BofA SECURITIES

BofA Securities Europe Société Anonyme

Pillar 3 Disclosure

As at 31 December 2019

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Glossary

ABS	Asset-Backed Securities
ACPR	Autorité de Contrôle Prudentiel et de Résolution
ALM	Asset and Liability Management
AMF	Autorité des Marchés Financiers
AT1	Additional Tier 1
BAC, BAC Group	Bank of America Corporation
BofASE SA	BofA Securities Europe Société Anonyme
BofASE SA CRO	BofASE SA Chief Risk Officer
BANA	Bank of America, National Association
Board	BofASE SA Board of Directors
BRC	BofASE SA Board Risk Committee
Capital Resources	BofASE SA's Capital Resources
CCR	Counterparty Credit Risk
CCyB	Countercyclical Capital Buffer
CDO	Collateralised Debt Obligation
CDS	Credit Default Swap
CEEMEA	Central and Eastern Europe, Middle East and Africa
CEO	Chief Executive Officer
CET1	Common Equity Tier 1
CMBS	Commercial mortgage-backed securities
CMR	Contingent Market Risk
CQS	Credit Quality Step
CRD IV	Capital Requirements Directive IV
CRM	Comprehensive Risk Measure
CRR	Capital Requirements Regulations
CSA	Credit Support Annexes
CVA	Credit Valuation Adjustment
DVA	Debit Valuation Adjustment
EBA	European Banking Authority
ECAIs	External Credit Assessment Institutions
ECR	Enterprise Credit Risk
EEA	European Economic Area
EMEA	Europe, Middle East & Africa
EMEA CRO	EMEA Chief Risk Officer
EMIR	European Market Infrastructure Regulation
ERC	Enterprise Risk Committee
EU	European Union
Fitch	Fitch Ratings, Inc
FICC	Fixed-Income Currencies & Commodities
FLU	Front Line Unit
French GAAP	French Generally Accepted Accounting Principles
FX	Foreign Exchange

GBAM	Global Banking and Markets
GDP	Gross Domestic Product
GRM	Global Risk Management
GMRA	Global Master Repurchase Agreement
G-SII	Global Systemically Important Institution
HQLA	High Quality Liquid Assets
ICAAP	Internal Capital Adequacy Assessment Process
ILAAP	Internal Liquidity Adequacy Assessment Process
IM	Initial Margin
IMA	Internal Model Approach
IMMC	Identify, Measure, Monitor, and Control
IRC	Incremental Risk Charge
ISDA	International Swap Dealers Association Master Agreement
LCR	Liquidity Coverage Ratio
LRP	BofASE SA Liquidity Risk Policy
Moody’s	Moody's Investors Service, Inc
MRC	BofASE SA Management Risk Committee
MRM	Model Risk Management
Nomination Committee	BofASE SA Nominations Committee
NPC	New Products Committee
O-SII	Other Systemically Important Institution
OTC	Over-the-Counter
P&L	Profit and Loss
RAS	Risk Appetite Statement
Remuneration Committee	BofASE SA Remuneration Committee
Risk Framework	BAC’s Risk Governance Framework
RNIV	Risks Not in VaR
RTS	Regulatory Technical Standard
RWAs	Risk Weighted Assets
S&P	Standard & Poor’s Financial Services LLC
SFT	Securities Financing Transaction
SPE	Special Purpose Entities
SREP	Supervisory Review and Evaluation Process
SSM	Single Supervisory Mechanism
The Policy	BofASE SA's Pillar 3 disclosure policy
UK	United Kingdom
UMR	Uncleared Margin Rules
US	United States of America
VaR	Value at Risk
VM	Variation Margin

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Pillar 3 Disclosure

1. Introduction

As at 31 December 2019

1.1 Overview and Purpose of Document

This document contains the Pillar 3 disclosures as at 31 December 2019 in respect to its capital adequacy and risk management framework for BofA Securities Europe SA, (“BofASE SA”). It demonstrates that BofASE SA has capital resources in excess of these requirements and maintains a robust risk management and controls environment.

Capital Requirements Directive IV (“CRD IV”), the European Union (“EU”) legislation implementing Basel III, came into effect on 1 January 2014. This mandates the quantity and quality of capital that firms are required to hold, introducing an EU wide liquidity regime and establishing leverage requirements. This legislation consists of three Pillars. Pillar 1 is defined as “Minimum Capital Requirement,” Pillar 2 “Supervisory Review Process,” and Pillar 3 “Market Discipline.” The aim of Pillar 3 is to encourage market discipline by allowing market participants to access key pieces of information regarding the capital adequacy of institutions through a prescribed set of disclosure requirements.

To further increase transparency, this document also includes information on BofASE SA’s capital requirements in respect of the Countercyclical Capital Buffer (“CCYB”).

All defined terms are found in the Glossary.

1.1.1 BofASE SA

BofASE SA is owned by NB Holdings Corporation (which holds 99.9% of BofASE SA) and Merrill Lynch Group Holdings I, L.L.C. (which holds 0.1% of BofASE SA), and its ultimate parent is Bank of America Corporation ("BAC" or the "Group"). BofASE SA’s activities form part of BAC’s Global Banking and Markets operations in Europe, Middle East and, Africa ("EMEA"), and will serve as Bank of America’s primary broker-dealer for clients in the European Economic Area excluding United Kingdom ("EEA ex U.K.").

BofASE SA’s head office is in France. BofASE SA is authorised as an investment firm by the Autorité de Contrôle Prudentiel et de Résolution ("ACPR") and is regulated by the ACPR and the Autorité des Marchés Financiers ("AMF"). BofASE SA has the ability to trade throughout the European Economic Area ("EEA").

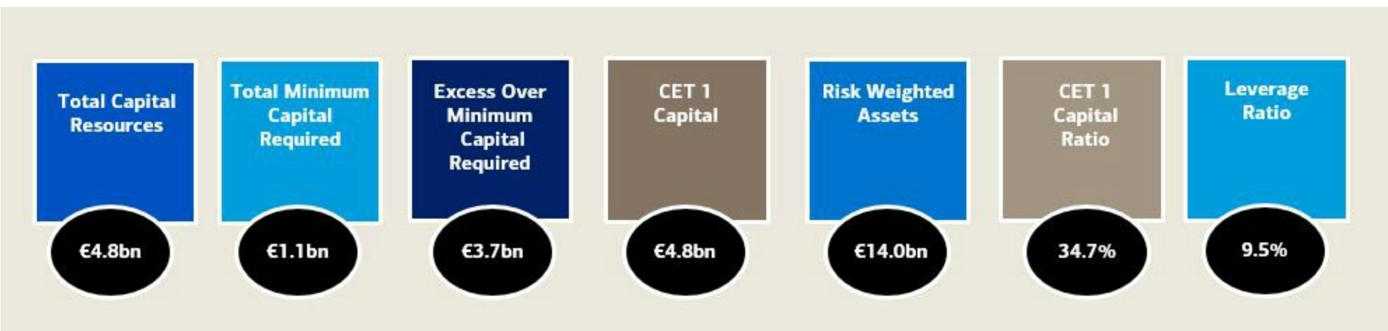
As at 31 December 2019, BofASE SA was rated by Fitch Ratings, Inc ("Fitch") (A+ / F1) and Standard & Poor’s (S&P) (A + / A-1).

1.1.2 BofASE SA’s Capital Position at 31 December 2019

Figure 1.1.2.F1. illustrates BofASE SA’s key capital metrics.

BofASE SA’s Capital Resources ("Capital Resources") consists entirely of Common Equity Tier 1 (“CET1”) capital, and BofASE SA continues to maintain capital ratios and resources significantly in excess of its minimum requirements.

Figure 1.1.2.F1. – Summary of BofASE SA’s Key Metrics as at 31 December 2019



Note: All of BofASE SA’s Tier 1 capital is CET1; therefore, CET1 Capital Ratio and Tier 1 Capital ratio are the same. Capital resources and ratios reflect the inclusion of 2019 audited retained earnings.

1.2. Basis of Preparation

BofASE SA financial statements are prepared in accordance with French Companies Law and Generally Accepted Accounting Practices.

The information contained in this Pillar 3 disclosure has been prepared in accordance with the CRD IV, Capital Requirements Regulation ("CRR"), with additional guidance provided by the ACPR notice "Modalités de calcul et de publication des ratios prudentiels dans le cadre de la CRDIV - 2019, on a solo basis. These disclosures are updated annually in line with the accounting year end as at 31 December, unless otherwise stated, all tables are as at 31 December 2019, with prior year comparatives as at 31 December 2018. Moreover, these disclosures are also updated on half-yearly basis, with prior period comparatives.

The report does not constitute any form of contemporary or forward looking record or opinion on BofASE SA or BAC. Although the Pillar 3 disclosure is intended to provide transparent information on a common basis, the information contained in this document may not be directly comparable with the information provided by other investment firms.

These Pillar 3 disclosures are published on the Investor Relations section of BAC’s corporate website: http://investor.bankofamerica.com

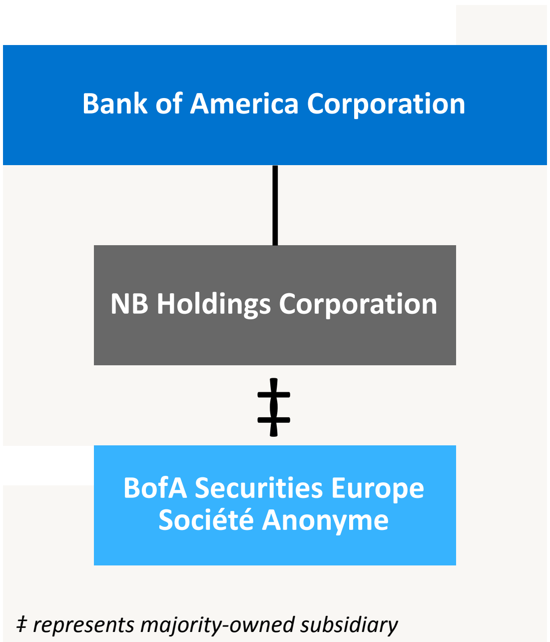
1.3 Operation, Structure, and Organisation

BofASE SA has a key role within the wider BAC group by providing non-U.S. market access for Global Banking and Global Markets clients. BofASE SA is BAC's primary broker-dealer for clients in the EEA ex U.K.

The principal activities of BofASE SA are to provide a wide range of financial services for business originated in EEA ex U.K., to act as a broker and dealer in financial instruments and to provide corporate finance advisory services. BofASE SA also provides a number of post trade related services including settlement and clearing services to third-party clients.

For a full BAC organisation chart, please refer to the Investor Relations section of BAC's corporate website: http://investor.bankofamerica.com.

Figure 1.3.F1. – High-Level Ownership Chart



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Pillar 3 Disclosure

2. Capital Resources and Minimum Capital Requirement

As at 31 December 2019

2.1. Capital Resources

2.1.1. Summary of 2019 Capital Resources

Capital Resources represent the amount of regulatory capital available to an entity in order to cover all risks. Defined under CRD IV, Capital Resources are designated into two tiers, Tier 1, and Tier 2. Tier 1 capital consists of CET 1 and Additional Tier 1 (“AT1”). CET1 is the highest quality of capital and typically represents equity and audited reserves; AT1 usually represents contingent convertible bonds, and Tier 2 capital typically consists of subordinated debt and hybrid debt capital instruments.

BofASE SA’s Capital Resources consists entirely of CET1 capital.

2.1.2. Key Movements in 2019

BofASE SA's Capital Resources increased by €4.3 bn during 2019. The increase was driven by the issuance of new CET1 instruments on 14 January (€2.1bn) and 19 July (€2.6bn) partially offset by regulatory adjustments for €0.3bn.

Table 2.1.2.T1 – Capital Resources

(Euros in Millions)	2019	2018
Common Equity Tier 1 (CET1) capital before regulatory adjustments	5,149	540
Total Regulatory Adjustments to Common Equity Tier 1 (CET1)	(308)	0
Common Equity Tier 1 (CET1) Capital	**4,841**	**540**
Additional Tier 1 (AT1) capital	0	0
Tier 1 Capital (T1 = CET1 + AT1)	**4,841**	**540**
Tier 2 (T2) Capital	**0**	**0**
Total Capital (TC = T1 + T2)	**4,841**	**540**

2.1.3. Transferability of Capital within the Group

Capital Resources are satisfied by sourcing capital either directly from BAC or from other affiliates. There are no material, current or foreseen, practical, or legal impediments to the prompt transfer of capital resources or repayment of liabilities, subject to applicable regulatory requirements.

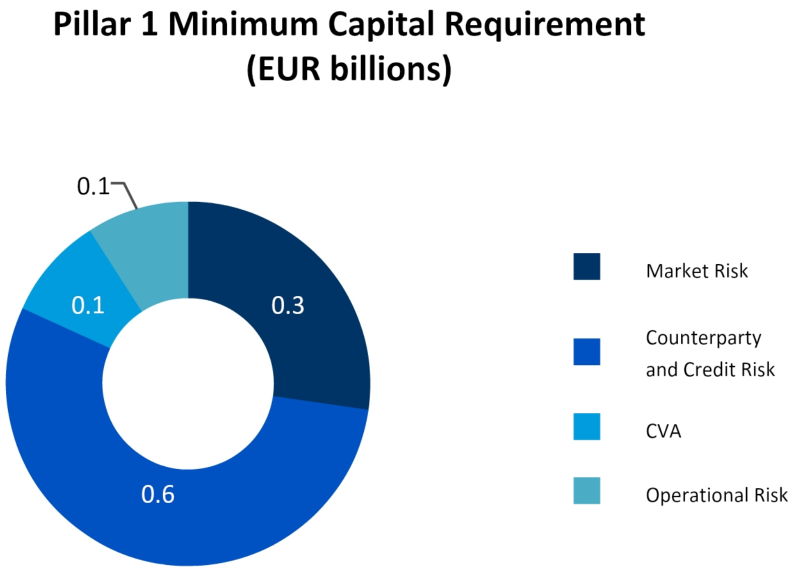
2.2. Pillar 1 Minimum Capital Requirement

2.2.1. Summary of 2019 Capital Requirement

BofASE SA is subject to a Pillar 1 Minimum Capital Requirement as set out in the CRR. BofASE SA is also required to hold capital in addition to its Pillar 1 Minimum Capital Requirement to meet local ACPR obligations and CRD IV buffers.

The Pillar 1 Minimum Capital Requirement principally comprises of Credit Risk, Market Risk, and Operational Risk requirements. BofASE SA had a Pillar 1 Minimum Capital Requirement of €1,117m (2018: €22m) comprising of the risk requirements outlined in Figure 2.2.1.F1.

Figure 2.2.1.F1. – Summary of BofASE SA's Pillar 1 Minimum Capital Requirement



2.2.2. Key Movements in 2019

BofASE SA's Pillar 1 Minimum Capital Requirement increased to €1,117m in 2019 from €22m in 2018. This reflects an increase in client activity throughout the year, which was the first year in which BofASE SA was operationally active.

Table 2.2.2.T1. shows a breakdown of the Risk Weighted Assets ("RWAs") and Pillar 1 Minimum Capital Requirement of BofASE SA.

Table 2.2.2.T1. – RWAs and Pillar 1 Minimum Capital Requirement

	BofASE SA		
	RWAs		Pillar 1 Minimum Capital Requirement
(Euro in Millions)	2019	2018	2019
Credit risk (excluding CCR)	**434**	**270**	**35**
Of which the standardised approach	434	270	35
Of which the foundation IRB (FIRB) approach	0	0	0
Of which the advanced IRB (AIRB) approach	0	0	0
Of which equity IRB under the simple risk-weighted approach or the Internal Model Approach ("IMA ")	0	0	0
CCR	**8,801**	**0**	**704**
Of which mark to market	5,305	0	424
Of which original exposure	0	0	0
Of which: comprehensive approach for credit risk mitigation (for Securities Financing Transaction ("SFTs"))	2,076	0	166
Of which internal model method ("IMM")	0	0	0
Of which risk exposure amount for contributions to the default fund of a CCP	107	0	9
Of which credit valuation adjustment ("CVA")	1,313	0	105
Settlement risk	**63**	**0**	**5**
Securitisation exposures in the banking book (after the cap)	**0**	**0**	**0**
Of which IRB approach	0	0	0
Of which IRB supervisory formula approach ("SFA")	0	0	0
Of which internal assessment approach ("IAA")	0	0	0
Of which standardised approach	0	0	0
Market risk	**3,433**	**0**	**275**
Of which the standardised approach	671	0	54
Of which IMA	2,762	0	221
Large exposures	**0**	**0**	**0**
Operational risk	**1,234**	**0**	**99**
Of which basic indicator approach	0	0	0
Of which standardised approach	1,234	0	99
Of which advanced measurement approach	0	0	0
Amounts below the thresholds for deduction (subject to 250% risk weight)	**0**	**0**	**0**
Floor adjustment	0	0	0
Total	**13,966**	**270**	**1,117**

2.2.3. Pillar 1 Minimum Capital Requirement Approach

BofASE SA has adopted the standardised approach for calculating Counterparty Risk, Credit Risk, and Operational Risk Capital Requirements. In order to adhere to the standardised rules in CRD IV, BofASE SA uses external ratings from External Credit Assessment Institutions ("ECAIs") specifically Moody's Investors Service, Inc. ("Moody's"), Standard &Poor's, and Fitch.

BofASE SA's approach for Market Risk is a combination of models approved by the ACPR, including Value at Risk ("VaR"), and the standardised approach.

