

Bank of America Merrill Lynch Banco Múltiplo S.A.

Pillar 3 Disclosures

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Contents

1.	Introduction	4
2.	Scope of the Document	5
3.	Integrated Risk Management Framework	6
3.1.	Objectives and Policies	7
3.2.	Organizational Structure	7
4.	Capital	10
4.1.	Regulatory Guidelines	11
4.2.	Capital Measurement and Structure	12
4.3.	Capital Requirement	12
4.4.	Capital Forecast	14
5.	Credit Risk Management	15
5.1.	Credit Risk Management policies and strategies	15
5.2.	Credit Approval, Analysis and Monitoring Process	15
5.3.	Credit Portfolio Management Process	16
5.4.	Credit Risk Classification Methodology	16
5.5.	Credit Risk mitigation instruments	16
5.6.	Allowance for Loans Losses	17
5.7.	Transactions in Arrears	17
5.8.	Portfolio Quantitative Data Subject to Credit Risk	18
6.	Market Risk Management	26
6.1.	Market Risk policies and strategies	27
6.2.	TransactionsOperational Classification	27
6.3.	Sensitivity Analysis	27
6.4.	Value at Risk ("VaR")	28
6.5.	Adherence Tests - Back Testing	29
6.6.	Stress Tests	29
6.7.	Trading Portfolio	29
6.8.	Derivative Financial Instruments	30
6.9.	Transactions not classified under Trading Portfolio – sensitivity to interest rate fluctuations	30
7.	Liquidity Risk Management	31
7.1.	Identification, Measurement, and Monitoring	32
7.2.	Liquidity Gap Analysis	33
7.3.	Mitigation and Control	33

8.	Operational Risk Management.....	34
8.1.	Operational Risk Definition.....	34
8.2.	Operational Risk Management policies and strategies	34
8.3.	Operational Risk Area Scope.....	35
8.4.	Regulatory Capital Component demanded by Operational Risk	35
9.	Updating Periodicity	36

1. Introduction

This document complies Circular 3.678/2013 requirements which establishes the qualitative and quantitative data disclosure concerning risk management, Risk-Weighted Assets (RWA) valuation and Regulatory capital valuation. Aiming to encourage market discipline, disclosure required by the regulator gives stakeholders access to pertinent information related to the financial institutions capital position.

Prudential Conglomerate Bank of America Merrill Lynch BR (“PCBofAML” or Conglomerate) complies with the capital adequacy framework issued by Central Bank of Brazil (CBB), including requirements defined by local Resolution “CMN 4.557/2017” (section 4.1 – *Regulatory Guidelines*), which consolidates and enhances existing rules about risk and capital management on financial institutions and represented a significant landmark to corporate governance.

The supervisory objectives of Basel III are: (i) promote safety and soundness in the Financial System, (ii) maintain appropriate levels of capital, (iii) enhance competitive equality and, (iv) establish a more comprehensive approach to addressing risks. Basel III is structured around “three pillars”: Pillar 1 ‘Minimum Capital Requirements’; Pillar 2 ‘Supervisory Review Process’ and Pillar 3 ‘Market Discipline’.

The PCBofAML has implemented internal governance and risk management processes to identify, measure, monitor, and manage various risks across the Businesses. The Conglomerate risk management process includes alignment of day-to-day decisions with BAC objectives, continuous assessment of performance, consistent with the BAC Risk Framework, which serves as the foundation for consistent and effective management of risks facing BAC and its subsidiaries, which includes the entities that form the PCBofAML.



2. *Scope of the Document*

This report intends to provide data concerning risk management, Risk-Weighted Assets (RWA) valuation - which is prescribed by local Resolution “CMN 4.193/2013” - and Regulatory capital valuation - defined by local Resolution “CMN 4.192/2013” and devised according to BACEN’s rules and instructions, embodied in “Circular 3.678”. Additionally, this report describes the organizational structure for integrated risk management, as required by local Resolution “CMN 4.557/2017”.

Bank of America Corporation (“BAC”) is the owner of Prudential Conglomerate Bank of America Merrill Lynch Brasil (“PCBofAML” or “Conglomerate”) which is composed of Bank of America Merrill Lynch Banco Múltiplo S.A. (“BofAMLISA”) and also Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários (“ML CTVM”). In compliance with regulatory requirements and aligned to global guidelines, BAC designed its risk governance structure to align with PCBofAML and to facility consistent and effective risk management within the Conglomerate.

PCBofAML clarifies that the detailed information in Appendix I and II refers, from a Regulatory Capital perspective, to the entirety of contract terms and conditions of all instruments within the Regulatory capital.

3. *Integrated Risk Management Framework*

In accordance with local Resolution “CMN 4.557/17”, the Conglomerate integrated, in Feb/18, the management of several types of risk in the Risk Executive Board, under the Chief Risk Officer (“CRO”) responsibility and supervised by the Brazilian Risk Management Committee (“BMRC”).

The CRO responsibilities encompass the independent and integrated monitoring performance, of market, liquidity, operational, compliance, reputational, strategic, social & environmental risks, among others, for the Conglomerate activities and business, aligned to the strategic goals, policies, reports, systems and models as internally defined (“Risk Framework”) and applicable by the regulation.

PCBoFAML manages the most relevant risks categories to its business systemically, which include, but are not limited, to the following topics:

Market risk: Defined as the risk that results from losses caused by market fluctuation which may negatively impact assets and liabilities.

Market Risk management area has tools capable of measuring, monitoring and controlling market risk exposure applicable to the Conglomerate’s ongoing transactions, supported by limit structures, reports and policies that follow global guidelines and local regulatory requirements.

Credit risk: Defined as the possibility of loss arising from the inability or failure of a borrower or counterparty to meet its respective financial obligations in the agreed terms, to the devaluation of a credit contract caused by a borrower risk rating deterioration, to a gain or an earning reduction, to granted advantages after a renegotiation and to the recovery costs.

Liquidity Risk: Defined as the risk arising from the financial capacity to honor short, medium and long-term commitments, and by the effects of insufficiency and/or inadequacy in the resource to fulfill any immediate obligation.

To the adequate liquidity risk management, the Conglomerate has an exclusively dedicated area, which reports to the CRO and develop, among others, the following activities: (i) daily monitoring and reporting for pre-determined liquidity limits violation; (ii) provide the data required by the regulators; (iii) monthly analyze and present stress tests results to “AMLRC”; (iv) provide explanations to “AMLRC”, when applicable, about limits violations and remedial actions; (v) report any observed weakness in liquidity controls; and (vi) keep liquidity risk policy updated, at least, annually.

Operational risk: Defined as the risk resulting from external event losses or from inadequate and inefficient systems, individuals and internal processes. The COR area (Compliance and Operational Risk) is responsible for developing and implementing policies, processes, procedures and tools to identify, evaluate, control, monitor and mitigate relevant operational risks in local entities and its own business areas.

Compliance Risk: Defined as the risk arising from legal or regulatory sanctions able to bring material financial losses as well as cause reputational damage due to breaches in laws, rules, regulations or self-regulatory codes of conduct. Compliance policy follows global guidelines, along with local requirements such as Resolution “CMN 4.595/2017”.

Social & Environmental Risk: Defined as the possibility of financial losses originated by social or environmental damages. It is managed through local Resolution “CMN 4.327/2014” as well as Credit Risk Policies, which establishes specific requirements to those risks.

Reputational Risk: Defined as the risk arising from negative perceptions related to business practices and/or the Conglomerate’s conduct and/or its employees that may impact profitability and future transactions, influencing the capacity of setting new relationships and/or holding existing ones or, still, jeopardizing any connection with investors, regulator, workers and/or the community.

