

Pillar 3 Report 2018

RBC Investor Services Bank S.A.

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Treasury Services**

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List of Acronyms

AFS	Available For Sale
AIFMD	Alternative Investment Fund Management Directive
AIRB	Advanced Internal Rating Based
ALCO	Assets & Liabilities Committee
ALM	Asset-Liability Management
AML	Anti-Money Laundering
BCM	Business Continuity Management
BCP	Business Continuity Plan
BoD	Board of Directors
BPS	Basis points
BRRD	Banking Recovery and Resolution Directive
CBL	Central Bank of Luxembourg
CDS	Credit Default Swap
CEO	Chief Executive Officer
CET1	Common Equity Tier 1
CFO	Chief Financial Officer
COO	Chief Operating Officer
CRD	Capital Requirements Directive
CRO	Chief Risk Officer
CSSF	Commission de Surveillance du Secteur Financier
CT	Corporate Treasury
CVA	Credit Valuation Adjustment
DRP	Disaster Recovery Planning
EAD	Exposure At Default
EBA	European Banking Authority
ECB	European Central Bank
EMIR	European Market Infrastructure Regulation
ERM	Enterprise Risk Management
EORM	Enterprise Operational Risk Management
ESRB	European Systemic Risk Board
EVE	Economic Value of Equity
ExCo	Executive Committee
FX	Foreign Exchange
GRM	Group Risk Management
GTCM	Global Trading Credit Management
GTI	Global Technology Infrastructure
HQLA	High Quality Liquid Asset
ICAAP	Internal Capital Adequacy Assessment Process
ICCM	Institutional Client and Credit Management
ILAAP	Internal Liquidity Adequacy Assessment Process
IRRBB	Interest Rate Risk in the Banking Book

JST	Joint Supervisory Team
KRI	Key Risk Indicator
LCP	Liquidity Contingency Plan
LCR	Liquidity Coverage Ratio
LCT	Liquidity Crisis Team
MTM	Mark To Market
NIBT	Net Interest Before Taxes
NIE	Non-Interest Expense
NII	Non-Interest Income
NPL	Non Performing Loan
NSFR	Net Stable Funding Ratio
OCR	Overall Capital Ratio
OSFI	Office of the Superintendent of Financial Institutions
P2G	Pillar 2 Guidance
P2R	Pillar 2 Requirement
P&L	Profit and Loss
PA&C	Positive Advice and Counsel
PD	Probability of default
RAF	Risk Appetite Framework
RAS	Risk Appetite Statement
REPE	Real Estate Private Equity
REPO	Repurchase Agreement
ROE	Return on Equity
RP	Recovery Plan
RPCC	Recovery Plan Crisis Committee
RPI	Recovery Plan Indicators
RSF	Required stable funding
RWA	Risk-Weighted Assets
SIRR	Structural Interest rate risk
SLA	Service Level Agreement
SREP	Supervisory Review and Evaluation Process
SSA	Sovereign supranational agency
SSM	Single Supervisory Mechanism
SWIFT	Society for Worldwide Interbank Financial
TMS	Treasury and Market Services
TSCR	Total SREP Capital Ratio
VaR	Value at Risk
YoY	Year over Year
YTD	Year To Date

EBA tables and templates¹

Tables	Reference	Name	CRR Articles	Reference
1	EU OVA	Institution risk management approach	Article 435 (1)	Section 1
2	EU CRA	General qualitative information about credit risk	Article 435 (1)	Section 4
3	EU CCRA	Qualitative disclosure requirements related to CCR	Article 435 (1)	Section 4.6
4	EU MRA	Qualitative disclosure requirements related to market risk	Article 435 (1)	Section 5
5	EU LIA	Explanations of differences between accounting and regulatory exposures amounts	Article 436 (b)	Section 2
6	EU CRB-A	Additional disclosure related to the credit quality of assets	Article 442 (a)-(b)	Section 4.2
7	EU CRC	Qualitative disclosure requirements related to CRM techniques	Article 453 (a)-(e)	Section 4.4
8	EU CRD	Qualitative disclosure requirements on institution's use of external credit ratings under the standardized approach for credit risk	Article 444 (a)-(d)	Section 4.5
9	EU CRE	Qualitative disclosure requirements related to IRB models	Article 452 (a)-(c)	Not applicable
10	EU MBB	Qualitative disclosure requirements for institutions using the IMA	Article 455	Not applicable

¹ In accordance with the publication EBA/GL/2016/11 Version 2, EBA/GL/2017/01, EBA/GL/2015/22 and BCBS Pillar 3 disclosure requirements – consolidated and enhanced framework (IRRBB section)

Templates	Reference	Name	CRR Articles	Reference
1	EU LI1	Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories	Article 436 (b)	Section 2
2	EU LI2	Main sources of differences between regulatory exposure amounts and carrying values in financial statements	Article 436 (b)	Section 2
3	EU LI3	Outline of the differences in the scopes of consolidation (entity by entity)	Article 436 (b)	Section 2
4	EU OV1	Overview of RWAs	Article 438 (c)-(f)	Section 3.3.3
5	EU CR10	IRB (specialized lending and equities)	Article 153 (5) or 155 (2), Article 438	Not applicable
6	EU INS1	Non-deducted participations in insurance undertakings	Article 438 (c)-(d) & Article 49 (1)	Not applicable
7	EU CRB-B	Total and average net amount of exposures	Article 442 (c)	Section 4.2.1
8	EU CRB-C	Geographical breakdown of exposures	Article 442 (d)	Section 4.2.2
9	EU CRB-D	Concentration of exposures by industry and counterparty types	Article 442 (e)	Section 4.2.3
10	EU CRB-E	Maturity of exposures	Article 442 (f)	Section 4.2.4
11	EU CR1-A	Credit quality of exposures by exposure class and instrument	Article 442 (g)-(h)	Section 4.2.5
12	EU CR1-B	Credit quality of exposures by industry or counterparty types	Article 442 (g)	Section 4.2.5
13	EU CR1-C	Credit quality of exposures by geography	Article 442 (g)	Section 4.2.6
14	EU CR1-D	Ageing of past due exposures	Article 442 (g)	Section 4.3.2
15	EU CR1-E	Non-performing and forborne exposures	Article 442 (g)-(i)	Section 4.3.3
16	EU CR2-A	Changes in the stock of general and specific credit risk adjustments	Article 442 (i)	Not applicable
17	EU CR2-B	Changes in the stock of defaulted and impaired loans and debt securities	Article 442 (i)	Not applicable
18	EU CR3	CRM techniques – Overview	Article 453 (f)-(g)	Section 4.4.3
19	EU CR4	Credit risk exposure and CRM effects	Article 453 (f)-(g)	Section 4.5.2

Templates	Reference	Name	CRR Articles	Reference
20	EU CR5	Standardized approach	Article 444 (e)	Section 4.5.3
21	EU CR6	Qualitative disclosure requirements related to IRB models	Article 452 (e)-(h)	Not applicable
22	EU CR7	Effect on the RWAs of credit derivatives used as CRM techniques	Article 453 (g)	Not applicable
23	EU CR8	RWA flow statements of credit risk exposures under the IRB approach	Article 438 (d) & Article 92 (3)	Not applicable
24	EU CR9	IRB approach – Backtesting of PD per exposure class	Article 452 (i)	Not applicable
25	EU CCR1	Analysis of CCR exposure by approach	Article 439 (e, (f), (i) & Article 92 (3)	Section 4.6.2
26	EU CCR2	CVA Capital charge	Article 439 (e)-(f)	Section 4.6.3
27	EU CCR8	Exposures to CCPs	Article 439 (e)-(f)	Not applicable
28	EU CCR3	Standardized approach – CCR exposures by regulatory portfolio and risk	Article 444 (e)	Section 4.6.5
29	EU CCR4	IRB approach – CCR exposures by portfolio and PD scale	Article 452 (e)	Not applicable
30	EU CCR7	RWA flow statements of CCR exposures under the IMM	Article 92 (3)-(4) & Article 438 (d)	Not applicable
31	EU CCR5-A	Impact of netting and collateral held on exposures values	Article 439 (e)	Section 4.6.6
32	EU CCR5-B	Composition of collateral for exposures to CCR	Article 439 (e)	Not applicable
33	EU CCR6	Credit derivatives exposures	Article 439 (g)-(h)	Not applicable
34	EU MR1	Market risk under the standardized approach	Article 455	Section 5.10
35	EU MR2-A	Market risk under the IMA	Article 455 (e)	Not applicable
36	EU MR2-B	RWA flow statements of market risk exposures under the IMA	Article 455 (e)	Not applicable
37	EU MR3	IMA values for trading portfolios	Article 455 (d)	Not applicable

Templates	Reference	Name	CRR Articles	Reference
38	EU MR4	Comparison of VaR estimates with gains/losses	Article 455 (g)	Not applicable
39	EU LIQ1	LCR Disclosure template	Article 435 (1) (f)	Section 6.3.2
40	IRRBB1	Quantitative information on IRRBB	Not applicable	Section 7.3.4

Note to Readers

RBC Investor Services Bank S.A., hereafter referred to as the “Bank” or “RBCIS Bank”, is a banking group headquartered in Luxembourg, part of the RBC Investor & Treasury Services business segment of Royal Bank of Canada.

RBC Investor Services Bank S.A. is the principal Eurozone subsidiary of Royal Bank of Canada (“RBC”). RBCIS Bank is headquartered in Luxembourg and operates through branches in Ireland, United Kingdom, Italy and Switzerland as well as a Subsidiaries in France, Ireland, Belgium, United Kingdom, Malaysia and Singapore. RBCIS Bank is independently capitalized and is rated AA- by Standard & Poor’s.

As a European significant banking group incorporated in Luxembourg, RBCIS Bank is directly subject to the prudential supervision of the European Central Bank (ECB). This report meets the consolidated disclosure requirements, or Pillar 3 disclosures, enclosed in Part Eight of the Regulation (EU) No 575/2013, known as the Capital Requirements Regulation (CRR), the circular CSSF 14/583, the CSSF Regulation 18-03 (abrogating CSSF Regulation 14-01), which are the transpositions of the CRR into national law, thereby setting the regulatory prudential framework applicable to credit institutions, and the circular CSSF 17/673 on the adoption of the European Banking Authority (EBA) Guidelines on disclosure requirements under Part Eight of Regulation.

The quantitative tables included in this document are expressed in millions of euros (EUR mm) unless otherwise stated. Also, these tables may sometimes show small differences due to the use of concealed decimals. These differences do not affect the true and fair view of this document.

Through this report, references are made to the annual financial statements which is filed with the *Registre du Commerce et des Sociétés* in Luxembourg.

Introduction

The aim of the Pillar 3 Disclosure Report 2018 is to give in-depth information to the stakeholders on the RBCIS Bank's risk management.

This Pillar III Disclosure Report is organized as follows:

- The Section 1 describes the structure and functioning of RBCIS Bank group's risk organisation and governance;
- The Section 3 covers the Bank's own funds, capital adequacy and group solvency;
- The Section 4 is dedicated to the credit risk management and outlines the organisation, the methodological procedures and provides detailed breakdowns of the Bank's credit risk exposures;
- The Section 5 describes methodological procedures for the management of market risk while disclosing the Bank's corresponding risk profile;
- The Section 6 highlights the liquidity risk ;
- The Section 7 provides details on the Interest Rate Risk in the Banking Book;
- The Section 8 presents the operational risk framework and related key risk figures;
- The Section 9 relates to the remuneration policy and practices.

Key figures as of October 31, 2018

Table 0-1 – Key figures – Capital ratios

	2016	2017	2018
CET1 Capital ratio	25.41%	22.44%	21.35%
Tier 1 ratio	25.41%	22.44%	21.35%
Total Capital Ratio	25.41%	22.44%	21.35%

Graph 0-1 - Key figures – Leverage ratio

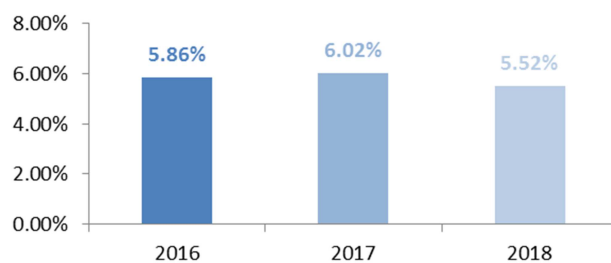
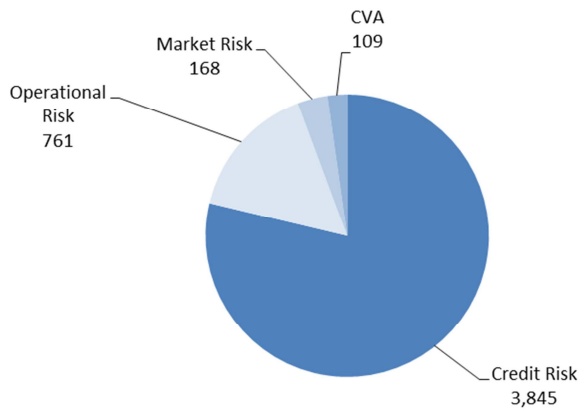


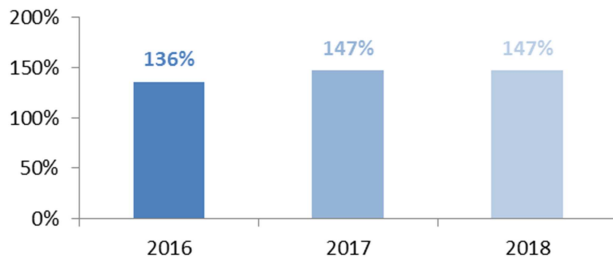
Table 0-2 – Regulatory Capital

	2016	2017	2018
CET1	948.7	1,000.8	1,042.9
Additional Tier 1	0.0	0.0	0.0
Tier 2	0.0	0.0	0.0
Total	948.7	1,000.8	1,042.9

Graph 0-2 – Distribution of RWA's by type



Graph 0-3 – Liquidity Coverage Ratio



1 General information on Risk management

1.1 Interaction between business model and risk profile

RBCIS Bank uses the concept of Risk Posture to describe how the business model interacts with the overall risk profile. Risk Posture is an aspect of the Enterprise Risk Appetite Framework used within the Enterprise and Business Segment strategic planning processes.

Risk Posture is an expression of the impact of strategic priorities on Risk Profile over a one year timeframe, using the following scale:

Contracting Risk Posture

- Plan to reduce the level of risk being taken, and contract Risk Profile to achieve strategic priorities;
- May or may not entail a decrease in Risk Appetite.

Stable Risk Posture

- Maintain current approach to risk, and strategic priorities can be achieved; without significant impact on current Risk Profile.

Expansionary Risk Posture

- Plan to take on more risk (considering all types of risk, including strategic and operational), and plan to increase Risk Profile to achieve strategic priorities;
- May or may not entail an increase in Risk Appetite.

The Risk Appetite statement adopted by the July 2018 Executive Committee of RBCIS Bank assessed the Risk Posture of RBCIS Bank as “Stable”.

The key drivers of this assessment were the stability of earnings associated with the business model of RBCIS Bank as well as the low exposure of the bank to stress events.

The overall rating for RBCIS Bank is derived from the results of underlying three primary Risk domains:

Table 1-1 – Overall rating of primary risk domains

Risk Area	2017	2018	Description / Drivers of year-over-year change (if any)?
Overall	Stable	Stable	No overall change
Operational Risk	Stable	Stable	Overall stable posture however reflecting a number of key projects will lower the platform’s operating risk when Straight Through Processing (STP) increase materializes, heightened control environment and streamlined target operating model. However, strategic deliverables increase execution risk associated within the technology and change management environment.

Risk Area	2017	2018	Description / Drivers of year-over-year change (if any)?
Credit Risk	Stable	Expanding	Organic growth in committed lending business reflected through raised lending limits. Risk Profile remaining strong due to highly rated counterparties. Focus on upgrade of control environment.
Market Risk	Stable	Stable	Although total AFS portfolio reduced over past months to materialize portfolio gains, the Risk posture remains stable and the limits have not been reduced, in order to allow for re-investments to be conducted when interest rate environment becomes more favorable.

During the financial year 2018, RBCIS Bank has not executed any transactions with material impact to the risk profile of the Bank.

1.2 Description of the risk governance structure

1.2.1 Overall internal control

RBCIS Bank has established a clear and robust risk governance framework in order to manage, control and provide assurance with respect to risk. That framework includes the following roles and responsibilities.

1.2.1.1 Board of Directors

In accordance with CSSF Circular 12/552 (as amended) Chapter 4, the Board of Directors defines the risk strategy and guiding principles of RBCIS Bank. It entrusts authorized management of the Bank with the implementation and management of these internal governance principles through written internal frameworks. The Board of Directors monitors the implementation by authorized management of its internal governance strategies. To this end, it approves the related policies established by the authorized management.

1.2.1.2 Risk Committee of the Board of Directors

The Risk Committee is established under the specific authority of the Board of Directors into which it reports after each meeting. The purpose of the Risk Committee is to assist the Company in its mission to assess the adequacy between the risks incurred, the Company's ability to manage these risks and the internal and regulatory own funds and liquidity reserves in order to increase the effectiveness of the Board of Directors and enable its members to fulfil their supervisory mission and to take on their responsibilities pursuant to circular CSSF 12/552 (as amended).

The Risk Committee has not received from the Board of Directors any delegated decision powers, which remain entirely with the Board of Directors.

The Risk Committee will:

- a) advise and support the Board regarding the definition and monitoring of the Company's overall current and future risk appetite and strategy taking into account all types of risks;
- b) confirm risk policies of the Authorized Management and oversee the implementation of the strategies for all relevant risks of the Company;
- c) provide the Board with recommendations on necessary adjustments to the risk strategy;
- d) oversee the alignment between all material financial products and services offered to clients and the business model and risk strategy of the company;
- e) assess the recommendations of internal or external auditors and follow up on the appropriate implementation of measures taken;
- f) assist the Board in the establishment of sound remuneration policies and practices;
- g) deliberate on a regular basis on the (i) state of risk management and compliance with the prudential rules laid down in this respect, (ii) quality of the work carried out by the risk control function.

1.2.1.3 Executive Management Committee of RBCIS Bank

The Executive Committee (being Authorized Management of RBCIS Bank) led by the CEO, has overall management responsibility with respect to the legal entity including risk matters. The Executive Committee reports to the Board of Directors and/or the Risk Committee on all risk related matters.

RBCIS Bank has appointed one member of the Executive Committee as Chief Risk Officer responsible for the Risk Function who, on behalf of the Executive Committee, has established the internal governance and organizational arrangements related to risk management as required by local regulation and as deemed appropriate, taking into account the size and complexity of the Bank's activities.

The Executive Committee has the responsibility to assess at least annually the adequacy of the Bank's capital and liquidity versus the level of Bank's overall risks and submits the related ICAAP and ILAAP reports, together with the other reports required in the circular CSSF 12/552, to the Board of Directors, for its overall assessment as to capital and liquidity adequacy.

In support of risk management, additional committees have been established with the main committees being the Asset and Liabilities Committee (ALCO) and the Investor & Treasury Services Credit and Operational Risk Committees at the level of the Investor & Treasury Services (I&TS) business segment of which RBCIS Bank is part.

Local ExCos of the subsidiaries and branches report to the ExCo of RBCIS Bank.

1.2.1.4 I&TS Operational Risk Committee (I&TS ORC) and Credit Risk Committee (I&TS CRC)

The missions of the RBC Investor & Treasury Services Operational Risk Committee (ORC) and Credit Risk Committee (CRC) are to provide oversight of Operational Risk and Credit risk in the Investor and Treasury Services businesses globally, and across RBCIS Bank legal entities in particular. Both Committees have a delegation of authority to decide on Operational and Credit risk matters on behalf of the I&TS Operating Committee (e.g. policies, limits, mitigation actions). They provide positive advice, strategic direction and broad guidance in order to manage all material Operational and Credit risks impacting RBCIS Bank. The CRC also looks after any emerging risks and counterparties that are part of the Watch List that may negatively impact the I&TS investment portfolio, a part of which is maintained within the Bank. The I&TS ORC and CRC are composed of members from RBC and RBC Investor Services Business and Risk Management areas and include members of the authorized management of RBCIS Bank.

1.2.1.5 RBCIS Bank Assets & Liabilities Committee (ALCO)

The purpose of the ALCO is:

- to review and recommend broad policy frameworks pertaining to RBCIS Bank's balance sheet and capital management, interest rate risk management, liquidity and funding, and subsidiary balance sheet management and,
- to provide regular central oversight and monitoring of RBCIS Bank balance sheet-related risks, including capital adequacy, structural interest rate risk, structural foreign exchange risk, liquidity and funding risk.
- to provide direction and review advice regarding the management of these areas in light of expected returns, competitive and regulatory environments, and economic and business forecasts.

The Committee is responsible for ensuring that the balance sheet structure and profile of RBCIS Bank is consistent with its strategic objectives and objectives of the RBC Group. All material balance sheet initiatives will be reviewed and approved by the Committee, with advice and counsel provided by the relevant RBC center of expertise to the Committee.

The Committee reviews reports and monitors compliance on RBCIS Bank's exposure to balance sheet-related risks, including interest rate risk, liquidity and funding risk and capital adequacy.

The Committee is chaired by the RBCIS Bank Treasurer or in his absence, the Chief Financial Officer of RBCIS Bank (Deputy Chair).

1.2.1.6 Three Lines of Defense Governance Model

RBCIS Bank promotes risk awareness and proactive management of risk. In support of sound risk management, key roles and responsibilities follow the Three Lines of Defense Governance model described below.

First Line of Defense

Employees at all levels of the organization are responsible for managing the day-to-day risks that arise in the context of their mandate. The First Line of Defense is provided by employees across the businesses and Functional Units who are responsible for providing products and services, and for the execution of activities. The First Line has the ownership and accountability for:

- Risk identification, assessment, mitigation, monitoring and reporting in accordance with established risk policies and Risk Appetite;
- Ensuring appropriate and adequate capabilities to manage risks relevant to the Segment;
- Alignment of business and operational strategies with good Conduct and Risk Appetite.

Second Line of Defense

The Second Line of Defense is provided by areas with independent oversight accountabilities residing in Functional Units. In order to underline the independent character of Risk, Compliance and Finance, the Chief Risk Officer, Chief Compliance Officer and Chief Finance Officer, acting in the role of authorized officers of RBCIS Bank, have independent and direct access to the Board of Directors of RBCIS Bank. Furthermore, the Second Line:

- Establishes the enterprise level risk management frameworks, and provides risk guidance,
- Provides oversight for the effectiveness of First Line risk management practices,
- Monitors and independently reports on the level of risk against the established appetite measures and associated constraints.

The Second Line of Defense oversight is provided by specific areas within the following key Functional Units:

Risk Management Function

The mission of the Risk Management Unit is to oversee that identification, assessment, mitigation, monitoring and reporting of all material risks types are performed within the Group, in order to ensure at all times that the risk exposure is in compliance with regulatory constraints and aligned with the business strategy and risk appetite.

It is headed by the Chief Risk Officer of RBCIS Bank, with established functional roles for Credit Risk Management, Market Risk Management, Operational Risk Management, Liquidity Risk Management, Cyber and Technology Risk Management and Enterprise Risk Management. In addition to the risk roles in RBCIS Bank, risk management roles are established in Subsidiaries and Branches of RBCIS Bank where deemed appropriate in line with local regulation and internal requirements. Risk Management roles in Subsidiaries/Branches of RBCIS Bank have a reporting line into the CRO of RBCIS Bank.

Compliance (including AML)

Compliance provides independent control and oversight of the management of RBC's regulatory compliance risk and controls, as they relate to laws, regulations and regulatory expectations relevant to the activities of RBC and subsidiaries in the jurisdictions in which we operate.

Other Functional Units

While the following Functional Units perform some First Line activities, they also have designated a role in supporting RBCIS Bank's risk management program, as follows:

Finance has overall responsibility for ensuring RBCIS Bank's compliance with the regulatory requirements. Risk-based performance measurement and reporting is a key Finance responsibility.

Legal Group has a significant role in the management and control of legal Risk. This includes monitoring and reporting of significant legal risks facing RBC. Legal group provides legal advice and support on a wide range of risk issues.

Human Resources is jointly responsible with Compliance for the establishment and maintenance of RBC's Code of Conduct. Human Resources establishes practices supporting a good Conduct and supports the implementation of these practices in the Business and Functional Units. Through the development of workplace policies and the delivery of programs and services, Human Resources also have a role in the reduction of operational risks related to employees.

Third Line of Defense

The Third Line of Defense is provided by Internal Audit. The Third Line provides independent assurance to senior management and the Board of Directors on the effectiveness of risk management policies, processes and practices in all areas of RBCIS Bank.

1.2.2 The approved limits of risks to which the institution is exposed

1.2.2.1 Approved Limits of Risk as per the RBC Risk Appetite Statement

The RBCIS Bank Risk Appetite Framework is a key element of RBC's overall risk management program for the identification, measurement, control and reporting of the top and emerging risks faced by the organization. RBCIS Bank is in the business of taking risk and balances risk-reward trade-offs to ensure the long-term viability of the organization by remaining within established Risk Appetite. RBC's Risk Appetite Statements define clear boundaries for the organization's Risk Profile and set the overall tone for RBC's approach to risk taking in a manner that is easy to communicate, understand and embrace. Risk Appetite Statements are underpinned by Risk Appetite Measures and their associated Constraints, as outlined in below overview of the Risk Appetite Statement.

Table 1-2 – Number of measures in the Risk Appetite Framework

Risk Appetite Statement	Number of Measures
1. Manage exposure to future losses	1
2. Manage Volatility of Earnings	2
3. Avoid excessive concentrations of risk	7
4. Low exposure to stress events	2
5. Ensure sound management of liquidity, funding and interest rate risks	6
6. Ensure sound management of regulatory compliance risk and operational risk	31
7. Ensure capital adequacy by maintaining capital ratios in excess of rating agency and regulatory expectations	4

1.2.3 Changes of the heads of internal control, risk management, compliance and internal audit.

During 2018, the following changes have taken place at the level of internal control functions:

- A new Senior Director Internal Audit has been appointed ;
- A new Head of Compliance has been hired and will be appointed Chief Compliance Officer and MLRO in March 2019.

1.3 Risk culture at RBCIS Bank

1.3.1 Risk Conduct and Culture

RBC's Values and risk-aware culture of "Doing What's Right" effectively support the long term success of the organization. RBC's Values set the tone of our organizational culture, and translate into desired behaviors as articulated in our Code of Conduct and Leadership Model. Our Risk Management Principles provide a risk lens for these desired behaviors, enabling us to focus on a sub-set of behaviors and Outcomes referred to as our Conduct.

RBC defines Conduct as the manifestation of culture through the behaviors, judgment, decisions and actions of the organization and its individuals. In the context of this Framework, the focus of Conduct is two-fold:

1. RBC's expectation that employees' and the third party service providers that RBC engages and the organization's behaviors, judgments, decisions, and actions lead to positive Outcomes for clients, employees, financial markets, and RBC's reputation; and
2. RBC's monitoring and reporting on the Conduct-related Outcomes for clients, employees, financial markets, and RBC's reputation.

The following key Conduct-related concepts are depicted below:

- RBC's organizational direction influences our strategy, organizational practices, and Risk Culture, and sets expectations for positive Outcomes for our clients, our employees, the financial markets, and our reputation.
- Our strategies, organizational practices (including Sales Conduct and Practices), and Risk-aware Culture influence behaviors, judgments, decisions, and actions (i.e., Conduct) at an organizational and individual level.
- Our Conduct drives actual Outcomes for our clients, our employees, financial markets, and our reputation.
- Lessons learned support appropriate organizational responses to poor Conduct Outcomes (stemming from Conduct Risks and/or Misconduct) so practices that influence organizational and individual Conduct can be corrected and enhanced.

The RBC Code of Conduct can be accessed as follows:

http://www.rbc.com/governance/_assets-custom/pdf/RBCCodeOfConduct.pdf

1.4 Scope and nature of risk reporting

The scope and nature of primary RBCIS Risk Reporting and Measurement Systems are described as follows:

- A monthly Risk Report is submitted to the Executive Committee of RBCIS Bank.
- A quarterly Risk Report is submitted to the Risk Committee of the Board of RBCIS Bank.
- A quarterly Risk Appetite Report is also presented at the Risk Committee of the Board of RBCIS Bank.
- A yearly Risk Report is submitted to the Risk Committee of the Board of RBCIS Bank when the Board critically assesses and approves the internal governance arrangement of the group, as required by point 20 of the Circular CSSF 12/552. At the same time, the Internal Capital Adequacy Assessment Process (ICAAP) and Internal Liquidity Adequacy Assessment Process (ILAAP) is prepared annually and submitted to the Board of RBCIS Bank for approval.

The content of the quarterly Risk Reporting covers, amongst others, the following key items:

- Risk Type Summary covering all risk allocated within the RBCIS Risk Pyramid;
- Operational Risk including Financial Crime and Security Risk, Legal and Regulatory Risk and Processing and Execution Risk and the Operational Profile and Key Risk Indicators;
- Risk Register – Risk Statements and Trend;
- Credit Risk, including top overdrafts, authorized limits and exposures and loans;
- Capital Adequacy per legal entity, Non-Trading Market and Liquidity Risk and Market Risk in relation to AFS portfolio and VAR.

The RBCIS Bank's Recovery Plan report is submitted each year to the Board of RBCIS Bank for update and approval.

External reports are developed and submitted to the Single Supervisory Mechanism (SSM), the Central Bank of Luxembourg (CBL) as required by regulation and other relevant laws and other relevant local regulators in which Subsidiaries and Branches operate.

It should be noted that the day to day Risk monitoring involves the production of reports by sub risk type that are run intraday / daily / weekly, covering in particular market risk, credit and liquidity risk.

1.5 Policies regarding systematic and regular reviews of risk management strategies

Requirements regarding reporting and risk measurement are outlined within applicable Risk Policies. The requirements to those are defined consistently as per the RBCIS Bank Risk Policy Management Requirements Policy which sets the minimum requirements for the content, management, governance and communication of all Group Risk Management (GRM) documents, including frameworks, policies, standing orders, standards and procedures (collectively referred to as policy documents) within RBCIS Bank. These requirements seek to promote a consistent RBCIS Bank approach to communication, access, governance and management of policy documents for all risk types.

This Policy has been established to ensure:

- Consistent definition and standards for RBCIS Bank policy documents aligned to the ‘RBC Enterprise Policy Management Requirements’.
- Clear articulation of approach to local vs. enterprise-wide requirements; and
- Common requirements for governance, approval and review frequency for RBCIS Bank policy documents.

Table 1-3 – RBCIS Bank Risk Management Framework

Enterprise Risk Management
RBCIS Bank Addendum to ERM Framework
RBC Enterprise Risk Management Framework
RBC Enterprise Risk Appetite Framework
RBCIS Bank Addendum to RBC Enterprise Risk Appetite Framework
Operational Risk
RBC Enterprise Operational Risk Management Framework
RBC Enterprise Risk Conduct and Culture Framework
RBC Enterprise Framework on Business Continuity Management
Credit Risk
RBCIS Bank Addendum to Credit Risk Framework
RBC Enterprise Credit Risk Framework
Market, Liquidity and Model Risk
RBC Enterprise Market Risk Framework
RBCIS Bank Addendum to RBC Market Risk Framework
RBC Enterprise Liquidity Risk Management Framework
RBCIS Bank - Liquidity Management Framework Addendum

1.6 Stress Testing Description

Stress testing is conducted and reported, among other, within the annual Internal Capital Adequacy Assessment Process (ICAAP).

ICAAP, as a component of the Pillar 2, supplements the Pillar 1 regulatory frameworks for minimum capital requirements and focuses on the adequacy of internal capital on a forward-looking basis.

Authorized Management assesses the adequacy of internal capital of RBCIS Bank on a consolidated basis and conducts a comprehensive assessment of internal capital requirements on the following: Pillar 1 risks, Pillar 2 risks, qualitative adjustment to baseline capital for all risk types and reserve requirements.

As regards to Stress Testing, RBCIS Bank continues to use a well established Internal Stress Testing methodology as developed over the past years. It is based on four scenarios as follows:

1. An economic downturn impacting the Eurozone aligned on a scenario developed by RBC Europe Limited;
2. An idiosyncratic crisis within our Mother Company RBC;
3. A large scale outage in our Malaysian operating center triggered by an operational event;
4. A scenario combining a severe recession in the Euro zone and an idiosyncratic crisis within RBC.

Scenario 4 is the worst case scenario that prompts the most punitive impacts; however the resulting capital ratio continues to comply with the regulatory requirement and does not cross the internal minimum threshold identified in the Risk Appetite.

This scenario is stressing individually and independently each of the 3 years of the projected capital plan (2018-2020) of the Bank with the shocks of the combined Macro-Economic and Idiosyncratic scenario.

It should be noted that the Recovery Plan enabling Authorized Management to manage a crisis which would threatens capital or liquidity adequacy, as well as viability, has been reviewed in Q4 2017. The reverse stress test performed in the framework of the Recovery Plan confirmed that the recovery measures defined in the plan would actually allow restoring the capital and liquidity situation of RBCIS Bank, which would subsequently be able to operate sustainably and viably.