2.2.4. Internal Capital Adequacy Assessment

BofASE SA’s capital adequacy is assessed in a manner consistent with the approaches set out in the European Banking Authority ("EBA") Guidelines on ICAAP and ILAAP (EBA-GL-2016-10) issued in November 2016, and ECB Guide to the internal capital adequacy assessment process issued in November 2018. BofASE SA's Internal Capital Adequacy Assessment ("ICAAP") assesses capital as set out in the Guidelines based on two internal capital assessment perspectives, normative, and economic:

- The normative internal perspective is a multi-year assessment of the institution’s ability to fulfill all of its capital-related quantitative regulatory and supervisory requirements and demands, and to cope with other external financial constraints, on an ongoing basis
- The economic internal perspective is a point-in-time risk quantification of the current situation feeding into a medium-term assessment covering future developments, from an economic perspective by ensuring that its risks are adequately covered by internal capital

BofASE SA's ICAAP requires BofASE SA to identify and assess its material risks, maintain sufficient capital to bear its risks, absorb losses, and follow a sustainable strategy, even during a prolonged period of adverse developments.

The following key processes enable BofASE SA to maintain adequate capital on an ongoing and forward looking basis:

- A strategic planning process which aligns to risk appetite and ICAAP outcomes
- A continuous monitoring process against capital and leverage risk appetite limits
- Regular leverage and capital reporting to management
- An internal capital and stress testing framework which also includes stress tests that underpin the recovery plan

The ICAAP is also aligned to the recovery plan that prepares BofASE SA to restore its financial strength and viability during an extreme stress situation, laying out a set of defined actions aimed to protect the entity, its customers and the markets, and prevent a potential resolution event.

2.3. Capital Resources vs. Pillar 1 Minimum Capital Requirement and Tier 1 Capital Ratio

2.3.1. Capital Resources vs. Pillar 1 Minimum Capital Requirement

Table 2.3.2.T1 outlines that BofASE SA's total Capital Resources are significantly in excess of the Pillar 1 Minimum Capital Requirement.

Capital Resources and Pillar 1 Minimum Capital Requirement for BofASE SA are monitored and analysed on a daily basis. BofASE SA continuously maintains a surplus over its Pillar 1 Minimum Capital Requirement.

2.3.2. Tier 1 Ratio

An entity’s Tier 1 ratio is the ratio of the Tier 1 Capital to RWAs. BofASE SA's Tier 1 capital and RWAs increased in 2019 reflecting an increase in client activity throughout the year, which was the first year in which BofASE SA was operationally active. BofASE SA's Tier 1 ratio was 34.7% at 31 December 2019.

Table 2.3.2.T1. – Capital Surplus over Pillar 1 Minimum Capital Requirement and Tier 1 Ratio

	BofASE SA	
(Euro in Millions)	2019	2018
Total Capital Resources	4,841	540
Total Pillar 1 Minimum Capital Requirement	1,117	22
Surplus over Requirement	**3,723**	**518**
Tier 1 Capital Resources	4,841	540
Risk Weighted Assets	13,966	270
Tier 1 Capital Ratio	**34.7%**	**200.0%**

2.4. Leverage Ratio

2.4.1. Summary

The leverage ratio is a measure of Tier 1 capital as a percentage of exposure as defined under the CRR rules.

The requirement for the calculation and reporting of leverage ratios was introduced as part of CRD IV in 2014, and amended by the European Commission Delegated Act (EU) 2015 / 62 in 2015.

The CRR does not currently include a binding minimum Leverage Ratio requirement. In June 2019, amendments to the CRR were published in the Official Journal of the EU as Regulation (EU) 2019 / 876. These amendments included a binding minimum Leverage Ratio requirement of 3%, as well as a number of changes to the calculation of the exposure measure. These amendments apply from 28 June 2021. BofASE SA’s leverage ratio is in excess of the incoming minimum requirement at 9.5%, calculated based on the current CRR exposure measure.

Table 2.4.1.T1. – Leverage Ratio

	BofASE SA	
	2019	2018
Leverage Ratio	**9.5%**	**100.0%**

2.4.2. Key Movements in 2019

BofASE SA's leverage ratio reduced during the year, from 100% at the end of 2018 to 9.5% at the end of 2019. This was due to an increase in the Leverage Ratio exposure as a result of the commencement of trading activity in the year. BofASE SA was not operationally active at the end of 2018.

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3. Liquidity Position and Encumbered and Unencumbered Assets

As at 31 December 2019

3.1. Liquidity Position

3.1.1. Regulatory Requirement

BofASE SA is subject to CRD IV and CRR liquidity requirements through which it must demonstrate self-sufficiency for liquidity purposes.

3.1.2. Liquidity Position

As of 31 December 2019, BofASE SA was in compliance with its regulatory and internal liquidity requirements.

3.1.3. Funding Profile

BofASE SA does not issue debt to parties external to BAC and is not licensed to take deposits. BofASE SA primarily funds its balance sheet through wholesale secured funding, equity, and intercompany unsecured debt.

These funding sources are used to support BofASE SA's trading and capital market activities and maintain sufficient excess liquidity.

3.2. Encumbered and Unencumbered Assets

An asset shall be treated as encumbered if it has been pledged or if it is subject to any form of arrangement to secure, collateralise, or credit enhance any transaction from which it cannot be freely withdrawn.

Within BofASE SA, encumbered assets primarily comprise on / off balance sheet assets that are pledged as collateral against secured funding transactions; these include repurchase agreements, stock lending, and collateral swaps. In addition, BofASE SA’s encumbered assets includes collateral posted against derivative contracts and securities covering shorts. Asset encumbrance is an integral part of BofASE SA’s secured funding and collateral management process. Treasury monitors the funding requirement / surplus and models the liquidity impact relating to these activities on an ongoing basis.

This asset encumbrance disclosure, as of 31 December 2019, is prepared in accordance with Commission Delegated Regulation (EU) 2017 / 2295 of 4 September 2017 supplementing Regulation (EU) No 575 / 2013. The disclosure is based on accounting information prepared in accordance with French accounting standards.

BofASE SA conducts a significant portion of its business in EUR and USD.

BofASE SA primarily adopts standard collateral agreements and requires collateralisation at appropriate levels based on industry standard contractual agreements (mostly Credit Support Annexes (“CSAs”) and Global Master Repurchase Agreements (“GMRAs”)).

Table 3.2.T1. outlines the carrying amount and fair value of certain assets of BofASE SA split between those encumbered and unencumbered.

Table 3.2.T1. – Encumbered and Unencumbered Assets[(1)]

	2019			
(Euros in Millions)	Carrying Amount of Encumbered Assets	Fair Value of Encumbered Assets	Carrying Amount of Unencumbered Assets	Fair Value of Unencumbered Assets
Assets of the Reporting Institution[(2)]	**8,013**		**38,847**	
Equity Instruments	2,853		526	
Debt Securities	2,519	2,519	1,006	1,006
of which: Covered Bonds	39	39	10	10
of which: Asset-Backed Securities	—	—	—	—
of which: Issued by General Governments	2,170	2,170	871	871
of which: Issued by Financial Corporations	308	308	125	125
of which: Issued by Non-Financial Corporations	1	1	1	1
Other Assets[(3)]	2,641		37,247	

[(1)] Greyed out cell format stems from RTS EC (EU) 2017/2295 Regulation asset encumbrance template, indicating not applicable disclosures. As a result of BofASE SA's broker-dealer activity, fair value equals carrying value for securities.

[(2)] Figures represent median values calculated as the median of the end-of-period values for each of the four quarters in the year. Totals in the tables are calculated as the median of the sums for each quarter-end and as such will not be equal to the sum of the individual line items in each table.

[(3)] The majority of unencumbered Other Assets relate to derivative assets not available for encumbrance.

Table 3.2.T2. provides details on both the fair value of encumbered collateral received and collateral received that is available for encumbrance.

Table 3.2.T2. – Collateral Received

	2019	
(Euros in Millions)	Fair Value of Encumbered Collateral Received or Own Debt Securities Issued	Fair Value of Collateral Received or Own Debt Securities Issued Available for Encumbrance
Collateral Received by the Reporting Institution[1]	**16,801**	**6,658**
Loans on Demand	—	—
Equity Instruments	3,565	513
Debt Securities	13,236	3,466
of which: Covered Bonds	38	1
of which: Asset-Backed Securities	244	2,204
of which: Issued by General Governments	11,624	1,202
of which: Issued by Financial Corporations	964	45
of which: Issued by Non-Financial Corporations	243	20
Loans and Advances Other Than Loans on Demand	—	2,680
Other Collateral received	—	—
Own Debt Securities Issued Other than Own Covered Bonds or Asset-Backed Securities	—	—
Own Covered Bonds and Asset-Backed Securities Issued and Not Yet Pledged		—
Total Assets, Collateral Received and Own Debt Securities Issued	**25,836**	

[1] Figures represent median values calculated as the median of the end-of-period values for each of the four quarters in the year. Totals in the tables are calculated as the median of the sums for each quarter-end and as such will not be equal to the sum of the individual line items.

Table 3.2.T3. outlines the value of liabilities against which assets have been encumbered and the respective asset values.

Table 3.2.T3. – Sources of Encumbrance

	2019	
(Euros in Millions)	Matching Liabilities, Contingent Liabilities or Securities Lent	Assets, Collateral Received and Own Debt Securities Issued other than Covered Bonds and ABSs Encumbered
Carrying Amount of Selected Financial Liabilities	**14,693**	**14,779**

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4. Risk Management, Objectives, and Policy

As at 31 December 2019

4.1. BofASE SA Risk Framework

BAC has established a risk governance framework ("Risk Framework") which serves as the foundation for consistent and effective management of risks facing BAC and its subsidiaries. BAC adopted the 2020 Risk Framework in December 2019. The key enhancements from the 2019 Risk Framework include revisions within the functional roles section to provide additional detail around the roles of the horizontal and vertical risk teams and within the Compliance and Operational risk section that provide additional clarity around coverage / oversight responsibilities of model risk and conduct risk.

BofASE SA is integrated into and adheres to the global management structure including risk management and oversight, as adapted to reflect local business, legal, and regulatory requirements. The BofASE SA Board of Directors (the "Board") adopted the BAC 2020 Risk Framework in March 2020.

The following section lays out the risk management approach and key risk types for BofASE SA.

4.2. Risk Management Approach

Risk is inherent in all business activities. Managing risk well is the responsibility of every employee. Sound risk management enables BofASE SA to serve the customers and deliver for the shareholders. If not managed well, risks can result in financial loss, regulatory sanctions and penalties, and damage to BofASE SA's reputation, each of which may adversely impact BofASE SA and its ability to execute its business strategy. Managing risk well is fundamental to delivering on BAC's responsible growth approach to business.

The Risk Framework applies to all employees. It explains BofASE SA's approach to risk management and each employee's responsibilities for managing risk. All employees must take ownership for managing risk well and are accountable for identifying, escalating, and debating risks facing BofASE SA. The Risk Framework sets forth roles and responsibilities for the management of risk by front line units ("FLUs"), independent risk management, other control functions, and Corporate Audit.

The following are the five components of BofASE SA's risk management approach:

- Culture of managing risk well
- Risk appetite and risk limits
- Risk management processes
- Risk data management, aggregation, and reporting
- Risk governance

Focusing on these five components allows effective management of risks across the seven key risk types faced by BofASE SA's businesses, namely: strategic, credit, market, liquidity, operational, compliance, and reputational risks.

4.2.1. Culture of Managing Risk Well

A culture of managing risk well is fundamental to BofASE SA's core values and its purpose, and how it drives responsible growth. It requires focus on risk in all activities and encourages the necessary mind-set and behaviour to enable effective risk management and promote sound risk-taking within BofASE SA's risk appetite. Sustaining a culture of managing risk well throughout the organisation is critical to the success of BofASE SA and is a clear expectation of BofASE SA's executive management team and its Board.

The following principles form the foundation of BofASE SA's culture of managing risk well:

1. Managing risk well protects BofASE SA and its reputation and enables BofASE SA to deliver on its purpose and strategy

2. BofASE SA treats customers fairly and acts with integrity to support the long-term interests of its employees and customers. BofASE SA understands that improper conduct, behaviour, or practices by BofASE SA, its employees, or representatives could harm BofASE SA, the customers, or damage the integrity of the financial markets

3. As BofASE SA helps its customers improve their financial lives, it must always conduct itself with honesty, integrity, and fairness

4. All employees are responsible for proactively managing risk as part of their day-to-day activities through prompt identification, escalation, and debate of risks

5. While BofASE SA employs models and methods to assess risk and better inform BofASE SA's decisions, proactive debate and a thorough challenge process lead to the best outcomes

6. Lines of business ("LOB") and other FLUs are first and foremost responsible for managing all aspects of their businesses, including all types of risk

7. Independent risk management provides independent oversight and effective challenge, while Corporate Audit provides independent assessment and validation

8. BofASE SA strives to be best-in-class by continually working to improve risk management practices and capabilities

4.2.2. Risk Statement and Appetite

Risk Statement

BofASE SA's primary business lines include Equity Sales and Trading, Fixed-Income Currencies & Commodities ("FICC") Sales and Trading, and Capital Markets.

The majority of BofASE SA counterparty and credit risk exposure by industry distribution are to broker-dealers 26%, clearing houses 24%, sovereigns 19% and banks 10%. 92% of BofASE SA's Counterparty and Credit Risk exposures are in the EMEA region. 79% of BofASE SA Counterparty and Credit Risk exposures have less than one year residual maturity and 93% are less than five years.

BofASE SA enters into transactions with affiliated companies in the BAC Group, primarily as a result of its own risk management purposes and receives intercompany loans for general liquidity management purposes. At 31 December 2019, BofASE SA had 26% of balances with affiliated companies (19% with MLI).

BofASE SA has over 40% of exposures with counterparties externally rated between AAA and A- or equivalent. 58% of BofASE SA's exposures are to counterparties not rated by external rating agencies, the majority of which are to CCPs and Central Banks. Other exposures that BofASE SA has to unrated counterparties are to Financial or Non-Financial Corporates, which are also generally assessed internally as being of high quality. Credit risk is assessed as outlined in Section 4.3 Key Risk Types.

BofASE SA maintains excess liquidity in order to meet day to day funding requirements, withstand a range of liquidity shocks, safeguard against potential stress events, and meet internal and regulatory requirements.

Risk Appetite and Limits

The Risk Appetite Statement ("RAS"), established for BofASE SA, indicates the amount of capital, earnings, or liquidity BofASE SA is willing to put at risk to achieve its strategic objectives and business plans, consistent with applicable regulatory requirements. The RAS ensures that BofASE SA maintains an acceptable risk profile that is in alignment with its strategic and capital plans. It is designed with the objective of ensuring that it is comprehensive for all key risks, relevant to the BofASE SA business and aligned with the risk management practices of the Group. The RAS is reviewed and approved by the Board at least annually.

BofASE SA's risk appetite is designed to be consistent with the aggregate risk appetite at the BAC level and is based on several principles:

- Overall risk capacity: Our overall capacity to take risk is limited; therefore, we prioritize the risks we take. Our risk capacity informs our risk appetite, which is the level and types of risk we are willing to take to achieve our business objectives
- Financial strength to absorb adverse outcomes: We must maintain a strong and flexible financial position so we can weather challenging economic times and take advantage of organic growth opportunities. Therefore, we set objectives and targets for capital and liquidity that permit BofASE SA to continue to operate in a safe and sound manner at all times, including during periods of stress
- Risk-reward evaluation: Risks taken must fit our risk appetite and offer acceptable risk-adjusted returns for shareholders
- Acceptable risks: We consider all types of risk including those that are difficult to quantify. Qualitative guidance within the RAS describes our approach to managing such risks throughout BofASE SA in a manner consistent with our culture. For example, actions considered in a line of business that unduly threaten BofASE SA's reputation should be escalated and restricted appropriately
- Skills and capabilities: We seek to assume only those risks we have the skills and capabilities to identify, measure, monitor, and control

The quantitative framework for BofASE SA's RAS is designed to articulate the risks it will take in pursuit of strategic objectives that are both consistent with BofASE SA's financial resources and will avoid excessive risk taking. It comprises the Board and BofASE SA Management Risk Committee ("MRC") approved limits indicating the amount of risk BofASE SA is willing to take.

Risk appetite metrics are expressed on an in-year and forward-looking basis, as appropriate, under expected and stressed macroeconomic conditions. In addition, risk appetite metrics and limits related to material concentrations are maintained to ensure appropriate visibility into risks that may manifest themselves across lines of business or risk types as part of ongoing efforts to ensure concentrations are effectively identified, measured, monitored, and controlled.

Robust monitoring and reporting processes for Board-approved limits are in place, with limit breaches triggering appropriate notification and escalation based on the severity of the breach as defined by magnitude or frequency. Breach resolution plans include a written description of the root causes and how a breach will be resolved. Management, the MRC, BofASE SA Board Risk Committee ("BRC"), and the Board monitor risk metrics relative to risk appetite limits and take action as necessary to proactively and effectively manage risk.

Risk appetite is aligned with BofASE SA's strategic, capital, and financial operating plans to ensure consistency with its strategy and financial resources. Line of business strategies and risk appetite are also aligned. Ongoing reporting shows performance against the Strategic Plan, as well as risk appetite breaches for each of the lines of business. Risk appetite is also considered within the New Product Review and Approval Policy and processes, and within decisions around any acquisitions and divestitures. Managing risk well and embracing the Risk Framework are considered as part of compensation and performance management decisions.

The quantitative and qualitative elements of BofASE SA's RAS provide clear, actionable information for taking and managing risk. Training and communication reinforce the importance of aligning risk-taking decisions to applicable aspects of the RAS.