Reputational risk is managed through policy and process controls concerning risk and business management to timely mitigate any damage to the image and using monitoring and proactive identification of potential event to the reputational risk. All employees are responsible for the Conglomerate’s image and should act ethically and legally, in accordance with the policies and standards described in the Code of Conduct.

Strategic Risk: Defined as a result of incorrect assumptions on internal or external factors; inadequate business plans, such as aggressive, ambiguous or out of scope acceptances; deficient business strategy execution or inability to react timely to the changes in competitive, macroeconomic or regulatory environments, such as competitors’ actions, clients’ new preferences, product obsolescence and technology development.

3.1. Objectives and Policies

Given the line of business diversity, markets and regions in which PCBofAML operates, the establishment of an efficient risk-management framework is a critical activity, performed through policies and procedures aligned to the goals and the Conglomerate’s risk appetite as well as prudential principles, rules, laws and regulatory practices. On the following sections, there are presented our main risks mentioned previously.

3.2. Organizational Structure

The primary groups responsible for maintaining risk policies and procedures and for establishing, controlling and monitoring the risk limits are: market risk management, credit risk management, liquidity risk management, and operational risk management. These groups are independent from other Conglomerate’s areas and report, in Brazil, to the Board of Directors (“BoD”). Furthermore, the Finance area also shares a relevant participation in risk management, mainly, regarding regulatory report processes, and, therefore, is also included in the chart below:

3.2.1. Country Leadership Team (“CLT”)

Figure 1: Risk Management Organizational Structure



The local Executive Committee, supported by the Management Committee, is the main governance forum in Brazil, which follows global risk guidelines, supervising country business activities and assuring the correct performance of Brazilian corporate governance structure. Both committees are conducted by BofAML’s CEO, and composed by members from Risk, Compliance, Finance, Operations and the main executives in the Conglomerate’s business and control areas.

3.2.2. Brazil Risk Management Committee (“BMRC”)

Subordinated to the Executive Board and the Regional Risk Committee in Latin America, the BMRC is responsible for supervising integrated risk management processes, encompassing strategies associated to credit risk, liquidity, market, operational, balance sheet, stress test and capital management, among other risks analyzed by the Conglomerate.

Acts coordinated with other Conglomerate’s governance committees, including Audit Committee, which enables an effective exchange of information for integrated risk management.

The BMRC gather quarterly composed by members of the Statutory Board and having as invitees leaders from Human Resources and Internal Audit areas from Latin America.



3.2.3. Brazilian Risk and Control Committee (“BRCC”)

Subordinated to the BMRC and gathering monthly, it is responsible for: (i) identifying, escalating and debating operational and compliance risks, as appropriated; (ii) reviewing and recommending policies, procedures and processes approvals regarding operational and compliance risk; (iii) providing information to RAS metrics, monitoring the adherence to quantitative metrics applicable to operational risk; (iv) assuring adequacy, soundness and efficacy for control structures; (v) review and assure that business continuity plans set procedures and estimated deadlines for activity reestablishment and recovery in case of critical business process interruption, along with the necessary communication actions; and (vi) promote comprehension, regulatory and self-regulatory compliance.

3.2.4. Assets, Liabilities and Market Risk Committee (“ALMRC”)

Subordinated to the “BMRC” and gathering monthly, it is responsible for, among other activities: (i) supervising assets and liabilities position as well as foreign exchange exposure; interest rate fluctuation risk; prices and liquidity taking into account normal and stressed conditions; (ii) review and recommend capital management policies, market and liquidity risk for approval as well as their respective limit structures and liquidity contingency plans; (iii) evaluate interest rate fluctuation risk for classified instruments within banking book; and (iv) monitor the adherence to quantitative metrics related to market, liquidity and capital risk.

3.2.5. Brazilian Credit Risk Committee (“BCRC”)

Subordinated to the “BMRC” and gathering monthly, it is responsible for supervising: (i) credit exposures and actions to assure the adequate provision for credit losses; (ii) concentration risk and portfolio quality, along with the credit risk impact on the Conglomerate’s strategic plan; (iii) provision levels for expected losses and its adherence to the established criteria; (iv) credit policies, procedures and processes and (v) adherence to the quantitative metrics related to credit risk devised by RAS.

4. Capital

As of December 31st, 2018, the document named “Capital Plan and Contingency Plan” consolidates the actions implemented by PCBofAML for the purpose of managing regulatory capital. The capital forecast provides a sufficiency foresight regarding the available regulatory capital and considering strategic and budgetary objectives, profit forecast, dividends distribution policy and corporate actions expected by the senior management. Specifically, the following elements comprise the Capital Plan:

- Three-year planning horizon;
- Alignment with expected profits and balance sheet as well as other factors prepared by the Finance and Risk Management areas and approved by PCBofAML entities’ Board of Directors;
- Based on pro forma estimates for different type of risk-weighted assets (RWA) and capital ratios, consistent with the terms of regulatory requirements applicable to CPBofAML;
- Disclose the coverage for capital forecast as well as planned capital actions to ensure regulatory capital adequacy;
- Determine assumptions for, at minimum, a baseline scenario and an adverse-stress scenario, appropriate for the business model, Risk appetite and PCBofAML’s portfolios and;
- Evaluate and report PCBofAML capability to support adverse-stress scenarios from a regulatory capital standpoint.

Among other functions, the CFO (*Chief Financial Officer*) is the designated Statutory Director for Capital Management structure and its responsibilities are:

- Responsibility for monitoring and maintaining capital resources above minimum internal indexes and minimum regulatory requirements, along with notifying all relevant governance bodies about possible capital mismatches;
- Overview, define and execute activities related to Capital management structure as well as supervise structural performance, including its enhancement;
- Responsibility for providing conditions to the adequate development of management capital area members in the politics, processes, regulatory reports and systems within the capital management structure, even those maintained by third-parties;
- Responsibility for managing capital and contingency plans and their adequate consistency with goals, scenarios and forecasts defined by the entity.

4.1. Regulatory Guidelines

In accordance with Basel III framework, the Brazilian National Monetary Council (“CMN”) and the Central Bank of Brazil (“BACEN”) have issued local resolutions and letters, as described below:

Regulatory Requirements	Details
From Circular 3.634/13 to 3.648/13	Establish the methodology that must be applied to risk valuation factors, necessary to credit, market and operational risk.
Resolução 4.192/13	Set basic rules concerning Main Capital, its calculation and guidelines.
Resolução 4.557/17	Regards risk management structure along with capital management structure.
Resolução 4.193/13	For PCBofAML the Capital Ratio minimum level in 2018 is 10.5% involving: i) a minimum of 8.625%; ii) Additional main capital of 1.875% and; iii) 0% for the Countercyclical buffer. ----- The Countercyclical Buffer may range from 0% to 1.875% and corresponds to the weighted average of the Countercyclical Buffer percentages by district (Counterparty exposure residence) over RWA. As disclosed by CBB the Countercyclical Buffer has remained unchanged in 0%.
Circular 3.748/15	Regards the Leverage Ratio calculation methodology, CBB submission and the data disclosure.

PCBofAML maintains a solid capital base, carefully managed, to cover inherent business risks. The Conglomerate Regulatory Capital sufficiency, adequacy and validation are performed to ensure necessary support to activity development.