In view of the results of the stress tests, given the management actions identified in the Recovery Plan, along with the presence of a robust internal capital surplus, the Authorized Management of RBCIS Bank does not deem necessary to hold additional capital to offset the adverse impact from any of the stress scenario.

The Authorized Management is therefore satisfied that our available capital at October 31, 2017 is adequate to cover our business requirements in 2018.

1.7 Strategies and processes to manage, hedge and mitigate risks

The following general principles apply to the management of risk at RBCIS Bank (RBCIS) including its Branches and Subsidiaries:

1. Effectively balance risk and reward to enable sustainable growth.

RBCIS balances risk and reward to capitalize on opportunities within our business strategy and risk appetite, avoid excessive concentrations of risk through diversification and risk transfer, manage earning volatility, and ensure the long-term viability and profitability of the organization.

2. Responsibility for risk management is shared.

Collectively as One RBCIS Bank following the Three Lines of Defense risk governance model, employees at all levels of the organization are responsible for managing the day-to-day risks that arise in the context of their roles.

3. Undertake only risks we understand. Make thoughtful and future-focused risk decisions.

In order to create long term value for our shareholders, clients, employees and communities, we exercise rigor in our risk assessments, analyze emerging risk factors and trends, ensure transparency in risk discussions, and improve processes and tools for simpler, better, faster decision-making without exposing us to undue risks.

4. Always uphold our Purpose and Vision, and consistently abide by our Values and Code of Conduct to maintain our reputation and the trust of our clients, colleagues and communities.

Guided by our Collective Ambition, we exhibit Good Conduct and do business openly and fairly. We never compromise quality or integrity for growth. We adhere to the “Know Your Client” standards, and ensure transparency and suitability of the products and services offered. We comply with all laws and regulatory requirements, and support transactions and relationships with proper and complete documentation.

5. Maintain a healthy and robust control environment to protect our stakeholders.

To achieve our operational and financial performance goals while maintaining our reputation and integrity, and operating within the parameters of applicable laws and established risk appetite, we employ effective processes and controls and resiliency practices to minimize harm from internal and external threats, avoid business interruptions, and ensure timely resolution of control issues.

6. Use judgment and common sense.

Policies and procedures cannot cover all circumstances. Employees should apply judgment and common sense, and when in doubt, escalate. Management should hire the right people for the right jobs and provide proper training and support.

7. Always be operationally prepared and financially resilient for a potential crisis.

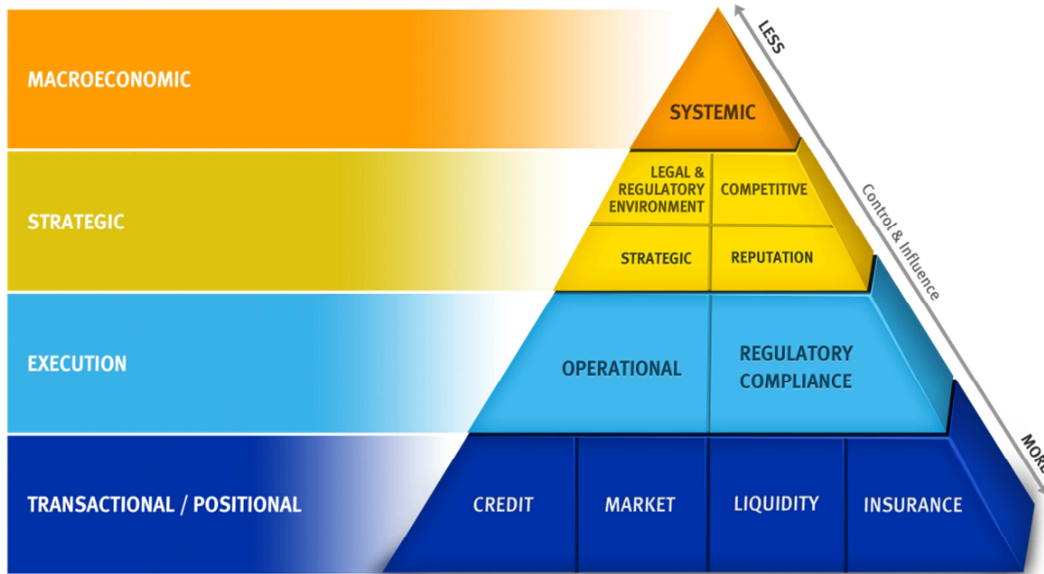
RBCIS Bank strives to maintain effective protocols and escalation strategies to respond to all risks that we face, including regulatory, macroeconomic, market and other stakeholder developments. This includes maintaining operational readiness and financial resilience to effectively operate during and following a financial crisis. It is also critical to maintain agility and readiness to respond to potential disruptors to the financial industry.

8. RBC'S RISKS – THE RISK PYRAMID

RBCIS Bank's Risk Pyramid identifies the Principal Risks the organization faces. The Risk Pyramid provides a common language and discipline for the identification and assessment of risk in existing businesses, new

businesses, products or initiatives, and acquisitions and alliances. It is maintained by Group Risk Management (GRM) and reviewed regularly to ensure all key risks are reflected and ranked appropriately.

Figure 1-1 – Risk pyramid



The placement of the risk types within the Risk Pyramid is a function of two primary criteria:

- Risk Drivers: Key factors that would have a strong influence on whether or not one or more of our risks will materialize, and
- Control & Influence: The risk types are organized vertically from the top of the pyramid to its base according to the relative degree of control and influence RBCIS is considered to have over each Risk Driver.

Strategies to manage, hedge and mitigate risks

RBCIS Bank pursues the management, hedging and mitigation of risks through various measures of which Risk Review and Approval Processes and Authorities and Limits are most relevant.

Risk Review and Approval Processes

Risk review and approval processes provide an important control mechanism. These processes consider the nature, size and complexity of the risk involved. Requirements for the review and approval of risks are set out in enterprise level risk policies and procedures. For example:

Table 1-4 - Applicable Risk Review and Approval Procedures and Tools

Activity	Applicable Risk Review and Approval Procedures and Tools
Projects and Initiatives	<ul style="list-style-type: none"> • RBC uses a number of recognized project frameworks to guide new projects which provide guidance on the degree of rigor necessary for successful program governance. • Project Approval Requests (PAR) are executed to support the project evaluation and approval process. A PAR must be completed for any significant project or initiative. Tools such as the Integrated Risk Profile (IRP) are used in conjunction with the PAR process to assess the risks introduced by the project or initiative.
Products and Services	<ul style="list-style-type: none"> • New products and services are subject to initial and subsequent risk reviews per applicable approval policy. • Transactions, products, client relationships and third party products or relationships with potentially significant reputation risk further undergo a structured review and approval process.

Authorities and Limits

RBCIS Bank has established risk authorities and limits for those risks along the base of the Risk Pyramid (such as credit, market, and liquidity risk) which we pursue as part of our business strategy and over which we have the most control and influence. However, risk limits are not established for other risks (e.g. systemic, strategic, etc.) that RBCIS Bank faces but does not actively pursue.

In addition, with regards to credit risk, for each geographic location where RBCIS Bank has business activities creating credit risk exposure:

- Credit risk is managed by applying the principles and standards outlined in this framework. The risk function representative in the local Executive committee is responsible for ensuring application of the Credit Risk Management Framework and RBCIS Bank Addendum.
- Credit risk monitoring/reporting will be included on a regular basis in the agenda of the local Executive Committee. Local management will report its credit risk exposure to the Board of Directors of the entity and to Risk Function of its mother company.
- In entities with no dedicated risk representative, Risk Function of the mother company of the entity will carry out control on credit risk on a regular basis.
- RBCIS Bank Risk function will provide a complete and consolidated overview of credit risk exposure on a regular basis to
 - Executive Committee of RBCIS Bank
 - Board and Risk Committee of RBCIS Bank
 - RBC Group Risk Management
 - The RBC I&TS Credit Risk Committee.

Further measures to Risk Mitigation apply at the level of Operational risk management in all of its activities by leveraging the main elements of the Operational Risk Management Framework outlined below:

- Risk and Control Self Assessment (RCSA) – Performed both at the Bank level and at a regional business unit or process level, these assessments provide an integrated source of Operational risk and control information.
- External Operational Risk Event Review – Provides ‘lessons learned’ and emerging industry trends. GRM Operational Risk team performs internal analysis to investigate whether or not controls are in place to mitigate against such events and recommends additional actions, where required.

- Internal Operational Risk Event Management – Operational risk events, including those resulting in actual losses and non-monetary events are monitored by Operational Control team (with oversight from GRM Operational Risk). The focus is on a complete understanding of root cause and mitigation plans for these events with a view to mitigating repeat occurrences.
- Operational Risk Issue and Actions Tracking and Monitoring – Operational risk issues and actions identified as a result of RCAs / risk events are entered into RBC’s global Enterprise Operational Risk Management database, Open Pages, and tracked by Operational Control team until resolution.
- Key Risk Indicator (KRI) Program – KRIs are set and monitored for each business on a continuous basis with thresholds set annually. Risk indicators are metrics that monitor risk exposures and risk drivers, particularly changes in risk level over time.
 - Key attributes of risk indicators are appropriately documented by risk indicator owners and stored in a repository that enables ongoing monitoring. Risk indicator documentation articulates the measure (e.g., metric definition, applicable formulas, data filters, cut-off times), monitoring frequency (minimum annually), data source, and at least one clearly defined threshold.
 - Risk indicator owners ensure that thresholds are aligned to Risk Appetite (RA) and trigger management action when breached. Relevant operational risk information.
 - Segments establish escalation processes and protocols commensurate with the materiality of risk exposures. Escalation processes define actions to be taken and provide appropriate levels of management with operational risk exposure information to review and take required actions in a timely manner.
 - Risk indicator owners investigate underlying reasons for threshold breaches, notable trends, and anomalies. Investigations focus on determining what, if any, remedial actions (including escalations) are required. Where remedial actions are required, an issue and action plan is documented and tracked to closure.
- New product/ Initiatives Risk Assessment: Every new initiative, including changed/ new product go through an assessment of potential contribution to future end state operational risk. Mitigations are identified and monitored throughout the initiative lifecycle in order to stay within risk appetite once delivered.

In addition to the above EORM practices, GRM Operational Risk Management team (and, where applicable, Operational Control) is informed of other risk types through Function specific programs in order to form an opinion on the complete risk profile across the RBC defined 18 operational risk types. This would be the case for the following one (non exhaustive list):

- Business Continuity Management
- IT Risk and Information Security
- Regulatory Compliance
- Anti Money Laundering
- Third Party risk

2 Linkages

The principles of consolidation for our regulatory group are identical to those applied for our financial statements.

The template EU LI1 below provides an outline of the difference in the basis of consolidation for accounting and prudential purposes and also breaks down how the amounts reported in our financial statements, once the regulatory scope of consolidation is applied, are to be allocated to the different risk frameworks laid out in Part Three of the CRR. Consequently we split our regulatory balance sheet into the parts subject to credit risk, counterparty credit risk, securitization positions in the regulatory banking book, market risk as well as the part which is not subject to capital requirements or deduction from capital. Specific assets and liabilities may be subject to more than one regulatory risk framework, therefore the sum of values in column (c) to (g) may not equal to that in column (b).

Template 1 - EU LI1: Differences between accounting and regulatory scopes of consolidation and mapping of financial statement categories with regulatory risk categories

	a	b	c	d	e	f	g
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Carrying values of items:				
			Subject to credit risk framework	Subject to counterparty credit risk framework	Subject to the securitization framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
Assets							
Cash and balances at central banks	8,579.5	8,579.5	8,579.5	-	-	-	-
Financial assets held for trading	482.3	482.3	-	482.3	-	482.3	-
Financial assets designated at fair value through profit or loss	-	-	-	-	-	-	-
Available-for-sale financial assets	880.3	880.3	880.3	-	-	-	-
Loans and receivables	8,124.8	8,124.8	8,124.8	-	-	-	-
Held-to-maturity investments	-	-	-	-	-	-	-
Derivatives – Hedge accounting	-	-	-	-	-	-	-
Fair value changes of the hedged items in portfolio hedge of interest rate risk	-	-	-	-	-	-	-

	a	b	c	d	e	f	g
	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Carrying values of items:				
			Subject to credit risk framework	Subject to counterparty credit risk framework	Subject to the securitization framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
Investments in subsidiaries, joint ventures and associates	-	-	-	-	-	-	-
Assets under reinsurance and insurance contracts	-	-	-	-	-	-	-
Tangible assets	35.3	35.3	35.3	-	-	-	-
Intangible assets	154.6	154.6	-	-	-	-	154.6
Tax assets	2.2	2.2	2.2	-	-	-	-
Other assets	192.5	192.5	192.5	-	-	-	-
Non-current assets and disposal groups classified as held for sale	-	-	-	-	-	-	-
Total assets	18,451.5	18,451.5	17,814.6	482.3	-	482.3	154.6
Liabilities							
Financial liabilities held for trading	437.1	437.1	-	115.2	-	115.2	-
Financial liabilities designated at fair value through profit or loss	-	-	-	-	-	-	-
Financial liabilities measured at amortized cost	16,504.6	16,504.6	164.7	-	-	-	-
Derivatives – Hedge accounting	-	-	-	-	-	-	-
Fair value changes of the hedged items in portfolio hedge of interest rate risk	-	-	-	-	-	-	-
Liabilities under insurance and reinsurance contracts	-	-	-	-	-	-	-
Provisions	30.8	30.8	-	-	-	-	-
Tax liabilities	5.4	5.4	-	-	-	-	-
Share capital repayable on demand	-	-	-	-	-	-	-
Other liabilities	209.8	209.8	-	-	-	-	-
Liabilities included in disposal groups classified as held for sale	-	-	-	-	-	-	-
Total liabilities	17,187.7	17,187.7	164.7	115.2	-	115.2	-

The template EU LI2 presents description of the difference between the financial statements' carrying value amounts under the regulatory scope of consolidation and the exposure amounts used for regulatory purposes. Off balance sheet amounts are included in the exposure amounts considered for regulatory purposes, while the items that are subject to deductions from capital are not risk weighted and are thus excluded from the table below.

Template 2 - EU LI2: Main sources of differences between regulatory exposure amounts and carrying values in financial statements

	a	b	c	d	e
	Total	Items subject to:			
		Subject to credit risk framework	Subject to counterparty credit risk framework	Subject to the securitization framework	Subject to the market risk framework
Assets carrying value amount under the scope of regulatory consolidation (as per EU LI1)	18,296.9	17,814.6	482.3	-	482.3
Liabilities carrying value amount under the regulatory scope of consolidation (as per EU LI1)	279.9	164.7	115.2	-	115.2
Total net amount under the regulatory scope of consolidation	18,017.0	17,649.9	367.1	-	367.1
Off-balance-sheet amounts	2,317.0	2,317.0	-	-	-
Differences in valuations	-	-	-	-	-
Differences due to different netting rules, other than those already included in row 2	-20.4	-	-20.4	-	-20.4
Differences due to consideration of provisions	-	-	-	-	-
Differences due to prudential filters	-	-	-	-	-
Differences due to Credit Conversion Factor (CCF)	-2,030.1	-2,030.1	-	-	-
Other differences	0.4	0.4	-	-	-
Exposure amounts considered for regulatory purposes	18,283.8	17,937.1	346.7	-	346.7

The template EU LI3 provides an outline of the differences in the scopes of consolidation on an equity-by-entity-basis.

Template 3 - EU LI3: Outline of the differences in the scopes of consolidation – entity by entity

Name of the entity	a	b	c	d	e	f
	Method of accounting consolidation	Method of regulatory consolidation				Description of the entity
		Full consolidation	Proportional consolidation	Neither consolidated nor deducted	Deducted	
RBC Investor Services Belgium	IFRS	X				Financial corporations other than credit institutions
RBC Investor Services Bank France S.A.	IFRS	X				Credit institutions
RBC Investor Services France S.A.	IFRS	X				Financial corporations other than credit institutions
RBC Investor Services Holding (Hong Kong)	IFRS	X				Financial corporations other than credit institutions
RBC Corporate Services Hong Kong limited	IFRS	X				Financial corporations other than credit institutions
RBC Investor Services Trust Hong Kong Limited	IFRS	X				Financial corporations other than credit institutions
RBC Investor Services Ireland Limited	IFRS	X				Financial corporations other than credit institutions
RBC Investor Services Malaysia Sdn. Bhd.	IFRS	X				Financial corporations other than credit institutions
RBC Investor Services Trust Singapore Limited	IFRS	X				Financial corporations other than credit institutions
RBC Investor Services UK LLP	IFRS	X				Financial corporations other than credit institutions

3 Own Funds, Capital Adequacy & Group Solvency

3.1 Regulatory context

Basel III Accords set the standards and provided necessary guidelines for European and national regulators to define the legislation and regulations for banking supervision and minimum regulatory capital requirements. The three-pillar based Accord renders mandatory for all banks to define, approve and implement their own approaches to measure capital requirements for credit, market and operational risk exposures under the Pillar I. Also, it induces banks to implement risk management best practices and to define complementary measures through economic capital calculation for risks not covered under the Pillar I of the accord.

RBCIS Bank is subject to the supervision of its consolidating regulator the European Central Bank (ECB) and the application of the provisions of Regulation (EU) No 575/2013, also called “CRR” for “Capital Requirements Regulation” and Directive 2013/36/EU, also called “CRD IV”, jointly known under the term “CRD IV package”.

The CRD IV (Directive 2013/36/EU) was transposed into Luxembourg Law in the Law of 23 July 2015, published on 31 July 2015. This law supplements the “Law of the Financial Sector” of April 1993. Circular CSSF 15/620 specifies the main changes brought about by this so-called “CRD IV Law” that entered into force on 4 August 2015.

3.2 Current regulatory framework for capital adequacy

3.2.1 Regulatory minimum capital requirements

The CRR requires banks to comply with the following minimum capital requirements

- CET1 capital ratio of 4.5%
- Tier 1 capital ratio of 6%
- Total capital ratio of 8%

3.2.2 Total SREP Capital Requirement (TSCR)

RBCIS Bank was required as of 1 January 2018 to maintain on a consolidated basis a total SREP capital requirement (TSCR) of 9.75%, as that ratio is defined in section 1.2 of Guidelines EBA/GL/2014/13.

The TSCR of 9.75% includes:

- The minimum own funds requirement of 8% to be maintained at all times in accordance with Article 92(1) of Regulation (EU) N°575/2013 of the European Parliament and of the Council; and
- An own funds requirement of 1.75% (Pillar 2 Requirement- P2R) required to be held in excess of the minimum own funds requirement and to be maintained at all time in accordance with Article 16(2)(a) of Regulation (EU) N°1024/2013, to be made up entirely of Common Equity Tier 1 capital.

3.2.3 Overall Capital Requirement (OCR)

RBCIS Bank was also subject to the Overall Capital Requirement (OCR) as that ratio is defined in section 1.2 of Guidelines EBA/GL/2014/13, which includes, in addition to the TSCR, the combined buffer requirement as

defined in point (6) of Article 128 of Directive 2013/36/EU of the European Parliament and of the Council, to the extent is legally applicable. The OCR was set to 13.125% for RBCIS Bank Consolidated for calendar year 2018.

3.2.3.1 Combined Buffer requirements

Capital buffer requirements represent additional capital to be held on top of minimum regulatory requirements. The levels and the phasing-in of the buffer requirements are subject to national discretion.

The mandatory buffers introduced are the capital conservation buffer (CCB) of 2.5%, the countercyclical capital buffer (CCyB) and the buffer for globally systemically important institutions (G-SII) of 1-3.5%.

The institution specific CCyB will under normal circumstances, be in the range 0-2.5%, depending on the buffer rate in the countries where the institution has its relevant exposures. In addition, CRD IV allows for a systemic risk buffer (SRB) to be added, as well as a buffer for other systemically important institutions (O-SIIs).

3.2.3.2 Other Systematically Important Institution

On 17 October 2017, RBCIS Bank was notified by the Commission de Surveillance du Secteur Financier that it was designated as Other Systematically Important Institution (O-SII) in application of the law of 23 July 2015 amending the law of 5 April 1993 on the financial sector (LFS), complemented by the EBA Guidelines (EBA/GL/2014/10) of the 16 December 2014 on the criteria to determine the conditions of application of Article 131(3) CRD in relation to the assessment of other systemically important institutions.

The calibration of the O-SII buffer rate takes into account the actual distribution of scores to different buffer levels following the requirements set out in article 59-9(1) LFS prior to the application of macro-prudential judgement. The threshold used to determine the buffer levels is set at 325 basis points for a buffer of 0.5%. On this basis and by application of supervisory judgment, the overall buffer for RBCIS Bank had been set at 0.5%.

3.2.4 Pillar 2 Guidance (P2G)

RBCIS Bank had to comply on a consolidated basis with Pillar 2 Capital Guidance (P2G) of 1%, to be made up entirely of Common Equity Tier 1 capital and to be held over and above:

- The minimum Common Equity Tier 1 ratio required under Article 92(1)(a) of Regulation (EU) N°575/2013;
- The own funds requirement of 1.75% (Pillar 2 Requirement- P2R) required to be held in excess of the minimum own funds requirement and to be maintained at all times in accordance with Article 16(2)(a) of Regulation (EU) N°1024/2013, to be made up entirely of Common Equity Tier 1 capital;
- The combined buffer required as defined in point (6) of Article 128 of Directive 2013/36/EU, to the extent it is legally applicable.

3.2.5 RBCIS Bank Regulatory Capital Requirements in 2018

Table 3-1 – RBCIS Bank Capital Requirements in 2018

	CET1	Tier 1	Total
Pillar 1 Regulation (EU) N° 575/2013 Article 92	4.5%	6.0%	8.0%
Pillar 2 Requirement (P2R) Regulation (EU) N°1024/2013 - Art. 16 (2)(a)	1.75%	1.75%	1.75%
Total SREP Capital Ratio (TSCR)	6.25%	7.75%	9.75%
Capital Conservation Buffer (CCB) Directive 2013/36/EU - Art. 129	2.5%	2.5%	2.5%
Countercyclical Buffer (CCyB) Directive 2013/36/EU - Art. 130	0.5%	0.5%	0.5%
Global Systemically Important Institutions Buffer (G-SII) Directive 2013/36/EU - Art. 131	Not applicable		
Other Systemically Important Institutions Buffer (O-SII) Directive 2013/36/EU - Art. 131	0.375%	0.375%	0.375%
Systemic Risk Buffer Directive 2013/36/EU - Art. 133	0.0%	0.0%	0.0%
Overall Capital Ratio (OCR)	9.625%	11.125%	13.125%
Pillar 2 Guidance SREP Decision	1.0%	1.0%	1.0%
Overall Capital Ratio (OCR) including P2G	10.625%	12.125%	14.125%
Internal Buffer	1.0%	1.0%	1.0%
Overall Capital Ratio (OCR) including P2G and Internal buffer	11.625%	13.125%	15.125%

3.3 Regulatory capital adequacy (Pillar I)

Capital adequacy and capital ratios measured are monitored monthly against internal thresholds by the Capital Measurement team in the Corporate Treasury department. Any breaches would be escalated immediately. The ALCO and Risk Committee receive monthly reports detailing capital requirements. The Board is updated on a quarterly basis.

During 2018, the capital ratios and leverage ratios of RBCIS Bank and its related subsidiaries have complied with the prescribed regulatory requirements and internal minimum ratios contained in the Capital Management Policy.

As at October 31, 2018, the CET1/total capital ratio of the bank stands at **21.35%** (excluding year-end profit).

Table 3-2 – RBCIS Bank Eligible Capital and Capital Ratio

	RBCIS Bank Conso Oct 31st, 2018
Paid-up capital	554.1
Eligible Reserves / Retained Earnings	643.4
Deductions from capital	-154.6
CET 1 / Total Regulatory Capital	1,042.8
Credit Risk	307.6
Operational Risk	60.9
Market Risk	13.5
CVA	8.7
Total Capital Requirement	390.7
Tier 1/ Total capital Ratio	21.35%

3.3.1 Regulatory capital

The elements that are included in the numerator of the ratio are described in the Circular 575/2013 (CRR) and the Capital Regulatory Directives 2013/36/EU - known as CRD IV. The Bank's regulatory capital as of October 31st, 2018 is solely composed of Common Equity Tier One (CET1) capital, including :

- Paid-up capital
- Share premium
- Retained earnings (which does not include FY2018 profit)
- Accumulated other comprehensive income
- Other reserves
- Minority interest

Deductions applied to determine the regulatory capital are from Intangible assets (including goodwill).

The following table details the transitional own funds disclosure in accordance with the Annex VI of the Regulation (EU) No 1423/2013:

Table 3-3 – Transitional own funds requirements

		(a) Amount At Disclosure Date	(b) Regulation (EU) No 575/2013 Article Reference	(c) Amounts Subject to Pre-Regulation (EU) No 575/2013 Treatment or Prescribed Residual Amount of Regulation
	Common Equity Tier 1 capital: instruments and reserves			
1	Capital instruments and the related share premium accounts	581.5	26 (1), 27, 28, 29, EBA list 26 (3)	N/A
	of which: Instrument type 1	N/A	EBA list 26 (3)	N/A
	of which: Instrument type 2	N/A	EBA list 26 (3)	N/A
	of which: Instrument type 3	N/A	EBA list 26 (3)	N/A
2	Retained earnings	452.2	26 (1) (c)	N/A
3	Accumulated other comprehensive income (and any other reserves)	154.6	26 (1)	N/A
3a	Funds for general banking risk	N/A	26 (1) (f)	N/A
4	Amount of qualifying items referred to in Article 484 (3) and the related share premium accounts subject to phase out from CET1	N/A	486 (2)	N/A
	Public sector capital injections grandfathered until 1 January 2018	N/A	483 (2)	N/A
5	Minority interests (amount allowed in consolidated CET1)	9.1	84, 479, 480	N/A
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	N/A	26 (2)	N/A
6	Common Equity Tier 1 (CET1) capital before regulatory adjustments	1,197		N/A
	Common Equity Tier 1 (CET1) capital: regulatory adjustments			
7	Additional value adjustments (negative amount)	N/A	34, 105	N/A
8	Intangible assets (net of related tax liability) (negative amount)	-154.6	36 (1) (b), 37, 472 (4)	N/A
9	Empty set in the EU	N/A		N/A
10	Deferred tax assets that rely on future profitability excluding those arising from temporary difference (net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)	N/A	36 (1) (c), 38, 472 (5)	N/A
11	Fair value reserves related to gains or losses on cash flow hedges		33 (a)	N/A
12	Negative amounts resulting from the calculation of expected loss amounts	N/A	36 (1) (d), 40, 159, 472 (6)	N/A

		(a) Amount At Disclosure Date	(b) Regulation (EU) No 575/2013 Article Reference	(c) Amounts Subject to Pre-Regulation (EU) No 575/2013 Treatment or Prescribed Residual Amount of Regulation
13	Any increase in equity that results from securitized assets (negative amount)	N/A	32 (1)	N/A
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	N/A	33 (1) (b) (c)	N/A
15	Defined-benefit pension fund assets (negative amount)	N/A	36 (1) (e), 41, 472 (7)	N/A
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	N/A	36 (1) (f), 42, 472 (8)	N/A
17	Direct, indirect and synthetic holdings of the CET1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)	N/A	36 (1) (g), 44, 472 (9)	N/A
18	Direct, indirect and synthetic holdings of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	N/A	36 (1) (h), 43, 45, 46, 49 (2) (3), 79, 472 (10)	N/A
19	Direct, indirect and synthetic holdings of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	N/A	36 (1) (i), 43, 45, 47, 48 (1) (b), 49 (1) to (3), 79, 470, 472 (11)	N/A
20	Empty set in the EU	N/A		N/A
20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative	N/A	36 (1) (k)	N/A
20b	of which: qualifying holdings outside the financial sector (negative amount)	N/A	36 (1) (k) (i), 89 to 91	N/A
20c	of which: securitization positions (negative amount)	N/A	36 (1) (k) (ii), 243 (1) (b), 244 (1) (b), 258	N/A
20d	of which: free deliveries (negative amount)	N/A	36 (1) (k) (iii), 379 (3)	N/A
21	Deferred tax assets arising from temporary difference (amount above 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)	N/A	36 (1) (c), 38, 48 (1) (a), 470, 472 (5)	N/A
22	Amount exceeding the 15% threshold (negative amount)	N/A	48 (1)	N/A

		(a) Amount At Disclosure Date	(b) Regulation (EU) No 575/2013 Article Reference	(c) Amounts Subject to Pre-Regulation (EU) No 575/2013 Treatment or Prescribed Residual Amount of Regulation
23	of which: direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities	N/A	36 (1) (i), 48 (1) (b), 470, 472 (11)	N/A
24	Empty set in the EU	N/A		N/A
25	of which: deferred tax assets arising from temporary difference	N/A	36 (1) (c), 38, 48 (1) (a), 470, 472 (5)	N/A
25a	Losses for the current financial year (negative amount)	-	36 (1) (a), 472 (3)	N/A
25b	Foreseeable tax charges relating to CET1 items (negative amount)	N/A	36 (1) (l)	N/A
26	Regulatory adjustments applied to Common Equity Tier 1 in respect of amounts subject to pre-CRR treatment	N/A		N/A
26a	Regulatory adjustments relating to unrealized gains and losses pursuant to Articles 467 and 468	N/A		N/A
26b	Amount to be deducted from or added to Common Equity Tier 1 capital with regard to additional filters and deductions required pre-CRR	N/A	481	N/A
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	N/A	36 (1) (j)	N/A
28	Total regulatory adjustments to Common Equity Tier 1 (CET1)	-154.6		N/A
29	Common Equity Tier 1 (CET1) capital	1,042.8		N/A
	Additional Tier 1 (AT1) capital: instruments			
30	Capital instruments and the related share premium accounts	N/A	51, 52	N/A
31	of which: classified as equity under applicable accounting standards	N/A		N/A
32	of which: classified as liabilities under applicable accounting standards	N/A		N/A
33	Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase out from AT1	N/A	486 (3)	N/A
	Public sector capital injections grandfathered until 1 January 2018	N/A	483 (3)	N/A
34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interest not included in row 5) issued by subsidiaries and held by third parties	N/A	85, 86, 480	N/A
35	of which: instruments issued by subsidiaries subject to phase-out	N/A	486 (3)	N/A

		(a) Amount At Disclosure Date	(b) Regulation (EU) No 575/2013 Article Reference	(c) Amounts Subject to Pre-Regulation (EU) No 575/2013 Treatment or Prescribed Residual Amount of Regulation
36	Additional Tier 1 (AT1) capital before regulatory adjustments	-		N/A
	Additional Tier 1 (AT1) capital: regulatory adjustments			
37	Direct and indirect holdings by an institution of own AT1 instruments (negative amount)	N/A	52 (1) (b), 56 (a), 57, 475 (2)	N/A
38	Holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to artificially inflate the own funds of the institution (negative amount)	N/A	56 (b), 58, 475 (3)	N/A
39	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	N/A	56 (c), 59, 60, 79, 475 (4)	N/A
40	Direct, indirect and synthetic holdings of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	N/A	56 (d), 59, 79, 475 (4)	N/A
41	Regulatory adjustments applied to Additional Tier 1 capital in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase-out as prescribed in Regulation (EU) No 585/2013 (i.e. CRR residual amounts)	N/A		N/A
41a	Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013	N/A	472, 473(3)(a), 472 (4), 472 (6), 472 (8) (a), 472 (9), 472 (10) (a), 472 (11) (a)	N/A
41b	Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Tier 2 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013	N/A	477, 477 (3), 477 (4) (a)	N/A
41c	Amounts to be deducted from added to Additional Tier 1 capital with regard to additional filters and deductions required pre-CRR	N/A	467, 468, 481	N/A
42	Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount)	N/A	56 (e)	N/A
43	Total regulatory adjustments to Additional Tier 1 (AT1) capital	-		N/A

		(a) Amount At Disclosure Date	(b) Regulation (EU) No 575/2013 Article Reference	(c) Amounts Subject to Pre-Regulation (EU) No 575/2013 Treatment or Prescribed Residual Amount of Regulation
44	Additional Tier 1 (AT1) capital	-		N/A
45	Tier 1 capital (T1 = CET1 + AT1)	1,042.85		N/A
	Tier 2 (T2) capital: instruments and provisions			
46	Capital instruments and the related share premium accounts	N/A	62, 63	N/A
47	Amount of qualifying items referred to in Article 484 (5) and the related share premium accounts subject to phase out from T2	N/A	486 (4)	N/A
	Public sector capital injections grandfathered until 1 January 2018	N/A	483 (4)	N/A
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interest and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third party	N/A	87, 88, 480	N/A
49	of which: instruments issued by subsidiaries subject to phase-out	N/A	486 (4)	N/A
50	Credit risk adjustments	N/A	62 (c) & (d)	N/A
51	Tier 2 (T2) capital before regulatory adjustment	-		N/A
	Tier 2 (T2) capital: regulatory adjustments			
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	N/A	63 (b) (i), 66 (a), 67, 477 (2)	N/A
53	Holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institutions designed to artificially inflate the own funds of the institution (negative amount)	N/A	66 (b), 68, 477 (3)	N/A
54	Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	N/A	66 (c), 69, 70, 79, 477 (4)	N/A
54a	Of which new holdings not subject to transitional arrangements	N/A		N/A
54b	Of which holdings existing before 1 January 2013 and subject to transitional arrangements	N/A		N/A