The RAS covers the seven key risk types as defined in the Risk Framework. There are detailed qualitative statements for all of the key risk types within the Risk Framework and RAS. In addition, there is a suite of quantitative metrics for the following risk types:

- Strategic: Metrics relating to Capital and Leverage and are provided in addition to stress loss limits
- Credit Risk: Forward-looking stress and baseline metrics, in addition to concentration limits aligned to credit quality using internal risk rating, geography, and industry
- Market Risk: Metrics relating to trading Value at Risk ("VaR"), Stress Loss, and Interest Rate Risk in the Non-Trading Book from an economic value and earnings approach
- Liquidity Risk: Metrics relating to key liquidity coverage ratios
- Compliance & Operational Risk: Metrics for Non-Litigation Operational Losses, Residual Risk Level & Direction, Past Due Issues, Performance of Outsourced Services, and Potential Information Security Events (Global)

The performance against the BofASE SA risk appetite is reviewed on a monthly basis by the MRC. Limits are monitored by FLUs and risk management on a more frequent basis. Performance is also reported to the BRC and provided to the Board on a quarterly basis.

The BofASE SA Chief Risk Officer ("BofASE SA CRO") oversees the Risk Appetite exception management process in order to ensure that excesses are properly escalated, effectively managed, and that any required remediation actions are governed and implemented appropriately. This process outlines the escalation and management of exposures that are in excess of the trigger or limit levels. When exposures breach trigger and limit levels, they are escalated as appropriate to management bodies including the Board, the BRC, and the MRC.

BofASE SA is committed to communicating a clear, consistent position on risk taking to internal and external stakeholders, as appropriate.

4.2.3. Risk Management Processes

The Risk Framework requires that strong risk management practices are integrated in key strategic, capital, and financial planning processes, and day-to-day business processes across BofASE SA, thereby ensuring risks are appropriately considered, evaluated, and responded to in a timely manner.

BofASE SA's approach to risk management processes:

- All employees are responsible for proactively managing risk
- Risk considerations are part of all daily activities and decision-making
- BofASE SA encourages a thorough challenge process and maintains processes to identify, escalate, and debate risks
- BofASE SA utilizes timely and effective escalation mechanisms for risk limit breaches

The FLUs have primary responsibility for managing risks inherent in their businesses. BofASE SA employs an effective risk management process, referred to as: Identify, Measure, Monitor, and Control ("IMMC") as part of its daily activities.

4.2.4. Risk Data Management, Aggregation and Reporting

Effective risk data management, aggregation, and reporting is critical to provide a clear understanding of current and emerging risks and enables BofASE SA to proactively and effectively manage risk.

Risk Data Management, Aggregation, and Reporting Principles:

- Complete, accurate, reliable, and timely data
- Clear and uniform language to articulate risks consistently across BofASE SA
- Robust risk quantification methods
- Timely, accurate, and comprehensive view of all material risks, including appropriate levels of disaggregation

Functional risk managers arrange risk reporting to address the requirements of BofASE SA management bodies as appropriate.

4.2.5. Risk Governance

BAC's risk governance principles serve as the cornerstone of the risk governance framework. The Code of Conduct, Risk Framework, RAS, and strategic plans are overarching documents that firmly embed BofASE SA's culture of managing risk well in everything it does. The Code of Conduct provides basic guidelines for business practices and professional and personal conduct that all employees are expected to follow. The Risk Framework articulates how BofASE SA defines and manages risk. The RAS clearly indicates the risks BofASE SA is willing to accept. The strategic plans, for both BAC and BofASE SA, document strategies for the next three-year period.

Three Lines of Defence

BofASE SA has clear ownership and accountability for managing risk across three lines of defence: FLUs, independent risk management, and Corporate Audit. BofASE SA also has control functions outside of FLUs and independent risk management (e.g., Legal and Global Human Resources), that provide guidance and subject matter expertise in support of managing risks facing BofASE SA.

FLUs	Own and proactively manage all risks in business activities
Independent Risk Management	Oversee risk-taking activities within the FLUs and across the BAC Group, and provide independent assessment of effective challenge of risks
Corporate Audit	Provide independent validation through testing of key processes and controls

Corporate Audit

Corporate Audit supports BofASE SA's risk governance framework by assessing whether controlling processes and controls over strategic, credit, market, liquidity, operational, compliance, and reputational risks are adequately designed and functioning effectively. This is carried out by conducting independent assessments and validation through testing of key processes and controls.

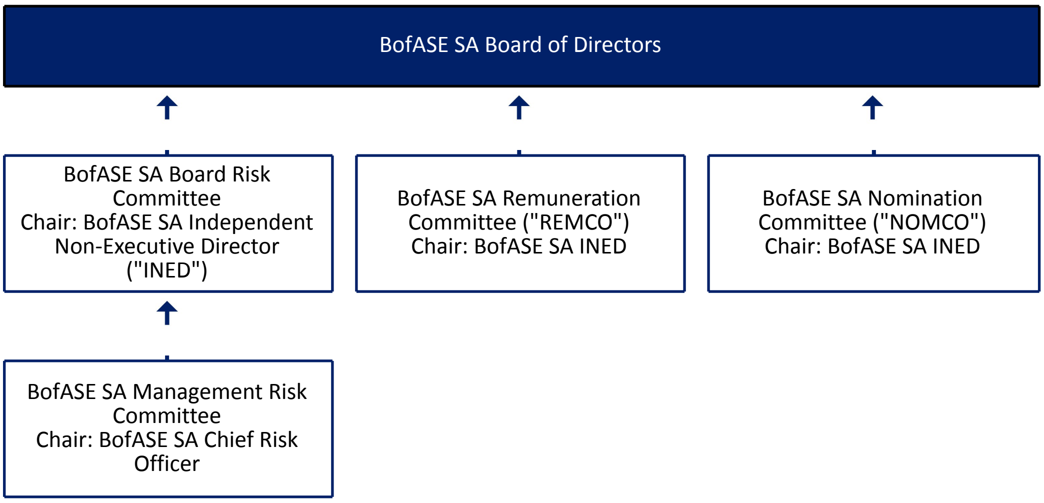
Corporate Audit resources are used to execute work across all EMEA locations. Team deployments are assessed based on the scale, complexity, and nature of the business and control functions in each location. Corporate Audit prepares an annual audit plan with consideration to external and internal risk factors, risk assessment of a business, and legislative and regulatory requirements. The annual planning process directs timely and flexible testing of BofASE SA's key risks and risk management processes (inclusive of risk appetite).

Corporate Audit is not responsible for setting or approving limits for risks which BofASE SA is exposed to. However, Corporate Audit conducts reviews, as appropriate, of the controls and monitoring of such limits.

Risk Governance Structure

The Board ensures suitable risk management and controls through the BRC, BofASE SA Remuneration Committee, BofASE SA Nominations Committee and the MRC. The MRC conducts periodic reviews of reporting, including regulatory reporting and remediation plans, and escalate reporting to the BRC, the Board, or other committees, as appropriate, and review of risk management strategies to ensure their continuing effectiveness.

Figure 4.2.5.F1. – Risk Governance Structure



The BRC assists the Board in fulfilling its oversight responsibility relating to senior management's responsibilities regarding the identification of, management of, and planning for, the following key risks of BofASE SA: strategic risk, market risk, credit risk, liquidity risk, operational risk, compliance risk, and reputational risk. The BRC met five times during 2019.

The Board fulfills its oversight responsibilities relating to BofASE SA's internal financial controls, prepares the annual report and financial statements, and maintains relationship with its external auditor.

The MRC reports to the BRC and is responsible for providing management oversight and approval of (or reviewing and recommending to the BRC, the Board, or other committees, as appropriate) strategic risk, market risk, credit risk, liquidity risk, operational risk, compliance risk, reputational risk, and stress testing activities as well as balance sheet, capital, and liquidity management. The MRC met 12 times during 2019.

The BofASE SA Remuneration Committee ("Remuneration Committee") and the BofASE SA Nomination Committee ("Nomination Committee") of the Board assist the Board in fulfilling its oversight of the development of, and implementation of the firm's remuneration policies and practices and nominates for the Board's approval candidates to fill Board vacancies. The Remuneration Committee met three times during 2019 and the Nomination Committee met two times during 2019.

BofASE SA Director Selection and Diversity Policy

The Nomination Committee assists the Board in fulfilling its oversight relating to the governance of the Board of Directors relating to nominations to the Board, reviewing and reporting to the Board on matters of corporate governance principles applicable to BofASE SA, reviewing and reporting to the Board on senior management talent planning and succession,and leading the Board and its committees in their assessments of their performance.

Before any appointment is made by the Board, the Nomination Committee is responsible for evaluating the balance of skills, knowledge, experience, and diversity on the Board, and, in light of this evaluation, preparing a description of the role and capabilities required for a particular appointment. Pursuant to the terms of the charter, the Nomination Committee shall consider the overall knowledge, skills, experience, and expertise represented on the Board, as well as the qualifications and suitability of each candidate, taking care that appointees have sufficient time available to devote to the position. Furthermore, the Nomination Committee shall consider candidates from a wide range of backgrounds and consider candidates on merit and against objective criteria and with due regard for the benefits of diversity on the Board, including, but not limited to gender.

In addition, pursuant to the terms of its charter, the Nomination Committee is responsible for deciding on a target for the representation of the underrepresented gender on the Board and how to meet it (as required).

General

All appointments to the Board are made in compliance with BAC's Background Check Policy and are subject to successful completion of the following background checks: identification, credit, criminal, global sanctions, media, directorship, employment, and education checks, as required. In addition, directors and board and committee chairs appointed to the Board require regulatory approval in line with ACPR's requirements under the Appointment of Members of a Supervisory Body Regime.

Board member experience is detailed within individual director biographies in Appendix 1 - Directors Board Membership and Experience.

The independent risk management functions led by the BofASE SA CRO have operational responsibility for risk management of BofASE SA and ensuring appropriate reporting and escalation to the Board.

4.2.6. Risk Declaration

The Board, supported by the BRC, confirms that the risk management arrangements outlined are adequate to facilitate the management of risk in the context of BofASE SA's profile and strategy.

4.3. Key Risk Types

The Risk Management processes outlined above allow BofASE SA to manage risks across the seven key risk types; strategic, credit, market, liquidity, operational, compliance, and reputational. Further details on how risk is managed within BofASE SA are given below.

4.3.1. Strategic Risk

Definition

Strategic Risk is the risk that results from incorrect assumptions about external or internal factors, inappropriate business plans (e.g., too aggressive, wrong focus, ambiguous), ineffective business strategy execution, or failure to respond in a timely manner to changes in the regulatory, macroeconomic, or competitive environments, in the geographic locations in which BofASE SA operates (such as competitor actions, changing customer preferences, product obsolescence, and technology developments).

Strategic Risk Management

Strategic risk is managed by the Executive Management Team through ongoing assessment of risks relevant to BofASE SA. This includes regular monitoring of financial and operating performance, earnings, and risk profile of the entity. The Board receives quarterly updates on the financial health of the entity including forward-looking view of the various businesses within BofASE SA.

Strategic Risk Governance

The BofASE SA Strategic Plan will be prepared for the first time in 2020 and reviewed as well as signed-off by the Board. Strategic issues relating to BofASE SA are presented and discussed at the BRC and the Board.

As part of the Risk Identification program, each LOB considers strategic risk implications for their businesses and all materials risks are covered for capital and liquidity planning. Independent risk management, Corporate Audit, and other control functions provide input, challenge, and oversight to the FLUs.

Strategic Risk Reporting

Strategic risk is reported to the MRC on a monthly frequency as part of the RAS. In addition, strategic risk is also reported to the BRC and the Board on a quarterly frequency. This also includes an assessment of the level of inherent risk, control effectiveness, as well as the residual risk outlook.

4.3.2. Credit Risk

Definition

Credit risk is the risk of loss arising from the inability or failure of a borrower or counterparty to meet its obligations.

Credit risk is created when BofASE SA commits to, or enters into, an agreement with a borrower or counterparty.

BofASE SA defines credit exposure to a borrower or counterparty as the loss potential arising from loans, leases, derivatives, and other extensions of credit.

Credit Risk Management Process

BofASE SA manages credit risk to a borrower or counterparty based on their risk profile, which includes assessing repayment sources, underlying collateral (if any), and the expected effects of the current and forward-looking economic environment on the borrowers or counterparties. Underwriting, credit management, and credit risk limits are proactively reassessed as a borrower's or counterparty's risk profile changes.

BofASE SA uses a number of actions to mitigate losses, including increased frequency and intensity of portfolio monitoring for moderate to weak risk profiles, hedging, and transferring management of deteriorated commercial exposures to special asset officers.

Credit risk management includes the following processes:

- Credit origination
- Portfolio management
- Loss mitigation activities

These processes create a comprehensive and consolidated view of BofASE SA's credit risks, thus providing executive management with the information required to guide or redirect FLUs and certain legal entity strategic plans, if necessary.

Credit Origination

As BAC's main investment firm in the European Union, BofASE SA's credit strategy and origination is focused on its trading, securities, and derivatives activities which account for the majority of its credit exposure.

BofASE SA's credit processes align with BAC's credit policies and credit risk appetite across FLUs and are compliant with applicable laws, rules, and regulations. Credit Risk Management oversees decisions about the amount of credit to extend to borrowers consistent with BofASE SA's credit risk appetite.

Borrowers' credit risk profiles are assessed through risk modelling, underwriting, and asset analysis, while considering current and forward-looking views on economic, industry, and borrower outlooks to ensure portfolio asset quality within FLUs remains within approved credit risk limits. New products and credit terms and conditions are differentiated based on risk, within the limits of risk appetite.

Counterparty credit risk in BofASE SA arises from the creditworthiness of BofASE SA's trading partners and varies by type of transaction. Credit Risk Management manages counterparty risk with specific policies, limits, and controls. BofASE SA has a clearly established process in place for on-boarding new counterparties, as well as for managing existing counterparties. Policies and processes for assuming credit risk are well documented without undue reliance on external credit assessments.

BofASE SA sets limits and tenor at the individual counterparty level and aggregate family level, based on the counterparties' risk profiles. Investment Advisor 'As Agent' limits can also be set as needed. Mark-to-market exposure and potential exposure are measured taking applicable collateral into account. BAC sets counterparty concentration limits also at country and industry levels. The principal exposure measure for a traded product is potential exposure, which governs pre-settlement exposure and represents a statistical estimate of the 95%-confidence, ;worst case' exposure that could be realized over the life of a transaction.

Additionally, to determine regulatory capital requirements for derivative contracts, potential future credit exposures are considered which include the notional amount of the derivative multiplied by prescribed percentages as set out in the Capital Requirements Regulation (Part Three, Title II, Chapter 6).

Counterparty risk exposures are considered within the context of the broader credit risk portfolio across FLUs and legal entities. Trading exposures with counterparties are accounted for in the assessment of portfolio concentrations so credit decisions reflect complete, accurate, and timely information.

Portfolio Management

Once a credit limit has been extended, processes are in place to monitor BofASE SA credit risk exposure at both the individual borrower and portfolio levels. Key credit risk exposures are assessed under both normal and stress scenarios and credit risk is managed primarily through establishing and monitoring limits. Credit risk may be hedged to mitigate exposure and to remain within BofASE SA credit risk appetite and return expectations.

Regular portfolio monitoring and reporting and business-specific governance routines, including periodic testing and examinations by Credit Review, which is part of Corporate Audit, enable detection of deteriorating credit trends, development of mitigation strategies, and measurement of the effectiveness of actions taken. At the borrower and counterparty level, the risks inherent in ongoing financial performance are reviewed. At the portfolio level, aggregate losses, credit performance, and concentrations in baseline and potential stress scenarios are assessed.

As part of the portfolio management process, loss experience is evaluated compared to expected losses against established credit risk metrics for the entire credit portfolio, including obligor and facility rating distributions for the portfolio. In addition, targeted and portfolio stress testing and scenario analysis are performed and reviewed.

Loss and Credit Risk Mitigation Activities

At times, borrowers and counterparties do not fulfill their obligations, and steps are taken to mitigate and manage losses. Dedicated teams and stringent processes are in place to appropriately manage non-performing assets.

BofASE SA maintains appropriate levels of capital in compliance with all applicable regulatory requirements to absorb unexpected losses. During a credit cycle, BofASE SA may experience a concentration of losses and would intensify efforts to mitigate losses, balancing fiduciary responsibilities to protect asset values with BofASE SA's principles to serve its customers.

BofASE SA establishes, reviews, and updates policies and process to apply netting where appropriate and may treat contractual netting agreements as risk-reducing for purposes of EU Capital Requirements Regulations subject to certain conditions. If positive netting opinion and collateral enforceability are determined, risk exposure is defined net of the collateral when legal documentation with BofASE SA's counterparties is in place.

The Global Banking and Markets ("GBAM") Legal Department provides written legal advice regarding the enforceability of netting agreements for certain traded products agreements. The GBAM legal department performs a periodic legal review of such written legal advice, no less frequently than annually.

BofASE SA employs a range of techniques to actively mitigate counterparty credit risks. BofASE SA accepts collateral that it is permitted by documentation, such as repurchase agreements or a CSA to an International Swaps Dealers Association Master Agreement (“ISDA”). For derivatives, required collateral levels may vary depending on the credit quality of the party posting collateral. Generally, collateral is accepted in the form of cash and high grade government securities.

BofASE SA credit risk exposure is net of collateral when legally enforceable netting agreements are recognised. In order to benefit from close-out netting / enforceability of collateral, written legal opinions are required to confirm: (a) (i) the enforceability of close-out netting under a Master Agreement, (ii) enforceability of credit support agreements (if applicable) in the jurisdiction of incorporation of the counterparty in each case for the relevant type of counterparty; (b) where applicable for Uncleared Margin Rules (“UMR”) purposes or otherwise, (i) the enforceability of collateral arrangements in respect of BofASE SA, the counterparty and the custodian including in the event of bankruptcy, insolvency or other similar proceeding; and (ii) the ability of the collateral provider and collateral taker to recover collateral held by the custodian. Credit risk management will consult with the Legal department to ensure that any necessary capacity and authority matters, country and enforceability issues and product approvals are addressed.