Aiming to define strategies for balancing, monitoring and decision-making, concerning the relationship between available capital, risk appetite and minimum capital requirement, the following aspects are discussed by the Assets, Liabilities and Market Risk Management Committee (“AMLRC”):

- Adherence to the quantitative metrics related to capital;
- Capital consumption variation and evolution, along with the correct distribution of its respective risks;
- Explanations, if necessary, to the breach of internal or regulatory operational limits and their remedial actions;
- Decisions with relevant impacts over capital management;
- Internal limits, capital plan, contingency plan and capital policy approvals;
- Relevant regulatory changes.

For 2018 the entities belongs to PCBofAML do not have Equity interest at other entities.

4.2. Capital Measurement and Structure

The regulatory capital consists, currently, of Tier 1 capital, which comprises stockholders' equity and profit reserves, reaching all earnings from the current period. PCBofAML's entities compose their Main Capital as the sum of Tier 1 and 2 on a consolidated level, as per the local accounting rules and their corresponding chart of accounts ("COSIF") applicable to the national financial system.

Table 1: Regulatory Capital

In R\$ (thousands)	4Q18	3Q18
TIER I Capital (Main Capital)	2,596,636	2,315,039
Common Equity (1)	2,596,636	2,258,057
Retained earnings	-	56,982
Prudential adjustments (2)	-	-
TIER II Capital	-	-
REGULATORY CAPITAL	2,596,636	2,315,039

(1) For December/18 the Common equity amount also includes profits and retained earnings for the period, as per local accounting requirements.

(2) There is no Regulatory adjustments for this period.

4.3. Capital Requirement

As follows, the Trend of capital amount allocation for credit, market, and operational risks along with the Capital Ratio, as per BACEN's requirements:

Table 2: Capital Requirements as per BACEN's requirement

In R\$ (thousands)	4Q2018	3Q2018
RWACpad (RWA for Credit Risk) by weighting factor:		
Fator 2%	92.550	126.954
Fator 20%	141.663	97.903
Fator 50%	347.267	138.228
Fator 100%	2.585.893	3.439.931
Fator 250%	364.868	361.079
Qualifying Central Counterparty (QCCP)	4.737	2.905
CVA	321.398	444.207
Total RWACPAD	3.858.377	4.611.207
RWAMPad (RWA for Market Risk):		
-RWA _{JUR1} : Exposure to Interest Rate Variation - trading portfolio	1.304.694	1.705.403
-RWA _{JUR2} : Exposure to Variation of Foreign Currency Coupon Rate	4.070.880	3.642.650
-RWA _{JUR3} : Exposure to the Variation of the Price Index Coupon Rate	814.301	2.052.001
-RWA _{acs} : Risk-Weighted Assets related to Exposure to Stock Price Variation - trading portfolio	1.473	0
-RWA _{CAM} : Risk-Weighted Assets related to exposure in gold, foreign currency and assets under currency variation	1.020.624	523.047
-RWA _{COM} : Risk-Weighted Assets related to trades subjected to Commodities Price Variation	71.789	70.699
Total RWAMPAD	7.283.761	7.993.802
RWAOpad (Rwa for Operational Risk)	2.080.098	2.080.098
Total RWAOPAD	2.080.098	2.080.098
TOTAL RWA	13.222.235	14.685.106
Capital Ratio	19,64%	17,22%
Rban (Capital requirements attributed to positions with exposures to interest rate risk for Banking Bool	4.011	4.908
Amplified Capital Ratio (with RBAN)	19,63%	17,20%
Fixed Assets Limits (maximun 50% of Rgulatory Capital)	2,53%	2,26%
Leverage % (no minimum required)	16,59%	8,71%
Headroom Capital		
Capital Required (10.5%)	1.388.335	1.541.936
Regulatory Capital	2.596.636	2.528.719
Headroom	1.208.301	986.782

In accordance with BACEN's requirement, the formulas used to calculate the main components and ratios above are as follows:

* RWA - Risk Weighted Assets:

$$RWA = RWA_{CPAD} + \text{Max} (RWA_{MPAD} * 80\%; RWA_{MINT}) + RWA_{OPAD}$$


* Tier 1 Capital:

$$IN1 = \frac{\text{Tier 1}}{RWA}$$

* Capital Ratio (or Capital Adequacy Ratio):

$$CR = \frac{\text{Regulatory Capital}}{RWA}$$

* Main Capital Level ("ICP - *Índice de Capital Principal*")

$$ICP = \frac{\text{Main Capital}}{RWA}$$

* Leverage Ratio ("RA - *Razão de Alavancagem*"):

$$RA = \frac{\text{Tier 1}}{\text{Total Exposure}}$$

4.4. Capital Forecast

Annually prepared, the Capital and Contingency Plan represents a key process for Governance perspective and supports the CPBofAML's entities capital evaluation. Which provides:

- Detailed explanation of the legal entity structure and also governance framework;
- Business strategy description, along with estimated results and balance sheet amounts, under the assumptions utilized to prepare them during the planning period;
- Detailed estimates of capital requirements and capital resources during the planning period;
- Details of the stress scenario impact on the capital position as well as discussion and analysis from the senior management regarding test results.
- Details of actions to be undertaken in response to possible deteriorations in the capital position, if necessary.

5. Credit Risk Management

Credit Risk is defined as the possibility of losses associated to the inability or failure of a borrower or counterparty to meet its respective financial obligations in the agreed terms, to the devaluation of a credit contract due to the borrower risk rating deterioration, to a gain or an income reduction, to granted advantages because of renegotiation and to other recovery costs.

Credit Risk comprises: counterparty risk, sovereign risk, transfer risk, possible disbursements to honor collateral, guarantees, sureties, joint obligations, credit commitments or other transactions within a similar nature and, also, the possibility of losses deriving from noncompliance with financial obligations as agreed upon by the intermediary or contracting party to credit transactions.

5.1. Credit Risk Management policies and strategies

Credit Risk Policy aims to ensure that the Conglomerate's governance structure, controls, systems and risk management practices are strong enough and adequate to manage credit risk, in a compatible manner with its counterparties' risk, the nature of the transactions, the complexity of offered products and services; and still, proportionally to the institutional risk appetite. Credit Risk and Wholesale Credit areas, as well as the Brazilian Credit Risk Committee ("BCRC"), work on the assessment, control and monitoring of credit risk.

5.2. Credit Approval, Analysis and Monitoring Process

All credit concessions are submitted to the Wholesale Credit area for reviewing before being recommended to approval and, lastly, to the Credit Risk area for a final evaluation, according to pre-established patterns in "BCRC" and aligned to BAC global policies. Credit analysis takes into account the counterparty's line of business, economic industry, main competitors and suppliers, considerations regarding its management, corporate structure, current and projected financial-economic situation, leverage and indebtedness, cash flow, contingencies, among others, which are important elements for determining the appropriate counterparty risk rating. The transaction characteristics (strong/weak points), the client overview with its main risks and mitigates, as well as its main sources of repayment will be analyzed. Specifically, in the case of financial institutions, the financial analysis includes: capital, asset quality, management and evaluation of results, liquidity and sensitivity analysis.

Credit assessments are performed independently and apart of business areas by Credit Risk and Wholesale Credit professionals with large experience in conceding and managing credit risk.

Risk Rating classifications must be monitored and updated by Credit Risk and Wholesale Credit areas, at least, annually or whenever a counterparty risk profile changes.

5.3. Credit Portfolio Management Process

PCBofAML seeks to diversify the portfolio in a way to reduce volatility losses related to credit risk and maximize capital return. To this end, the credit limit structure was designed, including standards and benchmarks relating to exposure, credit and sovereign capital,

Besides monitoring credit limits granted according to the counterparty risk rating, Credit Risk and Wholesale Credit areas, aiming to maintain the portfolio diversification, monitor and control the portfolio exposure in accordance with established metrics and limits in the Risk Appetite Statement.