		(a) Amount At Disclosure Date	(b) Regulation (EU) No 575/2013 Article Reference	(c) Amounts Subject to Pre-Regulation (EU) No 575/2013 Treatment or Prescribed Residual Amount of Regulation
55	Direct, indirect and synthetic holdings of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amounts)	N/A	66 (d), 69, 79, 477 (4)	N/A
56	Regulatory adjustments applied to Tier 2 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)	N/A		N/A
56a	Residual amounts deducted from Tier 2 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013	N/A	472, 472(3)(a), 472 (4), 472 (6), 472 (8), 472 (9), 472 (10) (a), 472 (11) (a)	N/A
56b	Residual amounts deducted from Tier 2 capital with regard to deduction from Additional Tier 1 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013	N/A	475, 475 (2) (a), 475 (3), 475 (4) (a)	N/A
56c	Amounts to be deducted from or added to Tier 2 capital with regard to additional filters and deductions required pre-CRR	N/A	467, 468, 481	N/A
57	Total regulatory adjustments to Tier 2 (T2) capital	-		N/A
58	Tier 2 (T2) capital	-		N/A
59	Total capital (TC = T1 + T2)	1,042.8		N/A
59a	Risk-weighted assets in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amount)	-		N/A
	Of which:... items not deducted from CET1 (Regulation (EU) No 575/2013 residual amounts) (items to be detailed line by line, e.g. Deferred tax assets that rely on future profitability net of related tax liability, indirect holdings of own CET1, etc.)	-	472, 472 (5), 472 (8) (b), 472 (10) (b), 472 (11) (b)	N/A
	Of which:...items not deducted from AT1 items (Regulation (EU) No 575/2013 residual amounts) (items to be detailed line by line, e.g. Reciprocal cross holdings in T2 instruments, direct holdings of non-significant investments in the capital of other financial sector entities, etc.)	-	475, 475 (2) (b), 475 (2) ©, 475 (4) (b)	N/A

		(a) Amount At Disclosure Date	(b) Regulation (EU) No 575/2013 Article Reference	(c) Amounts Subject to Pre-Regulation (EU) No 575/2013 Treatment or Prescribed Residual Amount of Regulation
	Items not deducted from T2 items (Regulation (EU) No 575/2013 residual amounts) (items to be detailed line by line, e.g. Indirect holdings of own T2 instruments, indirect holdings of non-significant investments in the capital of other financial sector entities, indirect holdings of significant investments in the capital of other financial sector entities, etc.)	-	477, 477 (2) (b), 477 (2) (c), 477 (4) (b)	N/A
60	Total risk-weighted assets	4,883.5		N/A
	Capital ratios and buffers			
61	Common Equity Tier 1 (as a percentage of total risk exposure amount)	21.35%	92 (2) (a), 465	N/A
62	Tier 1 (as a percentage of total risk exposure amount)	21.35%	92 (2) (b), 465	N/A
63	Total capital (as a percentage of total risk exposure amount)	21.35%	92 (2) (c)	N/A
64	Institution-specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements plus a systemic risk buffer, plus systemically important institution buffer expressed as a percentage of total risk exposure amount) 1)	2.91%	CRD 128, 129, 140	N/A
65	of which: capital conservation buffer requirement	2.50%		N/A
66	of which: countercyclical buffer requirement	0.03%		N/A
67	of which: systemic risk buffer requirement	-		N/A
67a	of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer	0.38%	CRD 131	N/A
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount) 2)	7.41%	CRD 128	N/A
69	[non-relevant in EU regulation]	-		N/A
70	[non-relevant in EU regulation]	-		N/A
71	[non-relevant in EU regulation]	-		N/A
	Amounts below the thresholds for deduction (before risk-weighting)	-		

		(a) Amount At Disclosure Date	(b) Regulation (EU) No 575/2013 Article Reference	(c) Amounts Subject to Pre-Regulation (EU) No 575/2013 Treatment or Prescribed Residual Amount of Regulation
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	-	36 (1) (h), 45, 46, 472 (10), 56 (c), 59, 60, 475 (4), 66 (c), 69, 70, 477 (4)	N/A
73	Direct and indirect holdings of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	-	36 (1) (i), 45, 48, 470, 472 (11)	N/A
74	Empty set in the EU	-		N/A
75	Deferred tax assets arising from temporary difference (amount below 10 % threshold, net of related tax liability where the conditions in Article 38 (3) are met)	1.1	36 (1) (c), 38, 48, 470, 472 (5)	N/A
	Applicable caps on the inclusion of provisions in Tier 2			
76	Credit risk adjustments included in T2 in respect of exposures subject to standardized approach (prior to the application of the cap)	-	62	N/A
77	Cap on inclusion of credit risk adjustments in T2 under standardized approach	-	62	N/A
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)	-	62	N/A
79	Cap for inclusion of credit risk adjustments in T2 under internal ratings-based approach	-	62	N/A
	Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2014 and 1 Jan 2022)			
80	- Current cap on CET1 instruments subject to phase-out arrangements	-	484 (3), 486 (2) & (5)	N/A
81	- Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	-	484 (3), 486 (2) & (5)	N/A
82	- Current cap on AT1 instruments subject to phase-out arrangements	-	484 (4), 486 (3) & (5)	N/A
83	- Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	-	484 (4), 486 (3) & (5)	N/A
84	- Current cap on T2 instruments subject to phase-out arrangements	-	484 (5), 486 (4) & (5)	N/A

		(a) Amount At Disclosure Date	(b) Regulation (EU) No 575/2013 Article Reference	(c) Amounts Subject to Pre-Regulation (EU) No 575/2013 Treatment or Prescribed Residual Amount of Regulation
85	- Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	-	484 (5), 486 (4) & (5)	N/A

3.3.1.1 Bridge between IFRS equity and CET1 capital

A bridge between IFRS equity and CET1 capital is provided in the table below:

Table 3-4 - Bridge between IFRS equity and CET1 capital

EUR mm	RBCIS Bank Conso Oct 31st, 2018
Balance sheet equity	1,263.9
- Profit non audited (excluded)	66.3
Balance sheet equity without profit	1,197.6
CET 1 before deductions	1,197.6
Goodwill	- 84.2
Intangible assets	- 70.5
Prudential filters	- 0.1
Common Equity Tier 1 capital	1,042.9

“Prudential filters”

In accordance with Circular 575/2013 (CRR - Article 48) and the Capital Regulatory Directives 2013/36/EU - known as CRD IV, prudential filters related to “revaluation of financial available for sales” are not anymore applicable under Basel III principles.

The relevant prudential filters concern the following elements:

- 100% of the unrealised gains amounting to 0,05MEUR resulting from the application of the transitory regime according to CSSF Regulation N°14-01 and CSSF Regulation n°18-03.

Inclusion and exclusion of specific entries of the prudential trading book

As of 31 October 2018, it is not within the Bank’s policies to engage in speculative or trading transactions. In the rare cases where a transaction is categorised as trading (due to its nature), the Management Committee must approve the transaction which must then be monitored by the Finance department.

3.3.2 Minimum capital requirements

Table 3-5 – Minimum Capital Requirements

	Minimum Capital requirements	Pillar 2 Requirements	CCB	CCyB	O-SII	Total Requirement* *OCR	
Common Equity Tier 1 capital	4.5%	1.750%	2.5%	0.5%	0.375%	9.625%	
Tier 1 capital	6.0%	1.750%	2.5%	0.5%	0.375%	11.125%	
Own funds	8.0%	1.750%	2.5%	0.5%	0.375%	13.125%	
							Surplus versus Total Requirement
EUR mm							
Common Equity Tier 1 capital	219.8	85.5	122.1	24.4	18.3	470.1	572.7
Tier 1 capital	293.0	85.5	122.1	24.4	18.3	543.3	499.5
Own funds	390.7	85.5	122.1	24.4	18.3	641.0	401.8

3.3.3 Overview of RWAs

The table below provides an overview of total Risk Weighted Assets in Pillar 1 as of October 31st, 2018. The capital requirements amounts have been obtained by applying 8% to the corresponding weighted risks.

Template 4 – EU OV1 - Overview of RWAs

		EUR mm	RWA		Minimum capital requirements
			T	T-1	T
	1	Credit risk (excluding counterparty credit risk) (CCR)	3,190.8	n/a	255.3
Art 438(c)(d)	2	Of which standardized approach (SA)	3,190.8	n/a	255.3
Art 438(c)(d)	3	Of which the advanced IRB (AIRB) approach	-	n/a	-
Art 438(c)(d)	4	Of which the foundation IRB (FIRB) approach	-	n/a	-
Art 438(d)	5	Of which equity IRB under the simple risk-weighted approach or the IMA	-	n/a	-
Article 107, Art.438(c)(d)	6	Counterparty credit risk	763.3	n/a	61.1
Art 438(c)(d)	7	Of which Marked to market	654.0	n/a	52.3
Art 438(c)(d)	8	Of which Original exposure	-	n/a	-
Art 438(c)(d)	9	Of which standardized approach for counterparty credit risk	-	n/a	-
Art 438(c)(d)	10	Of which internal model method (IMM)	-	n/a	-
Art 438(c)(d)	11	Of which risk exposure amount for contributions to the default fund of a CCP	-	n/a	-
Art 438(c)(d)	12	Of which CVA	109.3	n/a	8.7
Art 438 (e)	13	Settlement risk	-	n/a	-
Art 449(o)(i)	14	Securitization exposures in banking book (after cap)	-	n/a	-
	15	Of which IRB ratings-based approach (RBA)	-	n/a	-
	16	Of which IRB Supervisory Formula Approach (SFA)	-	n/a	-
	17	Of which Internal assessment approach (IAA)	-	n/a	-
	18	Of which standardized approach (SA)	-	n/a	-
Art 438 (e)	19	Market risk	168.3	n/a	13.5
	20	Of which standardized approach (SA)	168.3	n/a	13.5
	21	Of which internal model approaches (IMA)	-	n/a	-
Art 438 (e)	22	Large exposures	-	n/a	-
Art 438(f)	23	Operational risk	761.1	n/a	60.9
	24	Of which Basic Indicator Approach	-	n/a	-
	25	Of which Standardized Approach	761.1	n/a	60.9
	26	Of which Advanced Measurement Approach	-	n/a	-
Art 437(2), Art 48 and Art 60	27	Amounts below the thresholds for deduction (subject to 250% risk weight)	-	n/a	-
Article 500	28	Floor adjustment	-	n/a	-
	29	Total	4,883.5	n/a	390.7

At the end of 2018, RBCIS Bank's total RWAs amounted to 4.8 billion as of October 31, 2018. RWA are concentrated on Credit risk and Operational risk, representing respectively 72% and 16% of the total Bank RWA. Market risk and CVA represents respectively 3% and 2% of the total Bank RWA.

RBCIS Bank uses the standardized approach for calculating its capital requirements with respect to credit, market and operational risk, and to publish its Capital ratios.

3.3.4 Specialized lending and equity exposures in the banking book

As of October 31st, 2018, RBCIS bank does not have exposure to specialized lending, neither hold equity exposures in the banking book.

3.3.5 Countercyclical capital buffer disclosure template

In accordance with Article 440 (a) and (b) in the CRR, the following tables disclose the amount of the institution's specific countercyclical buffer as well as the geographical distribution of credit exposures relevant for its calculation in the standard format as set out in Commission Delegated Regulation (EU) 2015/1555.

3.3.5.1 Institution-specific countercyclical capital buffer

Table 3-6 - Institution-specific countercyclical capital buffer

Total Risk Exposure Amount	4,883
Institution specific countercyclical buffer rate	0.034%
Institution specific countercyclical buffer requirement (EUR)	59,192

3.3.5.2 Geographical distribution of credit exposures relevant for the calculation of the countercyclical capital buffer

The scope of the below table is limited to credit exposures relevant for the calculation of the Countercyclical Capital Buffer (CCyB). Only countries which credit exposures relevant for CCyB have been reported.

Table 3-7 - Geographical distribution of credit exposures relevant for the calculation of the countercyclical buffer

	General credit exposures		Trading book exposure		Securitization exposure		Own funds requirements				Own funds requirement weights	Countercyclical capital buffer rate
	Exposure value for SA	Exposure value IRB	Sum of long and short position of trading book	Value of trading book exposure for internal models	Exposure value for SA	Exposure value for IRB	Of which General credit exposures	Of which trading book exposures	Of which securitization exposures	Exposure value for IRB		
Australia	0.1	-	-	-	-	-	0.0	-	-	-	-	0.000%
Belgium	5.3	-	-	-	-	-	0.4	-	-	-	-	0.000%
Bermuda	0.0	-	-	-	-	-	0.0	-	-	-	-	0.000%
Brunei	0.0	-	-	-	-	-	0.0	-	-	-	-	0.000%
Canada	2.6	-	-	-	-	-	0.1	-	-	-	-	0.000%
Cayman Islands	0.4	-	-	-	-	-	0.0	-	-	-	-	0.000%
China	0.1	-	-	-	-	-	0.0	-	-	-	-	0.000%
France	313.0	-	-	-	-	-	24.7	-	-	-	-	0.000%
Germany	0.0	-	-	-	-	-	0.0	-	-	-	-	0.000%
Great Britain	138.7	-	-	-	-	-	11.1	-	-	-	0.055	0.500%
Guernsey	74.1	-	-	-	-	-	5.9	-	-	-	-	0.000%
Hong Kong	3.6	-	-	-	-	-	0.2	-	-	-	0.004	1.875%
Ireland	126.5	-	-	-	-	-	10.1	-	-	-	-	0.000%
Italy	72.1	-	-	-	-	-	5.4	-	-	-	-	0.000%
Liechtenstein	0.0	-	-	-	-	-	0.0	-	-	-	-	0.000%
Luxembourg	1,155.3	-	-	-	-	-	91.9	-	-	-	-	0.000%
Singapore	0.9	-	-	-	-	-	0.0	-	-	-	-	0.000%
Spain	0.0	-	-	-	-	-	0.0	-	-	-	-	0.000%
Stateless	164.6	-	-	-	-	-	11.1	-	-	-	-	0.000%
Switzerland	46.3	-	-	-	-	-	3.5	-	-	-	-	0.000%
United Arab Emirates	0.0	-	-	-	-	-	0.0	-	-	-	-	0.000%
United States	145.2	-	-	-	-	-	11.5	-	-	-	-	0.000%
Total	2,249.0	-	-	-	-	-	176.0	-	-	-	0.059	0.034%

3.4 Leverage ratio

The leverage ratio (LR) is introduced by the Basel Committee to serve as a simple, transparent and non-risk-based ratio to complete the existing risk-based capital requirements. The Basel III leverage ratio is defined as the capital measure (the numerator) divided by the exposure measure (the denominator), with this ratio expressed as a percentage and having to exceed a minimum of 3%. RBCIS Bank internal minimum requirement is set at 3.5%.

The Bank takes into account the leverage ratio in its capital and financial planning to ensure that its forecasted strategic plan is consistent with this requirement. The leverage ratio is discussed on a regular basis at top management level and is part of the Bank's Risk Appetite framework.

As of October 31st, 2018, RBCIS Bank leverage ratio stands at 5.52%, well above the 3.5% internal minimum requirement.

Table 3-8 – Leverage ratio

EUR mm	RBCIS Bank Conso Oct 31st, 2018
Tier 1 capital	1,043
Leverage ratio exposure	18,883
Leverage ratio	5.52%

During 2018, the leverage ratios of RBCIS Bank and its related subsidiaries have complied with the prescribed regulatory requirements and internal minimum ratios contained in the Capital Management Policy.

4 Credit Risk

4.1 Credit Risk governance

4.1.1 Definition of Credit Risk

RBC Group defines credit risk as the risk of loss associated with counterparty's potential inability or unwillingness to fulfil its on- and off-balance sheet payment obligations. Credit risk may arise directly from the risk of default of a primary obligor (e.g., issuer, debtor, borrower or policyholder), or indirectly from a secondary obligor (e.g., guarantor, reinsurance) and/or through off-balance sheet exposures, contingent credit risk and/or transactional risk. Credit risk includes counterparty credit risk from both trading and non-trading activities. Exposure to credit risk occurs any time funds are extended, committed or invested through actual or implied contractual agreement.

4.1.2 Business Model and Risk Profile

Credit risk is inherent to the following operations:

- Overdrafts (generally within internal limits not confirmed to the customers) and the confirmed credit lines; typically RBCIS Bank has a contractual lien on client assets as an ultimate form of remedy for unapproved overdrafts.
- Operations related to Assets and Liabilities Management. RBCIS Bank has an Investment Policy approved by the Board of Directors that outlines authorized investments and terms and conditions for their execution. This includes placements with RBC Group as well as investment in High Quality Liquid Assets / placements with Central Governments and Local Authorities as appropriate;
- Committed Lending - we provide clients with (generally secured) committed or uncommitted credit facilities to facilitate clients' settlement of securities or to provide liquidity (bridge financing) between capital calls. These commitments are secured with a lien over the uncalled capital of the underlying investors.
- Cash deposits in the different banks of our correspondents network; these cash balances represent credit risk exposures to us in case of bankruptcy of the agent banks. The Bank has implemented strong processes around selection and monitoring of said correspondent network, including limits definition and monitoring of cash balances by Risk Management unit.
- Guarantees provided (this represents marginal amounts driven by some ancillary client activities).

Note that the Bank also provides clients foreign exchange services and related transactions. We refer to Market Risk and Counterparty Credit Risk sections for more information.

Overall, RBCIS Bank has limited appetite for Credit Risk, which is mitigated through the nature and monitoring of risk exposures, as well as related risk ratings and concentration. The formal Bank's Risk Appetite is approved by the Board annually and the credit risk profile is managed through the RBCIS Bank Risk Committee of the Board, the RBC I&TS Credit Risk Committee and the RBCIS Bank Executive Committee.

4.1.3 Organization and Functions involved in Credit Risk Management

Please also refer to section 1.2 'Description of the risk governance structure' in terms of generic roles and responsibilities for Risk Management. RBCIS Bank has established a comprehensive credit risk policy framework that covers requirements in terms of Credit Risk Approval Authorities, Credit Risk Limits, Credit Risk Identification and Assessment (including Credit Risk Ratings / Scorings), Credit Risk Mitigation (including Collateral), Credit Monitoring, Credit Deterioration, Credit Risk Measurement Methodologies, Governance...

RBCIS Bank manages credit risk at both the individual exposure level as well as the portfolio level. Credit risk at the individual exposure level is managed through our credit approval system and involves four approval levels up to and including the Board of Directors. The requisite approvals are based upon the size and relative risk of the aggregate exposure under consideration. The Credit Risk unit is responsible for monitoring the size, terms and maturity of all credit exposures as well as, in collaboration with the 1st line of defense, the ongoing monitoring of the creditworthiness of the counterparty. In addition, they are responsible for assigning and maintaining the internal risk ratings on each exposure.

Other relevant information include:

RBC I&TS Credit Risk Committee

The Committee is established to enable effective oversight and management of credit risk within RBC Investor & Treasury Services. This includes monitoring the credit exposure profile of RBC I&TS, assess credit risk concentrations, review credit risk exposures at risk (e.g. watchlist, defaults, ...) and generally, provide positive advice, strategic direction and guidance in order to manage all material credit risks impacting I&TS segment and RBCIS Bank, as applicable.

Implementation of the three lines of defense model

Within the 1st line of defense, dedicated teams are in place to support credit risk needs. This includes two teams, ICCM (Institutional Client and Credit Management) for funds and GTCM (Global Trading Credit Management) for non-funds, that prepare and submit credit requests to the 2nd line Risk Management function. These team are also responsible, together with some other 1st line operational departments (e.g. 'Cash Control' unit) to monitor any potential excess to approved limits. Another dedicated 1st line team ('TMS Middle Office' unit) is also in place to monitor loans / committed lending and for instance ensure clients comply with all covenants defined in the credit/pledge agreement

The 2nd line Risk Management function reviews and approves credit requests/limits, and monitors credit risk exposures through different daily monitoring reports (Overdrafts, Single Name, Large Exposure, Shadow Banking, Nostro, ...) that cover the relevant risk exposures. Risk Management also provides independent reporting to the Executive Committee and Risk Committee on the Board, including limits / exposures / defaults... and any material excess to the limit.

Other information on Counterparty Limits / Risk Assessments

The evaluation of counterparties and the credit risk classification takes place within the "credit assessment" process. The Bank assigns credit risk ratings to its borrowers to reflect its assessment of the specific credit risk of each borrower over a 3-year horizon (or full credit cycle as appropriate) starting from the time of risk assessment or revision or confirmation. The 3-year time horizon is consistent with the term of the majority of the credit risk exposures. The Bank extends the term of the rating horizon in the case of specific portfolios where the nature of the business predominantly exposes the Bank to longer term exposures. On the other hand, the ratings of very weak borrowers are assigned to primarily reflect their riskiness based on current conditions and short-term expectations. The rating is determined through an assessment of factors, specific to the industry and/or product, that differentiate the riskiness of the borrowers and reflects the probability of default of the borrower over the time horizon of the rating. The currency of the rating is maintained through a process of continuous monitoring and periodic review.

Internal ratings are systematically compared with external ratings from Moody's, Standard & Poor's and Fitch and are adjusted where applicable. Approved credit limits for funds should be revisited at least annually as part of the review of each Group of Funds single name overall limits. For non-fund counterparties limits are reviewed on annual, bi-annual or within a three year cycle. Borrowers with material deterioration in credit quality which may breach their covenant are added to a watch list for monitoring, and action is taken as appropriate.

4.2 Credit risk exposure

4.2.1 Total and average amount of credit exposure by exposure classes

In the application of Article 442 (c) in the CRR, this table represents the year-end total and annual average exposure. Exposures values are shown after accounting offsets but before credit risk mitigation. Exposures subject to counterparty credit risk (CCR) are excluded from the scope of the table presented below, a specific outlook of these types of exposure being presented under the section 4.6 Counterparty credit risk.

The year-end total exposure includes figures obtained using the standardized approach methods. The average exposure is computed as the average of the net exposure values observed at the end of each calendar quarter of the year 2018 (December 2017, March 2018, June 2018, September 2018) with, in addition to its, the fiscal Year-end (October 2018).

Template 5 – EU-CRB-B - Total and average net amount of exposures

	Net exposure at the end of the period	Average net exposure over the period
Central governments or central banks		
Institutions		
Corporates		
Of Which: Specialized Lending		
Of Which: SME		
Retail		
Secured by real estate property		
SME		
Non-SME		
Qualifying Revolving		
Other Retail		
SME		
Non-SME		
Equity		
Total IRB approach		
Central governments or central banks	8,682.0	9,931.2
Regional governments or local authorities	107.5	281.3
Public sector entities	-	-
Multilateral Development Banks	-	-
International Organizations	-	-
Institutions	7,716.5	7,280.2
Corporates	3,370.2	2,615.1
of which: SME	-	-
Retail	-	-

	Net exposure at the end of the period	Average net exposure over the period
of which: SME	-	-
Secured by mortgages on immovable property	-	-
of which: SME	-	-
Exposures in default	-	-
Items associated with particularly high risk	-	-
Covered bonds	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-
Collective investments undertakings (CIU)	-	-
Equity exposures	-	-
Other exposures	242.6	264.5
Total SA approach	20,118.9	20,372.3
Total	20,118.9	20,372.3

As of October 31st, 2018, the Bank's total exposure (excluding CCR exposures) amounted to 20'119 million €. Average net exposure over the period totalizes 20'372 million €.

As of October 31st, 2018, exposures are mostly concentrated on the "central governments or central banks" as well as the "Institutions" asset classes which represent respectively 43% and 38% of the total net exposure. Average over the period follows the same trend with the "central governments or central banks" and "institutions" asset classes representing 49% and 36% respectively.

Regarding the Central Governments and Central Banks exposures, the main counterparties of the Bank are the Central Bank of Luxembourg, the Swiss National Bank, The Banque de France, Luxembourg, France and Belgium.

4.2.2 Geographical breakdown of credit exposures

In the application of Article 442 (d) in the CRR, the table below shows the total exposure broken down by exposure classes and geographic areas at year-end 2018. Exposures values are shown after accounting offsets but before credit risk mitigation. Exposures subject to counterparty credit risk (CCR) are excluded from the scope of the table presented below, a specific outlook of these types of exposure being presented under the part 4.6 Counterparty credit risk.

The geographical distribution is based on the incorporation country of the counterparty or issuer. It comprises figures obtained using the standardized methods.

Template 6 - EU-CRB-C - Geographical breakdown of exposures

		a	b	c	d	e	f	g	h	i	j	k	l
		Europe	Of which: Luxembourg	Of which: Switzerland	Of which: united Kingdom	Of which: France	Of which: Italy	North America	South and Central America	Asia	Africa	Other geographical areas	Total
1	Central governments or central banks												
2	Institutions												
3	Corporates												
4	Retail												
5	Equity												
6	Total IRB approach												
7	Central governments or central banks	8,679.7	4,296.7	3,744.6	0.1	533.7	6.2	0.2	0.0	0.1	0.0	2.1	8,682.0
8	Regional governments or local authorities	107.5	-	-	-	-	-	-	-	-	-	-	107.5
9	Public sector entities	-	-	-	-	-	-	-	-	-	-	-	
10	Multilateral Development Banks	-	-	-	-	-	-	-	-	-	-	-	
11	International Organizations	-	-	-	-	-	-	-	-	-	-	-	
12	Institutions	3,533.2	111.6	15.6	2,724.2	15.2	1.0	4,106.9	5.5	68.8	0.9	1.2	7,716.5
13	Corporates	3,191.2	1,667.0	4.5	152.6	485.1	397.7	178.4	0.0	0.0	0.0	0.6	3,370.2
14	Retail	-	-	-	-	-	-	-	-	-	-	-	
15	Secured by mortgages on immovable property	-	-	-	-	-	-	-	-	-	-	-	
16	Exposures in default	-	-	-	-	-	-	-	-	-	-	-	
17	Items associated with particularly high risk	-	-	-	-	-	-	-	-	-	-	-	

		a	b	c	d	e	f	g	h	i	j	k	l
		Europe	Of which: Luxembourg	Of which: Switzerland	Of which: united Kingdom	Of which: France	Of which: Italy	North America	South and Central America	Asia	Africa	Other geographical areas	Total
18	Covered bonds	-	-	-	-	-	-	-	-	-	-	-	-
19	Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-	-	-
20	Collective investments undertakings (CIU)	-	-	-	-	-	-	-	-	-	-	-	-
21	Equity exposures	-	-	-	-	-	-	-	-	-	-	-	-
22	Other exposures	65.4	5.4	6.3	5.9	22.7	22.4	4.4	-	4.6	-	168.3	242.6
23	Total SA approach	15,576.9	6,080.7	3,771.0	2,882.6	1,056.7	427.4	4,289.9	5.5	73.5	0.9	172.2	20,118.9
24	Total	15,576.9	6,080.7	3,771.0	2,882.6	1,056.7	427.4	4,289.9	5.5	73.5	0.9	172.2	20,118.9

As at October 31st, 2018, the Bank's exposure was mainly concentrated in Europe (77.4%, EUR 15,577 mm) and North America (21.3%, EUR 4,290 mm). Exposures in Europe area are concentrated on 3 countries : Luxembourg with respectively 30.22% of the total exposure, Switzerland with 18.74%, and the United Kingdom with 14.33% of the total exposure.

4.2.3 Exposure breakdown by industry sector

In the application of Article 442 (e) in the CRR, the table below shows the total exposure broken down by exposure class and industry at October 31st, 2018. The industry classification is based on NACE codes. NACE (*Nomenclature des Activités Économiques dans la Communauté Européenne*) is a European industry standard for classifying business activities. It comprises figures obtained using the standardized methods.

Template 7 - EU-CRB-D- Concentration of exposures by industry or counterparty types

	k	l	m	n	o	p	q	r	s	t	
	Net carrying values										
	Financial and insurance activities	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Public administration and defence, compulsory social security	Education	Human health services and social work activities	Arts, entertainment and recreation	Other services	Total	
1	Central governments or central banks										
2	Institutions										
3	Corporates										
4	Retail										
5	Equity										
6	Total IRB approach										
7	Central governments or central banks	-	-	-	-	8,679.4	-	-	-	2.7	8,682.0
8	Regional governments or local authorities	47.5				60.0	-	-	-	-	107.5
9	Public sector entities	-	-	-	-	-	-	-	-	-	-
10	Multilateral Development Banks	-	-	-	-	-	-	-	-	-	-
11	International Organizations	-	-	-	-	-	-	-	-	-	-
12	Institutions	7,689.7	-	-	-	-	-	-	-	26.8	7,716.5
13	Corporates	3,000.3	-	-	-	-	-	-	-	369.9	3,370.2

		k	l	m	n	o	p	q	r	s	t
		Net carrying values									
		Financial and insurance activities	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Public administration and defence, compulsory social security	Education	Human health services and social work activities	Arts, entertainment and recreation	Other services	Total
14	Retail	-	-	-	-	-	-	-	-	-	-
15	Secured by mortgages on immovable property	-	-	-	-	-	-	-	-	-	-
16	Exposures in default	-	-	-	-	-	-	-	-	-	-
17	Items associated with particularly high risk	-	-	-	-	-	-	-	-	-	-
18	Covered bonds	-	-	-	-	-	-	-	-	-	-
19	Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-
20	Collective investments undertakings (CIU)	-	-	-	-	-	-	-	-	-	-
21	Equity exposures	-	-	-	-	-	-	-	-	-	-
22	Other exposures	5.9	-	-	-	-	-	-	-	236.7	242.6
23	Total SA approach	10,743.5	-	-	-	8,739.4	-	-	-	636.0	20,118.9

As of October 31st, 2018, the sectors “Financial and insurances activities” and “Public administration” represented the highest exposures with respectively 53.4% and 43.4% of the total exposures.

Investment Funds counterparties are classified under the “Financial and insurances activities”. RBCIS Bank continues to invest into counterparties with a high level of financial strength and ratings such as Central Governments or strong Financial institutions.

4.2.4 Exposure breakdown by residual maturity

In the application of Article 442 (f) in the CRR, the table below shows the total exposure broken down by exposure classes and residual maturities at October 31st, 2018.

Template 8 - EU CRB-E: Maturity of exposures

		a	b	c	d	e	f
		Net exposure value					
		On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
1	Central governments or central banks						
2	Institutions						
3	Corporates						
4	Retail						
5	Equity						
6	Total IRB approach						
7	Central governments or central banks	-	8,680.9	-	-	-	8,680.9
8	Regional governments or local authorities	-	107.5	-	-	-	107.5
9	Public sector entities	-	-	-	-	-	-
10	Multilateral Development Banks	-	-	-	-	-	-
11	International Organizations	-	-	-	-	-	-
12	Institutions	-	7,262.4	261.6	6.9	-	7,530.9
13	Corporates	-	1,256.5	-	-	-	1,256.5
14	Retail	-	-	-	-	-	-
15	Secured by mortgages on immovable property	-	-	-	-	-	-
16	Exposures in default	-	-	-	-	-	-
17	Items associated with particularly high risk	-	-	-	-	-	-

		a	b	c	d	e	f
		Net exposure value					
		On demand	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
18	Covered bonds	-	-	-	-	-	-
19	Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
20	Collective investments undertakings (CIU)	-	-	-	-	-	-
21	Equity exposures	-	-	-	-	-	-
22	Other exposures	-	242.6	-	-	-	242.6
23	Total SA approach	-	17,550.0	261.6	6.9	-	17,818.4
24	Total	-	17,550.0	261.6	6.9	-	17,818.4

This table shows that 98.5% of the total risk exposure does not exceed 1 year.

4.2.5 Credit quality of exposures

In the application of Article 442 (g) in the CRR, the tables below provide a breakdown of defaulted and non-defaulted exposures by regulatory exposure classes and industries respectively.

The industry classification is based on NACE codes, which is a European industry standard classification system for classifying business activities.

