.

Paragraph 1. Indications that an obligation will not be fully paid include cases in which:

I - the institution considers that the counterparty no longer has financial capacity to pay its obligation under the contracted terms;

II - the institution recognizes, for accounting purposes, a significant deterioration in the credit quality of the borrower or counterparty;

III - the operation related to the exposure has been forborne;

IV - the institution files for the counterparty's bankruptcy or takes a similar measure; and

V - the counterparty files a plea or undergoes a court order that limits, delays or precludes its obligations from being paid under the contracted terms.

Paragraph 2. Exposures characterized as problem assets may only have this condition changed in face of evidences that the counterparty's ability to meet obligations under the contracted terms is recovered.

Paragraph 3. Criteria for identifying the evidences mentioned in paragraph 2 must be established by the institution and clearly documented.

Section V

Market risk management and IRRBB management

Art. 25. For the purposes of this Resolution, market risk is defined as the possibility of losses arising from movements in the market values of instruments held by the institution.

Sole paragraph. The definition expressed in the heading comprises:

I - the risk associated with changes in interest rates and in equity prices, for instruments in the trading book; and

II - the risk associated with changes in foreign exchange rates and in commodities prices, for instruments either in the trading book or in the banking book.

Art. 26. The trading book comprises all positions in instruments not subject to any trading restrictions, including derivatives, held with the intent of trading or as a hedge of other elements of the trading book.

Paragraph 1. Instruments held with intent of trading are those designated by the institution for:

I - resale;

II - benefitting from movements in prices, either effective or expected; or

III - arbitrage.

Paragraph 2. Instruments not included in the trading book must constitute the banking book.

Art. 27. The institution must have clearly defined policies in place to determine which instruments will be included in the trading book, as well as procedures to ensure a consistent compliance with the trading book classification criteria.

Paragraph 1. In case the institution does not maintain a trading book, the policy and procedures mentioned in the heading must ensure that no instrument is held with the intent of trading.

Paragraph 2. In the definition of the policy and procedures mentioned in the heading, the institution must comply with the criteria established by the Central Bank of Brazil.

Art. 28. IRRBB is defined as the risk, either current or prospective, from impacts arising from adverse movements in the interest rates, on the institution's results and capital, for instruments in the banking book.

Art. 29. The structure mentioned in art. 7 must also comprise, for the purposes of market risk management and IRRBB management:

I - systems that consider all relevant sources of risk and make use of reliable data on market and liquidity, both internal and external;

II - adequate documentation of shifts between the trading and the banking book, and on internal risk transfers, according to criteria established by the Central Bank of Brasil.

Sole paragraph. For the purposes of this Resolution, an internal risk transfer refers to an internal written record of a transfer of risk within the banking book, between the banking and the trading book, or within the trading book of an institution.

Art. 30. The IRRBB management must comprise:

I - the assessment and control of the main determinants of this risk, including maturity, rate, index and currency mismatches between assets and liabilities; and

II - the identification, measurement and control of this risk, based on methodologies consistent with the banking book characteristics and with the maturity, liquidity and risk sensitivity of the instruments.

Paragraph 1. For institutions allocated to S1, S2 or S3, the identification, measurement and control of IRRBB as mentioned in the heading, item II, must be based on both the economic value approach and the earnings-based approach.

Paragraph 2. Regardless of the provision in paragraph 1, the Central Bank of Brazil may define, for institutions allocated to S1, S2, S3 or S4, specific methodologies and minima requirements for IRRBB identification, measurement and control, including those methodologies based on the economic value approach and the earnings-based approach.

Paragraph 3. For the purposes of this Resolution, the following definitions apply:

I - economic value approach: assessment of the impact arising from interest rates movements on the current cash flows of instruments in the banking book; and

II - earnings-based approach: assessment of the impact arising from interest rates movements on the earnings of instruments in the banking book.

Paragraph 4. IRRBB appetite levels must be documented in the RAS, considering each of the approaches mentioned in paragraph 3.

Art. 31. The management reports mentioned in art. 7, item X, must also comprise the following aspects related to IRRBB:

I - results of the IRRBB measurement, based on the economic value approach and on the earnings-based approach;

II - assumptions in the modelling of:

a) embedded optionalities;

b) changes in the time structure of cash flows of deposits that have no contractual maturity; and

c) aggregation of currencies.

Section VI Operational risk management

Art. 32. For the purposes of this Resolution, operational risk is defined as the possibility of losses resulting from external events or from failure, deficiency or inadequacy of internal processes, personnel or systems.