The collateral eligible for exchange is subject to BAC’s collateral policies and relevant regulatory requirements (e.g., European Market Infrastructure Regulation ("EMIR")). Policies are in place to value and manage collateral according to its type and risk characteristics.

The Marketable Securities and Other Liquid Collateral Policy establishes criteria for the types of marketable securities and other liquid assets that are acceptable as collateral when there is a reliance on such collateral as the primary or secondary source of repayment. It defines parameters for maintaining collateral values. It also addresses risk mitigation, documentation, monitoring, control, and compliance with legal and regulatory requirements. Business units have documented processes to comply with this policy and, where monitored less than daily, reduced advance rates may be applied to account for the increased market risk. When FLU Credit and Enterprise Credit Risk ("ECR") are negotiating CSAs with counterparties, the list of eligible collateral is defined based on counterparty’s credit profile. At any point in time, they can request updating the collateral list should the counterparty’s credit profile change.

Daily valuations are carried out on market trading activities such as collateralized over-the-counter ("OTC") derivatives and structured finance trades in support of margining requirements. All requests for non-standard collateral are approved through the Non-Standard Collateral Review Process. Collateral Management report and escalate collateral disputes and fails through established routines.

Derivatives exposure are increasingly routed through Central Counterparties in response to regulation changes being phased-in globally. UMR is a regulatory mandate requiring the exchange of Variation Margin (“VM”) and Initial Margin (“IM”) for uncleared OTC Derivative bilateral trades. UMR was effective for Initial Margin 1 September 2016 for the largest international bank holding companies and their subsidiaries with a further phased-in compliance based on aggregate trading notionals annually every September until 2020. UMR regulatory Variation Margin was effective for all applicable counterparties on 1 March 2017.

The main type of collateral that BofASE SA accepts for its Global Markets business consists of US Dollar Cash and Government bonds from investment grade G7 countries. Any such collateral taken in respect of trading exposures will be subject to a ‘haircut,’ which is negotiated at the time of signing the collateral agreement. A haircut is the valuation percentage applicable to each type of collateral and will be largely based on liquidity and price volatility of the underlying security. Where applicable, regulations in certain jurisdictions may specify minimum haircuts on eligible collateral. In the situation where an ISDA / CSA is subject to UMRs of multiple regulatory regimes, the accepted haircuts are floored by regulatory minimums, while more conservative haircuts may be negotiated. Where haircuts are not required by regulations, haircuts associated with acceptable forms of collateral are standard haircuts calculated by Counterparty Credit Risk Portfolio Management. Any deviation from these is subject to approval following the "Agreements and Documentation Escalation Grid guidelines." The standard haircut table for Eligible Collateral is maintained by Counterparty Credit Risk Portfolio Management and updated on at least an annual basis.

Credit Risk Governance

BofASE SA Credit Risk Management is integrated into the BAC and BofASE SA governance structure as described earlier in the document. The Credit Risk governance structure enables a system of risk escalation, which includes the hierarchy and process to be followed for approvals, limit excesses, policy variances, and internally identified issues and emerging risks.

Credit risk policies form an important part of BAC's and BofASE SA's risk governance framework. Policies govern the extension of credit and the management of credit relationships in order to:

- Align day-to-day employee decision-making with the Risk Framework, Risk Appetite, and risk management objectives
- Foster understanding and compliance with all relevant laws, rules, regulations, and regulatory guidance
- Describe standards for underwriting and management of credit risk exposures
- Define approval authorities, including authorities for exceptions to policy and higher risk or specialized transactions

Core Credit Policies are supplemented, as needed, by individual Business Unit or Legal Entity policies which contain additional requirements specific to individual Business Unit / Legal Entity needs.

FLU Credit oversees credit risk management processes and governance in accordance with BofASE SA's requirements and authority levels. Credit risk teams oversee credit risk management processes in accordance with BAC's subsidiary governance requirements. This includes reporting to various risk governance committees, executive management, and boards of directors.

Credit Risk Reporting

Transparency of credit risk is critical to effective risk management. To ensure appropriate transparency and escalation across FLUs, BAC Board and BofASE SA Board, and executive management, comprehensive and actionable credit risk reporting containing the required granularity of content for each level of seniority is produced.

Exposure under BofASE SA's RAS credit risk limits is reported on an ongoing basis.

The MRC and Board materials provide additional information on the composition of the risk exposure. This includes exposure by sector, country, and traded product types and allow for the monitoring of potential concentration of risks. Weekly risk updates are provided to BofASE SA's Chief Executive Officer ("CEO"). The MRC receives a monthly limit monitoring report and the Board receives quarterly reporting.

Regular reporting for BofASE SA management and board committees includes monitoring of credit risk exposure against Board approved Risk Appetite limits, as well as more detailed credit information covering total outstanding volumes, key counterparty exposures, and credit quality trends. Credit risk reporting enables appropriate risk escalation.

4.3.3. Market Risk

Definition

Market risk is the risk that changes in market conditions may adversely impact the value of assets or liabilities or otherwise negatively impact earnings, capital, or liquidity.

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

- Price risk is the risk to current or projected financial condition and resilience arising from changes in the value of either trading, investment, or asset and liability management ("ALM") portfolios. It arises from financial transactions in interest rate, foreign exchange ("FX"), equity, commodities, and credit markets. These transactions are typically subject to daily price movements and are accounted for primarily on a mark-to-market basis, although accrual or hedge-accounted positions that include traded products are also relevant. Price risk includes the credit risk of traded products (e.g., the ability of an issuer to pay amounts due to satisfy contractual cashflows). It also includes market exposure that is contingent upon a counterparty default or a change made prior to maturity of a hedged or accrual accounted position

- Interest rate risk is the risk to current or projected financial condition and resilience arising when changes in interest rates impact expected future cash flows. Interest rate risk results from differences between the timing of rate changes and the timing of cash flows (repricing risk), from changing rate relationships among different yield curves affecting bank activities (basis risk), from changing rate relationships across the spectrum of maturities (yield curve risk), and from interest-related options embedded in bank products (options risk)

Market Risk Measurement

At the asset and liability level, market risk is assessed by evaluating the impact of individual risk factors on individual exposures. At the aggregate level, price risk is assessed primarily through risk models, including VaR models. BofASE SA's aggregate potential economic exposure, as well as earnings and capital sensitivity, to interest rate risk in the non-trading book is also assessed.

BofASE SA has been granted permission by the ACPR to use an Internal Model Approach ("IMA") for the following models in calculating regulatory capital for market risk: VaR, Stressed VaR, Incremental Risk Charge ("IRC"), and Comprehensive Risk Measure ("CRM"). The capital requirement for trading book positions that do not meet the conditions for inclusion within the approved IMA is calculated using standardised rules.

Value at Risk

VaR is a statistical measure of potential portfolio market value loss resulting from changes in market variables, during a given holding period, measured at a specified confidence level. A single model is used consistently across the trading portfolios.

VaR for regulatory capital calculations ("Regulatory VaR") is equivalent to a 99% confidence level, has a ten-day holding period and uses three years of historic data. Actual ten-day historical moves capture both serial correlation in the market data and non-linearity of exposures.

Stressed VaR for regulatory capital calculations is equivalent to a 99% confidence interval, has a ten-day overlapping holding period, and uses a historical window that is calibrated to a continuous 12-month period that maximises the resulting VaR calculation for BofASE SA. A scalar is applied to correct for autocorrelation introduced by the use of overlapping holding periods.

VaR is also used for management reporting purposes ("Trading VaR"). Two measures are calculated: a version using three years of historic data and a version which uses a one-year period in order to reflect more recent market volatility. Both are equivalent to a 99% confidence level and have a one-day holding period.

BofASE SA uses a historical simulation approach to calculate VaR. A hypothetical P&L distribution is generated for the current portfolio using time series of historical risk factor changes via Risk Grids / Scenarios and Full Revaluation for benchmarking. While the historical simulation does not require explicit assumptions about the distribution of the underlying market variables, the general mathematical process that governs each risk factor’s behaviour is modelled. The Specific Risk of equity and debt positions is captured in the VaR calculation by measuring each issuer’s risk using its own history wherever possible. Where it is not possible, in the case of credit specific risk, the VaR model overlays a parameterized stochastic residual component to capture idiosyncratic risk. VaR calculations are performed for portfolios on a fully integrated basis, so no further assumption regarding correlation is necessary. In order for the VaR model to reflect current market conditions, the historical data is updated on a weekly basis, or more frequently during periods of market stress.

Key differences between the model parameters used for regulatory capital and for internal management purposes are listed in the table below. In particular, regulatory standards require that Regulatory VaR only include the in-scope trading book positions, while Trading VaR also includes out-of-scope trading book positions. The IMA Permission defines which products may be included in the Regulatory VaR calculation.

Table 4.3.3.T1. – Differences between the VaR for Regulatory and Management Reporting Purposes

Scope	Covered Positions as Defined by ACPR Approval	Covered Positions as Defined by ACPR Approval	Covered Positions and Non-Covered Positions
Liquidity horizon (holding period)	10 days (unscaled)	10 days (unscaled)	1 day
Historical Window	3 years	Worst 1 year back to 15/1/2007	1 year and 3 years

For positions with insufficient historical data for the VaR calculation, the process for establishing an appropriate proxy is based on fundamental and statistical analysis of the new product or less liquid position. This analysis identifies reasonable alternatives that replicate both the expected volatility and correlation to other market risk factors that the missing data would be expected to experience.

BofASE SA identifies and assesses any risks that are not adequately captured by its models on at least a quarterly basis and holds additional own funds against those risks. Pricing model parameters are being stress tested and capitalised in the Risks Not in VaR (“RNIV”) framework.

Incremental Risk Charge

IRC estimates the potential losses, at a 99.9% confidence level, that non-securitised credit products in the trading portfolio might experience over a one-year period of financial stress from defaults, ratings migration and significant basis risk factors. The IRC model captures the incremental risk for products that are covered by credit specific risk approval.

The IRC model utilizes a Monte-Carlo framework to simulate transitions and defaults. Additional risk factors include recovery rates, bond-credit default swap ("CDS") basis, index-single name basis, index option volatility, and FX. The model assumes a constant position, so the liquidity horizon is the same as the capital horizon of one year. The transition matrix is sourced from published rating agency data.

The IRC model captures issuer and market concentrations through the multi-factor framework of the model and the fact that the market data is evolved for all users. The asset correlation for each pair of issuers is defined at the sector / region level. The model also captures the negative correlation between default and recovery rate, and the co-movement between the macroeconomic variable, and other market driven risk factors.

Comprehensive Risk Measure

CRM estimates the potential losses, at a 99.9% confidence level, that the correlation trading portfolio (primarily tranches on credit index and bespoke credit portfolios, with their corresponding hedges) might experience over a one-year period of financial stress.

CRM is comprised of a modelled component and a surcharge for the eligible positions in the correlation trading portfolio. The modelled component of CRM utilizes the same Monte-Carlo simulation framework as the IRC model, with the inclusion of additional risk factors that materially impact the value of the positions within the correlation trading portfolio. The model captures the complexity of these positions, including the non-linear nature of the trade valuations, particularly during periods of market stress, as well as the impact of the joint evolution of the risk factors.

The CRM and IRC models share the usage of the rating migration / default risk factor, with CRM employing an additional risk factor for credit spread diffusion. Here the combined migration / default and credit spread risk factors act as a jump-diffusion process. In this model, credits are organized into sectors and regions to take into account the correlated moves across industries or markets. In order to capture the correlation between names and the economy, the model uses an economy-wide factor that drives the evolution of all names and factors specific to each sector and region. The jump component is also correlated to the diffusion component through these factors. This allows for the simulation of widening credit environments, while also capturing the increase in default rates that would be observed in these scenarios.

The base correlation data used in CRM is sourced from front office data, which uses a stochastic recovery Collateralised Debt Obligation ("CDO") model. The CRM model applies an instantaneous shock to the portfolio as of the calculation date. The modelled component of the CRM, like the IRC model, assumes a constant position and a liquidity horizon of one year.

Market Risk Management

BofASE SA Market Risk Management provides independent challenge and oversight to the FLUs. BofASE SA adheres to the Global Markets Market Risk Policy and the Global Markets Market Risk Limits Policy. In addition, a BofASE SA Market Risk Policy Supplement specifies additional corporate governance and regulatory requirements beyond those stated in the global policies and is approved by the MRC.

BofASE SA manages and monitors its market risk exposures in a way that reflects BofASE SA’s Risk Framework. Assessing key exposures and setting and monitoring limits to ensure that BofASE SA operates within the approved risk appetite are at the core of BofASE SA’s approach to managing market risk.

Robust monitoring and reporting processes for limits are in place, with limit breaches triggering appropriate notification and escalation. The MRC and the BRC review and recommend Risk Appetite limits for approval to the Board. VaR, stress, and sensitivity limits are set at various levels of granularity, ensuring extensive coverage of risks as well as accounting for correlations among risk factors.

Stress testing and scenario analysis are performed to capture the potential risk that may arise in severe but plausible events. These stress tests may be hypothetical or historical, and applied to individual instruments or the aggregate BofASE SA portfolio. Markets Risk Management identifies points of weakness and concentrations in the BofASE SA portfolio or where the entity holds positions that are illiquid or which could be exposed to particular extreme tail events. Stress scenarios may be specifically designed to target potential vulnerabilities that are not always easy to capture or model using VaR, or where there may be difficulty in hedging or exiting positions in a timely fashion, or at a reasonable price, in an extreme event.

Market Risk Governance

BofASE SA market risk is identified, monitored, and controlled by Global Markets Risk Management. The responsibilities of this independent control function include ownership of markets risk policy, calculating aggregated risk measures, establishing and monitoring position limits consistent with risk appetite, conducting daily reviews and analysis of trading inventory, approving material risk exposures, approving new trades, and fulfilling regulatory requirements.

The IMA models used in BofASE SA are continually reviewed, evaluated, and enhanced so that they reflect the material risks in the trading portfolio. Global Risk Analytics develops, tests, monitors, and documents the IMA models. Model development documentation and testing includes model theoretical framework, assumptions and limitations, model development data, model performance, and model implementation. The ongoing monitoring includes outcomes analysis, benchmarking, and process verification. Model Risk Management ("MRM"), as an independent control function, conducts model validations following the implementation of a new model or a model change that requires validation and MRM approval is required before models are used. Model validation includes the following: Documentation Review, Review of Assumptions / Underlying Theory, Implementation Verification, Calibration / Estimation, Convergence, and Stability and Stress Tests. In addition, through the Ongoing Monitoring Review and Annual Model Review, MRM periodically reviews the performance of all models. Finally, MRM revalidates all models on a cycle based on the model risk rating.

Changes to IMA models used within BofASE SA are reviewed and approved prior to implementation and any material changes are reported to management through the appropriate management committees, as well as to the ACPR where required.

The effectiveness of the VaR methodology of BofASE SA is evaluated and monitored through backtesting, which compares the daily VaR results, utilising a one-day holding period, against actual and hypothetical changes in portfolio value as defined in CRR Article 366. A backtesting overshoot occurs when a trading loss exceeds the VaR for the corresponding day. These overshoots are evaluated to understand the positions and market moves that produced the trading loss in order to ensure that the VaR methodology accurately represents those losses. Exceptions at the legal entity or business level, are documented and reported to the ACPR, as appropriate, as part of regulatory reporting processes.

On an annual basis, a stressed IRC and CRM are calculated for BofASE SA as part of BAC's Group-wide regulatory stress testing framework using a model based scalar. In particular, the impact of default for mark-to-market and capital purposes is assessed by shocking market observables to levels specified in the internal severely adverse scenario.

The calibration input data for the IRC and CRM models is validated through a Qualitative Assessment process. Spreads, recovery rates, and expected loss data is checked for spikes, jumps, and flat data. In order to monitor the model performance at the risk factor level, the simulated risk factor changes for spreads, defaults, and FX are compared against historically observed changes on a yearly basis.

Market Risk Reporting

Transparency of market risks is critical to effective risk management. BofASE SA produces reports on exposure, including VaR, Stress, and Risk Factor sensitivities. BofASE SA also reports on risks such as yield curve shifts and twists, changes to implied volatility, correlations between market variables, and credit spreads.

Market risk reports are distributed to senior management within Markets Risk Management and, where appropriate, to relevant stakeholders, including FLUs and top of house senior management. Markets Risk Management also contributes to governance committee reports.

4.3.4. Liquidity Risk

Definition

Liquidity Risk is the inability to meet expected or unexpected cash flow and collateral needs while continuing to support the businesses and customers, under a range of economic conditions.

Liquidity Risk Management

The BofASE SA Liquidity Risk Policy (“LRP”) defines the approach to managing BofASE SA’s liquidity, aligned to group processes and tailored to meet BofASE SA’s business mix, strategy, activity profile, risk appetite, and regulatory requirements and is approved by the Board. The MRC reviews and recommends Risk Appetite limits to the BRC, which in turn reviews and recommends to the Board for approval. Each of the FLUs are accountable for managing liquidity risk within the BofASE SA Liquidity Risk Appetite. Global Risk Management ("GRM") provides independent oversight and supervision of FLU activities, an independent view of the liquidity risk of FLU activities, and assesses the effectiveness of BofASE SA's liquidity risk management processes. GRM works with Treasury and the businesses to monitor actual and forecast liquidity and funding requirements with a focus on limit utilisation and trends, and any change in business / market behaviour may require a change in liquidity risk management. The BofASE SA LRP further describes the Liquidity Risk roles and responsibilities including requirements for liquidity risk limits, stress testing, analytics and reporting, and recovery and resolution planning.