Template 9 - EU-CR1-A - Credit quality of exposures by exposure classes and instruments

		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values (a+b-c-d)
		Defaulted exposures	Non-Defaulted exposures					
1	Central governments or central banks							
2	Institutions							
3	Corporates							
4	Of Which: Specialized Lending							
5	Of Which: SME							
6	Retail							
7	Secured by real estate property							
8	SME							
9	Non-SME							
10	Qualifying Revolving							
11	Other Retail							
12	SME							
13	Non-SME							
14	Equity							
15	Total IRB approach							
16	Central governments or central banks	-	8,682.0	-	-	-	-	8,682.0
17	Regional governments or local authorities	-	107.5	-	-	-	-	107.5

		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values (a+b-c-d)
		Defaulted exposures	Non-Defaulted exposures					
18	Public sector entities	-	-	-	-	-	-	-
19	Multilateral Development Banks	-	-	-	-	-	-	-
20	International Organizations	-	-	-	-	-	-	-
21	Institutions	-	7,716.5	-	-	-	-	7,716.5
22	Corporates	-	3,370.2	-	-	-	-	3,370.2
23	of which: SME	-	-	-	-	-	-	-
24	Retail	-	-	-	-	-	-	-
25	of which: SME	-	-	-	-	-	-	-
26	Secured by mortgages on immovable property	-	-	-	-	-	-	-
27	of which: SME	-	-	-	-	-	-	-
28	Exposures in default	-	-	-	-	-	-	-
29	Items associated with particularly high risk	-	-	-	-	-	-	-
30	Covered bonds	-	-	-	-	-	-	-
31	Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-
32	Collective investments undertakings (CIU)	-	-	-	-	-	-	-
33	Equity exposures	-	-	-	-	-	-	-
34	Other exposures	-	242.6	-	-	-	-	242.6
35	Total SA approach	-	20,118.9	-	-	-	-	20,118.9
36	Total	-	20,118.9	-	-	-	-	20,118.9
37	Total - Of which: Loans	-	16,938.2	-	-	-	-	16,938.2
38	Total - Of which: Debt Securities	-	880.3	-	-	-	-	880.3
39	Total - Of which: Off-BS	-	2,300.4	-	-	-	-	2,300.4

Template 10 – EU CR1-B - Credit quality of exposures by industry or counterparty types

		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values (a+b-c-d)
		Defaulted exposures	Non-Defaulted exposures					
1	Agriculture, forestry and fishing	-	-	-	-	-	-	-
2	Mining and quarrying	-	-	-	-	-	-	-
3	Manufacturing	-	-	-	-	-	-	-
4	Electricity, gas, steam and air conditioning supply	-	-	-	-	-	-	-
5	Water supply	-	-	-	-	-	-	-
6	Construction	-	-	-	-	-	-	-
7	Wholesale and retail trade	-	-	-	-	-	-	-
8	Transport and storage	-	-	-	-	-	-	-
9	Accommodation and food service activities	-	-	-	-	-	-	-
10	Information and communication	-	-	-	-	-	-	-
11	Financial and insurance activities	-	10,743.5	-	-	-	-	10,743.5
12	Real estate activities	-	-	-	-	-	-	-
13	Professional, scientific and technical activities	-	-	-	-	-	-	-
14	Administrative and support service activities	-	-	-	-	-	-	-
15	Public administration and defense, compulsory social security	-	8,739.4	-	-	-	-	8,739.4
16	Education	-	-	-	-	-	-	-
17	Human health services and social work activities	-	-	-	-	-	-	-
18	Arts, entertainment and recreation	-	-	-	-	-	-	-
19	Other services	-	636.0	-	-	-	-	636.0
20	Total	-	20,118.9	-	-	-	-	20,118.9

No defaulted exposure has been reported as of October 31st, 2018. The Bank does not book any credit risk adjustment which qualify as general credit risk adjustment.

4.2.6 Credit quality of exposures by geographical area

In the application of Article 442 (h) in the CRR, the table below provides a breakdown of defaulted and non-defaulted exposures by geographical areas. The geographical distribution is based on the legal residence of the counterparty or issuer.

Template 11 - EU CR1-C – Credit quality of exposures by geography

		a	b	c	d	e	f	g
		Gross carrying values of		Specific credit risk adjustment	General credit risk adjustment	Accumulated write-offs	Credit risk adjustment charges of the period	Net values (a+b-c-d)
		Defaulted exposures	Non-Defaulted exposures					
1	Europe	-	15,576.9	-	-	-	-	15,576.9
2	Of which: Luxembourg	-	6,080.7	-	-	-	-	6,080.7
3	Of which: Switzerland	-	3,771.0	-	-	-	-	3,771.0
4	Of which: united Kingdom	-	2,882.6	-	-	-	-	2,882.6
5	Of which: France	-	1,056.7	-	-	-	-	1,056.7
6	Of which: Italy	-	427.4	-	-	-	-	427.4
7	United States and Canada	-	4,289.9	-	-	-	-	4,289.9
8	South and Central America	-	5.5	-	-	-	-	5.5
9	Asia	-	73.5	-	-	-	-	73.5
10	Africa	-	0.9	-	-	-	-	0.9
11	Other geographical areas	-	172.2	-	-	-	-	172.2
12	Total	-	20,118.9	-	-	-	-	20,118.9

No defaulted exposure has been reported as of October 31st, 2018. The Bank does not book any credit risk adjustment which qualify as general credit risk adjustment.

4.3 Forbearance, impairment, past due and provisions

4.3.1 Definitions

RBC has adopted IFRS 9 Financial Instruments, resulting in Accounting Policies foreseeing an allowance for credit losses (ACL) being established for all financial instruments, except for financial assets classified or designated as FVTPL² and equity securities designated as FVOCI³, which are not subject to impairment assessment. Assets subject to impairment assessment include certain loans, debt securities, interest-bearing deposits with banks, accounts and accrued interest receivable. IFRS 9 models and methodologies have been developed and implemented that allow for both the 'accounting driven' Allowance for Credit Loss view (i.e., combination of 12 month and lifetime losses after consideration of IFRS 9 staging, weighted across a range of forward looking macroeconomic scenarios), as well as 'risk driven' expected credit loss view (i.e. forward looking losses for a given period, that are scenario specific and not weighed / staged).

The Bank considers a Credit Exposure being past due when the contractual payment of either principal or interest is not received by the Bank within agreed payment schedule. The past due exposures are assessed for impairment purposes. An exposure is considered impaired when management determines that it will not be able to collect all amounts due according to the original contractual terms or the equivalent value. When a financial asset is considered to be credit-impaired, a loss allowance is recognized equal to credit losses expected over the remaining lifetime of the asset.

4.3.2 Ageing of accounting past due and not impaired exposures

The following table provides an ageing analysis of accounting on-balance-sheet past-due exposures regardless of their impairment status.

Template 12 - EU CR1-D – Ageing of past-due exposures

		a	b	c	e	f	g
		Gross carrying values of					
		≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1year	> 1year
1	Loans	-	-	-	-	-	-
2	Debt Securities	-	-	-	-	-	-
3	Total exposures	-	-	-	-	-	-

No past due are reported as of October 31st, 2018.

4.3.3 Forborne exposure and non-performing loans

The following table provides an overview of non-performing and forborne exposures as per the Commission Implementing Regulation (EU) No 680/2014, with a split between the loans, debt securities and off-balance sheet exposures categories. 'Other assets' category is not reported into the below table.

² Fair value through profit or loss

³ Fair value through other comprehensive income

Template 13 - EU CR1-E – Non-performing and forborne exposures

		a	b	c	d	e	f	g
		Gross carrying amount of performing and non-performing exposures						
			Of which performing but past due >30 days and <=90 days	of which performing forborne	Of which non-performing			
					Of which: defaulted	of which: impaired	of which: forborne	
1	Loans	16,695.5	-	-	-	-	-	-
2	Debt Securities	880.3	-	-	-	-	-	-
3	Off-balance sheet exposures	2,300.4	-	-	-	-	-	-

		h	i	j	k	l	m
		Accumulated impairment and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
		On performing exposures		On non-performing exposures		On non-performing exposures	of which: forborne exposures
		of which: forborne		of which: forborne			
1	Loans	0.2	-	-	-	-	-
2	Debt Securities	0.0	-	-	-	-	-
3	Off-balance sheet exposures	0.1	-	-	-	-	-

No non-performing exposure are reporting as of October 31st, 2018.

4.3.4 Changes in the stock of specific credit risk adjustments

No defaulted exposures are reported as of October 31st, 2018.

4.3.5 Changes in the stock of defaulted and impaired loans and debt securities

No defaulted exposures are reported as of October 31st, 2018.

4.4 Credit risk mitigation

4.4.1 Description of the main types of credit risk mitigants (CRM)

RBCIS Bank uses the following Credit Risk Mitigants to manage its credit risk – but only part of those are actually used for risk exposure quantification as at end of 2018.

Collateral / guarantees

In relation to Loans, RBCIS Bank holds financial assets collateral (cash and securities deposited with RBC are subject to a pledge). Some of the HQLA assets (related to Assets and Liabilities Management) are also subject to underlying guarantee (e.g. State guarantee).

RBCIS Bank does not hold pledges of real estate (residential mortgages, commercial mortgages) nor pledges of commercial assets (e.g. transfer of receivables). The Bank does not have other forms of guarantees neither (e.g. personal guarantees, first demand guarantees and support commitments.)

Netting agreements

The Bank has legally enforceable netting agreements for on balance sheet exposures (authorized and non-authorized overdrafts where assets are under custody with RBCIS Bank) and off-balance sheet exposures (derivatives).

4.4.2 Basel III treatment

RBCIS Bank has adopted the Financial Collateral Comprehensive Approach to take advantage of any sort of collateralization. Collateral is eligible only if it meets the CRR575/2013 conditions. RBCIS Bank considers the following 4 mitigation techniques: Financial collateralized transactions, on-balance sheet netting, guarantees and OTC netting.

4.4.3 Overview of credit risk mitigation techniques

In the application of Article 453 (f) and (g), this table provides an overview of the exposure value covered by Basel III-eligible CRM (after regulatory haircuts) and includes all collateral and financial guarantees used as credit risk mitigation for all secured exposures.

This table also includes the carrying amounts of the total population which are in default. Exposures unsecured (column a) represent the carrying amount of credit risk exposures (net of credit risk adjustments) that do not benefit from a credit risk mitigation technique, regardless of whether this technique is recognized in the CRR. Exposures secured (column b) represent the carrying amount of exposures that have at least one CRM mechanism (collateral, financial guarantees) associated with them.

Template 14 - EU CR3 – Credit risk mitigation techniques – overview

		a	b	c	d	e
		Exposures unsecured - carrying amount	Exposures to be secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
1	Loans	16,506.2	189.3	151.6	-	-
2	Debt Securities	861.0	19.3	-	19.3	-
3	Total exposures	17,367.2	208.6	151.6	19.3	-
4	Of which defaulted	-	-	-	-	-

4.5 Standardized approach

RBCIS Bank uses the standardized approach to calculate its regulatory capital requirements.

4.5.1 External credit assessment institutions

The standardized approach provides weighted risk figures based on external ratings given by External Credit Assessment Institutions (ECAI's) as indicated in the CRR. In order to apply the standardized approach for risk weighted exposure, RBCIS Bank uses external ratings assigned by the following rating agencies: Standard & Poor's, Fitch and Moody's.

The “second best approach” is used for the selection of the external ratings for the regulatory capital calculation. If no external rating is available, the CRR regulation provides specific risk weights to be applied.

Table 4-1 - Mapping of ECAIs' credit assessments to credit quality steps

Credit Quality Step	Fitch's assessments	Moody's assessments	S&P's assessments
1	AAA to AA-	Aaa to Aa3	AAA to AA-
2	A+ to A-	A1 to A3	A+ to A-
3	BBB+ to BBB-	Baa1 to Baa3	BBB+ to BBB-
4	BB+ to BB-	Ba1 to Ba3	BB+ to BB-
5	B+ to B-	B1 to B3	B+ to B-
6	CCC+ and below	Caa1 and below	CCC+ and below

4.5.2 Standardized approach – Credit risk exposure and Credit Risk Mitigation effects

The following table shows credit risk exposure before credit conversion factor (CCF) and credit risk mitigation (CRM) and the exposure-at-default (EAD) after CCF and CRM broken down by exposure classes and a split in on- and off-balance sheet exposures, under the standardized approach.

Exposures subject to the counterparty credit risk (CCR) and securitization risk framework are excluded from this template.

Template 15 - EU CR4: Standardized approach – credit risk exposure and Credit Risk Mitigation effects

Asset classes		a	b	c	d	e	f
		Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA and RWA density	
		On-balance sheet amount	Off-balance sheet amount	On-balance sheet amount	Off-balance sheet amount	RWA	RWA density
1	Central governments or central banks	8,680.9	1.1	8,700.2	1.1	4.8	0.10%
2	Regional government or local authorities	107.5	-	107.5	-	-	0.00%
3	Public sector entities	-	-	-	-	-	-
4	Multilateral development banks	-	-	-	-	-	-
5	International organizations	-	-	-	-	-	-
6	Institutions	7,530.9	185.6	7,485.0	-	1,591.8	21.30%
7	Corporates	1,256.5	2,113.7	1,131.5	269.2	1,400.7	100.00%
8	Retail	-	-	-	-	-	-
9	Secured by mortgages on immovable property	-	-	-	-	-	-
10	Exposures in default	-	-	-	-	-	-
11	Exposures associated with particularly high risk	-	-	-	-	-	-
12	Covered bonds	-	-	-	-	-	-
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-
14	Collective investment undertakings	-	-	-	-	-	-
15	Equity	-	-	-	-	-	-
16	Other items	242.6	-	242.6	-	193.4	79.70%
17	Total	17,818.4	2,300.4	17,666.8	270.3	3,190.8	17.80%

RBCIS Bank invests or is dealing with well rated counterparties, occurring a an average risk weight close to 0% for the “Central governments or central banks” category, and close to 20% (21.3% as of October 31st, 2018) for the “Institutions” category. Investment funds are classified under the “Corporate” asset class. A “Non-Rated” 100% risk weight is applied for investment funds counterparties, no external credit assessment being provided by ECAI for Funds counterparties.

4.5.3 Standardized approach – exposures by asset classes and risk weights

In the application of Article 444 (e), the following table shows the exposure-at-default post conversion factor and risk mitigation broken down by exposure classes and risk weights, under the standardized approach.

Exposures subject to the counterparty credit risk and securitization risk framework are excluded from this template.

Template 16 - EU CR5 – Standardized approach – exposures by asset classes and risk weights

		Risk Weights								
		0%	2%	4%	10%	20%	35%	50%	70%	75%
1	Central governments or central banks	8,698.1	-	-	-	-	-	-	-	-
2	Regional government or local authorities	107.5	-	-	-	-	-	-	-	-
3	Public sector entities	-	-	-	-	-	-	-	-	-
4	Multilateral development banks	-	-	-	-	-	-	-	-	-
5	International organizations	-	-	-	-	-	-	-	-	-
6	Institutions	-	-	-	-	7,185.7	-	289.6	-	-
7	Corporates	-	-	-	-	-	-	-	-	-
8	Retail	-	-	-	-	-	-	-	-	-
9	Secured by mortgages on immovable property	-	-	-	-	-	-	-	-	-
10	Exposures in default	-	-	-	-	-	-	-	-	-
11	Exposures associated with particularly high risk	-	-	-	-	-	-	-	-	-
12	Covered bonds	-	-	-	-	-	-	-	-	-
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-
14	Collective investment undertakings	-	-	-	-	-	-	-	-	-

		Risk Weights								
		0%	2%	4%	10%	20%	35%	50%	70%	75%
15	Equity	-	-	-	-	-	-	-	-	-
16	Other items	-	-	-	-	61.5	-	-	-	-
17	Total	8,805.6	-	-	-	7,247.1	-	289.6	-	-

		Risk Weights							Total	Of which unrated
		100%	150%	250%	370%	1250%	Others	Deducted		
1	Central governments or central banks	2.1	-	1.1	-	-	-	-	8,701.3	225.8
2	Regional government or local authorities	-	-	-	-	-	-	-	107.5	-
3	Public sector entities	-	-	-	-	-	-	-	-	-
4	Multilateral development banks	-	-	-	-	-	-	-	-	-
5	International organizations	-	-	-	-	-	-	-	-	-
6	Institutions	9.5	0.3	-	-	-	-	-	7,485.0	1.9
7	Corporates	1,400.5	0.2	-	-	-	-	-	1,400.6	1,406.8
8	Retail	-	-	-	-	-	-	-	-	-
9	Secured by mortgages on immovable property	-	-	-	-	-	-	-	-	-
10	Exposures in default	-	-	-	-	-	-	-	-	-
11	Exposures associated with particularly high risk	-	-	-	-	-	-	-	-	-
12	Covered bonds	-	-	-	-	-	-	-	-	-
13	Institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-
14	Collective investment undertakings	-	-	-	-	-	-	-	-	-
15	Equity	-	-	-	-	-	-	-	-	-
16	Other items	181.2	-	-	-	-	-	-	242.6	-
17	Total	1,593.2	-	1.1	-	-	-	-	17,937.1	1,634.5

4.6 Counterparty credit risk

4.6.1 Management of counterparty risk

The following exposures are part of this sub-section:

- Foreign exchange operations (Fx spots, Fx Outright Forwards and Fx Swaps of maximum 1 Year and on a list of selected currencies). Accumulated client positions are offset in the market to minimize market risk. The overnight limits are hence set at very low levels as there is no Risk appetite to keep open positions overnight. Please refer to Market Risk section for further details.

The Bank does not use any other derivatives (no repos / reverse repos, no IRS, ...) and hence there are no other sources of Counterparty Credit Risk in terms of derivatives.

Counterparty Credit Risk Mitigation

Master netting agreements or similar arrangements (collectively, netting agreements) with counterparties are used to mitigate counterparty credit risk as a result of markets exposure and permit the Bank to offset receivables and payables with such counterparties. A netting agreement is a contract with a counterparty that permits net settlement of multiple transactions with that counterparty, including upon the exercise of termination rights by a non-defaulting party. Upon exercise of such termination rights, all transactions governed by the netting agreement are terminated and a net settlement amount is calculated.

All counterparties that trade term exposures are expected to sign a master agreement containing netting provisions and clauses that seek to minimize credit exposures. The Bank's policy requires all netting arrangements to be legally documented. ISDA (International Swaps and Derivative Association) master agreements and CSA ('Credit Support Annex') are RBCIS Bank's preferred manner for documenting OTC derivatives.

Wrong way Risk

RBCIS Bank has limited to no exposure to wrong-way risk, i.e. the risk that exposure to a counterparty or obligor is adversely correlated with the credit quality of that counterparty.

Regarding the specific Wrong-Way Risk⁴, the Bank never enters into contracts with underlying instruments linked to the counterparty (i.e. derivative contracts based on the counterparty's own securities, reverse rep transactions with counterparty's securities used as collateral...).

Regarding the General (or Systemic) Wrong-Way Risk⁵, it is limited given the nature of the Bank's exposures where for instance client driven FX exposures are covered in the market, with RBCIS Bank not taking any active positions.

⁴ when an exposure to a particular counterparty is positively and highly correlated with the probability of default of the counterparty due to the nature of our transactions with them

⁵ when there is a positive correlation between the probability of default of counterparties and general macroeconomic or market factors. This typically occurs with derivatives (e.g. the size of the exposure increases) or with collateralized transactions (the value of the collateral declines).

4.6.2 Analysis of CCR exposures by model approach

In the application of Article 439 (f) in the CRR, the following table shows the methods used for calculating the regulatory requirements for CCR exposure. Exposures cleared through a central counterparty (CCP) are excluded.

As displayed, the Bank uses the mark-to-market methods to measure the exposure value of instruments subject to capital requirements for CCR.

Template 17 - EU CCR1: Analysis of CCR exposure by approach

	a	b	c	d	e	f	g
	Notional	Replacement cost/ Current market value	Potential future credit exposure	EEPE	Multiplier	EAD post-CRM	RWA
1	Mark to market	461.9	810.3			795.7	654.0
2	Original exposure	-				-	-
3	Standardized approach	-			-	-	-
4	Internal Model Method (for derivatives and SFTs)			-	-	-	-
5	Of which securities financing transactions			-	-	-	-
6	Of which derivatives and long settlement transactions			-	-	-	-
7	Of which from contractual cross-product netting			-	-	-	-
8	Financial collateral simple method (for SFTs)				-	-	-
9	Financial collateral comprehensive method (for SFTs)					-	-
10	VaR for SFTs					-	-
11	Total						654.0

As at 31 October 2018, the final exposure arising from derivative transactions amounted to EUR 1,272.2 million, exposure post netting totalizing € 795,7 million.

4.6.3 CVA capital charge

In the application of Article 439 (f) in the CRR, the following table provides the exposure value and risk exposure amount of transactions subject to capital requirements for credit valuation adjustment. RBCIS's OTC derivatives exposures are subject to credit valuation adjustment. RBCIS Bank uses the standardized approach to calculate CVA capital charge.

Template 18 - EU CCR2 – Credit valuation adjustment (CVA) capital charge

		a	b
		Exposure value	RWA
1	Total portfolios subject to the Advanced CVA capital charge	-	-
2	(i) VaR component (including the 3×multiplier)		-
3	(ii) Stressed VaR component (including the 3×multiplier)		-
4	All portfolios subject to the Standardized CVA capital charge	795.7	109.3
EU4	Based on Original Exposure Method	-	-
5	Total subject to the CVA capital charge	795.7	109.3

4.6.4 Exposures to CCP

RBCIS Bank is not exposed to central counterparties.

4.6.5 Standardized approach - CCR exposures by exposure class and risk weight

In the application of Article 444 (e) in the CRR, the following table provides the counterparty credit risk exposures under the standardized approach broken down by risk weights and regulatory exposure classes. "Unrated" includes all exposures for which a credit assessment by a nominated ECAI is not available and they therefore receive the standard risk weight according to their exposure classes as described in the CRR.

Template 19 - EU CCR3: Standardized approach – CCR exposures by regulatory portfolio and risk.

Exposure Classes		Risk Weights					
		0%	2%	4%	10%	20%	50%
1	Central governments or central banks	-	-	-	-	-	-
2	Regional governments or local authorities	-	-	-	-	-	-
3	Public sector entities	-	-	-	-	-	-
4	Multilateral Development Banks	-	-	-	-	-	-
5	International Organizations	-	-	-	-	-	-
6	Institutions	-	-	-	-	31.9	14.0
7	Corporates	-	-	-	-	-	-
8	Retail	-	-	-	-	-	-
9	Institutions and corporates with a short term credit assessment	-	-	-	-	-	-
10	Other items	-	-	-	-	-	-
11	Total	-	-	-	-	31.9	14.0

Exposure Classes		Risk Weights					Total	Of Which unrated
		70%	75%	100%	150%	Others		
1	Central governments or central banks	-	-	-	-	-	-	-
2	Regional governments or local authorities	-	-	-	-	-	-	-
3	Public sector entities	-	-	-	-	-	-	-
4	Multilateral Development Banks	-	-	-	-	-	-	-
5	International Organizations	-	-	-	-	-	-	-
6	Institutions	-	-	2.4	-	-	48.3	-
7	Corporates	-	-	605.7	0.0	-	605.7	605.7
8	Retail	-	-	-	-	-	-	-
9	Institutions and corporates with a short term credit assessment	-	-	-	-	-	-	-

	Exposure Classes	Risk Weights					Total	Of Which unrated
		70%	75%	100%	150%	Others		
10	Other items	-	-	-	-	-	-	-
11	Total	-	-	608.1	0.0	-	654.0	605.7

Investments funds are falling into the corporate category. Most of nominated ECAs do not rate investments funds counterparties.

4.6.6 Impact of netting and collateral held on exposure value for derivatives and SFTs

In the application of Article 439 (e) in the CRR, the following tables present information on counterparty credit risk exposure and the impact of netting and collateral held as well as the composition of collateral used in both derivatives transactions and securities financing transactions (SFT).

RBCIS Bank is solely exposed to derivatives transactions and consequently does not hold securities financings transactions.

The table below provides the gross positive fair values before any credit risk mitigation, the impact of legally enforceable master netting agreements as well as further reduction of the CCR exposure due to eligible collateral received.

Template 20 - EU CCR5-A – Impact of netting and collateral held on exposure values

	a	b	c	d	e	
	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure	
1	Derivatives	464.8	476.6	795.7	-	795.7
2	Securities Financing Transactions	-	-	-	-	-
3	Cross-product netting	-	-	-	-	-
4	Total	464.8	476.6	795.7	-	795.7

5 Market Risk

5.1 Definition of Risk

Market Risk is the impact of market prices upon the financial condition of the firm. This includes potential gains or losses due to changes in market determined variables such as interest rates, credit spreads, equity prices, commodity prices, foreign exchange rates and implied volatilities.

Market risk can be exacerbated by thinly-traded or illiquid markets. For an overview of Market Risk sub-risks, please refer to the RBC Enterprise Market Risk Framework.

5.2 Risk Overview

5.2.1 Risk Profile

The different business areas within RBCIS Bank with a contribution to Market risk are:

- Cash and Liquidity Management - This business holds an inventory of institutional, supranational, government and financial (covered) bonds and is sensitive to credit spread risk and – to a lesser extent – to interest rate risk. The portfolio has a relatively short duration, high credit quality and is used to manage RBCIS Bank's liquidity. Treasury investments are made in the banking book in accordance with the Investment Policy approved by the Board. The policy permits investment of assets in a prudent manner that avoids undue risk of loss while earning a reasonable rate of return.
- Forex exchange services - which are incidental to supporting clients' needs. Limited intraday FX positions and very small overnight positions are authorized to allow for residual small client trades to be aggregated intraday and placed through professional market counterparties. Limits are established based on the volumes and currency volatility by trading location. These positions are monitored tightly on a daily basis by the Market Risk Unit in Risk Management. No speculative trading positions are allowed. RBCIS Bank's policy is to avoid market risk, and proprietary trading activities are not part of the strategy given the current risk appetite. Therefore there is no material exposure to market risk in the RBCIS Bank's Trading book
- In addition, from time to time, operational events for securities transactions may cause RBCIS to hold relatively small short-term positions; these are then typically liquidated in an orderly fashion. The risk inherent in these positions is kept to a minimum as they are liquidated or hedged at the earliest possible time. These positions are captured by the operational risk processes.

The figures below show the Market risk VaR and stress test history for the year, including the Credit spread risk.

Table 5-1 – Stress scenario – Euro reformation (Worst case)

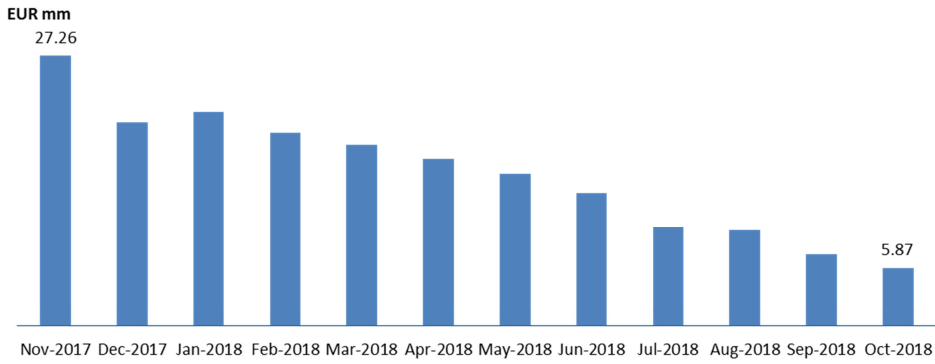


Table 5-2 – VaR and Stress VaR Exposures

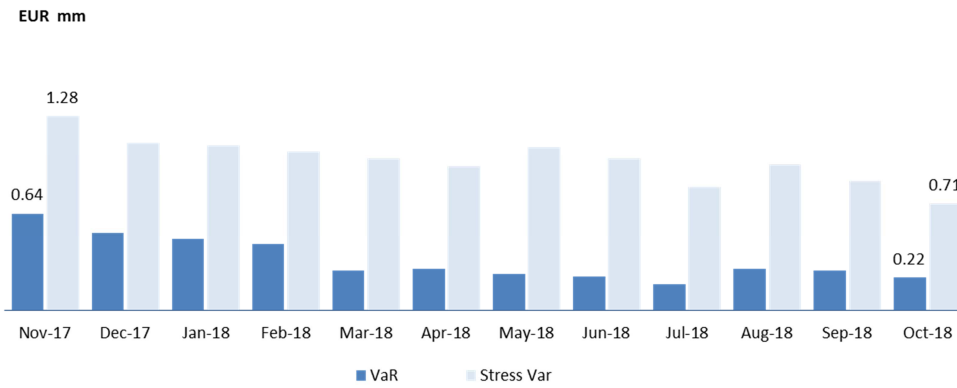
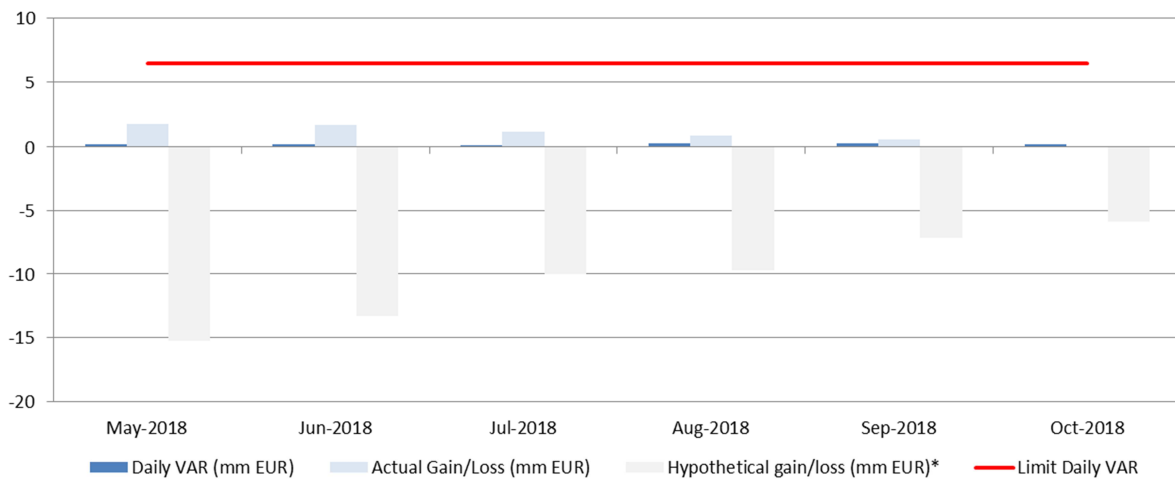


Table 5-3 – Comparison of VaR estimates with gains / losses



*The Hypothetical gain/loss corresponds to Euro reformation 12

5.2.2 Risk Quantification

RBCIS Bank uses a range of risk measurement metrics and limits to understand and manage the risks that the business is exposed to such as:

- Value-at-Risk (VaR) and stress VaR;
- Stress testing (historical & hypothetical stress scenarios and sensitivity stress tests);
- Sensitivity measures, including Credit Spread and Interest Sensitivities and
- Other nominal measures (i.e. the FX overnight positions).

5.2.3 Risk Control and Reporting

RBCIS Bank's Market risk appetite is set and reviewed by the RBCIS Bank Board. RBCIS Bank has a range of limits in place covering the risk measurement metrics noted above. All limits set by RBCIS Bank are consistent with the stated risk appetite. In addition to the RBCIS Bank Board approved limits, operational limits can also be set at the RBCIS Bank CRO level. Exposures are also limited by the RBC Group limit structure.

GRM - Market Risk function produces daily reports for the business and senior management detailing RBCIS Bank's Market risk profile against limits, as well as monthly summary reports to the RBCIS Bank Board of Directors (or its risk Committee) and the RBCIS Bank Executive Committee (ExCo).

Breaches of Board limits are reported to the Risk Committee of the RBCIS Bank Board and the RBCIS Bank Executive Committee (ExCo) at its next meeting. Excesses to Operational limits are reported to the RBCIS Bank ExCo.

Trading Book

The only permissible instruments are Fx spots, Fx Outright Forwards and Fx Swaps of maximum 1 Year and on a list of selected currencies.

Operational limits are set to limit the residual Fx overnight positions. The limits are set at very low levels as there is no Risk appetite to keep open positions overnight.

Table 5-4 – Operational limits

Entity	Operational Limit Position by any currency	Operational Limit Total Position
RBCIS Bank Luxemburg	EUR 400 k	EUR 1 mm
RBCIS Bank Hong-Kong	EUR 400 k	EUR 900 k
RBCIS Bank France	EUR 50 k	EUR 50 k

Table 5-5 – Fx VaR and Stress VaR Limits

RBCIS Bank SA - All entities (Luxembourg, Hong-Kong, France)	Limit
VaR	ERU 35 k
Stress VaR	EUR 70 k

Table 5-6 – FX VaR and Stress VaR exposures vs. Limits

VaR and stress VaR Operational Limits - RBCIS Bank Consolidated			
Date	Operational Limit in k EUR	Metric in EUR	Usage
VaR	EUR 35 k	1,022	3%
Stress VaR	EUR 70 k	2,919	4%

In addition, during 2018, PV01 limits have been set at the operational to monitor the Investment Swap activity in the Trading book:

Table 5-7 – Fx PV01 Limits

Currency	PV01 Limit (in EUR eq. by ccy)
EUR	100 000
CHF	100 000
GBP, HKD, USD	40 000
JPY	20 000
DKK, NOK, SEK	15 000
Other	2 000

Banking Book

At the assessment date, the Board and operational limits structure was as follow:

Table 5-8 – FVOCI VaR and Stress VaR Limits

Risk Metric	Risk Appetite	
	Board Limits in EUR million	Operational Limit CRO Limits in EUR million
VaR [1d, 99%]	6.5	5.5
SVaR [1d, 99%]	13	11
Historical/Hypothetical Stress (Worst Case)	290	250
CS01	N/A	2,5
PV01	N/A	750k

5.3 Currency Risk

The Currency Risk or exchange rate risk, refers to the exposure faced by investors or companies that operate across different countries, in regard to unpredictable gains or losses due to changes in the value of one currency in relation to another currency.

The Bank does not hold significant spot open positions.

The Bank conducts foreign exchange intermediation activity i.e. offers execution and sales services to its clients. In addition, the Bank may be exposed to foreign exchange risk on its foreign currency commission revenues and on its long term capital investments in subsidiaries.