5.4. Credit Risk Classification Methodology

PCBofAML maintains an assertive, consistent and dynamic risk rating methodology based on risk rating models (scorecards), which consider the client's financial and non-financial factors, developed for use in specific portfolios and lines of business. Generally, guarantees and collaterals improve a transaction risk rating when compared to the counterparty risk rating.

5.5. Credit Risk mitigation instruments

Credit Risk mitigation techniques are analyzed for each case, and involve, when appropriated, the right to demand an initial guarantee or margin, the right to end transactions or request more guarantees due to the probability of unfavorable events, the right to solicit more guarantees when certain exposure levels are exceeded and the right to demand sureties from third-parties and buy protection against a credit default.

The table below discloses the percentage of exposure values subject to mitigation:

Table 3: Exposure Amounts Subject to Mitigation

In R\$ (thousands)	4Q2018	3Q2018
Risk Weight Factor		
0% - Global Net Agreement	-	194.037
0% - Financial Resources	1.036.999	-
0% - Global Net Agreement / DNA*	32.691.942	37.541.528
0% - Government Bonds	7.745.646	9.381.673
Total	41.474.587	47.117.238

* DNA --> Derivatives Netting Agreements

To determine the capital allocation proportion for credit risk, it is shown below the total mitigated amount and/or calculated by net value of these instruments under Risk Weighing Factor ("RWF")

Table 4: Exposure Amounts Subject to Mitigation by Risk Factor

In R\$ (thousands)		4Q2018	3Q2018
	Risk Weight Factor		
	2%	-	120.068
	20%	7.631.515	8.393.890
	50%	2.505.586	7.590.602
	100%	31.337.486	31.012.678
Total		41.474.587	47.117.238

5.6. Allowance for Loans Losses

The calculation of the allowance for loan losses complies with BACEN's regulatory requirements, defined by Resolutions "CMN 2.682/99", "CMN 2.697/00" and supplementary regulation, with the purpose of ensuring appropriate treatment to credit risk transactions, either through a qualitative assessment of the borrower or from a quantitative perspective represented by economic and financial aspects that result in the assessment of payment capacity.

The allowance for loan losses is established on a monthly basis. The allowance adjustments in a portfolio may be determined by the reclassification of past due transactions and/or by the contamination from the deterioration of the risk level of other counterparties of the same economic group in the portfolio. The amount recognized in the allowance may be raised when there is an imminent risk of default.

5.7. Transactions in Arrears

The table below displays the total transactions overdue by days of delay. All considered trades belong to the retail economic sector in the Southeast Region of Brazil. There were no transactions allocated as losses in the referred quarter.

Table 5: Overdue transactions

In R\$ (thousands)	4Q2018	3Q2018
Non Performing Trades by range of days		
Between 15 and 60 days	0,00	0,55
Between 61 and 90 days	0,00	0,00
Between 91 and 180 days	0,00	0,00
Between 181 and 360 days	0	0
Above 361 days	0	0
Total	0,00	0,55

5.8. Portfolio Quantitative Data Subject to Credit Risk

5.8.1. Total Amount of Credit Risk Exposures and Average Exposures at Quarter End

The exposures in tables 6 and 7 are posterior to the consideration of the conversion factors, when applicable. Some of the conversion factors applied are as follows: Conversion Factors in Credit “CFC” (“Fatores de Conversão em Crédito - FCC”) ; Future Potential Exposure Factors “FPEF” (“Fatores de Exposição Potencial Futura - FEPP”) ; and Credit Conversion on Operations to be Settled “CCOS” (“Fatores de Conversão em Crédito de Operações a Liquidar - FCL”), all established according to BACEN’s “Circular 3.644”.

The table below provides the total exposures evolution by credit risk weight factor:

Table 6: Total Credit Risk-Weighted Exposures by Quarter

In R\$ (thousands)		4Q2018	3Q2018
	Risk Weight Factor		
	0%	5.607.352	6.419.475
	2%	428.660	646.198
	20%	8.339.829	8.883.404
	50%	977.039	749.019
	75%	4.950.622	5.853.046
	100%	4.199.025	5.709.431
	250%	145.947	144.432
	Do Not Apply *	-	704.728
Total		24.648.473	29.109.733

* Do Not Apply = Other Compensation Systems / Deferred

The table below provides the average quarterly credit risk exposures evolution by risk weighting factor:

Table 7: Average Quarterly Credit Risk Exposures

In R\$ (thousands) Risk Weight Factor	Oct/18 - Dec/18	Jul/18 - Sep/18
0%	7.769.969	7.422.005
2%	422.756	613.963
20%	8.340.913	10.063.237
50%	963.603	624.810
75%	5.056.787	6.788.350
100%	5.122.004	6.198.202
250%	140.346	130.888
Do Not Apply *	-	528.223
Total	27.816.378	32.369.678

* Do Not Apply = Other Compensation Systems / Deferred

The quarterly average is assessed as a simple average of all exposures on the last day of each month within the quarter. The values are provided after applying the conversion factors described above.

5.8.2. Percentage of Exposures of the Ten and Hundred Largest Clients

The portfolio concentration of the largest 10 and 100 borrowers, by economic group, subject to credit risk is as follows:

Table 8: Concentration Level of the 10 and 100 Largest Borrowers:

Percentage of the 10 biggest clients	4Q2018	3Q2018
	60,83%	52,37%
Percentage of the 100 biggest clients	4Q2018	3Q2018
	99,72%	99,85%

5.8.3. Exposure by Economic Sector

The table below provides the credit risk exposures by economic sector:

Table 9: Credit Exposures by Economic Sector:

Economic Sector (in R\$ thousands)	4Q2018	%	3Q2018	%
Food and Beverages	105.710	0,51%	64.035	0,81%
Consumer Goods	112.074	0,54%	137.505	1,88%
Durable Goods	253.193	1,22%	0	0,00%
Oil and Gas	88.400	0,43%	78.603	0,00%
Agricultural Commodities	16.804	0,08%	49.625	2,22%
Clearing	5.790.282	27,95%	4.151.280	1,23%
Electricity	273.170	1,32%	272.477	2,47%
Government	1.960	0,01%	5.776.181	20,06%
Infrastructure	8.250	0,04%	1.766	0,08%
Financial Institution	9.534.923	46,03%	11.249.716	44,18%
Institutional Investor	2.027.522	9,79%	2.231.194	11,27%
Metals and Mining	59.965	0,29%	49.808	0,47%
Others (*)	908.260	4,39%	1.219.822	6,00%
Paper and Pulp	169.170	0,82%	328.598	0,33%
Pesticide / Other Agric. Chemicals	19.999	0,10%	12.155	0,06%
Chemicals	60.351	0,29%	80.687	0,23%
Technology	194.068	0,94%	245.069	0,68%
Telecom	115.342	0,56%	383.926	2,38%
Tourism	1.627	0,01%	1.628	0,01%
Retail	971.815	4,69%	1.370.095	5,65%
Total	20.712.885	100%	27.704.171	100%

Note(*): Above, the economic sector classified as "Others" refers to Tax Credits, Court Deposits, and Permanent Assets