Paragraph 1. The definition mentioned in the heading includes the legal risk associated with inadequacy or deficiency in contracts subscribed by the institution, sanctions due to non-compliance with legal provisions, and compensation for damages to third parties arising from the institution's activities.

Paragraph 2. Events of operational risk include:

I - internal fraud;

II - external fraud;

III - inadequate labor practices and deficient workplace safety;

IV - unfair business practices related to clients, products and services;

V - damage to physical assets owned or used by the institution;

VI - situations that lead to business disruption;

VII - flaws in systems, processes or infrastructures related to information technology (IT);

VIII - flaws in execution, delivery, and process management.

Art. 33. The framework mentioned in art. 7 must also comprise, for the purposes of operational risk management:

I - policies establishing criteria for decision on the outsourcing of services and selecting their providers, including minima contractual conditions to mitigate operational risk;

II - allocation of adequate resources to evaluate, manage and monitor the operational risk arising from outsourced services that are relevant to the regular operation of the institution;

III - implementation of an IT governance framework consistent with the RAS;

IV - use of IT systems, procedures and infrastructure that:

a) ensure data and systems integrity, security and availability;

b) are robust and adequate to the business model and its changes, under normal circumstances and in periods of stress;

c) include mechanisms for information protection and security, aiming at the prevention, detection and reduction of digital attacks;

V - a consistent and comprehensive process to:

a) timely collect relevant information to be included in the operational risk database;

b) classify and aggregate material operational losses; and

c) timely assess the root cause of each material operational loss;

VI - a periodic scenario analysis to estimate the institution's exposures to rare and highly severe operational risk events.

Paragraph 1. The IT outsourcing contracts subscribed by the institution must prescribe the access of the Central Bank of Brazil to:

I - the terms of the contract;

II - the documentation and information related to the services provided; and

III - the provider's facilities.

Paragraph 2. The scenario analysis results mentioned in the heading, item VI, must be considered in the revision of the risk management framework and of capital allocation.

Art. 34. The institution must develop an operational risk database containing values associated with operational losses, including provisions and expenses related to each event of loss, as well as other operational risk data.

Paragraph 1. For the purpose of this Resolution, operational loss is defined as the quantifiable value associated with the events of operational risk mentioned in art. 32.

Paragraph 2. Operational losses associated with market risk and credit risk must be included in the database mentioned in the heading.

Paragraph 3. The database mentioned in the heading must be considered in the operational risk management.

Art. 35. The management reports mentioned in art. 7, item X, must include information related to relevant operational losses.

Art. 36. The institution must ensure that adequate training in operational risk is provided to personnel at all levels, including the providers of relevant outsourced services.

Section VII

Liquidity risk management

Art. 37. For the purpose of this Resolution, liquidity risk is defined as:

I - the possibility of the institution not being able to duly honor its expected and unexpected obligations, both current and future, including those arising from guarantees provided, without affecting its daily operations or incurring significant losses; and

II - the possibility of the institution not being able to trade a position at the market price, due to its significant size in relation to the volume normally transacted or due to some market discontinuity.

Art. 38. The framework mentioned in art. 7 must also prescribe, for the purposes of liquidity risk management:

I - policies, strategies and procedures ensuring:

a) the identification, measurement, evaluation, monitoring, reporting, control and mitigation of liquidity risk in different time horizons, including intraday, under normal circumstances and in periods of stress, comprising a daily assessment of operations with a maturity lesser than 90 (ninety) days;

b) an adequate supply of liquid assets to be promptly converted in cash under stress circumstances;

c) a funding profile that is adequate to the liquidity risk arising from assets and off-balance sheet exposures; and

d) an adequate diversification of the sources of funding; and

II - a liquidity contingency plan.

Paragraph 1. The liquidity risk management must consider all operations carried out in the financial and capital markets, as well as contingent or unexpected exposures, such as those arising from settlement services, the provision of endorsements and guarantees, and undrawn credit lines.

Paragraph 2. The institution must consider the liquidity risk individually for each country of operation and for the currency of the exposure, acknowledging possible restrictions to the transfer of funds and to currency conversion, such as those caused by operational problems or by decisions imposed by any given country.

Paragraph 3. The liquidity contingency plan mentioned in the heading, item II, must be regularly revised and establish clearly defined and documented responsibilities, strategies and procedures to face stress conditions.