The Bank's trading currency position is managed on a real time basis by the Front Office dealers. Most of transactions are booked separately, without delay and daily in the Front Office system "Kondor +". Kondor + is interfaced in real time with the "Back Office" system and the Accounting system.

The Back Office can follow up in real time any operations being pending in the interface between both systems.

Market Risk Unit produces a daily report listing the Fx overnight positions and limits to the attention of the Chief Risk Officer, the Head of Market desk, and the Head of Risk.

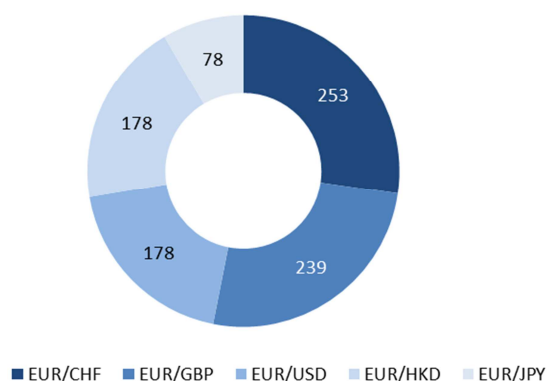
In addition Finance reconciles the Foreign Exchange positions and Profit and Loss results between Front Office records and accounting books.

Fx Overnight limits are set up by currency. Excess of limits are reported to the Head of Market Risk and must be reduced immediately once identified.

RBCIS is primarily active in those currencies with deep liquid foreign exchange markets such as EUR, USD and GBP. RBCIS Bank's assets and liabilities are primarily composed of EUR and USD. The remainder of the balance sheet is denominated in GBP and other.

RBCIS Bank also undertakes FX Swap activities for cash optimization purposes. This activity is short dated by nature (average weighted maturity of 6.4 days during October 2018) and is mainly done in EUR/CHF, EUR/GBP and EUR/USD as shown in the figure 5-6.

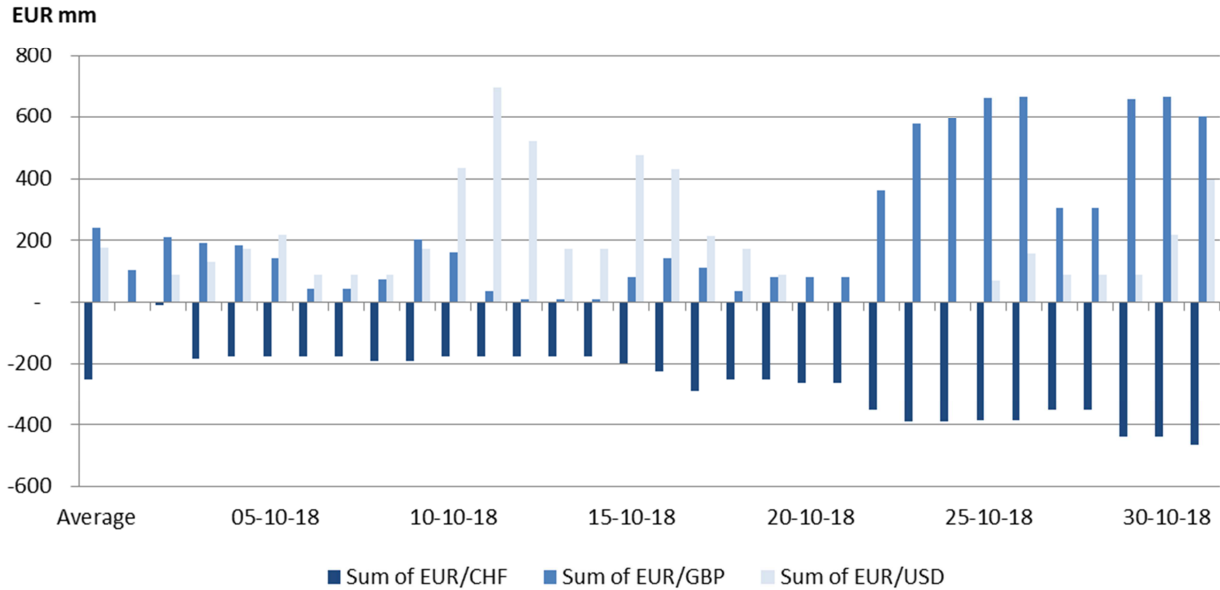
Table 5-9 - Average Outstanding Amount of Fx Investment Swap-Top 5 Currency Pairs (October 2018)



The figure 5-7 displays the outstanding amounts of FX Investment Swaps in EUR/CHF, EUR/GBP and in EUR/USD during October 2018. The total outstanding positions which reached a peak of EUR 0.7bn during October 2018 comprise less than 0.03 % of the total FX swap market in EUR and USD (average daily turnover

of USD eq. 807 bn and USD eq. 2,160 bn respectively), which denotes that the swaps positions could be easily reverted if needed. TMS utilizes Treasury swaps Investment swaps) primarily to manage interest rate risk in the Bank book, taking advantage of distortions in the swaps market in order to optimize cash management.

Table 5-10 - Outstanding Amount of Fx Investment Swap EUR/CHF, EUR/GBP and in EUR/USD (October 2018)



The Currency Risk is mitigate by having in place a PV01 Limit define with low limits. Even with low limits the desk have enough limits available to trade.

Table 5-11 - Fx PV01 exposure vs. limits

Currency	Bucket 0 : mty<=3D	Bucket 1 : 3D<mty<=1M	Bucket 2 : 1M<mty<=2M	Bucket 3 : 2M<mty<=3M	Bucket 4 : 3M<mty<=6M	Total	Limit	Available
AED	- 1.7					- 1.7	2,000	1,998
AUD	3.0		- 260.3	- 368.2		- 625.5	5,000	4,375
CAD	- 0.9	- 126.3		- 807.7		- 934.8	5,000	4,065
CHF	4.5	3,418.6	12,549.1	15,453.1	19,078.5	50,503.8	100,000	49,496
CNY	- 6.4					- 6.4	2,000	1,994
DKK	1.7			- 1,146.0		- 1,144.3	15,000	13,856
EUR	228.5	- 829.3	524.1	- 9,548.1	- 13,969.3	- 23,594.1	100,000	76,406
GBP	- 84.4	- 738.9	- 1,759.9			- 2,583.2	40,000	37,417
HKD	- 65.6	- 327.7	- 792.8	- 1,649.7	- 2,401.2	- 5,237.0	40,000	34,763
ILS	- 0.2					- 0.2	2,000	2,000
JPY	- 2.6	- 349.2	- 3,210.7		- 2,396.3	- 5,958.8	20,000	14,041
MXN	12.3					12.3	2,000	1,988
NOK	-		- 312.4		- 395.5	- 707.9	15,000	14,292
NZD	- 4.2					- 4.2	2,000	1,996
PLN	- 1.6					- 1.6	2,000	1,998
QAR	- 0.0	0.0				0.0	2,000	2,000
RON	0.4					0.4	2,000	2,000
RUB	- 1.0					- 1.0	2,000	1,999
SEK			- 461.1	- 1,849.3		- 2,310.4	15,000	12,690
SGD	- 6.9					- 6.9	2,000	1,993
TRY	- 0.2					- 0.2	2,000	2,000
USD	- 64.3	- 1,024.8	- 6,377.7	- 9.8		- 7,476.6	40,000	32,523
ZAR	- 2.9					- 2.9	2,000	1,997
Grand Total	7.7	22.5	- 101.9	74.4	- 83.7	- 81.0		

5.4 Intra-Risk Concentration

As suggested by the stress tests worst case, the AFS book is subject to stress on the entire portfolio. However the portfolio presents a diversified profile.

The graph below shows the CS01 diversification of the portfolio in terms of issues Assets Type and Countries

Table 5-12 – CS01 by Sector

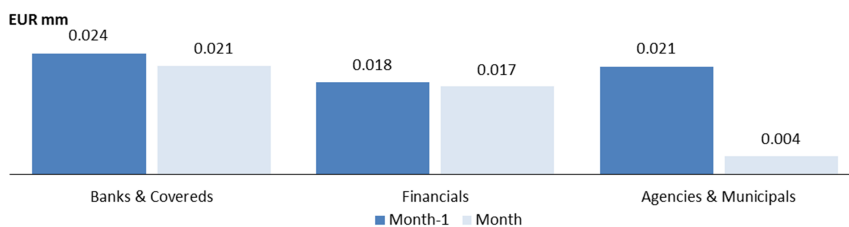


Table 5-13 – CS01 by Country



The portfolio is concentrated in :

- Canadian bonds (51% of total CS01);
- Swedish Bonds (16% of total CS01).

However it also means that more than the half of the portfolio is invested in diversified geographical areas and assets types.

In term of notional and concentration by issuer, at the reference date the maximum allocation by individual issuer was 16,16% (Nederlandse Waterschapsbank N.V).

5.5 Key Vulnerabilities

By nature the level of risk in the Trading book is low and there are no identified vulnerabilities.

The market risk in the banking book is mainly driven by the credit spread risk in the AFS portfolio. As the AFS portfolio at the end of October 2018 is decreased at EUR 0.87 billion. Hence, RBCIS Bank considered the inherent risks associated to the FVOCI portfolio as Low.

5.6 Key mitigations

The Investment policy limits the permissible investments as displayed in the table 5-7.

Table 5-14 – Investment Policy Constraints

Metric	Investment Policy Constraint
Maximum maturity	< 7.0 Yrs
Maximum weighed average portfolio maturity	< 4.5 Yrs
Asset Quality	Level 1, Level 2a and Level 2b
Concentration in Level 2A (on Total HQLA)	< 40%
Concentration in Level 2B (on Total HQLA)	< 15%
Swiss Covered Bonds restricted to Credit Suisse and UBS issuers that are not eligible as EBA HQLA.	< EUR 400 mm
Max. Allocation by individual issuer	< 20%

Those quantitative metrics are supplemented by qualitative metrics on the type of authorized assets (Fixed or floating rate Fixed Income) and authorized countries.

In addition, advanced metrics (VaR, Stress VaR and Stress scenario) are calculated and monitored on a daily basis against RBCIS Bank operational limits.

Any breach of the Investment Policy or of any of the operational limits will be escalated directly to the IS Bank's CRO and Treasurer and reported to the next ExCo.

Finally, all new products or changes to products in RBCIS Bank that have market risk impacts are subject to approval from the Managing Director and Head, Market Risk Europe or delegates, and by the CRO, I&TS, who seeks advice and counsel from the CRO, RBCIS Bank.

No new products giving rise to Interest Rate Risk should be introduced unless the associated risk can be properly measured and accommodated within existing limits.

5.7 Residual Risk

Based on the above, and considering the materiality of the risk RBCIS Bank assessed the level of market risk in the trading book as Low.

The non-trading market risk from the AFS portfolio the banking book is currently low as – due to the lack of Market opportunities - the business has reduced the size and the duration of the AFS portfolio to historical lows.

Any sudden changes in the Markets are still possible and can trigger as faster recovery to previous years levels. Based on this possibility as well as the current level of the limits in place – which allow the deployment of a totally different portfolio than the one at the reference date - RBCIS Bank considered the Non Trading Market Risk as being Low.

5.8 Assessment of the regulatory capital requirement

RBCIS applies the standardized approach to calculate its regulatory capital requirement for general interest rate risk within trading activities and foreign exchange risk.

The template below presents the Bank’s regulatory capital required broken down by risk type for year-end 2018.

Template 21 - EU MR1: Market risk under standardized approach

	a	b
	RWA	Capital requirements
Outright products	168.3	13.5
Interest rate risk (general and specific)	136.0	10.9
Equity risk (general and specific)	-	-
Foreign exchange risk	32.3	2.6
Commodity risk	-	-
Options	-	-
Simplified approach	-	-
Delta-plus method	-	-
Scenario approach	-	-
Securitization (specific risk)	-	-
Total	168.3	13.5

6 Liquidity Risk

6.1 Risk management objectives and policies for liquidity risk

6.1.1 Governance and Risk Control

6.1.1.1 Governance Summary

RBCIS Bank employs a three lines of defense model with respect to liquidity risk. This provides segregation between those who take on risk, those who control risk and those who provide assurance.

The table below shows the authorities for governance of key risk control elements. The table 6-1 below provides the roles and responsibilities across 1st line, 2nd line and approval committees.

GRM, and the CRO, form key components of the overall risk framework of RBCIS Bank.

Table 6-1 – Liquidity Risk Governance summary

Key risk control element	1 st Line of defense	2 nd Line of defense		Committees		
	Corporate Treasury	GRM Liquidity Risk and Chief Risk Officer	Enterprise Model Risk Management	ALCO	EXCO	Board of Directors
1. Measurement, Methodologies and Models	Propose	Approve	Model vetting	Approve	Approve	Approve
2. Parameters and Assumptions	Propose	Approve	Not applicable	Approve	Approve	Approve
3. Metrics	Propose	Approve	Not applicable	Approve	Approve	Approve
4. Limits	Propose	Approve	Not applicable	Approve	Approve	Approve

6.1.1.2 Overall Governance – Three lines of defense model

RBCIS Bank's three lines of defense model is described in detail below:

- **1st Line of Defense**

The first line of defense for risks arising from the management of liquidity is provided by the business and support functions embedded in the business and comprises Investor and Treasury Market Services (TMS) and Corporate Treasury (CT).

I&TS Treasury & Market Services (TMS)

- Treasury and Market Services (“TMS”) ensures the management of unsecured intra-group funding to tenor limits;
- Tests, at least annually, the access to central bank facilities under direction from Corporate Treasury (the results of these tests are reported to RBCIS Bank ALCO);
and
- Under the directive of CT based on the guidelines laid out in the RBCIS Bank Investment Policy, maintains a suitable diversified High Quality Liquid Asset (HQLA) buffer.

Corporate Treasury (CT)

- Provides risk identification, assessment, mitigation, control and reporting in accordance with established RBCIS Bank risk policies;
- Ensures alignment of business and operational strategies with corporate risk culture and risk appetite;
- Plays a monitoring, advisory, policy and coordinating role with respect to balance sheet, liquidity, interest rate risk in the banking book and capital matters to ensure prudent balance sheet management and compliance with the internally defined Risk Appetite Framework and regulatory requirements;
and
- Works in conjunction with RBC Corporate Treasury to obtain advice and counsel on the balance sheet management and its related risk and performs ongoing coordination with other functions and business segments of I&TS and RBC.

• 2nd Line of Defense

The Second Line of Defense is provided by Group Risk Management (GRM) – Liquidity Oversight and Global Compliance.

As mentioned in the section 1.2.1.6, the Second Line:

- Establishes the enterprise level risk management frameworks, and provides risk guidance;
- Provides oversight for the effectiveness of First Line risk management practices;
and
- Monitors independently reporting on the level of risk against the established risk appetite limits.

Ultimate responsibility for all aspects related to the oversight of liquidity risk lies with the Board of Directors, who has delegated day-to-day control to the Chief Financial Officer (CFO) and the Chief Risk Officer (CRO). The CFO and CRO are supported by the ALCO, the Risk Committee and Heads of Risk.

• 3rd Line of Defense

See section 1.2.1.6.

6.1.1.3 Roles and Responsibilities

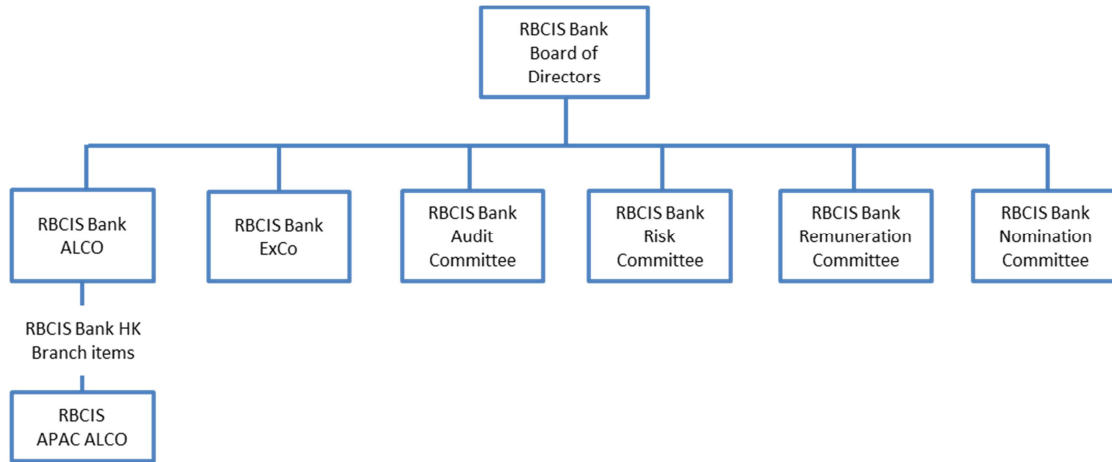
6.1.1.3.1 Role of the Board

The role of the Board of Directors is described in the section 1.2.1.1 of the document.

The Board of Directors’ responsibilities with respect to liquidity risk include:

- Approving RBCIS Bank’s liquidity risk appetite and establishing mechanisms to ensure that the level of risk within the firm remains within the specified risk appetite; and
- Approving the policy framework; and
- Annually approving the ILAAP.

Table 6-2 - Governance Overview



6.1.1.3.2 Delegation of Duties

For liquidity risk matters, the Board of Directors delegates its daily management in compliance with the principles laid down in the frameworks and policies approved by the Board or the Risk Committee, to the RBCIS Bank ALCO.

6.1.1.3.3 RBCIS Bank Risk Committee

The role of the Risk Committee is described in the section 1.2.1.2 of this document.

Regarding the liquidity risk, the Risk Committee also reviews and recommends approval to the Board of Directors the annual ILAAP document.

6.1.1.3.4 RBCIS Bank Executive Committee

The role of the RBCIS Bank Executive Committee (Exco) is described the section 1.2.1.3 of this document. Regarding the liquidity risk, regular monthly reports establishing the liquidity risk status and profile of the Bank are presented to the ExCo. It also reviews and approves the annual ILAAP document before submission to the RC and the BoD.

6.1.1.3.5 RBCIS Bank Asset and Liability Committee (ALCO)

The role of the ALCO is described in the section 1.2.1.5 of this document. In addition to this, ALCO reviews and recommends for approval by the Board of Directors or their committees the following policies and documents:

Table 6-3 – Policies and owners

Owner	Policy Name	Report Name
Corporate Treasury	IRRBB Policy	ILAAP
	Capital Management Policy	Funding Plan
	Dividend Policy	Capital Plan
	Investment Policy	
	Intragroup Lending Policy	
	Liquidity Risk Funds Transfer Pricing Policy	
	Liquidity Contingency Plan	
	Capital calculation policy	
GRM	Large exposures policy	
	Liquidity Risk Management Framework	
	Liquidity Risk Policy	
	Pledging Policy	

ALCO also reviews and approves the ILAAP document before submission to the ExCo and the BoD.

6.1.1.3.6 Corporate Treasury - Management

Corporate Treasury (CT) has overall responsibility for liquidity management in RBCIS Bank. Corporate Treasury has the following roles and responsibilities:

- Maintain funding and liquidity plans;
- Propose fund transfer pricing methodology;
- Propose changes to Stress Testing methodology and Liquidity Risk Model (NAV Ratio model);
- Review Liquidity risk policies (Liquidity Management Framework, Liquidity Risk Framework and Pledging Policy);
- Propose limits and exceptions within its authorities;
- Own and update the Liquidity Contingency Plan, the ILAAP, the Funding Plan, the Investment Policy and
- Contribute to the annual review process of the Recovery Plan and ICAAP.

Corporate Treasury delegates responsibility for day-to-day liquidity management, including the management of liquid asset buffers and short-term funding to I&TS Treasury Market Services (TMS).

6.1.1.3.7 Corporate Treasury - Liquidity Measurement

Corporate Treasury - Liquidity Measurement has day-to-day ownership of liquidity measurement. The team has the following responsibilities:

- Manage the liquidity risk measurement and reporting processes for IS Bank and its subsidiaries; and
- Produce Management Information for the ALCO;
- Establish, monitor and report adherence to RBC liquidity risk limits and standing orders, escalating limit excesses appropriately to management;
- Communicate impacts from changes in regulatory landscape;
- Implement reporting and risk measurement processes to ensure RBCIS Bank meets complex and dynamic regulatory requirements;

- and
- Lead relationship with GRM with respect to their liquidity risk oversight function.

6.1.1.3.8 I&TS Treasury & Market Services (TMS)

In addition to ensuring compliance with all relevant local limits and regulation, TMS has the following roles and responsibilities:

- Liquidity management execution agents tasked with the responsibility for execution of short-term, operational liquidity management within limit and policy constraint;
- Identifying preferred liquidity management strategies;
- Monitoring and reporting market developments, including central bank actions, to assess the potential for changes in liquidity or funding conditions;
- Retaining primary responsibility for intraday cash and collateral management;
- Managing liquid assets and other liquid asset buffers in line with directions from Corporate Treasury; and
- Providing immediate engagement with key business partners and executing open market transactions.

6.1.1.3.9 GRM Liquidity Risk

Group Risk Management ('GRM') represents the second line of defense for RBCIS Bank. GRM is mandated to provide oversight for matters pertaining to liquidity risk including:

- Responsibility for independent oversight of liquidity risk;
- Owning Liquidity Risk Policy, and approving and maintaining Standing Orders and other key control documents;
- Validating and approving liquidity risk models and assumptions;
- Providing oversight of reports, independently monitoring risk limits and incorporating metrics into Enterprise Risk reporting; and
- Overseeing and reviewing stress test results, approving internally defined scenarios and conducting independent stress testing.

6.1.1.4 ILAAP and Risk Management processes

The RBCIS Bank ILAAP is an annual process led by RBCIS Bank Corporate Treasury falling under the responsibility of RBCIS Bank ALCO and Executive Committee. The RBCIS Bank Board is responsible for review, challenge and approval of the ILAAP results and document.

RBCIS Bank's ILAAP is fully embedded in the overall risk management processes. RBCIS Bank's ILAAP presents a clear and concise picture of the liquidity risks that the firm faces. The document provides the Management Body and the Joint Supervisory Team with a comprehensive overview of key constituents of liquidity risk management and measurement within the firm. The diagram below demonstrates the building blocks which form the basis of the ILAAP document.

The ILAAP document details the governance and controls related to the management and measurement of liquidity risk including the roles of the key stakeholders and the direction provided by the Board level risk appetite statement and framework.

6.1.1.5 Interlinkage with Risk framework - Risk appetite

6.1.1.5.1 Governance Risk Appetite Liquidity Risk

The risk appetite of RBCIS Bank and its affiliates is defined within the RBCIS Bank Risk Appetite Framework, reviewed and approved at least annually by the RBCIS Bank Board of Directors.

RBCIS's liquidity risk appetite is proposed by Corporate Treasury and recommended by GRM. It is reviewed by ALCO and ExCo and recommended to the Risk Committee for consideration and recommendation to the Board of Directors for final approval.

6.1.1.5.2 Risk Tolerance Statement

RBCIS Bank is mandated to manage liquidity risk inherent in the markets in which it operates, and in the business activities it undertakes, in a way that ensures that all financial needs, including existing commitments and new business aligned to core activities, can be met on a commercially viable basis, while meeting regulatory and internal minimums and maintaining sufficient stock of highly liquid assets to mitigate the effects of extreme, but plausible, adverse events on RBCIS Bank's solvency, as determined by regular analysis.

6.1.1.5.3 Risk Appetite Metrics

RBCIS Bank and its affiliates will comply with any applicable limits or other requirements as defined in any RBC framework, policy or standing order.

The liquidity thresholds are integrated with RBCIS Bank strategies, policies and risk appetite. They are calculated and tracked daily by Corporate Treasury.

GRM has the authority to pre-approve extensions to internal limits as long as they are (a) temporary in duration and (b) well-defined and limited. Regulatory limits must be adhered to at all times. All internal limit extensions, including underlying business reasons and risk rationale for agreeing to the extension are reported at the next appropriate RBCIS ALCO meeting.

6.1.2 Risk Identification, Measurement, Monitoring and Reporting

6.1.2.1 Reporting Framework

RBCIS Bank follows the enterprise framework for liquidity reporting and centralizes liquidity risk measurement within Corporate Treasury. The Liquidity Measurement team in Luxembourg is responsible for all liquidity measurement and reporting for RBCIS Bank. The data for liquidity reporting is sourced from appropriate systems that are controlled locally.

6.1.2.1.1 IT Infrastructure

The IT infrastructure that supports RBCIS Bank's daily and monthly reporting is based on several applications internally developed.

6.1.2.1.2 Data Controls

Data for liquidity reporting are sourced automatically from strategic booking and accounting systems. The daily reports are prepared automatically and are analyzed in detail by Liquidity Measurement Team.

During the reporting process, several validations are performed:

- Validation of material items in the submitted LCR returns to the balance sheet including AFS portfolio, Central bank deposits, intragroup funding and client deposits; and
- Analytical review to previous reports to explain the main variances and consistency checks; and
- Monitoring of limits and ratios.

For regulatory submissions additional processes are carried out as detailed in the section 561.2.2.

6.1.2.2 Regulatory Reporting Requirements

The table 6-4 describes the list of reporting submitted to the regulator along with the frequency.

Table 6-4 - Regulatory Reporting Frequency

Entity	Report	Regulator	Frequency
RBCIS Bank	Daily Liquidity Report	CSSF/BCL	Daily
	LCR Solo and Conso basis (C72, C73, C74, C75 and C76)	CSSF/BCL	Monthly
	Additional Liquidity Monitoring Metrics (ALMM), Solo and Conso basis (C66,C67,C68, C69, C70 and C71)	CSSF/BCL	Monthly
	NSFR (C60 and C61), Solo and Conso basis	CSSF/BCL	Quarterly
	NSFR under the Short Term Exercise (BCBS* templates), Conso basis	CSSF/BCL	Quarterly
	SSM Liquidity Exercise	JST	Yearly
RBCIS Bank Zurich Branch	LMT (Liquidity Monitoring Tool) with Facilitation	FINMA	Quarterly
RBCIS Bank France	LCR	ACPR	Monthly
	Additional Liquidity Monitoring Metrics (ALMM)	ACPR	Monthly
	NSFR(EBA templates)	ACPR	Quarterly
RBCIS Bank Hong Kong Branch	Return of Liquidity Position and Liquidity Monitoring Tool Part 1-3 (LMR and additional liquidity metrics)	HKMA	Monthly
	Return of Liquidity Monitoring Tool Part 4 (Maturity profile and supplementary information)	HKMA	Quarterly

6.2 Declaration on the adequacy of liquidity risk management and liquidity risk statement approved by the Board of Directors

The adequacy of liquidity and funding positions assessment is based on following considerations:

- The risk appetite and internal limit structure of regulatory and internal metrics;
- The key liquidity metrics and the balance sheet structure as at the reference date and the projections undertaken in the Funding Plan (3 years);
- The results of the stress tests (and reverse stress tests) as at the assessment date, and going forwards as part of the funding plan, as well as the description of the managements actions listed in the RBCIS Bank Liquidity Contingency Plan;
- The role of the ILAAP in the overall Risk Management process.

The ILAAP contains descriptions of the key changes during the year, the primary weaknesses, as well as an overall conclusion on RBCIS Bank's liquidity adequacy.

The management body of RBCIS Bank has determined that the Bank is managing its liquidity risk in a manner commensurate with internal and regulatory expectations, based on the review of the annual ILAAP during the Board of Directors meeting held on January 30th 2019.

The management body of the Bank attests that a robust liquidity risk management framework is in place enabling to maintain a solid Liquidity Risk Profile and that the Bank complies with regulatory limits alongside internal limits and control framework. The Bank holds substantial high quality securities that are prudently valued and maintains sufficient levels of funding, with all illiquid assets funded for greater than 1yr. Funding derives primarily from stable sources in a sector that has significant barriers to facilitate withdrawals of deposits in the short term. Moreover the Bank has not received any central bank support (either directly or indirectly) and is not reliant on incremental group liquidity in the event of a liquidity crisis.

The Board of Directors of RBCIS Bank acknowledges that the liquidity risk management of the Bank is adequate. The development of relevant indicators, such as liquidity position combined with a survival period, client deposits trend, value of unencumbered assets, daily LCR and NSFR prediction under stress test are monitored consistently by the Bank. The amount and composition of liquidity buffers during 2018 fiscal year are adequate and enable the institution to be able to continue to meet its payment obligations both under normal and stress conditions. RBCIS Bank complies structurally with internal and external requirements, including standards for maintaining healthy balance sheet.

6.3 Liquidity Coverage Ratio (LCR) disclosure

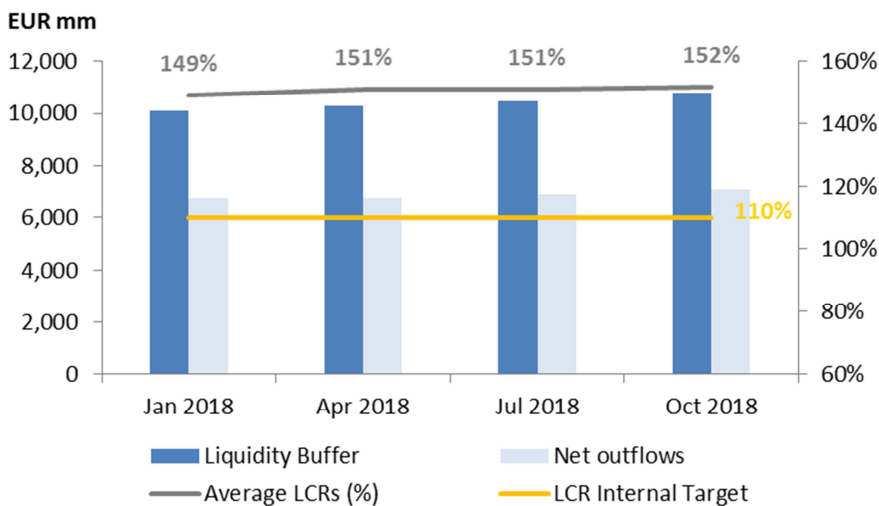
6.3.1 LCR disclosure data

LCRs disclosed in this template, as well as all other metrics, are simple average of 12 LCRs (and other metrics) monthly reporting observations in accordance with the EBA Guidelines requirement (EBA/GL/2017/01 - Guidelines on LCR disclosures). It means that the LCR as of January 2018 is an average of monthly LCRs from February 2017 to January 2018, the LCR as of April 2018 is an average of monthly LCRs from May 2017 to April 2018, the LCR as of July 2018 is the average of monthly LCRs from August 2017 to July 2018, the LCRs as of October 2018 is the average of monthly LCRs from November 2017 to October 2018. As mentioned in the guidelines, the use of averages avoids the use of isolated information relating to a specific date.

Over the observation period, RBCIS Bank could notice that the average LCRs and other liquidity metrics are broadly stable. The liquidity profile of RBCIS Bank remained strong relative to the regulatory requirement (Minimum LCR 100%) and internal targets (LCR risk appetite limit 110%).

6.3.2 LCR disclosure template – Scope CONSO

Table 6-5 - Quarterly LCR metrics



The average consolidated LCRs ranged between 149.2% and 151.8%. On a consolidated basis, the average liquidity buffer oscillated between EUR 10.1 bn and EUR 10.8 bn while the average Net cash outflows ranged between EUR 6.8 bn and EUR 7.1 bn over the period.