Individual Accounts	0	0%	0	0%
Agricultural Credit	-	-	-	-
Mortgage	-	-	-	-
Personal Loans (with payroll loans)	-	-	-	-
Leasing of Vehicles	-	-	-	-
Credit Card	-	-	-	-
BNDES / Finame Transfers	-	-	-	-
Other Individual Products	-	-	-	-
Corporate Accounts *	20.712.885	100%	27.704.171	100%
Agricultural Credit	203.941	0,98%	201.323	0,33%
Import and Export Trades	1.960	0,01%	69.533	0,00%
Lending and Overdraft	231.608	1,12%	199.753	1,49%
Other Corporate Products	20.275.377	97,89%	27.233.562	98,18%
Total	20.712.885	100%	27.704.171	100%

Note(*):

- Agricultural Credit --> Credit specifically directed to agricultural business ;
- BNDES / Finame Transfers --> Specific loans against the multilateral government banks / entities ;
- Import and Export Trades --> FX Import and Export trades ;
- Lending and Overdraft --> Specific products, such as Overdraft, Bonds Discounting , etc. ;
- Other Corporate Products --> All other bank products in Brazil ;

Table 10: Average Credit Exposures by Economic Sector:

Economic Sector (in R\$ thousands)	Oct/18 - Dec/18	%	Jul/18 - Sep/18	%
Food and Beverages	102.215	0,58%	64.035	0,95%
Consumer Goods	108.997	0,62%	137.505	1,34%
Durable Goods	262.645	1,50%	0	0,00%
Oil and Gas	78.151	0,45%	78.603	0,00%
Agricultural Commodities	27.355	0,16%	49.625	2,45%
Clearing	5.341.546	30,45%	4.151.280	1,25%
Electricity	280.139	1,60%	272.477	3,33%
Government	997	0,01%	5.776.181	18,87%
Infrastructure	10.071	0,06%	1.766	0,10%
Financial Institution	6.769.542	38,58%	11.249.716	44,45%
Institutional Investor	1.510.034	8,61%	2.231.194	11,03%
Metals and Mining	50.271	0,29%	49.808	0,64%
Others (*)	1.385.961	7,90%	1.219.822	6,15%
Paper and Pulp	204.998	1,17%	328.598	0,40%
Pesticide / Other Agric. Chemicals	20.478	0,12%	12.155	0,07%
Chemicals	54.715	0,31%	80.687	0,33%
Technology	216.526	1,23%	245.069	0,62%
Telecom	119.285	0,68%	383.926	2,44%
Tourism	1.627	0,01%	1.628	0,01%
Retail	999.016	5,69%	1.370.095	5,57%
Total	17.544.569	100%	27.704.171	100%

Note(*): Above, the economic sector classified as "Others" refers to Tax Credits, Court Deposits, and Permanent Assets

Individual Accounts	0	0%	0	0%
Agricultural Credit	-	-	-	-
Mortgage	-	-	-	-
Personal Loans (with payroll loans)	-	-	-	-
Leasing of vehicles	-	-	-	-
Credit Card	-	-	-	-
BNDES / Finame Transfers	-	-	-	-
Other Individual Products	-	-	-	-
Corporate Accounts*	17.544.569	100%	25.012.360	100%
Agricultural Credit	203.497	1,16%	200.900	1,08%
Import and Export Trades	1.960	0,01%	54.407	0,00%
Lending and Overdraft	233.402	1,33%	202.949	1,45%
Other Corporate Products	17.105.709	97,50%	27.245.915	97,47%
Total	17.544.569	100%	25.012.360	100%

Note(*):

- Agricultural Credit --> Credit specifically directed to agricultural business ;
- BNDES / Finame Transfers --> Specific loans against the multilateral government banks / entities ;
- Import and Export Trades --> FX Import and Export trades ;
- Lending and Overdraft --> Specific products, such as Overdraft, Bonds Discounting , etc. ;
- Other Corporate Products --> All other bank products in Brazil ;

Table 11: Credit Exposures by Economic Sector (according to their maturity)

Economic Sector (in R\$ thousands)	Less than 6 Months	Greater than 6 Months Less than 1 Year	Greater than 1 Year Less than 5 Years	Greater than 5 Years	Others	TOTAL
Food and Beverages	243	93.353	0	0	78.758	172.354
Consumer Goods	2.000	0	0	0	48.618	50.618
Durable Goods	2.186	0	0	0	32.344	34.529
Oil and Gas	2.300.212	43.757	838.208	334.251	2.290.459	5.806.888
Agricultural Commodities	0	0	0	0	8.001	8.001
Clearing	0	0	0	0	240.807	240.807
Electricity	74	10.112	0	0	156.437	166.623
Government	867	0	0	0	12.559	13.426
Infrastructure	32.570	0	0	0	4.222	36.792
Financial Institution	7.794.821	0	0	0	1.677.998	9.472.818
Institutional Investor	8.734	630	0	0	160.712	170.077
Metals and Mining	1.037.306	0	0	0	451	1.037.757
Others *	0	0	0	0	1.790	1.790
Paper and Pulp	1	1.274	0	0	872.259	873.534
Pesticide / Other Agric. Chemic	21.371	499	0	0	12.575	34.445
Chemicals	0	0	0	0	9.326	9.326
Technology	11.184	22.985	58.807	0	137.710	230.686
Telecom	75.444	32.937	100	0	82.943	191.423
Tourism	7.011	2.790	0	0	14.889	24.690
Retail	1.127	3.500	0	0	0	4.627
Other Individual Products	307.476	201.548	216.347	0	1.406.303	2.131.673
Total	11.602.627	413.384	1.113.462	334.251	7.249.161	20.712.885
Note(*): Above, the economic sector classified as "Others" refers to Tax Credits, Court Deposits, and Permanent Assets						
Individual Accounts	0	0	0	0	0	-
Agricultural Credit	-	-	-	-	-	-
Mortgage	-	-	-	-	-	-
Personal Loans (with payroll loa	-	-	-	-	-	-
Leasing of vehicles	-	-	-	-	-	-
Credit Card	-	-	-	-	-	-
BNDES / Finame Transfers	-	-	-	-	-	-
Other Individual Products	-	-	-	-	-	-
Corporate Accounts *	11.602.627	413.384	1.113.462	334.251	7.249.161	20.712.885
Agricultural Credit	0	0	0	0	203.941	203.941
Import and Export Trades	1.960	0	0	0	0	1.960
Lending and Overdraft	137.298	94.309	0	0	0	231.608
Other Corporate Products	11.463.368	319.075	1.113.462	334.251	7.045.221	20.275.377
Total	11.602.627	413.384	1.113.462	334.251	7.249.161	20.712.885

Note(*):

- Agricultural Credit --> Credit specifically directed to agricultural business ;
- BNDES / Finame Transfers --> Specific loans against the multilateral government banks / entities ;
- Import and Export Trades --> FX Import and Export trades ;
- Lending and Overdraft --> Specific products, such as Overdraft, Bonds Discounting , etc. ;
- Other Corporate Products --> All other bank products in Brazil ;

5.8.4. Exposure by Geographic Region

The table below provides the credit risk exposures by geographic region:

Table 12: Credit Exposures and Averages by Geographic Region:

Geographic Region (in R\$ thousands)	4Q2018	%	3Q2018	%
Center-West	491.388	2,37%	5.937.880	18,95%
International (Offshore)	528.550	2,55%	401.231	0,34%
Northeast	69.630	0,34%	55.105	1,90%
North	34.332	0,17%	32.538	0,00%
Southeast	19.452.929	93,92%	21.205.907	78,81%
South	136.056	0,66%	171.510	0,01%
Total	20.712.885	100%	27.804.171	100%
Individual Accounts *	0	0%	0	0%
Agricultural Credit	-	-	-	-
Mortgage	-	-	-	-
Personal Loans (with payroll loans)	-	-	-	-
Leasing of vehicles	-	-	-	-
Credit Card	-	-	-	-
BNDES / Finame Transfers	-	-	-	-
Other Individual Products	-	-	-	-
Corporate Accounts	20.712.885	100%	27.804.171	100%
Agricultural Credit				
Southeast	203.941	0,98%	201.323	0,72%
Import and Export Trades				
Center-West	1.960	0,01%	69.533	0,25%
Southeast	0	0,00%	0	0,00%
Northeast	0	0,00%	0	0,00%
Lending and Overdraft				
Northeast	0	0,00%	100	0,00%
North	0	0,00%	0	0,00%
Southeast	231.608	1,12%	199.653	0,72%
South	0	0,00%	0	0,00%
Others				
Center-West	491.388	2,37%	5.868.347	21,11%
Northeast	69.630	0,34%	401.231	1,44%
North	34.332	0,17%	55.004	0,20%
Southeast	19.017.381	91,81%	20.804.932	74,83%
South	136.056	0,66%	32.538	0,12%
International (Offshore)	526.590	2,54%	171.510	0,62%
Total	20.712.885	100%	27.804.171	100%
Geographic Region Average (in R\$ thousands)	Oct/18 - Dec/18	%	Jul/18 - Sep/18	%
Center-West	790.090	3,29%	6.966.305	15,61%
International (Offshore)	225.799	0,94%	396.478	0,29%
Northeast	67.262	0,28%	56.561	1,92%
North	38.172	0,16%	32.549	0,00%
Southeast	22.744.732	94,70%	24.073.848	82,17%
South	150.527	0,63%	163.033	0,01%
Total	24.016.582	100%	31.688.775	100%

Note(*):

- Agricultural Credit --> Credit specifically directed to agricultural business ;
- BNDES / Finame Transfers --> Specific loans against the multilateral government banks / entities ;
- Import and Export Trades --> FX Import and Export trades ;
- Capital de Giro, Desconto de Títulos, Conta Garantida --> Specific products, such as Overdraft, Bonds Discounting, etc. ;
- Other Corporate Products --> All other bank products in Brazil ;

5.8.5. Transactions Written Off in the Quarter

The table below presents the provision movement for non-performing loans on a quarterly basis:

Table 13: Movement in Provisions for Non-Performing Loans

In R\$ thousands	Oct/18 - Dec/18	Jul/18 - Sep/18
Provision Balance	(78)	(441)
Provision During Quarter	(18)	(290)
Reversal During the Quarter	381	51

5.8.6. Notional Value of the Contracts Subject to Counterparty Risk

Table 14 displays the notional amount related to contracts where a clearing house has not been used as a Central Counterparty, being all cases without guarantees.

Table 14: Notional Amount of Transactions where a Clearing House has not been used as a Central Counterparty:

In R\$ thousands	4Q2018	3Q2018
Amount of contracts subject to:		
COUNTERPARTY CREDIT RISK		
Swap	47.264.219	55.922.267
Option	4.448.626	3.212.812
NDF	23.041.285	26.643.043
Government Bond Term	141.416	760.200
DERIVATIVES	74.895.546	86.538.322
REPO TRANSACTIONS	8.825.420	9.254.621
TOTAL	83.720.966	95.792.942

The exposure calculation related to transactions to be settled and repo transactions considers only exposures regarding counterparty credit risk in line with the definitions established by BACEN: "Circular 3.809/2017".

The table below provides the amounts related to the contracts in which there is a clearing house acting as a Central Counterparty (Bovespa/BM&F):

Table 15: Amounts regarding Notional Value of transactions in which there is a clearing house acting as Central Counterparty.

In R\$ thousands	4Q2018	3Q2018
Futures	27.721.501	37.951.092
Swaps	1.109.450	1.428.650
Total	28.830.951	39.379.742

5.8.7. Positive Gross Amounts of contracts subject to Counterparty Risk

Table 16 displays values related to the positive gross amounts of contracts subject to counterparty risk, segmented by risk weighting factor and disregarding negative amounts of derivatives compensation trades:

Table 16: Gross Positive Value of Contracts after Collateral Subject to Counterparty Risk

In R\$ thousands		4Q2018	3Q2018
	Risk Weight Factor		
	0%	240.268	1.634.356
	2%	1.762.837	142.715
	20%	8.446.471	8.186.939
	50%	589.031	877.593
	100%	2.347.873	3.561.211
Total		13.386.480	14.402.814

Specifically, the gross positive values in the table above include the replacement amount of foreign exchange transactions to be settled, marked to market derivatives, repo transactions and interbank deposit transactions net of guarantees and without considering negative values from offsetting agreements.

6. Market Risk Management

Market risk is defined as the risk caused by losses from market variable fluctuation, which may adversely impact the value of assets or liabilities.

Market risk is composed of price risk and interest rate risk:

- **Price risk:** The risk to current or forecasted financial condition, originated from changes in the trading portfolio or other obligations value, considered as part of risk distribution. These portfolios are, typically, subject to daily price movements and are accounted for, mainly, on a mark-to-market basis. This risk occurs most significantly on market-making, dealing, interest rate, foreign exchange, actions, commodities and credit market activities.
- **Interest rate risk:** The risk to current or forecasted financial condition derived from interest rate movements. Interest rate risk results from timing differences between rate changes and cash flow synchronism (repricing risk), may modify the relation between different earning yield curves affecting bank activities since rate relationship across maturity ranges to the related interest embedded in bank products.

Given that market risk is an intrinsic component of PCBofAML's business, it is imperative to assess an appropriate framework for market risk management, relying both on the Conglomerate's corporate governance and on the effectiveness of its internal controls structures, which determines the way strategies and risk management objects are set, also the way risks are identified when evaluations, planning, and subsequent execution are performed within business activities. The specific components of the Market Risk management framework consist of clearly documented policies and strategies, which establish limits and procedures designed to maintain market risk exposure under the levels accepted by PCBofAML; in addition, it includes systems for measuring, monitoring, and controlling market risk exposures and a fitting organizational framework for efficient and timely reporting of risk exposures, in accordance with the levels deemed appropriate by the Conglomerate. Providing information for assessing line of business performance is part of the effectiveness of the internal control systems and procedures.

PCBofAML's Market Risk management includes the identification and measurement of existing and potential market risks; risk mitigation and control by means of policies and procedures, monitoring and management of risk levels, ensuring adherence to the Conglomerate's risk appetite, reviewing and appropriate reporting both to the Board and to the regulators.

The responsibility for market risk management at PCBofAML belongs to the Local Risk Director Country Risk Officer, which together with the ALMRC, defines and determines the market risk level which the Conglomerate is able to accept, consistent with its business goals and not diverging from the global goals and strategies of PCBofAML. The Board and the ALMRC delegate to the local market risk area, independently from business transactions, the responsibility for identifying, measuring, monitoring and reporting market risk activities deriving from the Conglomerate's actions, including responsibility for disclosing risk measurements such as Value-at-Risk ("VaR"), Dollar value of a one-

basis point (“DV01”), currency exposure, back testing and stress testing among other measures and the monitoring of risk levels and established limits, besides the responsibility for supporting compliance with local regulations.

6.1. Market Risk policies and strategies

PCBofAML’s local market risk policy establishes standards for the identification, measurement, monitoring and reporting of activities that expose the Conglomerate to market risks. These standards have been annually reviewed and submitted to ALMRC’s approval.