Liquidity Risk Governance

The Board sets the liquidity risk appetite that is the minimum amount of liquidity that must be held to meet net modelled outflows under an internally developed combined stress scenario and to comply with regulatory requirements and appropriate funding metrics. GRM is responsible for maintaining a liquidity risk limits framework to ensure that the entity is managed within its liquidity risk appetite. In line with the BAC Risk Framework, liquidity risk limits are classified as:

- Board-owned Risk Appetite
- MRC-owned Management Level Appetite Limits
- Non-Risk Appetite Limits
- Early Warning Indicators

Limits are monitored and reported daily, and a clear escalation path to Senior Management, the MRC, the BRC, and the Board by limit category and breach type exists.

Liquidity Risk Reporting

Daily liquidity reporting enables liquidity risk monitoring and appropriate risk escalation, which includes defined protocols for limit breaches and emerging risks and issues. Regular liquidity risk reports are sent to the Board, the BRC, and BofASE SA senior management.

4.3.5. Compliance and Operational Risk

Definition

BofASE SA operates in a highly regulated environment. The complexity and volume of BofASE SA's products, services, and customers means that BofASE SA is subject to numerous laws, rules, and regulations that define the regulatory requirements it must satisfy across the jurisdictions in which it operates. Changes to existing products and services, new product innovations in delivery of services, expanding markets, and changes to the technology infrastructure create changes to BofASE SA's operational risk profile that must be anticipated and managed to mitigate adverse impacts to BofASE SA.

Compliance risk is the risk of legal or regulatory sanctions; material financial loss or damage to the reputation of the BofASE SA arising from the failure to comply with the requirements of applicable laws, rules, and regulations; and internal policies and procedures. BofASE SA is committed to the highest level of compliance and has no appetite for violations of legislative or regulatory requirements and seeks to anticipate and assess compliance risks to its core businesses and respond to these risks effectively should they materialise. While BofASE SA strives to prevent compliance violations in everything it does, it cannot fully eliminate compliance risk, but manage it by establishing permissible thresholds to reduce exposure to financial loss, reputational harm, or regulatory sanctions.

Operational risk is the risk of loss resulting from inadequate or failed processes, people, and systems or from external events. BofASE SA has designed an operational risk management program that incorporates and documents process for identifying, measuring, monitoring, controlling, and reporting operational risk information to executive management and the appropriate board of directors, or appropriate board-level committees. Operational risk is managed by establishing permissible thresholds to reduce exposure to financial loss, reputational harm, or regulatory sanctions.

BofASE SA adopts the Standardised approach for calculating operational risk capital requirements for Pillar 1. As part of the annual ICAAP, the adequacy of Pillar 1 regulatory capital requirements is assessed via scenario analysis and stress testing that considers the material Compliance and Operational risks documented within the BofASE SA Risk Self Assessment.

Compliance and Operational Risk Management

BofASE SA is committed to maintaining strong compliance and operational risk management practices across all FLUs and control functions. BofASE SA manages compliance and operational risk through an integrated set of controls and processes to address external and internal risks, including a complex and dynamic regulatory environment and the evolving products, services, and strategies of the FLUs and control functions. Every employee is responsible to understand these risks and to identify, mitigate, and escalate compliance and operational risks and issues.

FLUs and control functions are first and foremost responsible for managing all aspects of their businesses, including their compliance and operational risk. FLUs and control functions are required to understand their business processes and related risks and controls, including the related regulatory requirements, and monitor and report on the effectiveness of the control environment. In order to actively monitor and assess the performance of their processes and controls, they must conduct comprehensive quality assurance activities and identify issues and risks to remediate control gaps and weaknesses. FLUs and control functions must also adhere to compliance and operational risk appetite limits to meet strategic, capital, and financial planning objectives. Finally, FLUs and control functions are responsible for the proactive identification, management, and escalation of compliance and operational risks.

BAC has combined the Compliance and Operational Risk management control functions into a single integrated function under common leadership. This combination allows the BofASE SA to bring professionals with complementary subject matter expertise together to assess business processes. It also gives a broader view of the key compliance and operational risks facing the businesses and control functions, with the ability to develop wide-ranging coverage plans to address risk more holistically, aggregate quantitative and qualitative data across the two disciplines and provide greater visibility into systemic issues in business activities so that critical risks are understood and adequately controlled.

In regard to conduct risk, we have established protocols and structures so that conduct risk is governed and reported across BofASE. To enable appropriate and effective oversight of conduct risk, conduct-related information is evaluated by FLUs and control functions, and escalated to management, EU Conduct Risk Council or board governance routines as appropriate. BofASE SA has no tolerance for violations of conduct policies and procedures and while we strive to prevent conduct violations in everything we do, we cannot fully eliminate such risks. When potential employee misconduct is detected, we gather relevant information to evaluate the findings and take the appropriate disciplinary action. Furthermore, we evaluate trends and themes to determine whether any additional remedial actions or control improvements are needed.

The BofASE SA Compliance and Operational Risk Officer leads the combined organization, which, together with the FLUs and control functions, has responsibility for knowing what it means to conduct BofASE SA's daily activities within the limits of the compliance and operational risk appetites. Global Compliance and Operational Risk sets BAC-wide policies and standards and provides independent challenge and oversight to the FLUs and control functions. The Compliance and Operational Risk teams comprise subject matter experts who understand the front to back processes and controls by which BofASE SA delivers products and services, understand applicable laws, rules, and regulations, and know whether the processes and controls are operating effectively. These teams independently assess compliance and operational risk, monitor business activities and processes, determine and develop tests to be conducted by the Enterprise Independent Testing unit, and report on the state of the control environment. Global Compliance and Operational Risk also collaborates with other control functions to provide additional support for specific remediation efforts (e.g., high-profile Matters Requiring Attention) and shares responsibility with the FLUs, Global Risk Management and other control functions for mitigating risks, such as reputational risks and risks associated with improper conduct.

In addition, teams in Global Compliance and Operational Risk cover areas, such as Financial Crimes and Information Security / Cybersecurity, that affect multiple FLUs or control functions. These horizontal teams are responsible for, among other things, reviewing the FLUs' and control functions' risk management practices related to these specific areas to gauge the effectiveness and consistency of the controls across business units, monitoring losses and reporting and overseeing processes for accuracy and adherence to the Compliance and Operational Risk standards.

Finally, in some cases, Compliance and Operational Risk oversight is carried out by other control functions based on standards established by Global Compliance and Operational Risk. Areas not directly overseen by Global Compliance and Operational Risk are typically subject to laws, rules, and regulations that require specific expertise. These "indirect areas of coverage" are required to carry out specific activities to identify and report to Global Compliance and Operational Risk regarding specific compliance issues and the effectiveness of compliance risk management within these areas.

Compliance and Operational Risk Governance and Reporting

Global Compliance and Operational Risk employs a governance structure to escalate material risks and issues, as well as the changes to BofASE SA's compliance and operational risk policies and procedures. The goal of having this governance structure is to drive accountability for risk management, including decision making, oversight, and escalation, at all levels throughout BofASE SA.

Compliance and Operational Risk issues in BofASE SA are reviewed at the MRC, the BRC, and the Board.

Compliance and Operational Risk reporting and escalation to senior management and the Board are essential to ensuring a clear understanding of current and emerging risks across BofASE SA, as well as whether BofASE SA is operating within Compliance and Operational Risk Appetite limits, so it can promptly take action to address out of tolerance risks. Reporting includes results of compliance and operational risk assessments, monitoring and testing results, regulator-identified issues, and other compliance and operational metrics. To support decision making within management routines and governance committees, significant compliance and operational risks and issues are escalated to management-level committees, board-level committees, and the Board.

4.3.6. Reputational Risk

Definition

Reputational risk is the potential risk that negative perceptions of BAC conduct or business practices will adversely affect its profitability or operations through an inability to establish new or maintain existing customer / client relationships or otherwise impact relationships with key stakeholders, including regulators, employees, and the community.

Reputational Risk can stem from many of BAC activities, including those related to the management of the strategic, operational, or other risks, as well as the overall financial position. As a result, BAC evaluates the potential impact to the reputation within all of the risk categories and throughout the risk management process.

Reputational Risk Management

BAC manages reputational risk through established policies and controls in the business and risk management processes to mitigate reputational risks in a timely manner and through proactive monitoring and identification of potential reputational risk events. In addition, reputational risk is also reflected as one of the considerations in the assessment of operational risk scenarios.

At the BAC Group level, reputational risk is reviewed by the Enterprise Risk Committee ("ERC") and the MRC, which provide primary oversight of reputational risk. Additionally, top reputational risks are reviewed by the GRM Leadership team and the BAC Board.

Reputational risk items relating to BofASE SA are considered as part of the EU / UK & CEEMEA Reputational Risk Committee, whose mandate includes consideration of reputational risk issues and to provide guidance and approvals for activities that represent specific reputational risks which have been referred for discussion by other current control frameworks or lines of business.

Activities will be escalated to EU / UK & CEEMEA Reputational Risk Committee for review and approval where elevated levels of reputational risk are present. Examples of activities include:

- Business activities that present significant legal, regulatory, or headline risk
- Violations of, or deviations from, BAC policies
- Concerns about customer / client identity or integrity, money laundering, potential criminal activity, or potential violations of economic sanctions requirements, such as direct or indirect terrorist financing or operation of an account for or on behalf of a sanctioned country, company, or person
- Business activities that have a particular accounting, finance, or tax treatment as a material objective
- Business activities that raise the possibility that BAC might have an undisclosed or significant conflict of interest
- Business activities from which BAC expects to receive disproportionate compensation compared with the services provided, investments made, and / or risks assumed
- Business activities which due to their nature or due to the current or historic reputation of any of the parties involved, might reflect adversely on BofASE SA reputation or suggest the need for close scrutiny
- Business activities that present the risk of creating information or security breaches or consumer privacy issues
- Business activities that may present environmental or social risks due to actions by BofASE SA or any of the parties involved.
- Business activities or practices that may follow longstanding industry practice where there is the potential for a shift in public sentiment such that the business activity or practice might now or in the future be perceived as unfair, improper, or unethical
- Business activities that are similar to other activities in BofASE SA or another firm that have caused reputational harm
- Any potential reputational risk associated with the introduction, modification, or discontinuation of products, services, lines of business, or delivery channels
- Any reputational risk concerns that are specific to the business, region, or the markets in which the business operates

Ultimately, to ensure that reputational risk is mitigated through regular business activity, awareness of reputational risk is integrated into the overall governance process, as well as incorporated into the roles and responsibilities for employees.

Given the nature of reputational risk, BAC does not set quantitative limits for the level of acceptable risk. Through proactive risk management, BAC seeks to minimise both the frequency and impact of reputational events.

Reputational Risk Governance

BAC has an appropriate organisational and governance structure in place to ensure strong oversight at both the BAC Group and business levels.

The EU / UK & CEEMEA Reputational Risk Committee membership consists of executive representation from Markets, Global Corporate and Investment Banking, and control functions (Legal, Compliance, and Risk). This includes senior representatives from BofASE SA. The committee is co-chaired by the Regional Presidents and CROs. The EU / UK & CEEMEA Reputational Risk Committee charter requires that a majority of members must be present, including a co-chair and all control functions, in order for meetings to proceed.

The EU / UK & CEEMEA Reputational Risk Committee is a sub-committee of both the EU, UK & CEEMEA Regional Risk Committee, and the Global Reputational Risk Committee and is applicable to all key legal operating entities in the region. Items requiring increased attention may be escalated from the EU / UK & CEEMEA Reputational Risk Committee to the Global Reputational Risk Committee, as appropriate. The MRC and the BRC is informed of such matters through a BofASE SA specific report.

Reputational Risk Reporting

The reporting of BofASE SA reputational risk issues is captured as part of the management routines for the EU / UK & CEEMEA Reputational Risk Committee. Issues that are identified and presented for discussion as part of the meeting logistics are included in reporting. Tracking of items presented to EU / UK & CEEMEA Reputational Risk Committee is maintained through reporting which provides detail such as description of the reputational risk issue, geographical jurisdiction of the issue, reason for escalation, and decision reached by EU / UK & CEEMEA Reputational Risk Committee and which legal entity the issue relates to. Summary reporting of the EU / UK & CEEMEA Reputational Risk Committee issues is provided to the EU / UK & CEEMEA Regional Risk Committee on a quarterly basis as part of the control function support papers. In addition, the EU / UK & CEEMEA Reputational Risk Committee provides updates to the BRC on a quarterly basis through a standing agenda item.

4.4. Other Risk Considerations

The risk management approach outlined in Section 4.2. Risk Management Approach also allows BofASE SA to manage the other risk considerations set out below.

4.4.1. Wrong-Way Risk

Wrong-way risk exists when there is adverse correlation between the counterparty's probability of default and the market value of the underlying transaction and / or the collateral. Examples of wrong-way risk include, but are not limited to, situations that involve a counterparty that is a resident and / or incorporated in an emerging market entering into a transaction to sell non-domestic currency in exchange for its local currency; a trade involving the purchase of an equity put option from a counterparty whose shares are the subject of the option; or the purchase of credit protection from a counterparty who is closely associated with the credit default swap reference entity.

BAC uses a range of policies and reporting to identify and monitor wrong-way risk across the portfolio. The Correlation and Concentration Risk policy describes the governance, limit frameworks, approval requirements, and roles and responsibilities for the management of wrong-way risk exposures. Forums have been established to review potential situations of wrong-way risk, and depending on the nature of the wrong way risk, Risk Management may require pre-trade approval or apply various portfolio limits. In keeping with BAC's Risk Management Framework, several processes exist to control and monitor wrong-way risk, including reviews at the BAC Global Markets Risk Committee and BAC Credit Risk Committee.

4.4.2. Impact of a Credit Rating Downgrade on OTC Collateral

The full impact of a credit rating downgrade on BofASE SA depends on numerous factors, including: (1) the type and severity of any downgrade; and (2) the reaction of counterparties, customers, and investors who face BofASE SA.

Based on the terms of various over-the-counter derivatives contracts and other trading agreements, a rating downgrade may result in BofASE SA posting additional collateral to counterparties or counterparties choosing to unwind or terminate specific transactions. In either case, BofASE SA could experience liquidity outflows or the loss of funding sources. The materiality of such events will depend on whether the downgrade affects long-term or short-term credit ratings, as well as whether credit ratings drop by one or more levels.

The potential impact of a credit rating downgrade on collateral is monitored continuously and factored into BofASE SA's internal liquidity stress testing. As of 31 December 2019, BofASE SA was in excess of its liquidity requirements, with no additional outflows resulting from either a one-notch or two-notch downgrade scenario.

4.4.3. Securitisation Risk Governance and Reporting

Securitized products, in the form of Collateralized Loan Obligation and Asset-Backed Securities("ABS"), are approved products for BofASE SA. Nevertheless, the entity did not engage in the secondary trading of these products in 2019. The monitoring and controls tools are in place via VaR based modelling and stress testing in case BofASE SA was to engage in trading of securitized products.

4.4.4. Contingent Market Risk

Contingent Market Risk (“CMR”) arises from concentrated positions with a single counterparty or a subset of counterparties. Traditional exposure metrics, like potential exposure and credit valuation adjustment ("CVA"), trend towards zero with the rise of overcollateralization and central clearing, while tail risk remains. This risk is captured by measuring concentrated positions while remaining agnostic to specific market scenarios and counterparty worthiness. BofASE SA is subject to various BAC Group-level CMR limits by asset class and risk factor, based on appropriate measures and levels, taking into account market liquidity, risk appetite stress scenarios, and business rationale. Limits are reviewed and monitored by Counterparty Credit Risk Portfolio Management. Permanent limits are approved at the BAC Global Markets Risk Committee, or by delegated authority from that committee.

4.4.5. Pegged Currency Risk

A pegged exchange rate is a type of exchange rate regime where a currency's value is managed against either the value of another single currency, to a basket of other currencies, or to another measure of value. Pegged Currency Risk arises when the peg “breaks,” such as that which occurred in January 2015 when the Swiss National Bank announced it would no longer be pegging its currency, the Swiss Franc, to the Euro. BofASE SA is subject to various BAC Group Pegged Currency limits for each pegged currency, across different ratings buckets and at the single name and portfolio level. Limits are reviewed and monitored by Counterparty Credit Risk Portfolio Management. Permanent limits are approved at the BAC Global Markets Risk Committee, or by delegated authority from that committee.

4.4.8. Exposures to Interest Rate Risk in the Non-Trading Book

No detailed disclosures are made in respect of exposures to interest rate risk in the non-trading book as the information provided by such disclosure is not regarded as material. However, these exposures are actively monitored.

4.4.7. New Products

BofASE SA is committed to offering products and services that are appropriate, are aligned with BofASE SA's strategic plans and risk appetite, and comply with applicable laws and regulations in the jurisdiction(s) in which they are offered.

BofASE SA complies with the BAC New Product Review and Approval Policy, which establishes requirements designed to identify and mitigate risks associated with New Products. This Policy requires that New Products be assessed across all risk categories, including consistency with Risk Appetite, prior to product implementation.

Under this policy, businesses are required to develop and maintain a New Product Review and Approval process and related procedures that address the identification, review, approval, and monitoring, including post implementation review of New Products and meets pre-defined minimum requirements in respect of governance, risk assessment, post implementation review, reporting, and required documentation.

4.4.8. Equities Exposures in the Non-Trading Book

No detailed disclosures are made in respect of equity exposures in the non-trading book as the information provided by such disclosures is not regarded as material.