CHAPTER IV CAPITAL MANAGEMENT FRAMEWORK

Art. 39. For the purposes of this Resolution, capital management is defined as the continuous process of:

I - monitoring and controlling the capital held by the institution;

II - assessing the capital deemed necessary to face the risks incurred by the institution; and

III - planning capital targets and needs, considering the institution's strategic goals.

Art. 40. The capital management framework must comprise:

I - clearly documented policies and strategies for capital management, establishing procedures aimed at maintaining the Regulatory Capital (Patrimônio de Referência – PR), the Tier I and the Common Equity Tier I (CET1), as defined in Resolution 4,192 of March 1, 2013, compatible with the risks faced by the institution;

II - systems, routines and procedures for capital management;

III - assessment of the impacts on the institution's capital as indicated by the stress tests results;

IV - a capital plan;

V - a capital contingency plan;

VI - a capital adequacy assessment;

VII - timely reports for the senior management, the risk committee and the board on:

a) deficiencies in the capital management framework and actions to address them; and

b) adequacy of the levels of PR, Tier I and CET1 considering the risks incurred by the institution;

Paragraph 1. The capital contingency plan mentioned in the heading, item V, must establish responsibilities, strategies and procedures, periodically revised and clearly defined and documented, to face stress conditions.

Paragraph 2. The capital adequacy assessment must be performed according to the following methodologies established by the Central Bank of Brazil:

a) Internal Capital Adequacy Assessment Process (Icaap), for institutions allocated to S1;

b) Simplified Internal Capital Adequacy Assessment Process (Icaap_{Simp}), for institutions allocated to S2.

Paragraph 3. The institutions allocated to S2 that performed Icaap on December 31, 2016, remain subject to such methodology while the criteria for Icaap_{Simp} have not been established.

Art. 41. The capital plan mentioned in art 40, item IV, must comprehend at least a three-year horizon and be consistent with the strategic planning, prescribing:

I - targets and projections for capital;

II - main sources of capital.

Sole paragraph. The following aspects must be taken into account in the development of the capital plan:

I - threats and opportunities related to the economic and business environment;

II - projections of values of assets, liabilities and off-balance sheet exposures, as well as of incomes and expenses;

III - targets for growth or market participation;

IV - the dividend policy; and

V - the RAS.

Art. 42. In case the institution's assessment of capital needs indicates a value higher than the PR, Tier I and CET1 requirements, the allocated capital must be compatible with the results of internal evaluations.

CHAPTER V RISK AND CAPITAL GOVERNANCE

Section I Risk governance

Art. 43. The risk management must be performed by a specific unit in the institutions mentioned in art. 2.

Paragraph 1. The unit referred to in the heading must be segregated from business units and from the unit that conducts the internal audit, as established in art. 2 of Resolution 2,554 of September 24, 1998.

Paragraph 2. The unit referred to in the heading must be sufficiently staffed by members with expertise and qualification in managing risks, in accordance with the following requirements:

I - be knowledgeable of the market as well as of products and services provided by the institution;

II - have access to regular training;

III - be able to challenge the risks incurred by the business units; and

IV - understand the limitations and uncertainties associated with risk management methodologies.

Art. 44. The institution must appoint a chief risk officer (CRO) responsible for the specific unit mentioned in art. 43.

Paragraph 1. The CRO's responsibilities comprise:

I - overseeing the development, implementation and performance of the risk management structure, including its improvements;

II - implementing policies, processes, reports, systems and models consistent with the institution's RAS and strategic goals;

III - providing adequate training on risk management policies, processes, reports, systems and models, even when these models are developed by third parties, to the staff of the specific unit mentioned in art. 42;

IV - providing subsidies to and participating in the strategic decision-making processes related to risk management and, where applicable, to capital management, as an assistance to the board.

Paragraph 2. As long as the absence of conflicts of interest is ensured, the CRO may perform other functions in the institution, including those related to the capital adequacy assessment mentioned in art. 40, item VI.

Paragraph 3. The CRO's responsibilities must be expressed in the institution's internal regiment or in a similar document.

Paragraph 4. The institution must establish adequate conditions for the independency of the CRO's performance and for the CRO's direct access, without of the presence of other directors, to the risk committee, the CEO and the board.

Paragraph 5. The CRO must be ensured access to all information deemed necessary to fulfill the job's responsibilities.

Paragraph 6. The board must approve both the appointment and the dismissal of the CRO.