Template 22 – EU LIQ1 - LCR Disclosure template

Eur Million		Total unweighted value			
		Q1 Average	Q2 Average	Q3 Average	Q4 Average
Quarter ending on (DD Month YYYY)		Jan-18	Apr-18	Jul-18	Oct-18
Number of data points used in the calculation of averages					
HIGH-QUALITY LIQUID ASSETS					
1	Total high-quality liquid assets (HQLA)				
CASH-OUTFLOWS					
2	Retail deposits and deposits from small business customers, of which:	0	0	0	0
3	Stable deposits	0	0	0	0
4	Less stable deposits	0	0	0	0
5	Unsecured wholesale funding	15,426	15,816	16,372	16,981
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	11,020	11,384	11,786	12,191
7	Non-operational deposits (all counterparties)	4,405	4,432	4,585	4,791
8	Unsecured debt	0	0	0	0
9	Secured wholesale funding				
10	Additional requirements	1,691	1,580	1,452	1,368
11	Outflows related to derivative exposures and other collateral requirements	780	710	618	568
12	Outflows related to loss of funding on debt products	0	0	0	0
13	Credit and liquidity facilities	911	870	834	800
14	Other contractual funding obligations	124	114	128	126
15	Other contingent funding obligations	1,170	1,122	1,088	1,140
16	TOTAL CASH OUTFLOWS				
CASH-INFLOWS					
17	Secured lending (eg reverse repos)	0	0	0	0
18	Inflows from fully performing exposures	1,524	1,471	1,473	1,530
19	Other cash inflows	352	421	488	518
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)				
EU-19b	(Excess inflows from a related specialised credit institution)				
20	TOTAL CASH INFLOWS	1,876	1,892	1,961	2,048
EU-20a	Fully exempt inflows	0	0	0	0
EU-20b	Inflows Subject to 90% Cap	0	0	0	0
EU-20c	Inflows Subject to 75% Cap	1,876	1,892	1,961	2,048
21	LIQUIDITY BUFFER				
22	TOTAL NET CASH OUTFLOWS				
23	LIQUIDITY COVERAGE RATIO (%)				

Eur Million		Total weighted value			
		Q1 Average	Q2 Average	Q3 Average	Q4 Average
Quarter ending on (DD Month YYYY)		Jan-18	Apr-18	Jul-18	Oct-18
Number of data points used in the calculation of averages					
HIGH-QUALITY LIQUID ASSETS					
1	Total high-quality liquid assets (HQLA)	10,072	10,259	10,439	10,787
CASH-OUTFLOWS					
2	Retail deposits and deposits from small business customers, of which:	0	0	0	0
3	<i>Stable deposits</i>	0	0	0	0
4	<i>Less stable deposits</i>	0	0	0	0
5	Unsecured wholesale funding	7,160	7,278	7,532	7,838
6	<i>Operational deposits (all counterparties) and deposits in networks of cooperative banks</i>	2,755	2,846	2,947	3,048
7	<i>Non-operational deposits (all counterparties)</i>	4,405	4,432	4,585	4,791
8	<i>Unsecured debt</i>	0	0	0	0
9	Secured wholesale funding	0	0	0	0
10	Additional requirements	1,144	1,058	951	888
11	<i>Outflows related to derivative exposures and other collateral requirements</i>	780	710	618	568
12	<i>Outflows related to loss of funding on debt products</i>	0	0	0	0
13	<i>Credit and liquidity facilities</i>	364	348	334	320
14	Other contractual funding obligations	124	114	128	126
15	Other contingent funding obligations	0	0	0	0
16	TOTAL CASH OUTFLOWS	8,429	8,450	8,611	8,852
CASH-INFLOWS					
17	Secured lending (eg reverse repos)	0	0	0	0
18	Inflows from fully performing exposures	1,524	1,471	1,473	1,530
19	Other cash inflows	147	187	221	212
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)	0	0	0	0
EU-19b	(Excess inflows from a related specialised credit institution)	0	0	0	0
20	TOTAL CASH INFLOWS	1,671	1,657	1,694	1,742
EU-20a	<i>Fully exempt inflows</i>	0	0	0	0
EU-20b	<i>Inflows Subject to 90% Cap</i>	0	0	0	0
EU-20c	<i>Inflows Subject to 75% Cap</i>	1,671	1,657	1,694	1,742
		TOTAL ADJUSTED VALUE			
21	LIQUIDITY BUFFER	10,072	10,259	10,439	10,787
22	TOTAL NET CASH OUTFLOWS	6,758	6,793	6,917	7,111
23	LIQUIDITY COVERAGE RATIO (%)	149.2%	151.2%	151.0%	151.8%

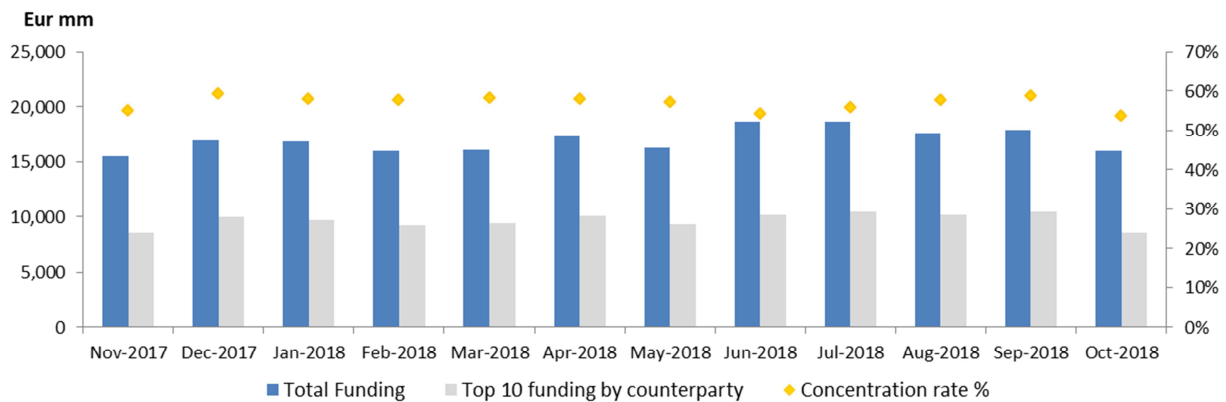
6.3.3 Additional qualitative information complementing the LCR disclosure data

6.3.3.1 Concentration of funding

Given the nature of its business profile, the funding of RBCIS Bank is exclusively composed by wholesale funding. The clients deposits represent the main component of its funding while Interbank funding is also part of its liabilities to a lesser extent.

A monitoring of the clients deposits concentration is performed on a daily basis. An analysis of the concentration by clients and by currencies as well as the deposits trend is performed daily and the information is reported in the management dashboard on a monthly basis and in the Board of Directors on a quarterly basis. The institution also reports to the regulator on a monthly basis the ALMM templates, where the information on concentration of funding by counterparty (Template C67.00) and on the concentration of funding by product (template C68.00) is required.

Table 6-6 - Funding History and concentration (from Nov 2107 to Oct 2018)

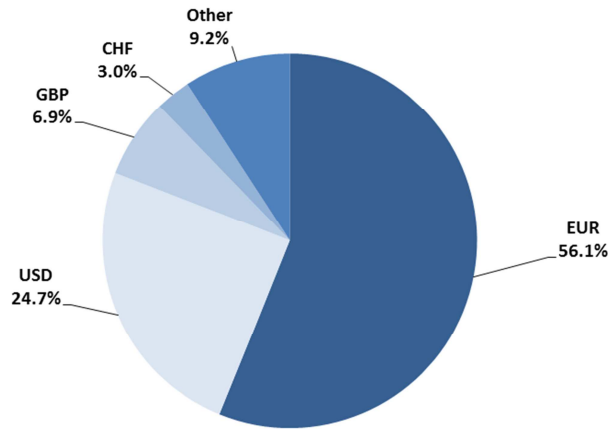


6.3.3.2 Currency mismatch in the LCR

RBCIS Bank’s assets and liabilities are primarily composed by EUR and USD currencies and to a lesser extent in GBP and CHF. RBCIS is active in those currencies with deep liquid foreign exchange markets such as EUR, USD and GBP.

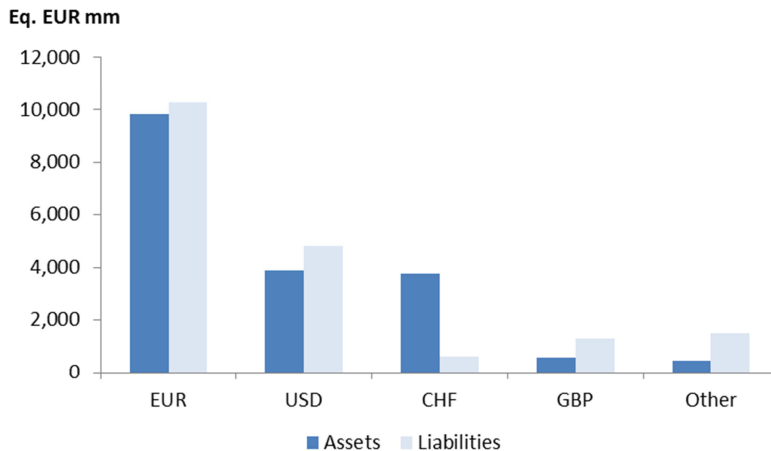
As mentioned in the previous section, a daily monitoring and analysis of clients funding is performed by currency. The graph 5-3 depicts the average of clients deposits balances based on daily observation from November 2017 to October 2018.

Table 6-7 – Clients funding breakdown by currency



The graph 6-8 depicts the currency mismatch between assets and liabilities as of end of October 2018.

Table 6-8 – Currency mismatch



In terms of reporting, the Bank has reported over the fiscal year 2018 monthly LCRs in USD, GBP and exceptionally in CHF in accordance with Article 415(2) of Regulation (EU) No 575/2013, where liabilities in those currencies exceeding 5% of the total liabilities.

The liquidity coverage ratio obtained in USD and GBP currencies were below 100% in both solo and consolidated basis. Although the LCR requirement imposed by the LCR delegated Act 2015/61 do not apply individually to each of the significant currencies, a prudent risk management policy is applied by RBCIS Bank to mitigate the risk linked to the currency mismatch between the funding and the assets. RBCIS Bank use to deal FX swaps and the vast majority are dealt with RBC group which benefits from a large network of counterparties in the swap market. FX swaps maturities are staggered over three months of which a portion is calibrated to be kept overnight in order to maintain an appropriate buffer for all currencies.

RBC considers fungible currencies to be those currencies that fulfill the following criteria:

- There is an active FX market
- RBC, the parent, is actively dealing these currencies

This includes EUR, CAD, USD, GBP and JPY. These currencies are assumed to be liquid, even under a liquidity stress.

Under a stress situation, RBCIS Bank may consider several options to cover a shortfall in non-EUR currencies:

- RBCIS Bank holds a sizable HQLA inventory including an AFS portfolio and Cash held at Central Banks. The assets sale proceed and/or cash held at Central Banks could be swapped for other currencies.
- All swaps are dealt with RBC the Parent that maintains a broader range of relationships with third parties worldwide. Any existing swaps could be early terminated in order to restore currency positions.
- RBCIS Bank maintains access to the ECB US dollar collateralized operations. It would enable RBCIS Bank to access funding in USD. This is a fiduciary duty of the central bank and could be relied on under even the most severe of stresses. Collateralized assets (denominated in EUR or non-EUR currencies) are following the same criteria than eligible assets for ECB operations in EUR.

The use of FX swaps for balance sheet management is reported by RBCIS Bank Treasury and Market Services (TMS) and monitored by RBCIS Bank Group Risk Management (GRM) and Corporate Treasury (CT). Particular attention is given to the notional size of the FX swap book and term mismatches between the FX swap contracts and the use of converted funds.

6.3.3.3 Derivatives exposures and potential collateral calls

The derivatives treatment follows rules outlined in the LCR delegated Act 2015/61 and the CRR regulation (575/2013). They are 2 components for the LCR EBA :

a - Net derivatives outflows and net derivatives inflows

and

b – Additional outflows from derivatives

a. Calculation of net derivatives outflows and inflows :

The calculation of net inflows from derivatives and net outflows from derivatives follows the instructions outlined in Art 21 of the LCR delegated act.

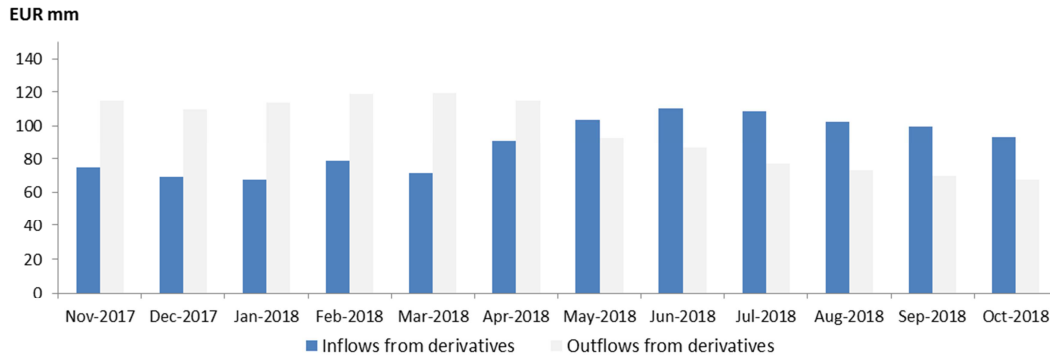
The outflows from derivatives (Row 340 C73 Outflows) and inflows from derivatives (Row 240 C74 Inflows) receive a weighted factor of 100% for the calculation of net outflows. For the impact of the RBCIS Bank's LCR, amounts of outflows and inflows from derivatives take into account derivatives transactions having an expected inflows and outflows over a 30 calendar day period.

Where there is a bilateral netting agreement signed with a counterparty, a net amount of flow is calculated based on the principal amount of all derivatives transactions dealt with this counterparty regardless the maturity of the transaction. In an absence of bilateral netting agreement, a net amount of flow is calculated based on the principal amount of all transactions having a flow at the same date. The net basis is calculated net of any cash collateral received from the counterparty. Once this treatment is done, a net inflow or a net outflow is determined with each counterparty.

So the amount of outflows from derivatives considered in the LCR is the sum of all net outflow calculated with each counterparty and the amount of inflows from derivatives considered in the LCR is the sum of all net inflows calculated with each counterparty.

The graph 5-5 depicts the average inflows from derivatives and outflows from derivatives during the 2018 fiscal year. The monthly average is based on the 12 last months observation period to be aligned with the LCR data disclosed in the LCR templates.

Table 6-9 – Inflows and outflows from derivatives (Nov-2017 to Oct-2018)



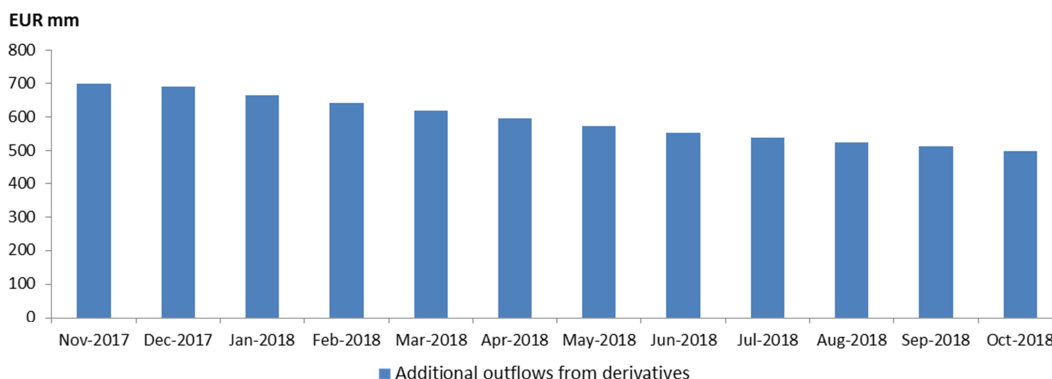
b. Additional outflows from derivatives (Rows 320 C73 Outflows)

The methodology used for the calculation of the additional outflows follows the HLBA (Historical look back approach) developed by the BCBS (Basel Committee) as required by the EBA (EBA RTS/2014/05).

RBCIS Bank takes as additional outflows from derivatives the largest aggregated cumulative net collateral outflow and inflow realized at end of 30 day periods during the 24 months preceding the reporting date.

The graph 6-10 depicts the average additional outflows from derivatives during the 2018 fiscal year. The monthly average is based on the 12 last months observation period to be aligned with the LCR data disclosed in the LCR templates.

Table 6-10 – Additional outflows from Derivatives (Nov-2017 to Oct-2018)



The amount of Additional outflows decreased progressively during the fiscal year. The monthly average reduced from EUR 699 mm in November 2017 to EUR 501 mm as of October 2018.

The impact of the derivatives additional outflows on the averages LCRs decreased from 19% in the first quarter 2018 to 13% as of end of October 2018 on a consolidated basis. It means that average consolidated LCR would reach 164.9% without this additional requirement instead of 151.8%.

6.3.3.4 Centralization of liquidity management and interaction between RBC group's units

The Treasury function of RBCIS Bank is centralized in Luxembourg, including the consolidated management of the balance sheet. Many subsidiaries of RBCIS Bank do not have a banking or investment license and are often supported by a local branch of RBCIS Bank apart from RBCIS Bank France S.A. which engages in treasury activities locally although these tend to operate by pooling liquidity to Luxembourg.

Any loss or liquidity shortfall will be consolidated and accounted in the RBCIS Bank Consolidated balance sheet. Any liquidity or capital management action will be operated by RBCIS Bank Luxembourg and the benefits will be adequately managed to ensure appropriate level of capital and liquidity at a consolidated level and at individual level for all affiliates.

Regarding RBCIS Bank France SA, this entity uses to place all its cash with RBCIS Bank Luxembourg excepting the cash placement done with the Bank de France (BDF) in order to maintain a buffer of liquidity for its Liquidity Coverage Ratio.

7 Interest Rate Risk in the Banking Book

7.1 IRRBB measurement and management

RBCIS Bank is exposed to market risk arising from transactions originated by its various units. Interest rate risk, a type of market risk, is the risk of loss resulting from changes in interest rates and/or in the volatility of interest rates. Considered one of the most significant risks in banking, interest rate risk arises largely from mismatched maturity and re-pricing dates between RBCIS Bank's assets, liabilities and off-balance sheet derivatives.

While these mismatches are inherent to a bank's role as a financial intermediary, RBCIS Bank seeks to limit the impact of these mismatches on its NII and EVE.

RBCIS Bank has developed an IRRBB policy that specifies RBCIS Bank's requirements for prudent asset liability management of interest rate risk to limit the exposure of RBC Investor Services Bank S.A. net interest income (NII) and economic value of equity (EVE) to changes in interest rates. It is developed in consideration of RBC's Market Risk Framework, the RBC's Enterprise Structural Interest Rate Risk Policy, internal requirements, accepted practices and the requirements of regulators.

As such, the purpose of the RBCIS Bank IRRBB policy is to:

- Establish objectives for managing the interest rate risk (IRR) arising from RBCIS Bank's structural (non-trading) portfolios.
- Set structural interest rate limits for RBCIS Bank's structural portfolios in accordance with RBC Board-approved enterprise structural interest rate risk limits.
- Describe the approach to Asset Liability Management (ALM) of interest rate risk and establish standards for its management throughout RBCIS Bank.
- Outline the roles, responsibilities and authorities of the various risk committees, functional units and personnel with respect to this policy.

Changes and updates to the measurement and assessment of IRRBB due to, but not limited to: (i) model changes, (ii) business driven assumptions and (iii) new product or business activity are outlined in the RBCIS Bank Non-Trading Market Risk Standing Order.

The controls over allowable market activity as well as permissible hedging strategies and instruments are documented in RBCIS Bank Investment Policy, RBCIS Bank Market Risk Limits document and in Appendix E of RBCIS Bank IRRBB policy.

RBCIS Bank follows the regulatory requirements as set out by the European Central Bank (ECB) and the European Banking Authority (EBA)/GL/2015/08 guidelines on the management of interest rate risk arising from non-trading activities.

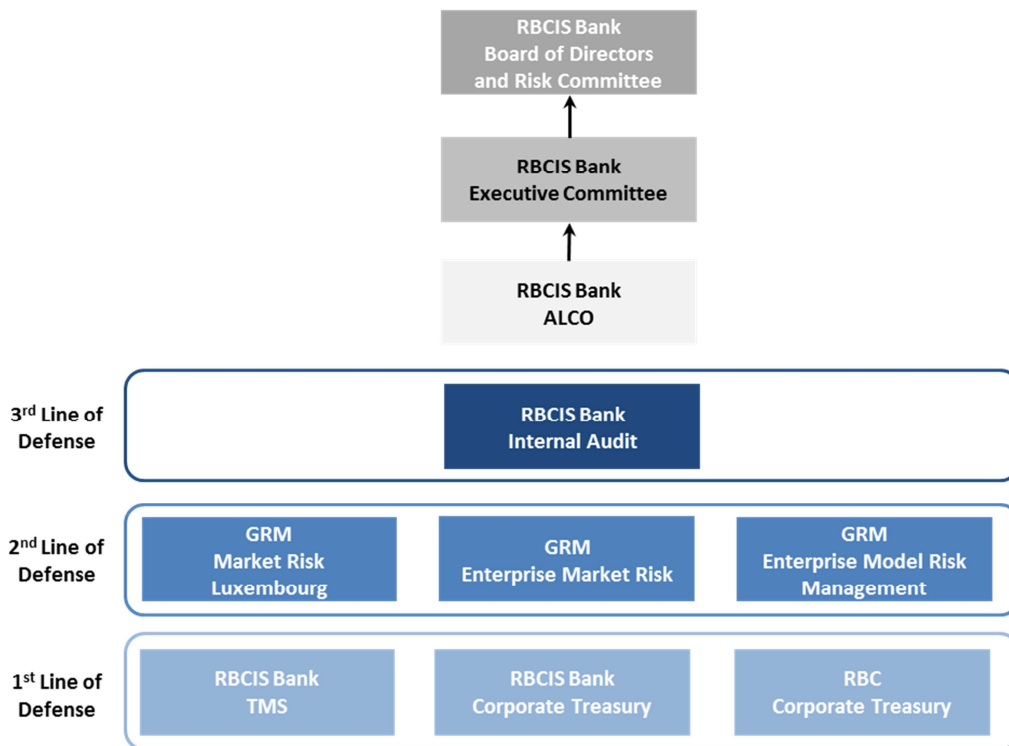
Finally, the RBCIS Bank IRRBB Policy defines the following Interest Rate Risk objectives :

- To preserve RBCIS 'safety and soundness by limiting the vulnerability of EVE and NII to adverse interest rate movements. Since some degree of IRR is inherent to the banking business, total concurrently elimination of either NII risk or value risk is not practical.
- To protect RBCIS' ability to pursue its core business strategies by addressing creditor concerns and regulatory requirements. This objective implies a requirement to manage IRR in a prudent and professional manner.
- To immunize and manage IRR in a cost-effective manner within the constraints of the first two objectives.

- To favor the management of Value Risk over NII Risk, subject to the constraints of the risk limits specified in the policy and the first two objectives. EVE Risk management is favored because it is a more comprehensive, longer-term economic measure of interest rate risk, while NII Risk is an accounting-income based measure and provides no insight into IRR inherent in a balance sheet beyond a certain measurement horizon.
- To operate within the risk limits allocated to RBCIS and specified in the RBCIS Bank IRRBB policy in order to manage the day to day operations, taking into account the constraints of its processes and risk measurement capabilities, while adhering to other applicable frameworks, policies, and standing orders which cover, on a standalone basis, specific risk aspects of RBCIS ' balance sheet.

Roles and responsibilities of key stakeholders in the IRRBB measurement are summarized in the picture below.

Table 7-1 – Roles and responsibilities in the IRRBB measurement



Process owners are responsible for ensuring adherence to the RBCIS Bank IRRBB policy and for maintaining appropriate evidence of their monitoring activities.

Table 7-2 – IRRBB Roles and responsibilities

Committee/Group	Responsibilities
RBCIS Bank’s Board of Directors And Risk Committee of the Board of Directors (BoD)	RBCIS Bank of Directors and Risk Committee’s responsibilities include, but are not limited to: <ul style="list-style-type: none"> • Reviews, on a regular basis, reporting on RBCIS Bank’s structural IRR position and status. • Risk Committee of the Board reviews and recommends to the Board for approval the Structural IRR Policy and Limits at least once a year. • Defining the risk strategy and guiding principles related to IRRBB and entrusting the Executive Committee with the implementation of these governance principles. • Monitoring the implementation by the Executive Committee of its internal governance strategies related to IRRBB.
RBCIS Bank’s Executive Committee (ExCo)	ExCo responsibilities includes, but are not limited to: <ul style="list-style-type: none"> • Implementing the Governance principles related to IRRBB as defined by the Board of Directors and its Risk Committee. • Regularly reviewing compliance against approved limits and key developments affecting the management of IRRBB.
Asset Liability Management Committee (RBCIS Bank’s ALCO) (Chaired by the RBCIS Bank’s Treasurer)	<ul style="list-style-type: none"> • RBCIS Bank’s ALCO has primary oversight responsibility and authority for ensuring that RBCIS Bank’s ALM is managed prudently and professionally: <ul style="list-style-type: none"> - At least annually, reviews and recommends RBCIS Bank’s Structural IRR Policy along with the Limits. - Provides strategic direction to the TMS Group for the management of structural IRR. - Reviews ALM strategies for RBCIS Bank including tactical risk positioning. - Regularly reviews compliance against approved limits and key developments affecting the management of structural IRR. - Responsible for ensuring that the RBCIS Bank’s Board has sufficient reports and metrics for IRR oversight. - Delegate and approve risk limits to RBCIS Bank. - Delegate and approve risk limits to the subsidiaries of RBCIS Bank. • Requests, as needed, supplementary information from the TMS Group in Luxembourg and RBC Corporate Treasury to fulfil its oversight responsibility.
RBC Corporate Treasury	<ul style="list-style-type: none"> • Proposes policy amendments for consideration by RBCIS Bank, and provides advice and counsel regarding the consistency of RBCIS Bank’s Structural Interest Rate Risk policy with Enterprise IRRBB practices. • On a monthly and/or quarterly basis as required (and more frequently if required), calculates and reports Value Risk and NII Risk for RBCIS Bank. • Maintains qualified, capable staff to operate the interest rate risk models, provide the services and explain the results. • Responsible for developing, maintaining and documenting the IRRBB methodology and changes to the methodology. • Provides advice and counsel on pricing and measuring interest rate risk of existing and new products. • Be knowledgeable of the RBCIS Bank’s Structural Interest Rate Risk policy. • Submits to GRM-Enterprise Model Risk Management and GRM-Enterprise Market Risk for validation new or revised models, and model parameters and assumptions, on a timely basis. • Represented on RBCIS ALCO.

Committee/Group	Responsibilities
RBCIS Bank Corporate Treasury	<ul style="list-style-type: none"> • In collaboration with RBC Corporate Treasury, ensure the integrity of the interest rate risk management process, including data collection and transformation, assumptions, modeling, and reporting. • Develop and propose policy amendments in response to new business initiatives and identify appropriate amendments that reflect changes in regulatory requirements. • Interface for ECB/CSSF on IRRBB matters. • On a regular basis, provide status updates to RBCIS Bank’s ALCO, on the measurement, monitoring and management of their interest rate risk and related initiatives and action plans.
RBC Investor & Treasury Services Treasury & Market Services (TMS) Group in Luxembourg	<ul style="list-style-type: none"> • Day-to-day responsibility under the direction of the RBCIS Bank Corporate Treasury for structural IRR management, including: <ul style="list-style-type: none"> - Reports developments in structural IRR to RBCIS Bank’s ALCO. - Ensures that the IRR is managed within allocated risk limits using permitted instruments identified in various policies and Standing Orders; and following Core Portfolio Principles outlined in Appendix E. • Manages and develops risk mitigation strategies for the structural balance sheet in order to stay within approved limits. • Works with business lines to ensure understanding of linkages of interest rate risk arising from banking products.
RBCIS Bank Market Risk	<p>RBCIS Bank Market Risk’s responsibilities include, but are not limited to:</p> <ul style="list-style-type: none"> • Establishes and implements limits within approved policies and procedures. • Reviews the market risk operational limits at least annually. • Provides independent and effective oversight on the nature and extent of material market risks including IRRBB. • Ensures the implementation of and compliance with risk management policies and procedures. • Establishes control processes by developing key market risk sensitivity metrics and RBCIS Bank risk reporting to inform and support management. • Identifies supplementary risk controls that may be required to manage the risks and exposures as necessary. • Reviews changes to risk measurement models. • Partners with GRM-Enterprise Model Risk Management and GRM-Enterprise Market Risk to review and approve model parameters and assumptions. • Produces monthly reporting for RBCIS Bank limit monitoring. • Reviews proposals for new products and for changes to existing products with market risk impacts. • Approves Operational limits and exceptions to those limits. • Represents GRM to regulators on matters related to RBCIS Bank IRRBB and other non-trading risks. • Reviews regulatory submissions. • Delivers ICAAP documentation related to IRRBB.

Committee/Group	Responsibilities
GRM – Enterprise Market Risk	GRM–Enterprise Market Risk’s responsibilities include but are not limited to: <ul style="list-style-type: none"> • Reviewing existing market risk stress testing scenarios and providing CT and RBCIS Bank with updates as necessary. • Ensuring the implementation of and compliance with relevant risk management policies and procedures. • Providing independent and effective oversight on the nature and extent of material market risks including IRRBB. • Establishing control processes by developing key market risk sensitivity metrics and enterprise risk reporting to inform and support management. • Identifying supplementary risk controls that may be required to manage the risks and exposures as necessary. • Reviewing changes to risk measurement models. • Producing weekly reporting, aggregating risk for RBCIS Bank within the Comprehensive Enterprise Market Risk Report. • Partnering with GRM-Enterprise Model Risk Management and RBCIS Bank to review and approve model parameters and assumptions.
GRM – Enterprise Model Risk Management	<ul style="list-style-type: none"> • Validates ALM models in accordance with RBC’s model risk policies and procedures. • Validates model assumptions and model inputs, providing review approval to new and updated models, model inputs and model assumptions where required.
RBCIS Bank’s Subsidiaries	<ul style="list-style-type: none"> • Balance sheet’s interest rate risk of RBCIS Bank’s subsidiaries are transferred to the central Treasury. RBCIS Bank’s subsidiaries are therefore not required to immunize their respective balance sheets from IRR. Only RBCIS Bank is allowed to hold open interest rate positions.
Internal Audit Services	<ul style="list-style-type: none"> ▪ Provides independent assessment of asset liability management practices, processes and controls.
Technology and Operations	<ul style="list-style-type: none"> ▪ Provides technology and operations support.

7.2 Description of IRRBB Measurement

The measurement of RBCIS Bank’s IRRBB is centralized at RBC Corporate Treasury, Head office in Toronto and is governed by SLA’s. By leveraging the centralized and utilized resources and IT tools, Corporate Treasury Toronto in close collaboration with Corporate Treasury Luxembourg performs the production of periodical IRRBB measurements and ad hoc qualitative and quantitative assessments to support completion of reporting and/or analyses.

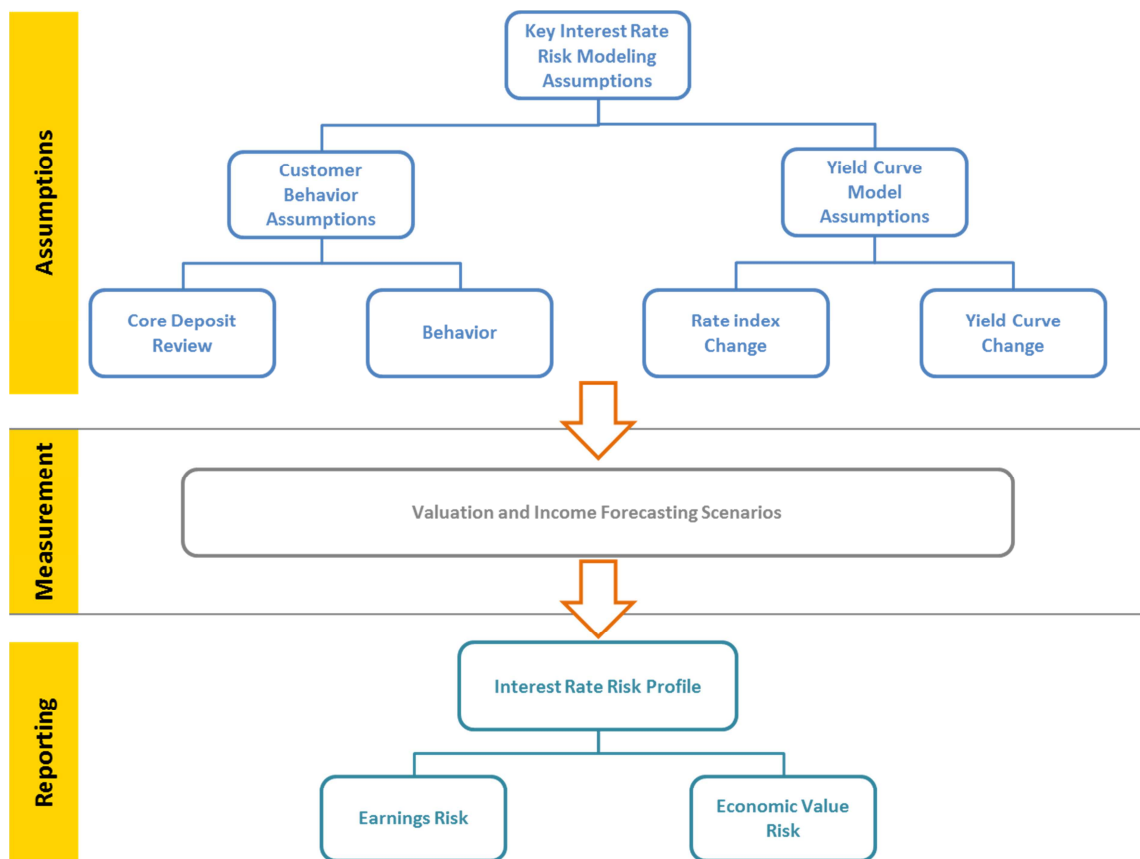
7.2.1 Process overview

The process starts with research aimed at identifying the customer behavior/yield curve assumptions then building/setting up a set of models, which incorporates those assumptions into the RBCIS Bank IRR profile. This task is performed by the Applied Research and Analytics department, Interest Rate Risk Measurement and Risk Infrastructure teams of RBC. The next step is generating the actual risk profile using the most current set of position data. The reporting function is performed by the Corporate Treasury Toronto IRR Measurement department.

Model design and maintenance must comply with applicable requirements as set out in Group Risk Management’s (GRM) policies and standing orders, including those outlined in the RBC Enterprise Model Risk Policy. Relevant approvals must be obtained from GRM prior to use of any new or changed model.

The following picture illustrates main steps involved in measuring and reporting the Interest Rate Risk exposure of RBCIS.