4.4.9. Coronavirus

Direct and indirect effects of the coronavirus outbreak are impacting the global economy, markets, and BofASE SA’s counterparties and clients. BofASE SA cannot predict the coronavirus’s potential future direct or indirect effects; however, BofASE SA is taking actions to mitigate the impacts on BofASE SA. The coronavirus’s effects could have a material impact on BofASE SA’s future results of operations.

BofA SECURITIES

BofA Securities Europe Société Anonyme

Pillar 3 Disclosure

5. Further Detail on Capital Requirement, Leverage, Capital Resources, Securitisation, and Capital Buffers

As at 31 December 2019

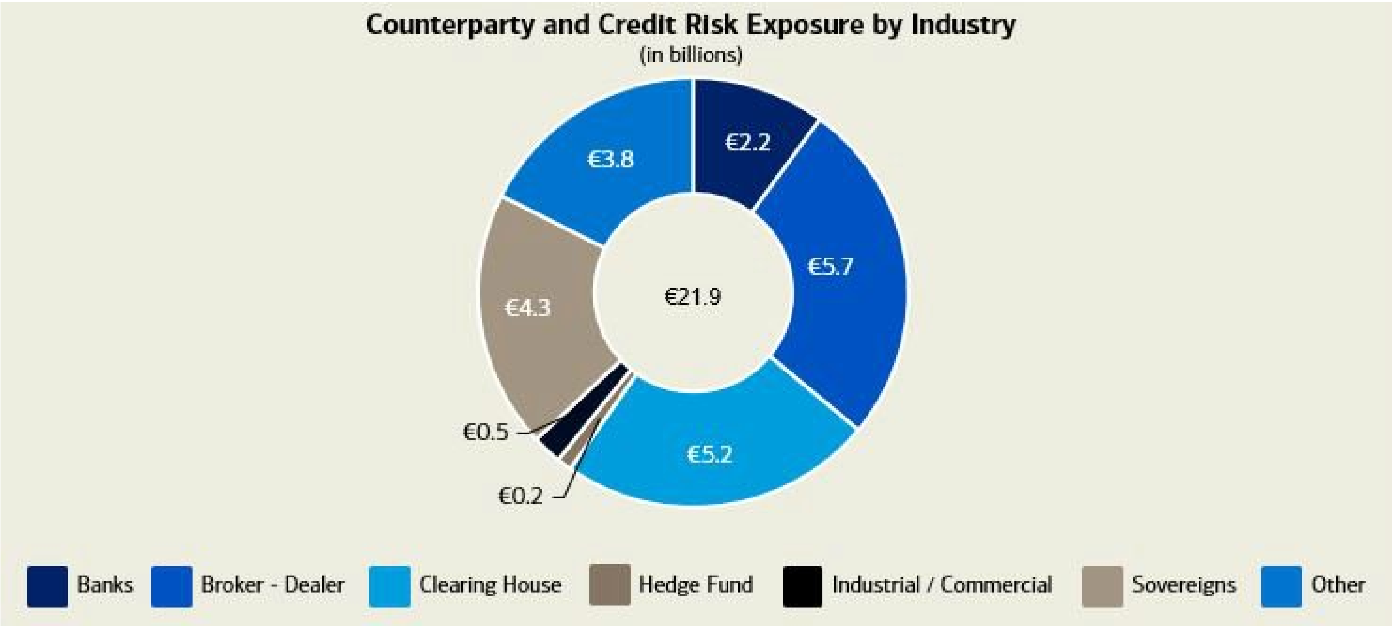
5.1 Pillar 1 Minimum Capital Requirement Summary

BofASE SA's Pillar 1 Minimum Capital Requirement is principally comprised of credit risk, counterparty credit risk, and market risk risk requirements.

The majority of BofASE SA's counterparty and credit risk exposure is against banks, broker-dealers, clearing houses, and sovereigns.

BofASE SA's Market Risk Capital Requirement is principally driven by BofASE SA's internal model based capital requirement and a standard rules charge on traded debt instruments. Further detail on Market Risk can be found in Section 5.2 Market Risk.

Figure 5.1.F1. – Pillar 1 Minimum Capital Requirement Detail: Counterparty and Credit Risk Exposure



5.2. Market Risk

Summary

Market Risk is the potential change in an instrument’s value caused by fluctuations in interest and currency exchange rates, equity and commodity prices, credit spreads, or other risks. BofASE SA has established trading book guidelines which set out the policies and procedures for the overall management of the trading book in accordance with the requirements of CRD IV.

Table 5.2.T1. presents a breakdown of BofASE SA's Market Risk under the standardised approach, and Table 5.2.T2. presents a breakdown of BofASE SA's Market Risk under the IMA.

Table 5.2.T1. – EU MR1 Market Risk under the Standardised Approach

	2019	
	BofASE SA	
(Euro in Millions)	RWAs	Capital requirements
Outright products		
Interest rate risk (general and specific)	520	42
Equity and Collective Investment Undertakings risk (general and specific)	65	5
Foreign exchange risk	86	7
Commodity risk	0	0
Options		
Simplified approach	0	0
Delta-plus method	0	0
Scenario approach	0	0
Securitisation (specific risk)	0	0
Total	**671**	**54**

Table 5.2.T2. – EU MR2-A Market Risk under the IMA

	2019	
(Euro in Millions)	RWAs	Capital requirements
VaR	**411**	**33**
Previous day's VaR (Article 365(1) of the CRR (VaRt-1))		12
Average of the daily VaR (Article 365(1)) of the CRR on each of the preceding 60 business days (VaRavg) x multiplication factor (mc) in accordance with Article 366 of the CRR		33
SVaR	**1,346**	**108**
Latest SVaR (Article 365(2) of the CRR (SVaRt-1))		36
Average of the SVaR (Article 365(2) of the CRR) during the preceding 60 business days (SVaRavg) x multiplication factor (ms) (Article 366 of the CRR)		108
IRC	**876**	**70**
Most recent IRC value (incremental default and migration risks calculated in accordance with Article 370 and Article 371 of the CRR)		70
Average of the IRC number over the preceding 12 weeks		48
Comprehensive risk measure	**129**	**10**
Most recent risk number for the correlation trading portfolio (Article 377 of the CRR)		9
Average of the risk number for the correlation trading portfolio over the preceding 12 weeks		10
8% of the own funds requirement in the standardised approach on the most recent risk number for the correlation trading portfolio (Article 338(4) of the CRR)		10
Other	—	—
Total	**2,762**	**221**

5.2.1. Internal Model Based Capital Requirement

The model based regulatory capital requirement in BofASE SA is calculated based on the internal model ("VaR") approved by the ACPR. BofASE SA has established trading book guidelines which set out the policies and procedures for the overall management of the trading book in accordance with the requirements of CRD IV.

VaR

VaR is a common statistic used to measure market risk as it allows the aggregation of market risk factors, including the effects of portfolio diversification. The primary VaR statistic is equivalent to a 99% confidence level. This means that for a VaR with a one-day holding period, there should not be losses in excess of VaR, on average, 99 out of 100 trading days.

For further details on VaR and how BofASE SA uses VaR as a risk management tool, please refer to the Market Risk key risk type in Section 4.3 Key Risk Types.

Regulatory VaR

Regulatory VaR is a variation of VaR in which a ten-day holding period is used with rolling actual ten-day returns generated from three years of historical market data.

Backtesting

The VaR methodology is evaluated through a daily backtesting process, which compares the daily VaR results, utilizing a one-day holding period, against a comparable subset of trading P&L.

As required by the CRR, backtesting uses the 'Hypothetical' and 'Actual' definitions of the P&L. Hypothetical P&L is the P&L from the move in the value of the portfolio on the current day assuming unchanged positions from the end of the previous day. Actual P&L and Hypothetical P&L exclude fees, commissions, and net interest income.

A backtesting overshooting occurs when a trading loss on day N exceeds the VaR value of the portfolio on day N-1. These overshoots are evaluated to understand the positions and market moves that produced the trading loss and to ensure that the VaR methodology accurately represents those losses.

The number of backtesting overshootings observed can differ from the statistically expected number of overshootings for a number of reasons. When this occurs, analysis is done to assess the model's performance.

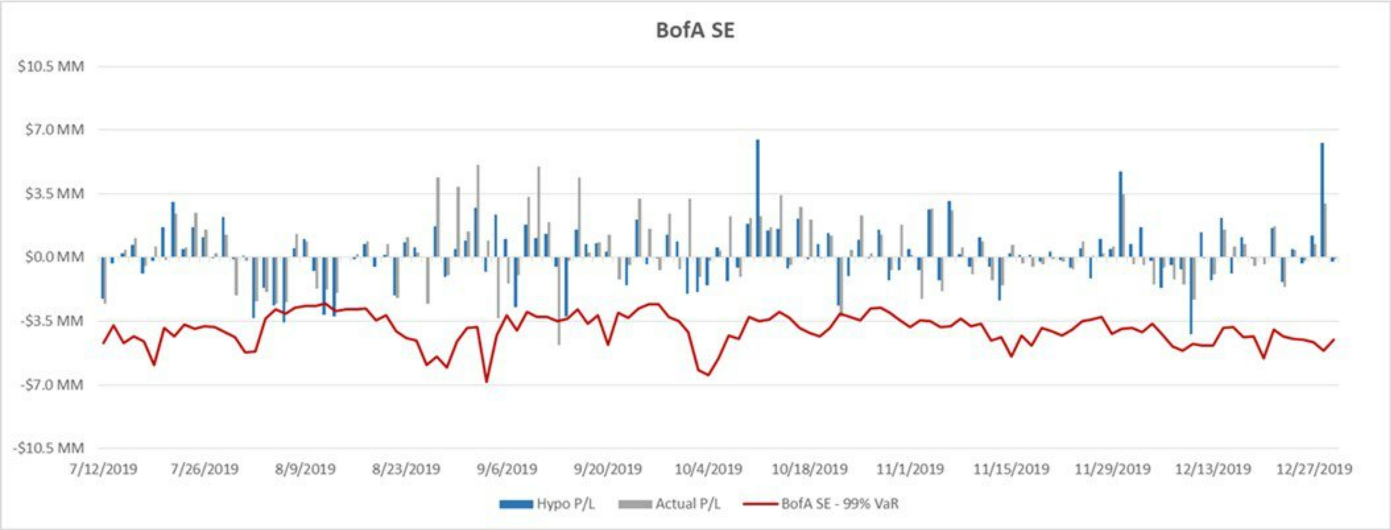
BofASE SA's VaR model was activated in July 2019. From activation of the model up to 31 December 2019, BofASE SA trading losses as measured by hypothetical P&L exceeded the prior day's VaR on three occasions, and as measured by actual P&L exceeded the prior day's VaR on two occasions.

Three overshootings on hypothetical P&L occurred in August, driven by increased market volatility in interest rates. One overshooting on actual P&L occurred in September and one in October, due to new trade activity and time effect P&L.

The results are illustrated in the chart below.

Figure 5.2.1.F1. – EU MR4 Comparison of VaR Estimates with Gains / Losses

Actual and Hypothetical Backtesting Results



The actual and hypothetical P&L shown in the above graph is only for positions covered by the VaR model and not for the entirely of BofASE SA. The VaR measure shown is for regulatory VaR using a three-year look-back period and one-day holding period. Capital requirements covered by the VaR model (Pillar 1 capital requirements for VaR and Stressed VaR) total 51% of BofASE SA's Pillar 1 capital requirements for market risk and 13% of BofASE SA's total Pillar 1 capital requirements.

Trading Portfolio Stress Testing

Given the very nature of a VaR model, results can exceed the model's estimates and are dependent on a limited historical window. As such, our portfolio is also stress tested using scenario analysis. This analysis estimates the change in value of the trading portfolio that may result from abnormal market movements.

For further details on how BofASE SA's performs stress testing to the trading portfolio, please refer to section 4.3.3 Market Risk.

Stressed VaR

Stressed VaR is a variation of VaR in which the historical window is not the previous three years but is calibrated to a continuous 12-month window that reflects a period of significant stress appropriate to BofASE SA. Stressed VaR is calculated based on 99% confidence level, a 10-day holding period, and the same population of exposures as the regulatory VaR.

RNIV Framework

The RNIV framework aims to capture and capitalise material market risks that are not adequately covered in the VaR model.

IRC

The IRC model is one component of the regulatory capital calculation for market risk. The model is intended to capture the potential losses that non-securitised credit products in the trading portfolio might experience over a one-year period of financial stress from defaults, ratings migration, and significant basis risk factors. To calculate potential losses at the required 99.9% confidence level, BofASE SA utilises a Monte Carlo simulation calibrated using relevant, available historical data for each risk factor in order to sample potential market scenarios.

The model reflects the impact of concentrated risks, including issuer, sector, region, and product basis risks, and assigns a higher potential loss to a concentrated portfolio than a more diversified portfolio with a similar credit profile. The model framework also captures the broad relationships between the different risk factors and is flexible enough to allow additional dependencies or risk factors to be incorporated in the future. The IRC model assumes a constant position and a liquidity horizon of one year.

Comprehensive Risk Measure

BofASE SA's CRM is the modelled component of the All Price Risks regulatory capital requirement for market risk for positions which are eligible to be included in the correlation trading portfolio, primarily tranches on indices and bespoke portfolios and their corresponding hedges. The CRM takes into account all of the risk factors that materially impact the value of the positions within the correlation trading portfolio.

The model captures the complexity of these positions including the non-linear nature of the trade valuations, particularly during periods of market stress, and the impact of the joint evolution of the risk factors. The CRM utilises the same Monte Carlo simulation framework as our IRC model with the additional risk factors required for the correlation products in order to calculate the potential losses at the required 99.9% confidence level. The modelled component of the CRM, like the IRC model, assumes a constant position and a liquidity horizon of one year.

For the All Price Risk regulatory capital requirement purposes, the point in time modelled CRM value is compared to its 12 week average and to the correlation trading portfolio floor calculated under the standardised approach for market risk per the CRR. The highest of these three numbers will be the All Price Risk regulatory capital requirement used for the correlation trading portfolio.

Table 5.2.1.T1 shows BofASE SA's maximum, minimum, average, and period-end values for regulatory VaR and Stressed VaR, and risk numbers for the IRC and CRM models from inception of the IMA to 31 December 2019. Both VaR and Stressed VaR include a price volatility cross risk add-on.

Table 5.2.1.T1. – EU MR3 IMA Values for Trading Portfolios

(Euro in Millions)	2019
VaR (10 day 99%)	
Maximum value	21
Average value	10
Minimum value	5
Period end	12
SVaR (10 day 99%)	
Maximum value	98
Average value	33
Minimum value	10
Period end	36
IRC (99.9%)	
Maximum value	88
Average value	35
Minimum value	15
Period end	70
Comprehensive risk capital charge (99.9%)	
Maximum value	22
Average value	4
Minimum value	1
Period end	9

5.2.2. Capital Requirement under Standardised Approaches

In BofASE SA, regulatory capital required is calculated on traded debt instruments that are not part of the scope of the internal models permission granted by the ACPR. The requirement is split into two components: General Market Risk and Specific Risk.

- General Market Risk is based on a currency portfolio basis. Positions are grouped into maturity bands ranging from less than one month to more than 20 years with a different weighting applied to each maturity band
- Specific risk looks at each security in terms of type of issuer (e.g., corporate / government), credit quality, and maturity

Equity Market Risk

Equity Market Risk is the regulatory capital requirement calculated on equity positions that are out of scope of the internal models permission granted by the ACPR.

Commodity Market Risk

Commodity Market Risk is the regulatory capital requirement calculated on the global commodities investor product business in BofASE SA. The positions are grouped by maturity with a different weighting applied to each maturity band.

FX Market Risk

FX Market Risk Requirement is the regulatory capital requirement calculated on the open net foreign currency position for exposures that are out of scope of the internal models permission granted by the ACPR.

Option Market Risk Requirement

Option Market Risk Requirement is the regulatory capital requirement calculated on options which are not in scope of the internal models permission granted by the ACPR. It attracts a delta equivalent treatment, with additional regulatory capital requirement calculated for convexity risk (gamma risk) and volatility risk (vega risk).

5.3. Counterparty and Credit Risk

Counterparty and credit risk is the risk of loss arising from a borrower or counterparty failing to meet its financial obligations. Counterparty and credit risk capital requirements are derived from risk-weighted exposures, determined using the standardised approach. BofASE SA has counterparty and credit risk exposure as a result of derivative trades, securities financing transactions, and other trading and non-trading book exposures.

BofASE SA measures counterparty and credit risk exposure on derivatives using a mark-to-market method, defined as mark-to-market plus a notional add-on.

The following section provides detailed information on BofASE SA's regulatory counterparty and credit risk exposures using the above mentioned approach. All exposures, unless stated otherwise, are post Credit Risk Mitigation and the application of Credit Conversion Factors.

5.3.1. Counterparty and Credit Risk by Type

Table 5.3.1.T1. sets out BofASE SA's counterparty and credit risk exposure by industry distribution. The majority of exposures of BofASE SA are against banks, broker-dealers, clearing houses, and sovereigns. The ratings of counterparties are derived by referring to external credit ratings provided by Moody's, Fitch, and S&P for all exposure classes.

Counterparty and Credit Risk are combined for reporting purposes.

Table 5.3.1.T1. – Counterparty and Credit Risk Exposure by Industry Distribution

	2019
(Euro in Millions)	BofASE SA
Bank	2,203
Broker Dealer	5,704
Central Counterparty, Clearing House/Exchange	5,185
Industrial and Commercial Companies	485
Energy and Commodities	214
Hedge Fund	244
Insurance	521
Sovereign & Government Related	4,255
Other Financial	3,114
Total Exposure Value	**21,926**

5.3.2. Counterparty and Credit Exposure Geographic Distribution and Maturity Profile Detail

Further analysis for BofASE SA showing the geographical distribution of the exposure value is shown in Table 5.3.2.T1.