Paragraph 7. The institution must inform the CRO's name to the Central Bank of Brazil.

Paragraph 8. The dismissal of the CRO must be timely disclosed in the institution's website, and the reasons for such removal must be communicated to the Central Bank of Brazil, which may require additional information.

Art. 45. The institution must constitute a risk committee.

Paragraph 1. The risk committee's responsibilities comprise:

I - proposing recommendations to the board on the issues mentioned in art. 48, item II, at least annually;

II - assessing the risk appetite levels documented in the RAS, as well as strategies for its management, considering risks both individually and on an integrated basis;

III - overseeing the CRO's conduct and performance;

IV - overseeing the senior management's compliance with the terms of the RAS;

V - assessing the adherence of the risk management processes to the established risk policies; and

VI - keeping records of its own deliberations and decisions.

Paragraph 2. The risk committee must be constituted by at least three members.

Paragraph 3. The institution's bylaws or a similar document must expressly regulate the following aspects with regard to the risk committee:

I - maximum number of members;

II - operating rules, including attributions and periodicity of meetings;

III - means of reporting to the board;

IV - tenure of members, when applicable.

Paragraph 4. Members of the risk committee must not be or have been the institution's CRO or a member of the audit committee in the last six months.

Paragraph 5. The risk committee must be constituted of a majority of members who:

I - are not and have not been employees in the institution in the last six months;

II - are not spouses or relatives either in direct or indirect line, or by affinity up to the second degree, of the persons mentioned in item I;

III - do not receive any form of remuneration from the institution, save from the one related to the functions of risk committee member or board member;

IV - have an attested experience in managing risks;

V - do not control the institution nor participate in the decision-making process at the executive level.

Paragraph 6. The risk committee must be chaired by a member who complies with the requirements mentioned in paragraph 5 and who is not and has not been the board's or any other committee's chair in the last six months.

Paragraph 7. The risk committee must coordinate its activities with the audit committee in order to facilitate the exchange of information, the improvements deemed necessary to the risk governance structure and the effective treatment of the risks incurred by the institution.

Paragraph 8. The responsibilities specified in paragraph 1, items I, II, III, V and VI, must be taken over by the senior management of institutions that are not required to constitute a risk committee.

Section II Capital governance

Art. 46. Capital management must be performed by a specific unit in the institutions mentioned in art. 2.

Paragraph 1. The unit referred to in the heading must be segregated from the one conducting internal audit, in the terms of art. 2 of Resolution 2,554 of September 24, 1998.

Paragraph 2. The unit referred to in the heading must have a sufficient quantity of experienced and qualified staff with regular access to training for the purposes of capital management.

Art. 47. The institution must appoint a director responsible for the capital management framework.

Paragraph 1. The appointed director may perform other functions in the institution, except those that may result in a conflict of interest.

Paragraph 2. The appointed director's name must be informed to the Central Bank of Brazil.

Section III Board's and senior management's responsibilities

Art. 48. For the purposes of risk management and capital management, the board's competences comprise:

I - defining and revising, jointly with the risk committee, the senior management and the CRO, the risk appetite levels expressed in the RAS;

II - approving and revising, at least annually:

a) the risk management policies, strategies and limits mentioned in art. 7, item I;

b) the capital management policies and strategies mentioned in art. 40, item I;

c) the stress test programme mentioned in art. 7, item VII;

d) the business continuity management policies mentioned in art. 7, item IX;

e) the liquidity contingency plan mentioned in art. 38, item II;

f) the capital plan mentioned in art. 40, item IV;

g) the capital contingency plan mentioned in art. 40, item V;

III - assuring the institution's adherence to the risk management policies, strategies and limits;

IV - assuring the prompt correction of any deficiencies in the risk and the capital management structures;

V - approving relevant changes, induced from the risks mentioned in art. 7, item V, in risk management policies and strategies, as well as in systems, routines and procedures;

VI - authorizing, when necessary, exceptions to policies, procedures, limits and levels of risk appetite expressed in the RAS;

VII - disseminating a risk culture within the institution;

VIII - assuring the adequacy and sufficiency of resources for an independent, objective and effective performance of the activities related to risk management and to capital management;

IX - establishing the risk committee's organization and attributions;

X - assuring that the institution's compensation structure does not encourage behaviors inconsistent with the levels of risk appetite expressed in the RAS;

XI - assuring that capital and liquidity levels are adequate and sufficient.

Art. 49. In case an institution's board is nonexistent, the senior management must be invested with the board's responsibilities as established in this Resolution.