Table 7-3 – IRRBB Measurement: process overview



7.2.2 Assumptions

Yield Curve Model Assumptions

RBCIS Bank's IRRBB Model is capable of modelling a wide range of rate scenarios. For NII risk metrics, RBCIS relies on deterministic rate scenarios that are based on prevailing market yield curves in EUR, USD, CAD, CHF, JPY and GBP. For EVE risk measurement, RBCIS uses closed form valuation models

Customer Behavior and Rate Assumptions

Customer Behavior and Rate Assumptions are intended to simulate customer reaction to changes in the interest rate environment and product pricing response to underlying wholesale market rate changes. For RBCIS, the main focus of review and assumptions relate to administration of deposit rates. Rates are generally administered (consistent with custodial bank competitive practices) to ensure a high degree of balance stability.

Modeling of Product Price Sensitivity

Contractual features of RBCIS Bank's products relevant to the measurement of interest rate risk are mapped into the IRRBB Model to accurately model their cash flows for the purpose of measuring interest rate earnings and value risk.

For products with no contractual maturity and administrated rates (e.g. deposits), historical balances and product rate information is analyzed by currency, along with a product review to establish interest rate risk characteristics. Historic balances are reviewed quantitatively to assess stability and possible relationship to rate levels and changes. Capital and reserves included in the IRRBB sensitivity analysis are modeled separately from liabilities.

7.2.3 Key Model Specifications

EVE risk represents the sensitivity of balance sheet's value, as measured by the net present value of assets minus liabilities plus the net value of off-balance sheet items, to fluctuations in interest rates.

Valuation of securities and term deposits are based on discounting contractual/projected cash flows. Discount factors are generated from market swap curves.

Shocked valuations are generated by full re-valuation of the relevant instruments with scenario shocks applied directly to input curves.

Table 7-4 – Average and longest repricing maturity

Repricing maturity assigned to NMDs

Average repricing maturity assigned to NMDs.

Longest repricing maturity assigned to NMDs.

NII risk is the change in 1-year projected balance sheet accrued interest income from change in client interest and market interest rates from a base projection based on projected forward rates.

7.2.4 Periodicity of reporting

Table 7-5 – IRRBB Reporting

Frequency	Type of Measurement	Monitoring/Control
Reporting to <ul style="list-style-type: none"> ALCO (Quarterly) EXCO (Monthly) Risk Committee (Quarterly) Board of Directors (Quarterly) 	On a monthly basis and more frequently if required, measurement and report of Value Risk and NII Risk for RBCIS Bank including: <ul style="list-style-type: none"> Value Risk and NII Risk exposures under an instantaneous up or down 100 basis point rate change as outlined in the EBA/GL/2015/08 guideline (IRRBB 2); The change in economic value that results from calculating the outcome of the standard shock, as referred to in Article 98(5) of Directive 2013/36/EU and in the EBA EBA/GL/2015/08 (IRRBB 5). Measurement of the EVE and NII/earnings sensitivity under different stress test scenarios for potential changes in the level and shape of the interest rate yield curve as outlined in the EBA EBA/GL/2015/08 (IRRBB 3). 	<i>First line of defense</i> <ul style="list-style-type: none"> Corporate Treasury Luxembourg TMS Luxembourg <i>Second line of defense</i> <ul style="list-style-type: none"> GRM Market Risk Luxembourg
Quarterly Reporting to <ul style="list-style-type: none"> ECB 	<ul style="list-style-type: none"> On a quarterly basis update of the quantitative and qualitative sections of the IRRBB template as part of the supervisory STE. 	<i>First line of defense</i> <ul style="list-style-type: none"> Corporate Treasury Luxembourg <i>Second line of defense</i> <ul style="list-style-type: none"> GRM Market Risk Luxembourg Review by CFO/CRO
Semi Annual Reporting <ul style="list-style-type: none"> CSSF 	<ul style="list-style-type: none"> On a semi-annual basis, update of the quantitative and qualitative sections of the IRRBB CSSF regulatory reporting. 	<i>First line of defense</i> <ul style="list-style-type: none"> Corporate Treasury Luxembourg <i>Second line of defense</i> <ul style="list-style-type: none"> GRM Market Risk Luxembourg

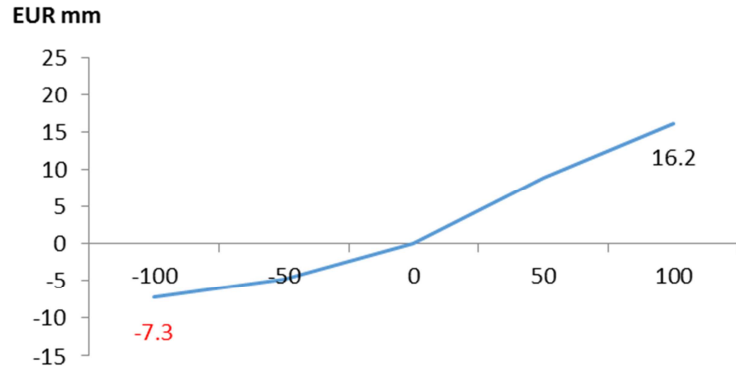
7.2.5 IRRBB Measures

7.2.5.1 Δ EVE under 100 upward / downward shock

Table 7-6 – Value risk by major currency

	100_DN	100_UP
EUR	-3.3	13.2
USD	-1.0	0.1
GBP	-3.2	0.9
Other	0.2	2.0
Total	-7.3	16.2

Table 7-7 – Value risk profile



7.2.5.2 Δ EVE under 200 upward / downward shock (outlier test)

Table 7-8 – Δ EVE under 200 upward / downward shock

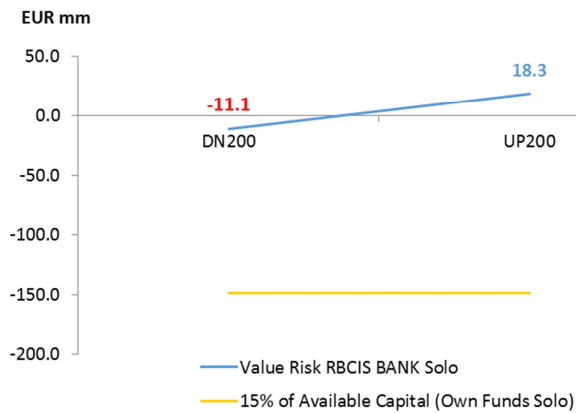


Table 7-9 - Outlier test

	200_DN	200_UP
15% of Available Capital	-148.5	-148.5
Value Risk RBCIS Bank	-11.1	18.3
Value risk utilization	7.5%	-12.3%

7.2.5.3 Δ NII under 100 upward / downward shock

Table 7-10 – Earnings risk by major currencies

EUR mm	100_DN	100_UP
EUR	-3.4	25.4
USD	1.9	-1.9
GBP	-5.0	0.5
Other	-1.8	5.2
Total	-8.3	29.3

7.3 Interest rate shocks and stress scenarios

The key model outputs, EVE and NII risks, are calculated over a wide range of interest rate scenarios in order to comply with regulatory requirements and to capture the various hypothetical movements of the interest rate term structure.

There are 11 historical, 5 hypothetical and 11 Single Risk Factor stress scenarios considered for the calculation of RBCIS Bank portfolio's IRRBB to stressed market conditions.

RBCIS also applies the BCBS Standardized interest rate shock scenarios.

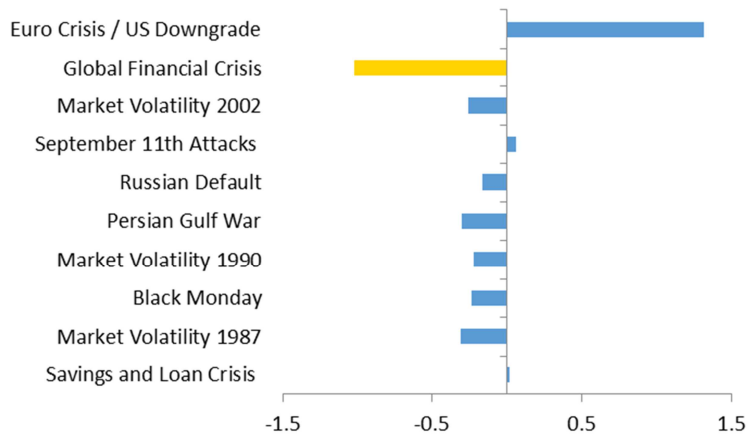
7.3.1 Historical stress tests

Historical stress tests are designed to recreate market shocks that occurred during a period of significant market turbulence such as the Global Financial Crisis of 2008 or Black Monday in 1987. By recreating these shocks the Bank can assess what would happen to the banking book if this type of events were to reoccur.

Table 7-11 – Historical stress tests summary

Shock Type	Start Date	End date
Savings and Loan Crisis	5-Mar-1986	27-May-1986
Market Volatility 1987	13-Apr-1987	3-Jul-1987
Black Monday	29-Sep-1987	26-Oct-1987
Market Volatility 1990	20-Apr-1990	28-Jun-1990
Persian Gulf War	23-Aug-1990	14-Nov-1990
Russian Default	10-Sep-1998	21-Oct-1998
September 11	30-Aug-2001	07-Nov-2001
Market Volatility 2002	4-Sep-2002	15-Oct-2002
Global Financial Crisis	1-Sep-2008	21-Nov-2008
Euro Crisis / US Downgrade	4-Aug-2011	12-Oct-2011

Table 7-12 – Historical stress tests – Summary results (Δ EVE)



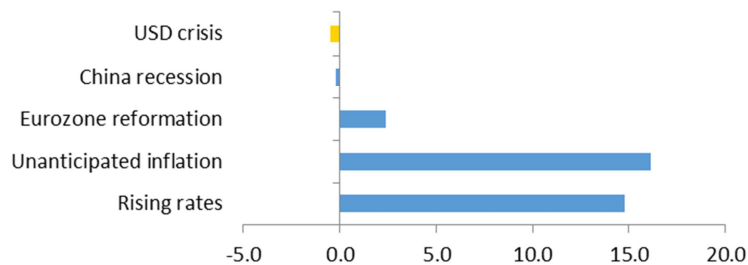
7.3.2 Hypothetical Stress tests

Historical scenarios capture exposures to stress situations similar to past experiences but are not able to capture the potential market changes that could occur under a different type of economic situation. Hypothetical scenarios fill in this gap by developing a series of market shocks that would likely occur if a particular economic event were to unfold.

Scenarios include:

- a) A possible recession in China
- b) A reformation of the Eurozone
- c) A period of unanticipated inflation
- d) Expectation of significant rising bond yields
- e) A USD crisis due to growing public debt, unfunded liabilities and risk of default in major municipalities

Table 7-13 – Hypothetical stress tests – Summary results (Δ EVE)



7.3.3 Single Risk Factor Stress

Single Risk Factor (SRF) stress scenarios are simplified stress scenarios that apply shocks to a limited number of risk factors within broad asset classes.

SRF stresses can allow management to better identify what element within a broader stress test is driving exposures, and can help limit concentrations within the portfolio.

The shape and magnitude of shocks are tied to actual movements in history over a 20-day horizon. A statistical analysis was used to identify the types of curve shocks that can be used to explain most of the historical data.

Table 7-14 – Single risk factors – Summary results (Δ EVE)

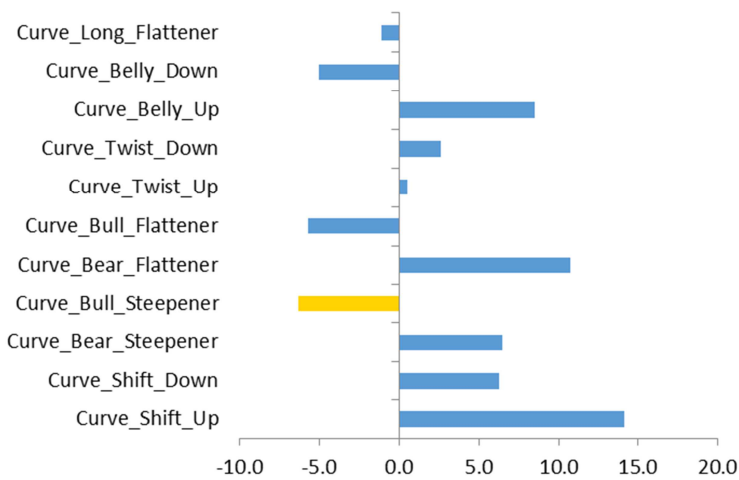
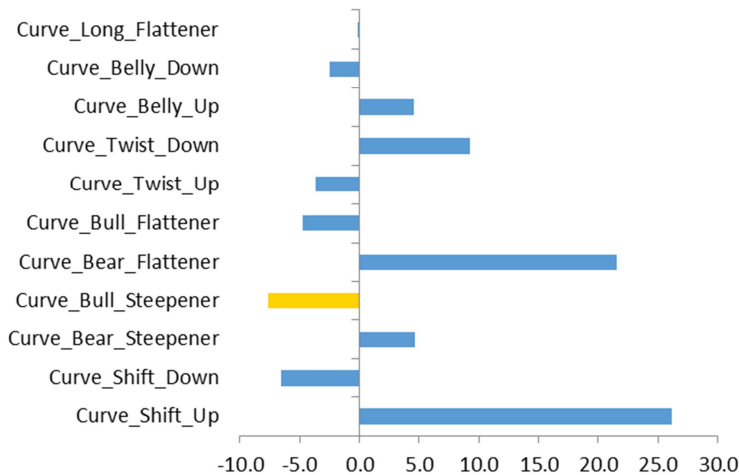


Table 7-15 - Single risk factors – Summary results (Δ NII)



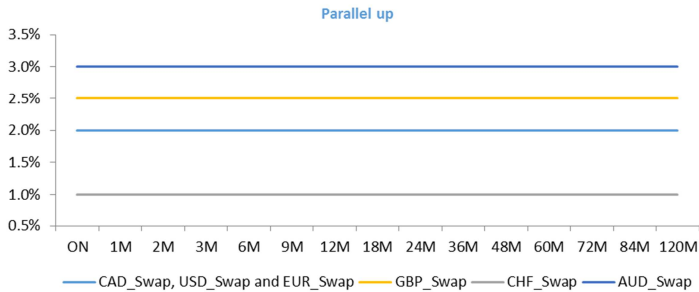
7.3.4 BCBS Standardized interest rate shock scenarios

Banks are required to the six prescribed interest rate shock scenarios to capture parallel and non-parallel gap risks for EVE and two prescribed interest rate shock scenarios for NII. These scenarios are applied to IRRBB exposures in each currency for which the bank has material positions.

Under this approach, IRRBB is measured for the following six scenarios:

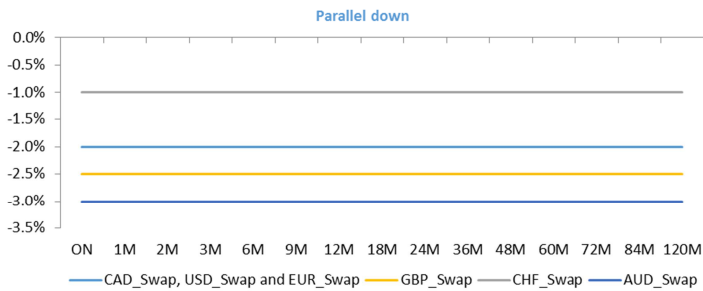
1. Parallel shock up

Table 7-16 - BCBS scenario : parallel up curve



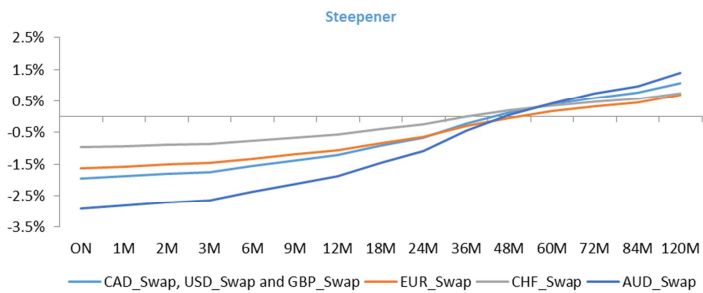
2. Parallel shock down

Table 7-17 - BCBS scenario : parallel down curve



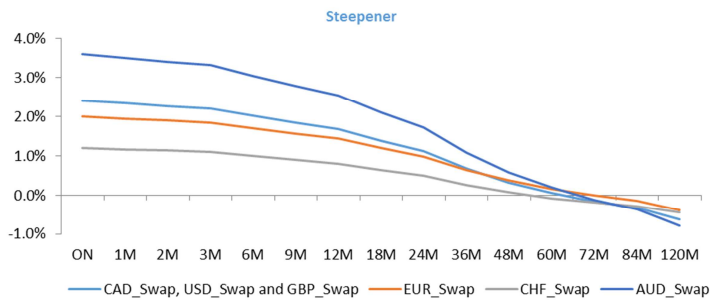
3. Steepener shock (short rates down and long rates up)

Table 7-18 - BCBS scenario : Steepener shock



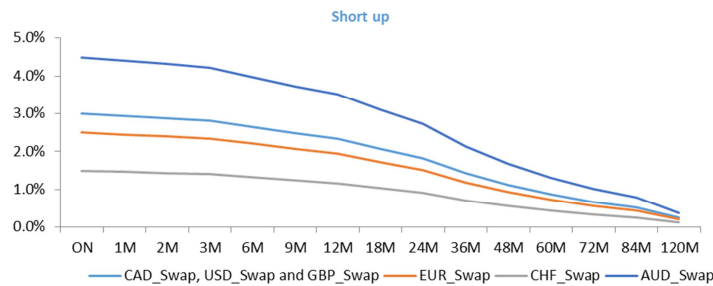
4. Flattener shock (short rates up and long rates down)

Table 7-19 – BCBS scenario: Flattener shock



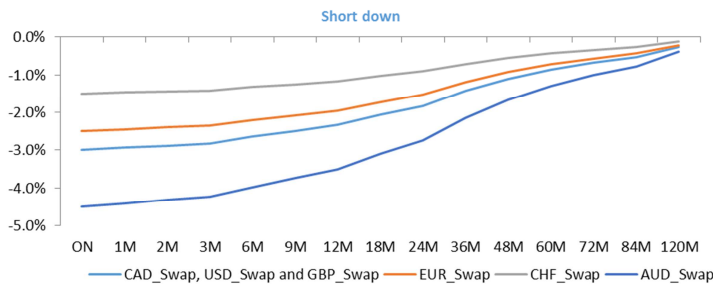
5. Short rates shock up

Table 7-20 – BCBS Scenario: Short rates shock up



6. Short rates shock down

Table 7-21 – BCBS Scenario: Short rates shock down



From 30th of June 2019 onwards, RBCIS Bank will apply and report the results of the standardized interest rate shock scenarios in accordance with EBA Guidelines EBA/GL/2018/02⁶.

The template BCBS IRRBB1 provides with an overview of the 6 BCBS stress tests impact on Δ EVE and Δ NII (Parallel up and down only) along with the Tier 1 Capital.

⁶ EBA/GL/2018/02 : Guidelines on the management of interest rate risk arising from non-trading book activities.

Template BCBS IRRBB1 – Quantitative information on IRRBB

EUR mm	Δ EVE		Δ NII	
Period	2018	2017	2018	2017
Parallel up	-3.3	n/a	22.5	n/a
Parallel down	1.9	n/a	-8.6	n/a
Steeper	1.3	n/a		
Flattener	0.2	n/a		
Short Rate up	-0.6	n/a		
Short Rate down	2.4	n/a		
Maximum	-3.3	n/a	-8.6	n/a
Period	2018		2017	
Tier 1 Capital	1,042.8		n/a	

8 Operational risk

Operational risk is defined as the risk of loss or harm resulting from people, inadequate or failed internal processes and systems, or from external events. At RBC, the scope of operational risk is further defined by Operational Risk Categories. Proactive management of operational risks and controls is a key element of the RBC Enterprise Operational Risk Management Framework (ORM Framework), which establishes the principles of how RBC manages its operational risk exposures.

8.1 Operational risk governance

8.1.1 Organization

RBC uses the Three Lines of Defense Governance Model to ensure that risks to achieving strategic objectives are appropriately managed. Escalation processes are in place such that relevant ORM information (e.g., material risk exposures, items requiring decisions or actions) is escalated to appropriate levels within the organization (e.g., Business management, Segment operating committees, Board of Directors) in a timely manner and commensurate with the urgency and materiality of the matter. Defined governance and escalation structures ensure that senior management has clear visibility of the risk profile to support risk-informed decisions and to ensure holistic risk management.

The following table illustrates the Three Lines of Defense Governance Model with respect to operational risk management.

Table 8-1 – Three Lines of Defense Model

Business and Corporate Support Segments	Centres of Governance GRM Operational Risk	Internal Audit
1st Line of Defence	2nd Line of Defence	3rd Line of Defence
Risk owners Manage operational risk in its activities	Design and implement operational risk management requirements Objective oversight, challenge and assessment	Independent assurance
<p>Provided by Segments who are responsible for providing products and services, and for the execution of activities. Employees at all levels of the organization are responsible for managing the day-to-day risks that arise in the context of their roles.</p> <p>Accountabilities include identifying, managing and supervising risks within approved enterprise policies and appetite; and establishing the capabilities for operational risk management, including the execution of ORM Programs.</p>	<p>Provided by the Centres of Governance (CoG) and Group Risk Management Operational Risk (GRM OR)</p> <p>Accountabilities include defining RBC's approach to managing operational risk and the Operational Risk Categories, as well as providing objective and risk-based oversight, challenge and reasonable assurance of their respective areas of risk.</p>	<p>Provided by the internal audit function</p> <p>Accountabilities include conducting independent review and testing of 1st and 2nd Lines; and proving independent assurance to senior management and the Board of Directors on the effectiveness of RBC's risk management practices.</p>

8.1.2 Policies and Committees

RBCIS Bank's operational risk management framework relies on strong governance, with clearly defined roles and responsibilities.

8.1.2.1 Policies

Key Operational Risk Management Policy Documents (ORM Policy Documents) are illustrated in the following diagram. While this Policy articulates high-level requirements relating to ORM Tools, detailed execution requirements are provided in the RBC Enterprise Standard for Operational Risk Management (ORM Standard).

The Operational Risk Management Policy Architecture is depicted in the diagram below.

Table 8-2 – Operational risk management policy architecture



The key ORM Policy Documents are supplemented by guidelines and supporting documents (e.g., methodologies) which provide additional guidance, commentary, and illustrative examples to enhance understanding. Additionally, other Risk Policy Documents address the management of various Operational Risk Categories.

8.1.2.2 Committees

RBCIS Bank has established a clear and robust risk governance framework in order to manage, control and provide assurance with respect to risk. That framework includes the following roles and responsibilities.

Board of Directors

The Board of Directors is responsible for managing RBC Investor Services Bank S.A. including its subsidiaries and branches. Its members are jointly accountable for the management of the Bank. The duties, responsibilities and procedures of the Board are to oversee and advise the Authorized Management (as defined in CSSF Circular 12/552 and other regulation) in its management of the bank.

Major decisions affecting the Bank require Board approval. The Board, appointed by the shareholder of the Bank, appoints the members of the Authorized Management and creates succession plans for the Authorized Management. It may also specify more extensive information and reporting duties for the Authorized Management beyond what is required by law. The Board reviews the efficiency of its work on a regular basis.

For the purpose of increasing its effectiveness, the Board has established the following four specialized sub-committees (“committee”) notably in the fields of audit & compliance, risk, remuneration and nomination committees. Their mission is to provide the Board with critical assessments in respect of the organization and operation of the Bank in the aforementioned areas in order to enable the members of the Board to fulfil their supervisory mission and their responsibilities pursuant to regulatory requirements. The Board ensures that the various committees effectively interact and report to the Board on a regular basis. The Board cannot delegate its decision-making powers and responsibilities to these committees pursuant to CSSF Circular 12/552, as amended.

Executive Committee

The Board of Directors has delegated under its general supervision the daily management as well as any other powers of the Company and the representation of the Company within such daily management to the Executive Committee, being “Authorized Management” of RBCIS Bank.

The Executive Committee will manage the daily affairs of the Company in a collegial manner, within the provisions of the applicable Law, regulations, circulars of the Commission de Surveillance du Secteur Financier, the Articles of Association and the global governance documents and organizes, both on the national and international front, the coordination of the activities of the Company,

In accordance with article 103 from CSSF Circular 12/552, the members of the Executive Committee shall personally oversee the activities and functions, which fall under their direct responsibility on a regular basis.

The appointment, removal and powers of the members of the Executive Committee shall be determined by a resolution of the Board of Directors.

RBCIS Bank has appointed one member of the Executive Committee as Chief Risk Officer responsible for the Risk Function (the “CRO”), one member of the Executive Committee as Chief Compliance Officer responsible for the Compliance Function (the “CCO”), and one member of the Executive Committee as Chief Internal Auditor responsible for the Internal Audit Function (the “CIA”),

Local Executive Committees of subsidiaries and branches report into the Executive Committee of RBCIS Bank.

Audit & Compliance Committee

The Audit & Compliance Committee’s purpose is to review the adequacy and effectiveness of following activities and to assist the Board in its oversight of:

- (i) the integrity of the bank’s financial statements;
- (ii) the external auditors’ qualifications, independence and performance;
- (iii) the effectiveness and independence of the bank’s Internal Audit Services, Finance and Compliance functions;
- (iv) the adequacy and effectiveness of internal controls; and (v) the bank’s compliance with legal and regulatory requirements.

The Audit & Compliance Committee has not received any delegated decision powers from the Board of Directors, which remain entirely with the Board of Directors

The Audit & Compliance Committee will report to the Board following each meeting with respect to its activities and recommendations.

The Audit & Compliance Committee will collaborate and exchange information with other committees of the Board, including the Nomination Committee, Risk Committee and Remuneration Committee with regards to matters in the scope of its mandate.

Risk Committee

The Risk Committee specializes in the field of risk and its mission is to provide the Board with critical assessments in respect of the organization and operation of risk management, in order to increase the effectiveness of the Board and enable its members to fulfil their supervisory mission.

The Risk Committees’ primary purpose is to advise the Board regarding the bank’s overall current and future risk appetite and strategy and to assist the Board in overseeing the implementation of that strategy by authorized management.

The Risk Committee may request any document and information that it deem necessary to fulfil its mission. The RC may involve the Authorized Management as well as persons in charge of internal controls in its work. These persons may attend the Committee’s meetings but are not members of it.

The Risk Committee has not received any delegated decision powers from the Board of Directors, which remain entirely with the Board of Directors.

The Risk Committee will report to the Board following each meeting with respect to its activities and recommendations.

The Risk Committee will collaborate and exchange information with other committees of the Board, including the Audit & Compliance Committee, Nomination Committee and Remuneration Committee with regards to matters in the scope of its mandate.

I&TS Operational Risk Committee

The missions of the RBC Investor & Treasury Services Operational Risk Committee is to provide oversight of Operational Risk in the Investor and Treasury Services businesses globally, and across RBCIS Bank legal entities in particular. This Committee has a delegation of authority to decide on Operational risk matters on behalf of the I&TS Operating Committee (e.g. policies, mitigation actions).

Deal Review Committee

The Deal Review Committees (DRCs) are established under the authority of the I&TS Operating Committee. The regional DRCs shall review and approve all Proposals in accordance with the Client Acceptance Policy.

New Business Committee (NBC)

The RBC I&TS New Business Committee (“NBC”) is responsible for the risk review, and in some instances approval, of all new I&TS products / services, and requests for adjustments to I&TS products / services, in all locations.

Privacy Incidents Risk Committee (PIRC)

A Privacy Incident Review Committee (“PIRC”) will meet to:

- Review privacy/confidentiality incidents that occurred in Luxembourg,
- Identify trends,
- determine appropriate actions to be taken to prevent future occurrences
- determine if disciplinary measures are to be recommended
- discuss any other privacy/confidentiality related subject

The PIRC will take place on a quarterly basis. However, ad hoc meetings may be organized when deemed necessary (depending on the number of privacy breaches that may occur during a period). Once a year, as part of the Bank duties to supervise its branches and subsidiaries (“Bank Group”), the PIRC will also review the privacy incidents that occurred in the branches and subsidiaries.

The regular Risk Management processes in place, in application of the RBC and RBCIS Bank Risk Management Frameworks and Policies, ensure that the risks to which RBCIS Bank is exposed are identified, assessed, controlled, monitored and reported. The Risk Management governance of RBCIS Bank ensures that these processes are documented through recurrent and ad hoc Risk Reports and discussed with executive

management on a regular basis (I&TS Risk Committee, Board of Directors and/or Audit Committee, RBCIS Bank Executive Committee ...).

8.1.2.3 Enterprise Conduct Framework

The Enterprise Conduct Framework is a key element within RBC's overall enterprise-wide risk management program for the identification, assessment, monitoring and reporting of the significant risks faced by the organization as described in the Enterprise Risk Management Framework. This Framework describes RBC's approach to a set of related topics that include Risk Culture, Conduct Risk, and Sales Conduct and Practices (which are each presented as a Framework within this document), as well as Misconduct. These topics cross all risk categories.

RBC's Values and risk-aware culture of "Doing What's Right" effectively support the long term success of the organization. RBC's Values set the tone of our organizational culture, and translate into desired behaviors as articulated in our Code of Conduct and Leadership Model. Our Risk Management Principles provide a risk lens for these desired behaviors, enabling us to focus on a sub-set of behaviors and Outcomes referred to as our Conduct.

RBC defines Conduct as the manifestation of culture through the behaviors, judgment, decisions and actions of the organization and its individuals. In the context of this Framework, the focus of Conduct is two-fold:

1. RBC's expectation that employees' and the third party service providers that RBC engages and the organization's behaviors, judgments, decisions, and actions lead to positive Outcomes for clients, employees, financial markets, and RBC's reputation; and
2. RBC's monitoring and reporting on the Conduct-related Outcomes for clients, employees, financial markets, and RBC's reputation.

The following key Conduct-related concepts are depicted below:

- RBC's organizational direction influences our strategy, organizational practices, and Risk Culture, and sets expectations for positive Outcomes for our clients, our employees, the financial markets, and our reputation.
- Our strategies, organizational practices (including Sales Conduct and Practices), and Risk-aware Culture influence behaviors, judgments, decisions, and actions (i.e., Conduct) at an organizational and individual level.
- Our Conduct drives actual Outcomes for our clients, our employees, financial markets, and our reputation.
- Lessons learned support appropriate organizational responses to poor Conduct Outcomes (stemming from Conduct Risks and/or Misconduct) so practices that influence organizational and individual Conduct can be corrected and enhanced.

Table 8-3 – Conducts related concepts



8.2 Operational Risk Management Tools and Processes

The overall Operational Risk is assessed through a combination of qualitative and quantitative methods. A variety of risk and control criteria are used to generate the risk profiles for each legal entity part of the group and for the material products part of client service offering. These risk profiles are analyzed at an aggregate level to provide a view of the risk profile of the business and the local platform as a whole. These profiles are reported to various committees for discussion and action. Specific risks and issues as well as overall themes are discussed.

RBCIS has embedded Operational risk management in all of its activities by leveraging the main elements of the Operational Risk Management Framework outlined below:

- **Risk and Control Self-Assessment (RCSA):** Performed both at an Enterprise level and at a regional business unit or process level, these assessments provide an integrated source of Operational risk and control information.
- **External Operational Risk Event Review:** Provides ‘lessons learned’ and emerging industry trends. GRM Operational Risk team performs internal analysis to investigate whether or not controls are in place to mitigate against such events and recommends additional actions, where required.
- **Internal Operational Risk Event Management:** Operational risk events, including those resulting in actual losses and non-monetary events are monitored by Operational Control team (with oversight from GRM Operational Risk). The focus is on a complete understanding of root cause and mitigation plans for these events with a view to mitigating repeat occurrences.
- **Operational Risk Scenarios:** A number of Scenario analyses is undertaken on an annual basis to proactively identify plausible events with a potentially high impact but low probability of occurrence. The primary scenario topics are provided by Enterprise Operational Risk Management (EORM) and are further supplemented at a Business level via Business platform specific key identified risks.
- **Operational Risk Issue and Actions Tracking and Monitoring –** Operational risk issues and actions identified as a result of RCAs / risk events are entered into RBC’s global Enterprise Operational Risk Management database, Open Pages, and tracked by Operational Control team until resolution.

- New product/ Initiatives Risk Assessment: Every new initiative, including changed/ new product go through an assessment of potential contribution to future end state operational risk. Mitigants are identified and monitored throughout the initiative lifecycle in order to stay within risk appetite once delivered.
- Top Risk Program: The Top Risk Program is an I&TS-Level Risk Control Self Assessment focusing on key operational risks at a Strategic Unit level (I&TS level), including those arising from changes in the business environment, that may inhibit a Strategic Unit’s ability to achieve its strategic objectives.
- Key Risk Indicator (KRI) : KRIs are set and monitored for each business on a continuous basis with thresholds set annually. Quarterly Risk Appetite indicators – as defined by the RBCIS Bank ‘s Board of Directors – complement the monthly KRI’s.

Where a risk is assessed as “not adequately mitigated”, an issue must be identified and documented, unless the risk owner chooses to accept the risk. Management risk acceptance decisions need to be documented and approved by an appropriate approval authority. All issues need to have formally documented action plans with completion dates to mitigate the associated risk. Action plans must be reasonably expected to function as designed once implemented. Issue closure criteria, including any required supporting material or evidence to be provided, are documented.