The geographical distribution is reported by analysing where the counterparty is based and is further analysed to show the breakdown by exposure class. The majority of BofASE SA's exposure sits within the EMEA region.

Table 5.3.2.T1. – Counterparty and Credit Risk Exposure by Geographical Distribution

	2019			
	BofASE SA			
(Euro in Millions)	Asia	Americas	EMEA	Total
Central governments or central banks	—	—	3,834	3,834
Corporates	19	495	4,133	4,647
Institutions	20	806	8,518	9,345
Public sector entities	—	—	383	383
Regional governments or local authorities	—	—	37	37
Short-term Claims on institutions and corporate	65	283	3,328	3,676
Items Representing Securitisation Positions	—	—	2	2
Total Exposures	**105**	**1,585**	**20,236**	**21,926**

Table 5.3.2.T2 splits BofASE SA's Counterparty and Credit Risk exposure values at the end of the year by residual maturity and exposure class.

Table 5.3.2.T2. – Counterparty and Credit Risk Exposure by Residual Maturity

	2019			
	BofASE SA			
(Euro in Millions)	Under 1 Year	One - Five Years	Over Five Years	Total
Central governments or central banks	3,819	7	9	3,834
Corporates	3,376	1,005	267	4,647
Institutions	6,242	1,915	1,188	9,345
Public sector entities	199	100	85	383
Regional governments or local authorities	37	0	0	37
Short-term Claims on institutions and corporate	3,676	0	0	3,676
Items Representing Securitisation Positions	2	0	0	2
Total Exposure Value	**17,350**	**3,026**	**1,549**	**21,926**

5.3.3. Counterparty and Credit Exposure by Credit Quality Step

Table 5.3.3.T1. analyses exposure values by exposure class and Credit Quality Step (“CQS”), showing the position Pre and Post Credit Risk Mitigation.

A CQS is a credit quality assessment scale as set out in CRD IV. The CQS is derived by referring to ECAIs including Moody’s, Fitch, and S&P, where available.

BofASE SA complies with the standard association for mapping of external ratings of each nominated ECAI with the credit quality steps, which is published by the European Banking Authority ("EBA").

BofASE SA has over 40% of exposures with counterparties externally rated between AAA and A- or equivalent. 58% of BofASE SA’s exposures are to counterparties not rated by external rating agencies, the majority of which are to CCPs and Central Banks.

Other exposures that BofASE SA has to unrated counterparties are to Financial or Non-Financial Corporates, which are also generally assessed internally as being of high quality. Credit risk is assessed as outlined in Section 4.3 Key Risk Types.

Table 5.3.3.T1. – Counterparty and Credit Risk Exposure by CQS

	2019	
	BofASE	
(Euro in Millions)	Pre-Credit Risk Mitigation[1]	Post-Credit Risk Mitigation
Central and Regional Governments or Central Banks		
Credit Quality Step		
1	1,075	1,081
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
NR-Non Rated	2,791	2,791
Total Exposure Value	**3,866**	**3,872**
Corporates		
Credit Quality Step		
1	207	196
2	564	407
3	111	99
4	1	1
5	0	0
6	0	0
NR-Non Rated	5,123	3,944
Total Exposure Value	**6,004**	**4,647**
Institutions		
Credit Quality Step		
1	2,238	1,487
2	5,215	1,881
3	498	85
4	2	2
5	0	0
6	0	0
NR-Non Rated	6,051	5,889
Total Exposure Value	**14,004**	**9,345**
Other[2]		
Credit Quality Step		
1	416	493
2	3,969	3,409
3	201	153
4	5	5
5	0	0
6	0	0
NR-Non Rated	2	2
Total Exposure Value	**4,593**	**4,062**
Combined Total Exposure Value	**28,468**	**21,926**

[1] Exposure Pre CRM includes the effect of Funded Credit Protection in the form of master netting agreements for Securities Financing Transactions.

[2] Other comprises of exposures to Claims on Institutions and Corporates with a Short-Term Credit Assessment, Public Sector Entities, and Securitisation.

5.3.4. Credit Quality of Assets

A financial asset is past due if there is a legal obligation to make a payment and the payment is compulsory and not paid.

A financial asset is "credit-impaired" when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. Evidence that a financial asset is credit-impaired includes the following observable data:

- Significant financial difficulty of the borrower or issuer
- A breach of contract such as a default or past due event
- The restructuring of a loan or advance by BofASE SA on terms that BofASE SA would not consider otherwise
- It is becoming probable that the borrower will enter bankruptcy or other financial reorganisation
- The disappearance of an active market for a security because of financial difficulties

A loan or advance that has been renegotiated due to a deterioration in the borrower’s condition is usually considered to be credit-impaired unless there is evidence that the risk of not receiving contractual cash flows has reduced significantly and there are no other indicators of impairment.

For regulatory purposes, a default shall be considered to have occurred with regard to a particular the borrower when:

- Material exposures are more than 90 days past-due and / or
- The borrower is assessed as unlikely to pay its credit obligations in full without realisation of collateral, regardless of the existence of any past-due amount or of the number of days past due

As at 31 December 2019, BofASE SA did not recognise any specific or general credit risk adjustments.

5.4 Securitisation

As at 31 December 2019, BofASE SA had an immaterial amount of exposure as investor in securitisations. BofASE SA has not acted as an originator or sponsor to any securitisations.

Based on materiality no further disclosures for exposure to securitisation positions are made in this document.

5.5. Capital Buffers

The CCyB was introduced through CRD IV and is defined as the amount of CET1 capital that BofASE SA must calculate in accordance with CRD IV as implemented by the ACPR. The CCyB is equal to BofASE SA’s total risk exposure amount multiplied by the weighted average of the CCyB rates that apply to exposures in the jurisdictions where BofASE SA’s relevant credit exposures are located.

The aim of the CCyB is to achieve the broader macro-prudential goal of protecting the banking sector from periods of excess aggregate credit growth that have often been associated with the build-up of system-wide risk. The CCyB requirements may also help to limit the build-up of credit in jurisdictions in the first place, by raising the cost of credit and dampening its demand. Thus jurisdictions will be required to monitor credit growth in relation to measures such as Gross Domestic Product ("GDP") and assess whether growth is excessive and leading to the build-up of system-wide risk. Based on this assessment a countercyclical buffer requirement, ranging from 0% to 2.5% of RWAs, may be put in place for specified jurisdictions.

Under CRD IV, BofASE should face the same CCyB rates as domestic institutions on its cross-border exposures under the international reciprocation process. The French CCyB rate was 0.25% effective as at 31 December 2019.

In terms of other jurisdictions, the CCyB rates of Hong Kong (2%), Norway (2.5%), Sweden (2.5%), Czech Republic (1.5%), Iceland (1.75%), Slovakia (1.5%), Lithuania (1%), Denmark (1%), UK (1%), Ireland (1%), and Bulgaria (0.5%) were applicable to exposures of French institutions, which were applicable as at 31 December 2019.

Table 5.5.T1. outlines the components of relevant credit exposures used in the calculation of CCyB by country.

Table 5.5.T1. – BofASE SA CCyB - Exposures

	BofASE SA			
	General Credit Exposures	Trading Book Exposures		Securitisation Exposures
(Euro in Millions)	Exposure value for Standardised Approach	Sum of long and short positions of trading book exposures for Standardised Approach	Value of trading book exposures for internal models	Exposure value for Standardised Approach
Norway	11	0	1	0
Sweden	92	0	10	0
Hong Kong	4	0	0	0
Slovakia	0	0	0	0
Czech Republic	0	0	0	0
Iceland	0	0	0	0
United Kingdom	35	0	11	0
Lithuania	0	0	0	0
Denmark	290	0	0	0
Ireland	54	0	3	2
France	679	38	192	0
Bulgaria	0	0	0	0
United States Of America	472	0	9	0
Other	3,147	2	276	0
Total	**4,783**	**40**	**502**	**2**

Table 5.5.T2. – BofASE SA CCyB - Own Fund Requirements

(Euro in Millions)	BofASE SA					
	Own Funds Requirements				Own funds requirements weights	Countercyclical Capital Buffer rate
	of which: General credit exposures	of which: Trading book exposures	of which: Securitisation exposures	Total		
Norway	1	1	0	2	0.003	2.500%
Sweden	5	0	0	5	0.009	2.500%
Hong Kong	0	0	0	0	0.001	2.000%
Slovakia	0	0	0	0	0.000	1.500%
Czech Republic	0	0	0	0	0.000	1.500%
Iceland	0	0	0	0	0.000	1.750%
United Kingdom	3	7	0	10	0.018	1.000%
Lithuania	0	0	0	0	0.000	1.000%
Denmark	16	0	0	16	0.029	1.000%
Ireland	4	2	0	7	0.012	1.000%
France	44	62	0	106	0.195	0.250%
Bulgaria	0	0	0	0	0.000	0.500%
United States Of America	37	3	0	40	0.074	0.000%
Other	236	124	0	360	0.659	0.000%
Total	**346**	**199**	**0**	**545**	**1.000**	

(Euro in Millions)

Total risk exposure amount	13,966
Institution specific countercyclical capital buffer rate	0.139%
Institution specific countercyclical capital buffer requirement	19

5.6 Capital Resources

Table 5.6.T1. shows a reconciliation between the accounting balance sheet values and the regulatory capital values of the items included in BofASE SA's Capital Resources. Further details on the composition of BofASE SA's capital resources are shown in the proceeding tables.

Table 5.6.T1. – Regulatory Capital Resources and Reconciliation to Accounting Balance Sheet

	2019
(Euro in Millions)	BofASE
Ordinary Share Capital	**5,276**
Share Premium	**0**
Other Reserves	**0**
Retained Earnings (After regulatory adjustments for prudential filters)	**(169)**
Retained Earnings (Accounting balance sheet value)	***(127)***
Debit Valuation Adjustment	***(14)***
Prudential Valuation Adjustment	***(28)***
Tier 1 Capital Before Deductions	**5,107**
Deduction of Non-Significant Investments in Financial Institutions	**(266)**
Tier 1 Capital	**4,841**
Tier 2 Capital	**0**
Total Capital Resources (net of deductions)	**4,841**

Prudential Valuation Adjustment

Following the implementation of CRD IV in 2014, a requirement was introduced requiring a prudential valuation adjustment to be deducted from MLI and the Group's Tier 1 Capital Resources. There is an established valuation control policy and prudent valuation guidelines which set out the policies and procedures for the determination of price verification and prudent valuation in accordance with the requirements of CRD IV and related interpretive guidance.

5.6.1. Capital Resources (Landscape)

Table 5.6.1.T1. – BofASE SA Capital Instrument Features

		BofASE		
Capital Instruments Main Features		**CET1**	**AT1**	**T2**
1	Issuer	BofA Securities Europe SA	N/A	N/A
2	Unique identifier (eg CUSIP, ISIN or Bloomberg identifier for private placement)	Private Placement	N/A	N/A
3	Governing law(s) of the instrument	French	N/A	N/A
Regulatory Treatment				
4	Transitional CRR rules	CET1	N/A	N/A
5	Post-transitional CRR rules	CET1	N/A	N/A
6	Eligible at solo/(sub-)consolidated/ solo & (sub-)consolidated	Solo	N/A	N/A
7	Instrument type (types to be specified by each jurisdiction)	Ordinary shares with full voting rights	N/A	N/A
8	Amount recognised in regulatory capital (currency in million, as of most recent reporting date)	EUR 5,276m	N/A	N/A
9	Nominal amount of instrument	EUR 10.00	N/A	N/A
9a	Issue price	EUR 10.00	N/A	N/A
9b	Redemption price	N/A	N/A	N/A
10	Accounting classification	Shareholders equity	N/A	N/A
11	Original date of issuance	EUR 0.05m 25 Sep 2018 EUR 540m 19 Nov 2018 EUR 2,086m 14 Jan 2019 EUR 2,650m 19 Jul 2019	N/A	N/A
12	Perpetual or dated	Perpetual	N/A	N/A
13	Original maturity date	No maturity	N/A	N/A
14	Issuer call subject to prior supervisory approval	No	N/A	N/A
15	Optional call date, contingent call dates and redemption amount	N/A	N/A	N/A
16	Subsequent call dates, if applicable	N/A	N/A	N/A
Coupons / Dividends				
17	Fixed or floating dividend/coupon	N/A	N/A	N/A
18	Coupon rate and any related index	N/A	N/A	N/A
19	Existence of a dividend stopper	No	N/A	N/A
20a	Fully discretionary, partially discretionary or mandatory (in terms of timing)	Fully discretionary	N/A	N/A

		BofASE		
Capital Instruments Main Features		CET1	AT1	T2
20b	Fully discretionary, partially discretionary or mandatory (in terms of amount)	Fully discretionary	N/A	N/A
21	Existence of step up or other incentive to redeem	No	N/A	N/A
22	Noncumulative or cumulative	Non-cumulative	N/A	N/A
23	Convertible or non-convertible	Non-convertible	N/A	N/A
24	If convertible, conversion trigger(s)	N/A	N/A	N/A
25	If convertible, fully or partially	N/A	N/A	N/A
26	If convertible, conversion rate	N/A	N/A	N/A
27	If convertible, mandatory or optional conversion	N/A	N/A	N/A
28	If convertible, specify instrument type convertible into	N/A	N/A	N/A
29	If convertible, specify issuer of instrument it converts into	N/A	N/A	N/A
30	Write-down features	No	N/A	N/A
31	If write-down, write-down trigger(s)	N/A	N/A	N/A
32	If write-down, full or partial	N/A	N/A	N/A
33	If write-down, permanent or temporary	N/A	N/A	N/A
34	If temporary write-down, description of write-up mechanism	N/A	N/A	N/A
35	Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	All liabilities	N/A	N/A
36	Non-compliant transitioned features	No	N/A	N/A
37	If yes, specify non-compliant features	N/A	N/A	N/A
[(')] Insert 'N/A' if the question is not applicable				

5.6.2. Capital Resources (continued)

Table 5.6.2.T1. – Own Funds Disclosure Template

(Euro in Millions)	Amount at Disclosure Date BofASE
Capital instruments and the related share premium accounts	5,276
of which: Ordinary shares with full voting rights	5,276
Independently reviewed interim profits net of any foreseeable charge or dividend	(127)
Common Equity Tier 1 (CET1) capital before regulatory adjustments	5,149
Common Equity Tier 1 (CET1) Capital: Regulatory Adjustments	
Prudential valuation adjustment	(28)
Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	(14)
Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)	(237)
Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)	(29)
Total Regulatory Adjustments to Common Equity Tier 1 (CET1)	(308)
Common Equity Tier 1 (CET1) Capital	4,841
Additional Tier 1 (AT1) capital: Instruments	0
Tier 1 Capital (T1 = CET1 + AT1)	4,841
Tier 2 (T2) Capital: Instruments and Provisions	
Capital instruments and the related share premium accounts	0
Tier 2 (T2) Capital	0
Total Capital (TC = T1 + T2)	4,841
Total Risk Weighted Assets	13,966
Capital Ratios and Buffers	
Common Equity Tier 1 (as a percentage of risk exposure amount)	34.7%
Tier 1 (as a percentage of risk exposure amount)	34.7%
Total Capital (as a percentage of risk exposure amount)	34.7%
Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or 0-SII buffer), expressed as a percentage of risk exposure amount)	7.1%
of which: capital conservation buffer requirement	2.5%
of which: countercyclical buffer requirement	0.1%
Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	26.7%
Amounts below the thresholds for deduction (before risk weighting)	
Direct, indirect and synthetic 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)	777
Direct, indirect and synthetic holdings by the institution of the CET 1 instruments of financial sector entities where the insti-tution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	0
Applicable caps on the Inclusion of provisions In Tier 2	
Credit risk adjustments included in T2 in respect of exposures subject to standardized approach (prior to the application of the cap)	0
Cap on inclusion of credit risk adjustments in T2 under standardised approach	98

There are no own funds items or adjustments that are subject to pre-regulation (EU) No 575 / 2013 treatment or prescribed residual amount of regulation (EU) No 575/2013 in BofASE SA.

5.7. Leverage

5.7.1. Leverage Approach

The leverage ratio is a measure of Tier 1 capital as a percentage of exposure as defined under the CRR rules.

The leverage ratio is monitored in line with regulatory requirements. Exposure is typically managed through a combination of mechanisms including risk appetite limits, collateralisation, and netting arrangements.