Art. 50. The senior management must conduct risk-taking activities in compliance with the policies and strategies mentioned in art. 7, item I.

Section IV Joint responsibilities

Art. 51. The board, the risk committee, the CRO and the senior management must:

I - comprehensively understand the risks that may affect the institution's capital and liquidity;

II - understand the limitations of the available information on risk and capital management;

III - ensure the institution's compliance with the RAS;

IV - understand the limitations and uncertainties related to the risk evaluation, to the models, even when developed by third parties, and to the methodologies used in risk management;

V - ensure that personnel in different institutional levels understand and continually monitor risks.

Art. 52. The risk and capital management processes must be periodically submitted to internal auditing.

CHAPTER VI RISK AND CAPITAL MANAGEMENT FOR PRUDENTIAL CONGLOMERATES

Art. 53. The unified structure for managing the risks of a prudential conglomerate, as required in art. 2, paragraph 2, must consider the risks associated with the conglomerate and with each member institution, as well as identify and monitor the risks associated with other companies controlled by conglomerate's members or those in which they have an equity interest.

Art. 54. The unified structure for managing the capital of a prudential conglomerate, as required in art. 2, paragraph 2, must consider possible impacts on the conglomerate's capital and liquidity arising from the risks mentioned in art. 6.

Art. 55. The Central Bank of Brazil must be informed on the prudential conglomerate's member institution that will bear the responsibility for complying with the following provisions:

I - appointment of the CRO responsible for managing the conglomerate's risks, as prescribed in art. 44;

II - appointment of the director responsible for managing the conglomerate's capital, as prescribed in art. 47;

III - constitution of the conglomerate's risk committee, as prescribed in art. 45.

Sole paragraph. The responsibilities assigned in this Resolution to the board and to senior management apply to the board and senior management of the institution mentioned in the heading.

CHAPTER VII TRANSPARENCY

Art. 56. A description of both the structure for risk management and the structure for capital management must be conveyed in a report accessible to the public, at least annually.

Paragraph 1. The board must convey, in the report mentioned in the heading, its responsibility over the released information.

Paragraph 2. The report mentioned in the heading must be disclosed in a single, easily accessible location in a specific section related to risk management at the institution's website.

Paragraph 3. A descriptive summary of both the risk management structure and the capital management structure must be released in conjunction with the institution's financial statements, indicating the location of the report mentioned in the heading at the institution's website.

Art. 57. The composition and responsibilities of the risk committee must be disclosed in the institution's website.

CHAPTER VIII SPECIFIC EXEMPTIONS BY SEGMENT

Art. 58. Institutions allocated to S2 are exempt from incorporating the reverse stress test methodology in their stress test programme, as mentioned in art. 12, item III, sub-item "c".

Art. 59. Institutions allocated to S3 are exempt from:

I - reporting on the current state of the risk culture, as mentioned in art. 7, item X, sub-item "e";

II - observing the restriction mentioned in art. 9, sole paragraph, when performing the periodic evaluation of the risk management models;

III - incorporating, in the stress test programme, the scenario analysis methodology and the reverse stress test methodology mentioned in art. 12, item III, sub-items "b" and "c";

IV - documenting, with respect to the stress test programme, the aspects mentioned in art. 12, item V, sub-items "c" and "d";

V - developing scenarios for the purpose of the stress test programme, as prescribed in art. 15;

VI - employing flexible systems for the purposes of the stress test programme, according to the criteria established in art. 16;

VII - considering stress tests results in the structured communication process, as required in art. 17, item IV;

VIII - performing a scenario analysis on operational risk, as required in art. 33, item VI and paragraph 2;

IX - complying with the provisions established in art. 45, paragraphs 4 to 6, when constituting the risk committee.

Art. 60. Institutions categorized into S4 are exempt from:

I - reporting on the current state of the risk culture, as mentioned in art. 7, item X, sub-item “e”;

II - disseminating information through a structured communication process, as prescribed in art. 8, sole paragraph;

III - observing the restriction mentioned in art. 9, sole paragraph, when performing the periodic evaluation of the risk management models;

IV - incorporating, in the stress test programme, the scenario analysis methodology and the reverse stress test methodology mentioned in art. 12, item III, sub-items “b” and “c”;

V - documenting, with respect to the stress test programme, the aspects mentioned in art. 12, item V, sub-items “c”, “d”, “e” and “f”;