The principles of PCBofAML’s market risk management focus on ensuring that the initial functions of this type of risk do not expose the Conglomerate to losses that could affect its strategy and/or its feasibility. For an effective risk monitoring, Local Credit Risk area is responsible for ensuring a correct risk identification and measurement, the local market risk area operates according to the following principles:

- Market risk exposure is an integral part of the Conglomerate’s activities and the local market risk area is in charge of ensuring that risks are properly identified and measured, as well as developing controls and providing regular reports on incurred market risks;
- The local market risk area must ensure that risk levels incurred by the Conglomerate are compatible with its risk appetite, through limit monitoring;
- The instruments used as hedges by PCBofAML must be previously approved.

6.2. Transactions Operational Classification

The methodology used by PCBofAML to measure market risk depends on the classification of these transactions, in one of the following categories according with its characteristics and purposes:

- Trading book;
- Portfolio of transactions not classified under the *banking book*.

The transactions classification into one of these categories allows the calculation of regulatory capital based on the specific methodologies that are used for regulatory capital measurement of the trading and banking book transactions.

6.3. Sensitivity Analysis

The sensitivity analysis of risk factors allows measuring the impact on the value of a position or portfolio resulting from the isolated changes of specific market factors, being constant all other

market risk factors. Local Market Risk area analyzes daily and reports risk sensitivity measures related to interest rates, interest curves, volatilities, currency exposure, shares and commodities to the business areas involved.

In accordance with BAC's guidelines, the local market risk area also utilizes other market risk indicators such as exposure levels, VaR and stress testing.

6.4. Value at Risk ("VaR")

PCBofAML applies the VaR methodology to measure the total portfolio potential losses. VaR is a standard methodology used to estimate the maximum loss expected from a portfolio given the level of significance and within a specific time horizon. The local market risk area uses the VaR measure as a market risk level indicator, being any changes observed in the VaR measure correlated with corresponding modifications in the market risk perspective.

The VaR calculation methodology is in line with the procedures adopted globally by the corporation, which has increased the model's transparency and the inclusion of more granularity in the risk factors considered for the forecast. The model is based on a historical simulation approach made with an observation window of 3 years updated periodically. The confidence level of the model is 99% and the horizon is 1 day, however, the average reaches the 19 worst losses in the observation period.

This methodology takes into consideration the "fat tails" effects, one of the financial assets series characteristics.

Table 17: VaR Results

VaR*				
99%, 1 Day				
In R\$				
	Dec 17	Sep 17	Jun 17	Mar 17
VaR*	-17,727,549	-16,316,026	-17,269,799	-13,914,146
Minimum**	-11,401,128	-10,397,793	-10,887,127	-8,454,646
Maximum**	-19,672,740	-17,805,094	-18,034,439	-16,887,462
Average**	-14,760,751	-14,599,371	-12,963,924	-11,908,097

*Average of the 19 worst losses in a 3 year observation window, for the prudential conglomerate including the Trading and the Banking books.

** Minimum, Maximum and Average VaR of the quarter-end on the date at issue

When considering the VaR methodology by historical simulation, it's not necessary to estimate the volatility or correlations between the portfolio assets, which represents an advantage in relation to the other methodologies of VaR calculation. Nevertheless, when considering historical data, one must realize that events occurred in the past may not, necessarily, repeat themselves in the future, or the timing series may consider events which can never happen again. Besides that, by weighting

all figures with the same amounts, VaR can suffer distortions from old data and extreme highs or lows during the observation window, as this can generate some significant variations.

6.5. Adherence Tests - Back Testing

The Local Market Risk area applies back testing to analyze the adherence and accuracy of local model utilized for measuring market risk. The results of back testing are calculated in accordance with BAC's global back testing program reported monthly.

6.6. Stress Tests

The stress testing program form an integral part of the risk management governance and serve as a key component of the Conglomerate's Integrated Risk Management Structure, promoting risk identification, control and mitigation, whilst improving capital and strategic management.

The stress testing is performed on an annual basis in connection with the Capital Planning preparation.

Periodic stress tests are undertaken aiming to capture the most affected positions within a specific market stress scenario, allowing a fast identification of potential positions and their significant impact derived from market variable changes. Daily stress tests are performed for the trading book using pre-determined stress scenarios. Non-trading book positions are stressed on, at least, a quarterly basis in accordance with BACEN's requirement.

6.7. Trading Portfolio

The table below provides the total trading portfolio value by relevant market risk factor and segmented between bought and sold positions.

Table 18: Trading Portfolio by Risk Factor

In Thousands of R\$ Product	Position Dec/2017		Position Sep/2017		
	Bought	Sold	Bought	Sold	
Shares	-	-	-	-	39
Commodities	-	-	-	-	-
Inflation Coupons	4,615,899	5,059,425	4,620,146	5,313,871	
Other Risk Factors	25,432,197	18,354,067	31,559,279	22,911,226	
FX	43,871,909	43,806,279	49,962,787	49,920,333	
Interest Rate	25,238,242	20,796,642	25,354,354	22,135,441	
Total	99,158,247	88,016,413	111,496,566	100,280,910	

* Table 20 include all positions compared to tables 21/22 that only present derivatives.

** CDI index positions are reported under "Other risk factors", therefore they are ot part of the "Interest Rate" classification.

*** For positions with maturity greater than 10 years, where applicable, the RWAJUR's calculations multipliers were applied to MTMs.

6.8. Derivative Financial Instruments

The table below provides the exposure to derivative financial instruments with central counterparty, per market risk factor category.

Table 19: Derivative Financial Instruments Cleared with a Central Counterparty

In Thousands of R\$ Product	Position Dec/2017		Position Sep/2017	
	Bought	Sold	Bought	Sold
Shares	-	-	-	-
Commodities	-	-	-	-
Inflation Coupons	1,898,396	2,285,756	1,780,002	625,409
Other Risk Factors	484,025	1,516,460	475,639	1,570,530
FX	12,442,500	4,506,341	11,642,947	3,849,426
Interest Rate	6,952,271	4,349,125	3,545,890	3,633,455
Total	21,777,192	12,657,682	17,444,478	9,678,820

* CDI index positions are reported under "Other risk factors", therefore they are not part of the "Interest Rate" classification.

** For positions with maturity greater than 10 years, where applicable, the RWAJUR's calculations multipliers were applied to MTMs (except for Swaps).

The table below provides the exposure to derivative financial instruments without a central counterparty, per market risk factor category.

Table 20: Derivative Financial Instruments not cleared with a Central Counterparty

In Thousands of R\$ Product	Position Dec/2017		Position Sep/2017	
	Bought	Sold	Bought	Sold
Shares	-	-	-	-
Commodities	-	-	-	-
Inflation Coupons	1,138,150	2,773,669	1,175,144	4,688,462
Other Risk Factors	24,948,180	16,837,613	31,083,643	21,340,698
FX	31,042,464	38,992,058	37,426,390	45,510,765
Interest Rate	15,501,444	14,115,650	18,057,634	16,267,333
Total	72,630,238	72,718,990	87,742,811	87,807,258

* CDI index positions are reported under "Other risk factors", therefore they are not part of the "Interest Rate" classification.

** For positions with maturity greater than 10 years, where applicable, the RWAJUR's calculations multipliers were applied to MTMs (except for Swaps).

6.9. Transactions not classified under Trading Portfolio – sensitivity to interest rate fluctuations

Interest Rate risk for transactions not classified under trading portfolio ("IRRBB" - interest rate risk for banking book) is monitored through Δ NII and Δ EVE metrics.