Action plans must clearly articulate:

- (i) the steps to be taken to mitigate the risk associated with the issue; and
- (ii) completion dates.

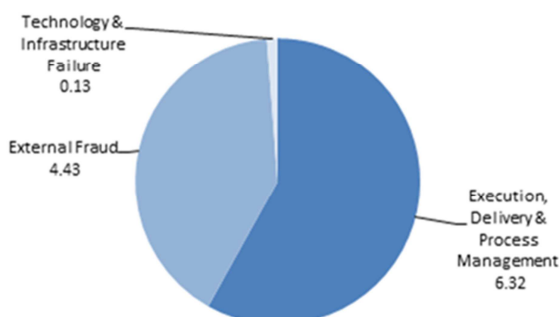
To ensure effective and efficient resolution of issues, agreement is obtained on proposed action plans and closure criteria from relevant stakeholders (e.g., 2nd Line responsible for performing independent issue closure verification) prior to finalization. Where required, an issue may be documented with an interim action to scope appropriate mitigation plans in lieu of a formal action plan. Interim actions to scope long-term mitigation solution must not exceed six months, after which it must be replaced by a formal action plan articulating the actual solution to mitigate the identified risk.

8.3 Operational risk event data collection

Specific incident where operational risk leads to, or could have led to, an unintended, identifiable risk impact. An internal operational risk event is an operational risk event that affected at least one of RBC’s subsidiaries or business units.

A structured, effective, and consistent approach to the collection and analysis of internal operational risk events is necessary to provide meaningful information on the level of operational risk exposure, as well as the appropriateness and effectiveness of the control environment, risk management practices, and the overall Operational Risk Profile. Timely, complete, and accurate capture and recording of internal operational risk events support adherence to Basel Committee on Banking Supervision’s Principles for Effective Risk Data Aggregation and Risk Reporting (RDARR). OpenPages is the tool used to record and track all operational risk events and action plans, with the exception of issues already tracked by Internal Audit or Regulatory Compliance.

Table 8-4 – Operational risk losses (before recoveries) – EUR mm



Risk Management presents an operational risk report – including earnings impacting events - to the Risk Committee of the RBCIS Bank Board of Directors on a quarterly basis.

8.4 Calculation of the regulatory capital requirement

Operational risk capital is a mathematical representation of RBCIS Bank’s operational risk exposure and supports effective operational risk management by providing credible estimates of operational risk exposures that could potentially impact the achievement of strategic objectives. In addition, operational risk measurement enables RBC to satisfy regulatory requirements to measure minimum required operational risk capital.

RBCIS Bank applies the standardized Basel approach to calculate the regulatory capital requirements for operational risk. This approach consists in applying a percentage (the Beta factor) to an appropriate activity indicator, based on the business lines defined by the Basel Committee.

The relevant indicator is defined by the regulator and is based on the operational results of the underlying business lines, using an average over the past three years. The calculation is updated at the end of each year. The global capital requirement for operational risk used during 2018 (which is based on the 2016-2016 and 2017 results) is EUR 60.9 million and is based on the following operational results:

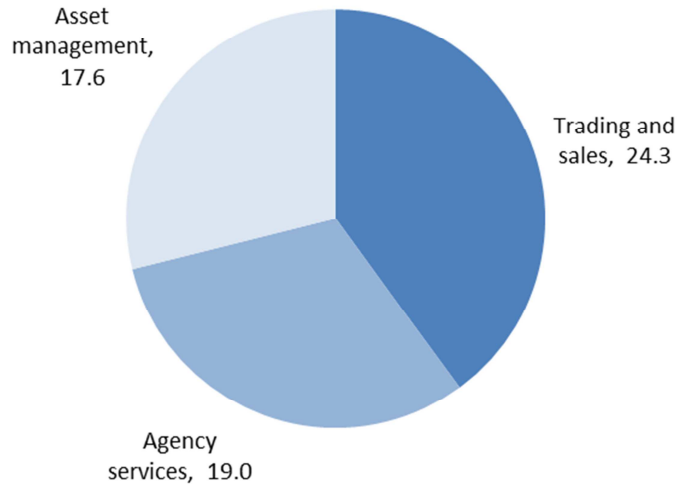
Table 8-5 – Regulatory Capital requirement

Business line	Indicator			Beta Factor	Weighted indicator		
	2015	2016	2017		2015	2016	2017
Corporate finance	-	-	-	18%	-	-	-
Trading and sales	141	125	140	18%	25.4	22.4	25.1
Retail brokerage	-	-	-	12%	-	-	-
Retail banking	-	-	-	12%	-	-	-
Commercial banking	-	-	-	15%	-	-	-
Payment and settlement	-	-	-	18%	-	-	-
Agency services	127	126	127	15%	19.1	18.9	19.1
Asset management	149	146	145	12%	17.8	17.5	17.4
	417	396	412				

Global capital requirement for operational risk 60.9

The graph below presents the breakdown by business lines (according to Basel definitions) of the capital requirement for operational risk used in 2018.

Table 8-6 – Operational risk capital requirement by business line (EUR mm)



9 Remuneration Policy

9.1 Remuneration

Remuneration disclosures are made in line with the Company's application of the requirements of the qualitative and quantitative remuneration disclosures under the Pillar 3 framework and Article 450 of the Capital Requirements Regulation (EU) No 575/2013. For enhanced disclosure on RBC's enterprise-wide remuneration practices, please refer to RBC's proxy circular (last published on April 6, 2018)⁷.

9.1.1 Remuneration Committee

Scope of activities

RBC Investor Services Bank S.A. has a Remuneration Committee which is responsible for the oversight, design and the application of the remuneration principles, practices and processes within RBCIS Bank to ensure that they support the business objectives determined by the Board of Directors and/or senior management, take into account sound risk management practices, including long-term and short-term risk and do not encourage risk-taking in excess of the risk appetite of RBC and RBCIS Bank – subject to the approval of the Board of Directors of RBCIS Bank.

The Remuneration Committee is responsible for the preparation of recommendations to the Board regarding the remuneration of senior executives, material risk takers, and other employees and directors identified as Regulated Employees across RBCIS Bank. On an annual basis, the Remuneration Committee reviews the Remuneration policy and recommends it for approval to the Board of Directors, in doing so takes into account the pay and benefits across our Company. This includes the terms of bonus plans and other incentive plans.

Changes to this Policy were made in order to ensure compliance with the MIFID II guidelines, the European Banking Authority (EBA) Regulations on Remuneration, the Joint Supervisory Team (JST) recommendations and the Shareholder Ownership Requirements (based on RBC's enterprise-wide policy). Each policy contains an introductory chapter that summarizes and tracks the most recent changes.

Constitution

Table 9-1 – Constitution of the remuneration committee

Members of the Remuneration Committee (fiscal year-end)	Meeting Attendance (2 meetings in total)
- Gennaro Casale	- 2 meetings
- Francis Jackson (Chair)	- 2 meetings
- Stephen Walker	- 2 meetings

⁷ <http://www.rbc.com/investorrelations/annual-meeting-reports.html>

All of the members of the Remuneration Committee are independent of day to day management under the standards set out by the Board. Gennaro Casale is the Employee Representative on the Remuneration Committee. Francis Jackson is based in London and is the Chair of the Remuneration Committee, is a Non-Executive Director and is not an employee of RBCIS Bank. Stephen Walker is based in Toronto, is an independent Non-Executive Director and is not an employee of IS Bank. No individual is involved in decisions relating to his or her own remuneration.

Support

During the year, the Remuneration Committee received advice from RBC Compensation Centre of Expertise (COE) and IS Bank Chief Risk Officer (CRO), who provided advice to the Remuneration Committee on the implications of the Remuneration policy on risk and risk management, and on the adjustments that should be made to levels of variable remuneration payable to staff, taking into account all relevant current and future risks.

External Consultants

The HR management team of RBCIS Bank received independent advice from Linklaters on changes to the RBCIS Bank Remuneration Policy, prior to presentation to the Remuneration Committee.

The HR management team of RBCIS Bank received independent information from KPMG by means of a report and a digital platform regarding benchmarking of compensation, benefits policies, and HR practices in financial services in Luxembourg.

Role of the Relevant Stakeholders

The Remuneration Committee takes full account of the Company's strategic goals in setting Remuneration Policy and is mindful of its duties to shareholders and other stakeholders. The Committee seeks to preserve shareholder value by ensuring the successful retention, recruitment and motivation of employees.

9.1.2 Criteria for the Identification of Regulated Employees

The following groups of employees have been identified as meeting the criteria for Regulated Employees:

1. **Employees captured by qualitative criteria** include but are not limited to:
 - Board of Directors;
 - Managers which are members of the management body with either a management or a supervision function;
 - Senior management including individuals heading a material business unit such as the Director, Treasury Market Services or Head, Client Operations Europe;
 - Senior control function management including Risk, Finance, Compliance and Internal Audit and Heads of Human Resources, Information Technology, Economic Analysis, Legal and Tax;
 - Those who have authority either individually or as members of a Committee to recommend, approve or veto new products or decisions that result in market or credit risk exposures that exceed specific thresholds;

- those who have managerial authority over staff members under point (v) above who have individual authorities to commit RBC to transactions .

2. Employees captured by quantitative criteria

- Employees awarded total compensation of EUR 500,000 or more in the preceding financial year;
- Employees within the 0.3% of the number of staff who have been awarded the highest total compensation in the preceding year;
- Employees awarded compensation in the preceding financial year which was equal to or greater than the lowest total compensation awarded to those meeting specified qualitative criteria.

9.1.3 Design and Structure of Remuneration for Regulated Employees

The Company's approach to remuneration is based on five guiding principles.

1. Remuneration aligns with shareholder interests

Awards vary based on absolute and relative performance of RBC.

Mid and long-term incentives vest and pay out over time, encouraging a longer-term view of increasing shareholder value.

2. Remuneration aligns with sound risk management principles

Our risk management culture is reflected in our approach to remuneration. Our remuneration practices appropriately balance risk and reward, and align with shareholder interests.

Performance of individuals, lines of business and RBC overall is assessed on a number of measures, including adherence to risk management policies and guidelines.

3. Remuneration rewards performance

Our pay-for-performance approach rewards contributions of employees to individual, business segment and enterprise results relative to objectives that support our business strategies for sustainable growth over short, medium and long-term horizons, which are aligned with the risk appetite of RBC.

4. Remuneration enables the Company to attract, engage and retain talent

Talented and motivated employees are essential to building a sustainable future for RBC. We offer remuneration that is competitive within the markets where we operate and compete for talent.

Remuneration programs reward employees for high performance and their potential for future contribution.

5. Remuneration rewards behaviors that align with our values and drive exceptional client experiences

RBC values, embedded in our Code of Conduct, form the foundation of our culture and underpin our ongoing commitment to put the needs of our clients first and deliver value to all of our stakeholders.

Risk conduct and compliance with policies and procedures are considered in determining performance-based remuneration.

RBCIS Bank's Remuneration Policy aligns with global enterprise-wide policies and procedures and applies to RBCIS Bank entities (subsidiaries and branches) under the scope of the Commission de Surveillance du Secteur Financier (CSSF), the EBA and other local regulators of the subsidiaries and branches. Subsidiaries and

branches of RBCIS Bank will implement these policies at a minimum. Any local requirements which go beyond policy will be implemented in addition to policy. All the Company's remuneration-related policies and plans align with the five guiding principles described above and these policies are approved by the Remuneration Committee and the Board of Directors.

Elements of Remuneration

Remuneration includes, but is not limited to, base salary, performance-based incentive awards, pension and benefits. For 2018, there were no non-cash benefits (such as role-based pay or discretionary fringe benefits) offered. All benefits are non-discretionary and are considered to be part of fixed remuneration.

1. Fixed Remuneration

All Regulated Employees receive fixed remuneration that reflects their market value, responsibility and contribution to the Company.

Base salary is considered fixed remuneration as it provides a predictable base level of income reflecting each employee's level of responsibility, capabilities, skills and experience.

All advantages received in kind by an employee are non-discretionary and do not foster under any circumstances excessive risk-taking. None of the benefits are linked to performance. Fringe Benefits depend on each entity's Remuneration Structure.

2. Variable Remuneration

All Regulated Employees, other than the Independent Non-Executive Directors and overseas Board Directors are eligible to participate in discretionary performance based incentive schemes. The purpose of incentive awards is to retain and motivate employees, rewarding individual performance and their contribution to longer-term growth at RBC. Variable remuneration may be offered in the form of cash and/or equity-linked instruments depending on the amount of incentive and employee level.

RBCIS Bank business unit employees participate in the RBC Investor & Treasury Services (I&TS) Incentive Program, which consists of an annual cash-based program and, depending on the amount of incentive, a medium-term equity-based program. Employees in Functions and Technology & Operations participate in variable remuneration incentive programs which consist of a short-term cash-based program, as well as a medium-term equity-based program that applies to senior employees. Variable remuneration represents a higher proportion of total remuneration for senior employees to ensure alignment with longer-term shareholder value creation.

The fraction of variable remuneration mix for Regulated Employees is based on the minimum remuneration deferral requirements in line with Regulatory requirements.

Compensation risk and performance adjustment

Performance based annual discretionary incentives may be awarded based on the performance of the Company, the business, and the individual as detailed further below. Annual incentives for Regulated Employees are subject to review by the RBCIS Bank Chief Risk Officer to ensure they adequately reflect risk and performance, and are subject to review and recommendation to the Board by the Remuneration Committee.

The amount of variable remuneration awarded to employees is appropriately adjusted for risk in accordance with the Compensation Risk and Performance Adjustment Process. It is recognized that at various times, the baseline variable remuneration program pool calculations may not adequately reflect all significant risks that RBC is exposed to. That is, there may be significant potential risks to RBC that have been identified, but have

not yet impacted its current financial performance. The CRO of RBCIS Bank will review risks not captured in current financial performance to determine which risks should impact remuneration. This includes an assessment of whether adjustments should apply to an entire variable remuneration program, only to certain business units within a variable remuneration program, or to specific employees. As applicable, business unit heads are included in the process of determining recommended adjustments for risk.

The key risks considered when determining impact on variable remuneration pools are risks to capital and liquidity. They are measured through risk appetite indicators and recovery plan trigger indicators and are monitored periodically. Furthermore, total variable remuneration shall generally be considerably reduced where a downturn in or negative financial performance of RBCIS Bank occurs, taking into account both current remuneration and reductions in payouts of amounts previously earned, including through forfeiture and clawback arrangements.

Ratio between fixed and variable remuneration

RBCIS Bank has obtained the necessary approvals to operate a maximum level of the ratio between the fixed and variable components of remuneration that does not exceed 200% of the fixed component of the total remuneration for each individual as required under Article 91(1)(g) of CRD IV. 100% shareholder approval was obtained on February 13, 2018 for IS Bank and IS Bank subsidiaries and branches for the 2018 fiscal year.

Variable remuneration represents a higher proportion of total remuneration for senior employees to ensure alignment with longer-term shareholder value creation. When determining the pay mix between fixed and variable remuneration, consideration is given to evolving market practice, balance between remuneration elements and maintaining flexibility through volatile markets, recognizing the possibility of paying a zero bonus.

Deferral, vesting requirements and proportionality

All remuneration plans contain minimum remuneration deferral requirements for Regulated Employees in line with Regulatory requirements. Regulated Employees (regardless of bonus plan) whose variable remuneration is above 100,000 EUR must defer a minimum of 40% of their total variable remuneration over three years. In certain cases, where variable remuneration exceeds 1,000,000 EUR, 60% of the award will be deferred over three years.

Regulated Employees who may be awarded above EUR 100,000 in variable remuneration are subject to 50% of non-deferred variable remuneration being paid in the form of equity-linked instruments, a portion of their bonus being deferred and the application of a retention period and ex-post risk adjustments to variable remuneration as detailed further below.

50% of variable remuneration for Regulated Employees is delivered in equity-linked awards which are subject to retention periods of 6 months post vesting. Regulated Employees awarded total annual variable remuneration of 100,000 EUR or more are not eligible for reinvested dividends. Effective 2018, deferral periods for certain categories of Regulated Employees (Authorized Management) who are awarded total annual variable remuneration above 100,000 EUR will increase to 5 years at 20% per annum. Furthermore, all equity deferrals will be subject to an increased retention period of 12 months for members of Authorized Management who are awarded above EUR 100,000 in variable remuneration. The Company confirmed with the CSSF that it would apply the 12 month retention period and the increased deferral periods in line with the EBA's Guidelines on sound remuneration policies from the performance year 2018 onwards.

Deferred remuneration awards granted to Regulated Employees can be adjusted downward at vesting and payout if there has been a material downturn in financial performance or a material failure of managing risk, and actual risk and performance outcomes are materially different from the assessments made at the time of grant.

Depending on the compensation plan, the vesting of deferred compensation is either:

- 25% at the end of year one, 25% at the end of year two, and 50% at the end of year three for the I&TS Share Unit Award Program (for RBCIS Bank business unit employees); or
- 20% at the end of year one, 20% at the end of year two, 20% at the end of year three, 20% at the end of year four and 20% at the end of year five for the I&TS Share Unit Award Program (for RBCIS Bank business unit members of Authorized Management);
- 100% at the end of year three for the RBC Deferred Share Unit (DSU) Program (for employees in Functions or Technology & Operations who support RBCIS Bank).

RBCIS Bank business unit employees (that are not within the scope of the deferral requirements outlined above) are subject to certain deferral arrangements (between 25% and 55%) based on if their total bonus allocation meets certain thresholds.

These practices align with our remuneration principles, whereby ensuring an appropriate balance between risk and reward.

Variable remuneration for Control Functions

Performance measures for employees responsible for financial and risk control activities will be based on the achievements and objectives of the functions, and their remuneration will be determined independently from the performance of the specific business areas they support, therefore helping to prevent any potential conflicts of interest. Variable remuneration for employees who support RBCIS Bank in Functions, including all Regulated Employees in control functions, will be based only on individual and overall RBC performance and not the performance directly linked to the business they support.

Share Ownership requirements

To reinforce the focus on generating long-term value for shareholders, RBC I&TS senior leaders (inclusive of RBCIS Bank) have minimum share ownership requirements. Based on the level of responsibility and role, the share ownership requirements may vary from 1x (for Control Function Vice Presidents and I&TS Managing Directors (inclusive of RBCIS Bank) to 2x (I&TS Operating Committee members) of the average base salary of the most recent three years.

Guaranteed variable remuneration and severance payments

RBCIS Bank will only in exceptional circumstances make a cash payment commitment to an employee for a specific payment amount, to be paid at a future date not exceeding 12 months following hire, where such future payment amount is guaranteed. In case such award is being made to a Regulated Employee, the award shall be subject to deferral. Any payment commitment will be consistent with delegated approval authorities. All severance payments must align with regulatory requirements, local market practices and shareholder interests. Payments related to the termination of employment will reflect performance achieved over time and do not reward failure or misconduct. Managers are required to undertake an assessment of the employee's performance on a multi-year basis and confirm that the proposed severance payment reflects performance achieved over the assessment period and that there has been no failure or misconduct on the part of the employee.

9.1.4 The Link between Pay and Performance for Regulated Employees

Variable remuneration plans reward employees on the basis of several factors, including individual, business segment and enterprise results relative to established performance objectives that are aligned with the risk

appetite of RBC. A significant portion of performance-based pay is deferred in the form of equity incentive awards (linked to RBC's share price performance) in order to align remuneration with the risk time horizon, motivate employees to generate longer-term value for shareholders and remain accountable for decisions with longer risk-tails.

To create a clear relationship between pay and performance, incentive awards are directly linked to performance and employees have an opportunity to earn higher remuneration for outstanding performance, and conversely, earn less remuneration when RBC, a business segment and/or individual results fall below expectations.

Incentive awards take into account firm-wide, business unit level and individual performance metrics. Firm-wide metrics include the financial performance of RBC; business unit level metrics include the financial performance of individual business units (with the exception of Control Functions); individual performance metrics include the employee's contribution to overall performance, achievement of individual performance objectives, etc. In order to protect the sound capital base of the bank, in cases where firm-wide performance is weak, or in a net-loss position, then the incentive pool would be impacted and this could result in a zero payout.

All employees will be assessed as part of a performance management process. This involves the assessment of performance relative to objectives set. Goals are set and performance is assessed on a multi-year basis. The performance management process is reviewed by the RBC I&TS HR department. At the individual level, there are a number of factors that are considered in determining the extent to which an employee participates in a discretionary bonus distribution. Individual performance is evaluated using both financial and non-financial measures.

Select financial measures are applied at the individual level that demonstrates a contribution to overall business results based on financial and risk goals and objectives. These metrics include financial targets (related to income, revenue and cost savings), growth metrics, compliance with risk policies and limits and performance relative to risk and capital usage.

Non-financial measures considered in the discretionary bonus evaluation process include the following:

- Adherence to our Code of Conduct. RBC's Code of Conduct (Code) promotes standards of ethical behavior that apply to directors, senior management and all employees. Our Code fosters an open environment in which questions and concerns may be brought forward. It creates a frame of reference for dealing with sensitive and complex issues, and provides for accountability if standards of conduct are not upheld. All employees are expected to adhere to our Code of Conduct, and failure to adhere through unethical or non-compliant behaviors results in disciplinary or corrective action, which may include immediate or eventual dismissal. All employees receive Code of Conduct training and testing on joining RBC and every year thereafter;
- Compliance with a full range of risk management policies specific to individual job requirements as outlined in employee Performance Management Documents;
- Assessment of key behaviors, which are part of the RBC Global Performance Management process;
- Reports from control functions, including those from Internal Audit, Compliance, and Group Risk Management regarding operational, market and credit risks, among others; and
- Assessment of accountabilities and detailed action plans to implement and monitor changes required to close the gaps identified during risk management or internal audit reviews.

Employees that are not meeting the above mentioned non-financial performance standards for their role are subject to our corrective action process, which can include either a significant reduction in bonus amounts or dismissal.

Ex-ante and ex-post adjustment

Prior to vesting, Regulated Employees deferred remuneration is subject to review under the firm's risk and performance adjustment process whereby actual risk and performance outcomes are reviewed and if materially different from assessments made when deferred remuneration was granted, or if misconduct has occurred, then deferred remuneration may be reduced or forfeited in full. Adjustments may be applied to entire remuneration programs, only to certain business units within a remuneration program, or only to certain employees, depending on the underlying nature of the assessed risks, actual performance and risk outcomes.

Adjustments for risk and performance under this process may be applied to variable remuneration at time of award (ex-ante) and/or at or before time of vesting of deferred remuneration (ex-post).

Ex-ante adjustments are applied at the time variable remuneration is awarded, based on forward looking quantitative and qualitative measures. For Regulated Employees, the CRO of RBCIS Bank conducts a review of their remuneration to ensure variable remuneration payouts adequately reflect risk and performance. The CRO will review and assess the underlying risks associated with the Regulated Employees' roles and review the recommended variable remuneration for the current fiscal year and determine adjustments, if any.

Ex-post adjustments are applied to deferred, unvested variable remuneration at or before the time of award maturity and payout. Adjustments may be made if actual performance and risk outcomes are significantly different than assessments made when deferred remuneration was initially granted. At the end of each fiscal year, and before the vesting date of deferred remuneration, the Remuneration Committee will consider whether there has been a material downturn in financial performance or a material failure of managing risk. If actual risk and performance outcomes are materially different from assessments made when deferred remuneration was granted, and that information would have negatively impacted the amount of deferred remuneration awards when initially granted, the Remuneration Committee will determine the following: if downward ex-post adjustments should be applied to unvested deferred remuneration, the employees impacted, the portion of unvested deferred remuneration to which the adjustment applies; and the value of the adjustment to be applied. The CRO leads the process of determining whether there has been a material downturn in financial performance, or a material failure in managing risk based on certain ex-post adjustment review process triggers; and provides to the Remuneration Committee any risk-related recommendations with respect to deferred remuneration awards vesting.

All bonuses made to Regulated Employees under the Company's variable remuneration schemes are subject to malus and clawback under the RBC Forfeiture and Clawback Policy for Regulated Employees. This policy enables RBC to recoup incentive awards that have been paid and cancel unvested incentive awards in certain situations including but not limited to misconduct as defined in the policy.

9.2 Disclosures on Remuneration

During the fiscal year ended 31st October 2018, remuneration for staff whose professional activities have a material impact on the risk profile of the business (Regulated Employees) was as displayed in the following tables.

Table 9-2 - Remuneration by business area

EUR mm	MB Supervisory Function	MB Management Function	Investment Banking	Retail Banking
Total	0.28	1.97	0.00	0.00
	Asset Management	Corporate Functions	Independent control Functions	All other
Total	0.00	1.08	4.15	7.71

Table 9-3 - Remuneration by business segment

EUR mm	Client operations	Global Client Coverage	Treasury and Market Services	Control Functions	Other Functions
Total	3.49	4.96	1.25	3.54	1.94

Table 9-4 - Remuneration awarded during the year

EUR mm	2018	
	Senior Management	Other
Number of Regulated Employees	6	46
Fixed compensation (EUR mm)		
Cash Based	1.27	7.99
Variable compensation (EUR mm)		
Cash-based (non-deferred)	0.32	1.90
Cash-based (deferred)	0.18	0.76
Shares and share-linked instruments (non-deferred)	0.28	1.14
Shares and share-linked instruments (deferred)	0.20	1.14

Table 9-5 - Deferred compensation

EUR mm	2018	
	Senior Management	Other
Outstanding (EUR mm)		
Cash-based (vested)	0.0	0.0
Cash-based (unvested)	0.1	0.9
Shares and share-linked instruments (vested)	0.0	1.4
Shares and share-linked instruments (non-vested)	0.5	4.1
Fiscal year payouts (EUR mm)		
Cash-based	0.0	0.2
Shares and share-linked instruments	0.3	3.4

Table 9-6 - Special payments

	2018	
	Number of employees	Amount (EUR mm)
Sign-on awards	-	-
Severances	2	0.6
Guaranteed awards	-	-

There have been 2 beneficiaries of severance payments. The total amount of severance payments paid is 586,107 EUR and the highest severance payment to a single person is 299,440 EUR. All severance payments for the year were awarded and paid in full during the same fiscal year.

Table 9-7 - Analysis by compensation bands

	2018
EUR 1,000,001 to EUR 1,500,000	0.0
Total	0.0

9.3 CRD IV mandates limitation

Stephen Walker

Stephen is an Independent Director and the Chairman of the Board of Directors of RBC Investor Services Bank S.A. . He is also a member of (i) the Audit & Compliance Committee, (ii) the Risk Committee, (iii) the Nomination Committee and (iv) the Remuneration Committee.

Before retirement in 2014, Stephen was Vice Chairman, RBC Investor Services & Head of Global Credit within RBC Capital Market.

Stephen had more than 30 years' experience within Royal Bank of Canada, where he held various senior executive roles in Global Credit, Corporate and Institutional Banking, Real Estate Finance and Portfolio Management.

He was also a founding member of the International Association of Credit Portfolio Managers and a member of the Loan Syndication and Trading Association.

He holds a Master of Arts from the McGill University and did Post Graduate Studies at University of Cambridge, at the Institut d'Etudes Politiques de Paris and at the Beijing Language Institute.

Julian Presber

Julian is an Independent Director of the Board of Directors of RBC Investor Services Bank S.A., and the Chairman of the Audit & Compliance Committee.

Prior to his retirement in late 2018, Julian was employed by the University of Luxembourg since 2009, in the Faculty of Law, Economics and Finance Co-coordinator Relations with the Financial Centre.

Julian is a senior figure in the Luxembourg financial center. He was for many years Managing Director of State Street Bank Luxembourg and Senior Vice President of State Street Corporation (1995 – 2009). Prior to that, he held senior positions at Clearstream Bank in Luxembourg (1989 – 1995), the banking payments network SWIFT in Brussels (1985 – 1989), and the Royal Bank of Canada in Winnipeg, Canada (1980 – 1984).

Previously, Julian served on the Boards of Directors of the Luxembourg Bankers' Association (ABBL) (2002 - 2006) and of the Association of the Luxembourg Fund Industry (ALFI) (2001 – 2009), and was president of the Association of American Banks in Luxembourg (2002 – 2006). He also served for many years on the Investment Funds Committee of the Luxembourg regulator, the CSSF.

Mr. Presber obtained his undergraduate degree at the University of Manitoba, Winnipeg, Canada, and obtained an MBA (with Distinction) from INSEAD, France (1985).

Hervé Cloquette

Hervé is an Executive Director and employee representative of the Board of Director of RBC Investor Services Bank S.A. . He is a Senior manager Corporate Real Estate Luxembourg, with the responsibility for manage health and safety and building projects for Luxembourg office.

Hervé joined RBC Investor Services Bank S.A.in 1998 as IT Service Delivery Manager responsible for financial and accounting IT services. He joined the Internal Audit team in 2009 and Risk Management in 2012 as Operational Risk Manager. He has a strong experience in IT, Audit and Risk management.

In 2013, he was elected as Staff Representative.

Isabelle David

Isabelle is an Executive Director and employee representative of the Board of Directors of RBC Investor Services Bank S.A. .

Isabelle joined the company in 2000 and held various clerical roles. Before joining RBC, she worked in the financial sector in Switzerland.

Since 2006 she is a permanent Staff Representative.

Francis Jackson

Francis is a Non Executive Director of the Board of Directors of RBC Investor Services Bank S.A. . He is also member of the Risk Committee, Chairman of the Nomination Committee and the Remuneration Committee.

He is the Head of Global Client Coverage. He is responsible for leading the RBC Investor & Treasury Services Client Coverage teams globally to maintain, grow and develop our client relationships and ensure that we continue to deliver excellent levels of service. Francis and his team are also responsible for global business development in line with our strategic objectives. Francis is a member of the RBC Investor & Treasury Services Operating Committee.

Francis has approaching 30 years' experience in banking and finance and significant business development, product management, operational and technical experience.

Francis joined RBC in May 2015 from JP Morgan where he held several leadership roles over the last nine years, including most recently as Head of Investor Services Sales & Relationship Management. He was also a member of their Investor Services Global Executive Management team.

Prior to this, Francis held a number of senior roles at SEI, Citigroup, Bankers Trust and Chase Manhattan Bank.

Francis has a Bsc (Hons) degree in Economics & Politics.

Bruce Mac Laren

Bruce is a Non Executive Director of the Board of Directors of RBC Investor Services Bank S.A. . He is also the Chairman of the Risk Committee and a member of the Nomination Committee. Furthermore Bruce is the Chief Risk Officer Europe and APAC, with responsibility for providing independent oversight of risk for all RBC businesses across the region. He sets the strategic direction of risk management and provides leadership in the implementation and execution of leading practices in risk oversight and governance for Europe. Bruce also has global accountability for risk oversight in Investor & Treasury Services, as well as the majority of RBC's Asian operations.

Based in London, Bruce is a member of the Investor & Treasury Services Operating Committee and the Capital Markets Europe Operating Committee.

Bruce is a graduate of the University of Toronto and York University. He joined RBC in 1987 and held various positions in client-facing roles in corporate banking, corporate finance, loan syndications and market management in both Toronto and London. He was appointed Vice President of Risk Management in 1997 responsible for financial institutions, and became Senior Vice President within Group Risk Management – Credit, in 2003. He assumed his current responsibilities since September 2015.

Sergio de Horna

Sergio is an Executive Director of the Board of Directors of RBC Investor Services Bank S.A. since July 2016. Before being appointed Chief Executive Officer (ad interim) and Chairman of the Executive Committee in December 2018, Sergio was since October 2015 Chief Operating Officer accountable for the development and

leadership of the I&TS Luxembourg COO Office Team in disciplines of Business & Project Management, Governance and Regulatory Solutions ("GRS").

Sergio has broadened professional experience with over 30 years experience in financial markets, including 17 years at Citibank in Iberia (starting as General Counsel and last 7 years CEO for Spain and Portugal). He had also senior positions in other major financial institutions.

Sergio holds a Law Degree and a Master in Commercial and Banking Law from the University "Complutense" of Madrid. He is a long-time supporter of Junior Achievement Foundation in Spain where he was a founding member.

Gennaro Casale

Gennaro is an Executive Director and employee representative of the Board of Director of RBC Investor Services Bank S.A. and a member of the Remuneration Committee. Gennaro joined RBC in 2002 and he held several positions in the Transfer Agency, principally with German and Swiss clients.

Between 2007 and 2015, he worked in Operational Risk Management with focus on the Shareholder Services activity.

In 2008, he was elected as Staff Representative.

Gennaro holds a Master of Arts from the University Trier, Germany, and a Post-Graduate in International and Diplomatic Sciences from the University Institute for European Studies, Turin.

David Morgan

David is a Non Executive Director of the Board of Directors of RBC Investor Services Bank S.A. and a member of the Audit & Compliance Committee. He is the RBC's Treasurer for Europe and APAC, with responsibility for all treasury matters including liquidity / capital measurement & management. He sets the strategic direction of Treasury in the region and provides leadership in the implementation of all treasury responsibilities.

David is a graduate of Kings College London. Prior to joining RBC in 2010, David spent nine years at the UK Financial Services Authority where he held various positions in its prudential policy department.

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