VI - considering the experts’ collaboration in conducting the stress test programme, as required in art. 12, sole paragraph;

VII - using the stress test programme as a complementary tool in assessing the adequacy and robustness of models’ assumptions and methodologies, as required in art. 13, item II;

VIII - complying with the criteria mentioned in art. 14 when performing stress tests;

IX - developing scenarios for the purpose of the stress test programme, as prescribed in art. 15;

X - employing flexible systems for the purposes of the stress test programme, according to the criteria established in art. 16;

XI - considering stress tests results in the structured communication process, as required in art. 17, item IV;

XII - documenting the information mentioned in art. 29, item II;

XIII - documenting, in the RAS, the IRRBB appetite for each approach mentioned in art. 30, paragraph 4;

XIV - including additional aspects related to the IRRBB in management reports, as required in art. 31;

XV - implementing a process to collect, classify, aggregate and assess data on operational loss, as mentioned in art 33, item V;

XVI - performing a scenario analysis on operational risk as required in art. 33, item VI and paragraph 2;

XVII - implementing an operational risk database, as required in art. 34;

XIX - constituting a risk committee, as required in art. 45.

CHAPTER IX RISK MANAGEMENT STRUCTURE FOR INSTITUTIONS ALLOCATED TO S5

Art. 61. The simplified and continued risk management framework mentioned in art. 3 must:

I - allow for the identification, measurement, evaluation, monitoring, reporting, control and mitigation of the relevant risks incurred by the institution;

II - prescribe policies, strategies, routines and procedures for risk management, periodically reviewed by the institution's administration.

Sole Paragraph. The risk management processes must be periodically submitted to internal auditing.

Art. 62. The institutions mentioned in art. 3 must appoint a director responsible for the simplified and continuous risk management structure.

Sole paragraph. For the purposes of the responsibility mentioned in the heading, the appointed director may perform other functions in the institution, except those that may result in a conflict of interest.

Art. 63. The unified structure for managing the risks of a prudential conglomerate, as mentioned in art. 3, paragraph 2, must consider the risks associated with the conglomerate and with each member institution, as well as identify and monitor the risks associated with other companies controlled by conglomerate's members or those in which they have an equity interest.

Art. 64. The Central Bank of Brazil must be informed on the prudential conglomerate's member institution that will bear the responsibility for complying with the provisions established in this Resolution and for appointing the director responsible for managing the conglomerate's risks, as required in art. 62.

CHAPTER X FINAL PROVISIONS

Art. 65. The following documents must be made available to the Central Bank of Brazil for five years:

- I - the RAS;
- II - the documentation on the risk management structure;
- III - the documentation on the capital management structure;
- IV - the reports mentioned in this Resolution.

Art. 66. Regardless of determining the adoption of prudential preventive measures mentioned in Resolution 4,019 of September 29, 2011, the Central Bank of Brazil may require improvements to the management of risks or the management of capital, in case they are deemed inadequate or insufficient.

Art. 67. The structures for risk management and capital management must be implemented, from the date of publication of this Resolution:

- I - within one hundred and eighty days, for institutions allocated to S1;
- II - within three hundred and sixty days, for institutions allocated to S2, S3, S4 or S5.

Paragraph 1. Institutions allocated to S2 or S3 must establish, within one hundred and eighty days from the date of publication of this Resolution, an implementation plan on the structures for the management of risks and the management of capital.

Paragraph 2. The plan mentioned in paragraph 1 must be approved by the board.

Paragraph 3. After one hundred and eighty days from the publication of this Resolution, the institutions mentioned in the heading, item I, are exempt from complying with the provisions of Resolution 3,380 of June 29, 2006; Resolution 3,464 of June 26, 2007; Resolution 3,721 of April 30, 2009; Resolution 3,988 of June 30, 2011; and Resolution 4,090 of May 24, 2012.

Art. 68. This Resolution enters into force:

- I - within three hundred and sixty days from the date of its publication, for the provision of art. 69;
- II - on the date of its publication, for the provisions of all articles except for art. 69.

Art. 69. Resolution 3,380 of 2006; Resolution 3,464 of 2007; Resolution 3,721 of 2009; Resolution 3,988 of 2011; and Resolution 4,090 of 2012 are revoked.

Sole paragraph. Any citation to the resolutions mentioned in the heading in regulation issued by the National Monetary Council or the Central Bank of Brazil henceforth refer to this Resolution.

Ilan Goldfajn
Governor of the Central Bank of Brazil