Δ EVE regards the difference between the present value of all instrument repricing cash flow subject to IRRBB in a referential scenario and the present value of those same repricing flows after interest rate shocks.

Δ NII regards the difference between financial intermediation results on a basis scenario and the same amount projected after interest rate shocks.

7. *Liquidity Risk Management*

Liquidity Risk is defined as the institution financial incapacity of honoring short, medium or long term commitments and will be affected as a result of insufficient and/or inadequate resources to fulfill obligations for immediate liabilities.

For adequate liquidity risk management, the Conglomerate has a robust framework for financial transactions control and monitoring, including a continuous analysis of the liquidity impacts to the cash flow originated by external events, preparing stress scenarios with a varied mix of risk factors and market variables, periodic assessment of the quality and liquidity of assets, contingency plans and funding instruments, among others.

The main goal of liquidity risk management is to develop a strategy to ensure that the Conglomerate is able to meet contractual and potential financial obligations during any market cycle and liquidity stress periods through the following strategic components:

- Maintain sufficient liquidity to promptly meet the “on” and “off-balance sheet” obligations of its portfolio without incurring excessive costs while operating normally in line with the growth strategy of the institution;
- Keep sufficient liquidity, based on the bond maturity analysis and other potential cash outflows, including expected discharges in market stress conditions;
- Diversify funding sources, regarding assets profile and legal entities’ structure;
- Maintain an appropriate and sufficient contingency plan to protect from possible relevant liquidity events.

The Credit Risk Officer (“CRO”) is responsible for supervising daily activities of management, control and monitoring involving Liquidity Risk, contemplating a broad consultation and communication channel with Corporate Treasury and Liquidity Risk areas.

The Liquidity Risk tasks related to managing, controlling and monitoring can be classified into categories, such as:

General

- Communicate and implement procedures for Liquidity Risk management;
- Supervise compliance with daily Liquidity Risk control and monitoring activities;
- Maintain data systems and processes to measure, monitor, control, and report Liquidity Risk;
- Provide relevant information to the Executive Board, committees and local regulators;
- Maintain applicable contingency plans; and
- Hold an appropriate Investments Policy Guideline.

Strategic

- Identify extreme liquidity scenarios and perform stress test analyses;
- Assess the adequacy of the liquidity level;
- Ensure that liquidity aspects are considered in the development of new products, business activities or corporate initiatives, as part of the day-to-day regular process of revision adopted by the Conglomerate (e.g.: new products review process);
- Manage funding needs from or to connected entities;
- Maximize the variety of funding sources;
- Support coordination and alignment with the Conglomerate's risk management practices, including Market, Credit and Operational Risk; and
- Aid the coordination and alignment with BAC's Liquidity Risk management practices.

Tactical

- Identify relevant scenarios for normal and stress market conditions;
- Find relevant liquidity factors and their behaviors in front of each scenario;
- Recognize funding sources in each situation; and
- Conduct analyses to support behavior and funding assumptions.

Operational

- Provide and analyze daily cash flow forecasts; and
- It is the responsibility of Corporate Treasury and Liquidity Risk area reviewing and adjusting, whenever necessary, the adequacy and sufficiency of the Conglomerate's practices.

7.1. Identification, Measurement, and Monitoring

Liquidity Risk area, along with the appropriate support from business area, is responsible for identifying the main liquidity risk factors that must be measured and monitored. It is also in charge of proposing liquidity limits to be approved by the correct committees.

Once the most relevant components for Liquidity Risk are spotted (e.g. instruments involving periodic margin adjustments, or low liquidity assets concentration) and are under source and liquidity aspect, Liquidity Risk must apply a daily control and analyze those factors behavior within defined stress scenarios for the Conglomerate. Liquidity Risk area is also accountable for ensuring all liquidity items are captured and contemplated by the system used to measure, control and report Liquidity Risk.

7.2. Liquidity Gap Analysis

Through the liquidity gap analysis, it is possible to anticipate significant cash needs or outflow periods, which may impact the Conglomerate's liquidity.

The cash flow forecast is one of the key procedures adopted by liquidity gap analysis, since it provides a prospective view of the ongoing flow between sources and borrowers, allowing an evaluation of resource generation capacity and cash flow needs derived from its activities and market volatilities.

Cash flow is projected on a daily basis for a minimum horizon of 3 (three) months and observed mismatches are investigated, under daily and accumulated cash needs resulting from these mismatches.

7.3. Mitigation and Control

Among management and monitoring activities, Liquidity Risk area is accountable for:

- Daily monitoring compliance or violation of preset liquidity limits;
- Timely report liquidity limit violations and their respective required approvals to the CRO;
- Report a monthly summary to the ALMRC, regarding approvals necessary to liquidity limit violations;
- Supervising the data submission required by the local regulator;
- Monthly analyze and present stress test results to ALMRC;
- Provide explanations to the ALMRC, if applicable, about limit violation and remedial actions;
- Perform distinct scenario analysis and stress tests, at least, on a quarterly basis;
- Report any weakness observed in liquidity controls; and
- Hold a broad communication channel with Local Market Risk Unit ("MRM BR") to promote risk management coordination and integration.

8. Operational Risk Management

8.1. Operational Risk Definition

Operational risk is defined as the risk originated from losses caused by external events and inadequate or inefficient systems, individuals and internal processes:

The following are considered as operational risks:

- **Individuals:** the risk that business necessities are not fulfilled because of managing errors, internal frauds, organizational framework deficiencies, inadequate human resources or other problems in team management.
- **Processing:** the risk of a product, service or modification not being registered, processed and/or executed in an effective and efficient way, including accounting and reporting fails in financial or management data.
- **Systems:** the subsequent risk that deficiencies, complexities and system or technology instabilities do not support business activities.
- **External Events:** the risk of external factors not under the Conglomerate's control, including those associated to providers and vendors; political, social or cultural issues as well as fortuitous cases or force majeure.

8.2. Operational Risk Management policies and strategies

Operational Risk Management framework is defined by internal policies and subordinated to the Local Risk Board and to the Global Compliance and Operational Risk ("GCOR").

The Conglomerate has an adequate system to identify, evaluate, control, mitigate, monitor and report operational risks associated to all activities, according to the required standards demanded by regulators and global internal policies.

Operational Risk Policy comprises the following activities:

- Set minimum requirements and responsibilities to operational risk management within the Conglomerate, in accordance with legislation, local regulations and current global policies, incorporating metrics management devised by the Risk Appetite Statement ("RAS").
- Ensure that reporting procedures for operational losses are adequate and kept up to date in order to:
 - Timely identify, register and clarify pertinent issues;
 - Analyze incidents as to their basic cause and effects;

- Identify and follow, when appropriate, corrective actions taken to reduce the probability of recurrence; and
- Identify, monitor, control and enhance mechanisms for eliminating or mitigating operational risks.

8.3. Operational Risk Area Scope

The team is responsible for operational risk regarding PCBofAML, along with developing and guiding the strategy, framework and key elements of operational risk integrated management.

8.4. Regulatory Capital Component demanded by Operational Risk

PCBofAML calculates the consolidated regulatory capital component, in relation to the operational risk, using the Basic Indicator Approach defined by BACEN's document "Circular 3.640/13".

$$RWA_{OPAD} = \frac{1}{F} \times \frac{\sum_{t=1}^3 \max[0.15 \times IE_t; 0]}{n}$$

9. *Updating Periodicity*

PCBofAML discloses its information pursuant to the terms stipulated by BACEN, in accordance with local regulation “Circular 3.678/2013”. Furthermore, all quantitative and qualitative data is revised and updated on a quarterly basis by the due institutional members.