5.7.2. Additional Detail on Leverage Ratio

Table 5.7.2.T1. – Summary Reconciliation of Accounting Assets and Leverage Ratio Exposures

(Euro in Millions)	BofASE
Total Assets as per Balance Sheet	46,650
Adjustments for Derivative Financial Instruments	2,555
Adjustments for Securities Financing Transactions	1,977
Adjustment for Off-Balance Sheet Items (ie conversion to credit equivalent amounts of off-balance sheet	7
Other Adjustments	(9)
Leverage Ratio Exposure	**51,180**

Table 5.7.2.T2. – Leverage Ratio Common Disclosure

(Euro in Millions)	BofASE
On-Balance Sheet Exposures (excluding derivatives and SFTs)	
On-balance Sheet Items (excluding Derivatives, SFTs and fiduciary assets, but including Collateral)	19,937
Asset Amounts Deducted in Determining Tier 1 Capital	(294)
Total On-Balance Sheet Exposures (excluding derivatives, SFTs and fiduciary assets)	**19,642**
Derivative Exposures	
Replacement Cost Associated with Derivatives Transactions (net of Eligible Cash Variation Margin)	124
Add-on Amounts for PFE Associated with Derivatives Transactions (Mark-to-Market method)	18,250
Gross-up for Derivatives Collateral provided where deducted from the Balance Sheet Assets pursuant to the Applicable Accounting Framework	0
(Deductions of Receivables Assets for Cash Variation Margin provided in Derivatives Transactions)	(2,441)
(Exempted CCP leg of Client-Cleared Trade Exposures)	(5,690)
Adjusted Effective Notional Amount of Written Credit Derivatives	19,365
(Adjusted Effective Notional Offsets and Add-On Deductions for Written Credit Derivatives)	(16,570)
Total Derivative Exposure	**13,038**
Securities Financing Transaction Exposures	
Gross SFT Assets (With No Recognition of Netting), after Adjusting for Sales Accounting Transactions	18,971
(Netted Amounts of Cash Payables and Cash Receivables of Gross SFT Assets)	(1,666)
Counterparty Credit Risk Exposure for SFT Assets	1,186
Total Securities Financing Transaction Exposures	**18,492**
Off-Balance Sheet Exposures	
Off-balance Sheet Exposures at Gross Notional Amount	71
Adjustments for Conversion to Credit Equivalent Amounts	(64)
Total Off-Balance Sheet Exposures	**7**
Exempted Exposures	
Capital and Total Exposures	
Tier 1 Capital	4,841
Total Leverage Ratio Exposures	**51,180**
Leverage Ratio	
Leverage Ratio	9.5%

Table 5.7.2.T3. – Split of On-Balance Sheet Exposures (Excluding Derivatives and SFTs)

(Euro in Millions)	BofASE
Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	**14,688**
Trading Book Exposures	12,176
Banking Book Exposures, of which:	2,512
Covered Bonds	0
Exposures treated as Sovereigns	1,721
Exposures to Regional Governments, MDB, International Organisations and PSE not treated as	0
Institutions	133
Secured by Mortgages of Immovable Properties	0
Corporate	408
Exposures in Default	0
Other Exposures (Eg Equity, Securitisations, and other Non-Credit Obligation Assets)	250

5.7.3. Management of Risk of Excessive Leverage

The Board sets a leverage ratio Risk Appetite Limit at an appropriate level above the expected regulatory minimum (calculated in accordance with CRR Article 429). BofASE is required to maintain this ratio at all times.

Leverage ratio metrics are monitored and reviewed for consistency with the Strategic Plan and RAS, and are reviewed quarterly by the Board. This will include actual reported leverage ratio, compared against the Board's Risk Appetite Limit and regulatory minimums, and also against peer firms' reported ratios from time to time. The Leverage Ratio reinforces the risk based requirements and limits the build-up of excessive leverage.

A breach of the ratio will trigger protocols set out in the BofASE Capital Management Policy, where specific governance, escalation, and management actions are set out at various trigger levels that align with the Board risk appetite and recovery plan indicators.

Excessive Leverage ratio is also managed through Regulatory Capital Management Reports. The following metrics are monitored:

- Tier 1 Capital Ratio
- Excess over CET 1 Risk Appetite Trigger
- Total Capital Ratio
- Excess over Total Capital Risk Appetite Trigger

Comprehensive risk management of excessive leverage is achieved through Board risk appetite framework and quarterly Board oversight, with clear management actions in the event of a limit breach as set out in the Capital Management Policy.

BofA Securities Europe Société Anonyme
Pillar 3 Disclosure

6. Additional Information on Remuneration Disclosure
As at 31 December 2019

6.1 Remuneration Disclosure

The BofASE SA remuneration disclosure, made in accordance with Article 450 of the Capital Requirements Regulation No 575/2013, is separately published on BAC's corporate website (http://investor.bankofamerica.com) and should be deemed part of the Pillar 3 Disclosure for BofASE SA.

BofA Securities Europe Société Anonyme
Pillar 3 Disclosure

7. Appendices
As at 31 December 2019

Appendix 1 - Directors Board Membership and Experience

Table A1.T1. – Directors Board Membership and Experience

Name	Role	Experience	No. Of Directorships: Total	No. Of Directorships: Excluding non-commercial and counting group appointments as one
Anne Finucane	Director	Joined Bank of America in 2004, Ms Finucane is Vice Chairman of Bank of America and was Global Chief Strategy and Marketing Officer. Since joining the firm she has held a number of senior roles and is a member of the company's executive management committee, she continues to lead globally on capital deployment, public policy, and environmental, social and governance. Ms Finucane is Chair of Bank of America Merrill Lynch International DAC and Non-Executive Director of BofA Securities Europe S.A. She is also a Non-Executive Director of Bank of America Charitable Foundation, Inc., Carnegie Hall Society, Inc., National September 11 Memorial & Museum at the World Trade Centre Foundation, Inc., Brigham and Women's Hospital, Inc., Special Olympics, Inc., The Ireland Funds and Partners Healthcare System, Inc. Ms Finucane is an Independent Non-Executive Director of CVS Health Corp.	10	2
Shannon Lilly	Director	Joined Bank of America in 2005. Mr Lilly is the Strategic Asset and Liability Management Executive for Bank of America and a member of the Treasury leadership team. Mr Lilly serves as a Group Non-Executive Director of Bank of America Merrill Lynch International DAC and as an Executive Director and Deputy CEO of BofA Securities Europe S.A. He is responsible for the finance, risk, compliance, global technology and operations, human resources and legal functions in his capacity as Deputy CEO. In addition, Mr Lilly is a Non-Executive Director of Merrill Lynch B.V.	3	1
Thomas Montag	Director	Thomas K. Montag is chief operating officer of Bank of America and is a member of the company's executive management team. In this role, he is responsible for all of the businesses that serve companies and institutional investors, including middle-market commercial and large corporate clients, and institutional investor clients, including Bank of America Merrill Lynch Global Research and the global markets sales and trading businesses. Previously, he was president of Global Banking and Markets at Bank of America Merrill Lynch. He joined Merrill Lynch as executive vice president and head of global sales and trading in 2008, prior to the company's merger with Bank of America.	8	3
Bruce Thompson	Director	Joined Bank of America in 1996, Mr. Thompson has held a number of senior positions within the firm; as Chief Risk Officer in 2010, and subsequently as Chief Financial Officer in 2011, a position he held until 2015. Mr. Thompson was appointed as Vice Chairman of Bank of America in 2016. He is Chief Executive Officer and Executive Director of Bank of America Merrill Lynch International DAC and Non-Executive Director of BofA Securities Europe SA. Mr. Thompson is a member of the Darden School Foundation Board of Trustees at the University of Virginia serving on the Audit/Finance Committee, and is a member of the Board of Trustees of Allegheny College in Meadville, PA., serving on the Executive Committee.	4	1
Sanaz Zaimi	Director & CEO	Joined Bank of America in 2010, Ms Sanaz Zaimi is head of Global Fixed Income, Currencies and Commodities (FICC) Sales at Bank of America Merrill Lynch (BofAML). Based in Paris, Ms Zaimi also serves as CEO of BofA Securities Europe S.A., BofAML's EU broker-dealer, and Country Executive for France. Ms. Zaimi served as an Executive Director on the Board of Merrill Lynch International (MLI). She also served as a founder member of the industry's FICC Markets Standards Board (FMSB) until May 2017. Ms. Zaimi sits on a number of the company's senior executive committees globally, including the Operating Committee at Bank of America, the Global Banking and Markets (GBAM) Management Committee, the GBAM Global Reputation Risk Committee and the firm's Global Environment, Social and Governance (ESG) Committee. Ms. Zaimi sits on the Board of Directors for Kennedy Wilson.	2	2
Pierre de Weck	Director (outside)	Independent director of Bank of America Corporation; Bank of America California, National Association; Bank of America, National Association; and Chair of the Board of directors of Merrill Lynch International and BofA Securities Europe SA. Mr. de Weck served as the Chair and Global Head of Private Wealth Management and as a member of the Group Executive Committee of Deutsche Bank AG from 2002 to May 2012. Prior to joining Deutsche Bank, Mr. de Weck served on the Management Board of UBS AG from 1994 to 2001, as Head of Institutional Banking from 1994 to 1997, as Chief Credit Officer and Head of Private Equity from 1998 to 1999, and as Head of Private Equity from 2000 to 2001. Previously held various senior management positions at Union Bank of Switzerland, a predecessor firm of UBS, from 1985 to 1994.	14	5
Pierre Fleuriot	Director (outside) & Chairman	Appointed in August 2019 as a non-executive director of the BofA Securities Europe S.A. Board. He also serves on the Board of Directors of Renault S.A., the Casablanca Stock Exchange and is the Chair of the Board of the Cercle de l'Orchestre de Paris. Previouly served as the CEO of Credit Suisse for France, Belgium and Luxembourg from 2009 to 2016 & prior to that he held roles as the CEO for France and Belgium for Royal Bank of Scotland from 2008 to 2009, the CEO for ABM-AMRO France from 2000 to 2008, and as the CEO of the Commissions des Operations de Bourse from 1991 to 1997.	7	5

Note: The table outlines the directors that served at 18 March 2020

Appendix 2 – Supplementary Disclosure Templates

Table A2.T1. – EU CRB-B Total and Average Net Amount of Exposures

	Dec-19	
(Euro in Millions)	Net value of exposures at the end of the period	Average net exposures over the period
Central governments or central banks	1,655	893
Institutions	171	290
Corporates	296	233
Claims on institutions and corporate with a short-term credit assessment	236	343
Other exposures[1]	0	72
Total	**2,358**	**1,831**

[1] Other exposures comprises of exposures to International Organisations.

Table A2.T2. – EU CR4 Standardised Approach - Credit Risk Exposure and CRM Effects

	Dec-19					
	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
(Euro in Millions)	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density
Central governments or central banks	1,655	0	1,655	0	0	0%
Institutions	100	71	100	0	20	20%
Corporates	296	0	296	0	296	100%
Claims on institutions and corporate with a short-term credit assessment	236	0	236	0	118	50%
Total	**2,287**	**71**	**2,287**	**0**	**434**	**19%**

Appendix 2 – Supplementary Disclosure Templates (Landscape)

Table A2.T3. – EU CR5 Standardised Approach

	Dec-19																	
	Risk Weight																Total	Of which unrated
(Euro in Millions)	0%	2%	4%	10%	20%	35%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Deducted		
Central governments or central banks	1,655	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,655	599
Institutions	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100	8
Corporates	0	0	0	0	0	0	0	0	0	296	0	0	0	0	0	0	296	296
Claims on institutions and corporate with a short-term credit assessment	0	0	0	0	0	0	236	0	0	1	0	0	0	0	0	0	236	0
Total	**1,655**	**0**	**0**	**0**	**100**	**0**	**236**	**0**	**0**	**296**	**0**	**0**	**0**	**0**	**0**	**0**	**2,287**	**904**

Table A2.T4. – EU CCR5-A Impact of Netting and Collateral Held on Exposure Value

	Dec-19						
	Gross positive fair value or net carrying amount	Netting benefits		Netted current credit exposure	Collateral held		Net credit exposure
(Euro in Millions)		Applied	Not Applied		Used	Not Used	
Derivatives	16,609	(11,487)	(5)	5,121	(4,322)	(4,511)	799
SFTs	37,645	(34,038)	(163)	3,606	0	(3,086)	3,606
Total	**54,253**	**(45,526)**	**(168)**	**8,728**	**(4,322)**	**(7,598)**	**4,406**

Note: These values can differ from the Accounting balance sheet for example, due to differences in netting and off balance sheet items.

Appendix 2 – Supplementary Disclosure Templates (continued)

Table A2.T5. – EU CCR6 Credit Derivatives Exposures

	Dec-19		
	Credit derivative hedges		Other credit derivatives
(Euro in Millions)	Protection bought	Protection sold	
Notionals			
Single-name credit default swaps	33	22	8,190
Index credit default swaps	60	0	25,061
Other credit derivatives	0	0	5,356
Total Notional	**93**	**22**	**38,607**
Fair Values	0	0	0
Positive fair value (asset)	0	0	702
Negative fair value (liability)	(2)	-0	(656)

Table A2.T6. – EU OV1 Semi-Annual Overview of RWAs

	BofASE SA		
	RWAs		Pillar 1 Minimum Capital Requirement
(Euro in Millions)	Q4 2019	Q2 2019	Q4 2019
Credit risk (excluding CCR)	**434**	**430**	**35**
Of which the standardised approach	434	430	35
Of which the foundation IRB (FIRB) approach	0	0	0
Of which the advanced IRB (AIRB) approach	0	0	0
Of which equity IRB under the simple risk-weighted approach or the IMA	0	0	0
CCR	**8,801**	**4,696**	**704**
Of which mark to market	5,305	2,925	424
Of which original exposure	0	0	0
Of which: comprehensive approach for credit risk mitigation (for SFTs)	2,076	1,097	166
Of which internal model method (IMM)	0	0	0
Of which risk exposure amount for contributions to the default fund of a CCP	107	73	9
Of which CVA	1,313	600	105
Settlement risk	**63**	**73**	**5**
Securitisation exposures in the banking book (after the cap)	**0**	**0**	**0**
Of which IRB approach	0	0	0
Of which IRB supervisory formula approach (SFA)	0	0	0
Of which internal assessment approach (IAA)	0	0	0
Of which standardised approach	0	0	0
Market risk	**3,433**	**4,382**	**275**
Of which the standardised approach	671	4,382	54
Of which IMA	2,762	0	221
Large exposures	**0**	**13**	**0**
Operational risk	**1,234**	**1,079**	**99**
Of which basic indicator approach	0	0	0
Of which standardised approach	1,234	1,079	99
Of which advanced measurement approach	0	0	0
Amounts below the thresholds for deduction (subject to 250% risk weight)	**0**	**0**	**0**
Floor adjustment	0	0	0
Total	**13,966**	**10,673**	**1,117**

BofASE SA's RWAs increased in the half year ending 2019. This was primarily driven by an increase in counterparty credit risk and CVA RWAs from an increase in derivative exposures. Market risk RWAs under the standardised approach reduced and RWAs under the IMA increased in the half-year, as BofASE SA's IMA permission was activated in July.

Table A2.T7. – EU CCR1 Analysis of CCR Exposure by Approach

	Dec-19						
(Dollars in Millions)	Notional	Replacement Cost/Current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWAs
Mark to market		914	22,313			8,588	5,188
Original exposure	n/a					n/a	n/a
Standardised approach		n/a		n/a	n/a	n/a	n/a
IMM (for derivatives & SFTs)				n/a	n/a	n/a	n/a
Financial collateral simple method (for SFTs)						n/a	n/a
Financial collateral comprehensive method (for SFTs)						5,823	2,073
VaR for SFTs						n/a	n/a
Total							7,260

Table A2.T8. – EU CR3 CRM Techniques Overview

	Dec-19				
(Dollars in Millions)	Exposures unsecured – Carrying amount	Exposures to be secured	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
Total loans	221	0	0	0	0
Total debt securities	1,056	0	0	0	0
Total exposures	**1,276**	**0**	**0**	**0**	**0**
Of which defaulted	0	0	0	0	0

Appendix 3 – Index

Table A3.T1. – Index

Article	Article Name	Article Reference Detail	Description	Document Reference
431	Scope of disclosure requirements	431(1)	Requirement to publish Pillar 3 disclosures	BofASE SA publishes Pillar 3 disclosures
		431(2)	Firms with permission to use specific operational risk methodologies must disclose operational risk information	Not Applicable
		431(3)	Institutions shall adopt a formal policy to comply with the disclosure requirements in Part Eight of CRR	BofASE SA has a Pillar 3 disclosure policy
		431(4)	Explanation of ratings decision upon request	Not Applicable
432	Non-material, proprietary or confidential information	432(1)	Institutions may omit information that is not material if certain conditions are respected	Where disclosures are omitted on the basis of materiality it is stated in the relevant document sections
		432(2)	Institutions may omit information that is proprietary or confidential if certain conditions are respected	Not Applicable
		432(3)	Where 432(2) applies this must be stated in the disclosures, and more general information must be disclosed	Not Applicable
		432(4)	Use of 432 (1), (2) or (3) is without prejudice to scope of liability for failure to disclose material information	Not Applicable
433	Frequency of disclosure	433	Disclosures must be published once a year at a minimum, and more frequently if necessary	BofASE SA publishes Pillar 3 disclosures annually at minimum, with more frequent disclosures published in accordance with EBA guidelines EBA/GL/2014/14
434	Means of disclosures	434(1)	To include all disclosures in one appropriate medium, or provide clear cross-references	All Pillar 3 disclosures required under Part Eight of CRR are included in this document with the exception of the disclosure for remuneration policy required under CRR article 450. The remuneration disclosure is published separately and is signposted in Section 6. (Additional Information on Remuneration Disclosure) of this document.
		434(2)	Disclosures made under other requirements (e.g. accounting) can be used to satisfy the Pillar 3 disclosure requirements if appropriate	Not Applicable
435	Risk management objectives and policies	435(1)(a)-(d)	Objectives and policies for each separate category of risk	Section 4.3 Key Risk Types
		435(1)(e)	Risk declaration	Section 4.2.6 Risk Declaration
		435(1)(f)	Risk statement	Section 4.2.2 Risk Statement and Appetite
		435(2)(a)	Number of directorships held by Board members	Appendix I – Directors Board Membership and Experience
		435(2)(b)	Directors' knowledge, skills and experience	Appendix I – Directors Board Membership and Experience
		435(2)(b)-(c)	Board recruitment and diversity policy	Section 4.2.5 Risk Governance
		435(2)(d)-(e)	Risk committees and risk information	Section 4.2.5 Risk Governance
436	Scope of application	436(a)	Name of institution	Section 1.1 Overview and Purpose of Document
		436(b)	Basis of consolidation	Section 1.2 Basis of Preparation
		436(c)	Impediments to transfer of own funds between parent and subsidiaries	Section 2.1.3 transferability of capital within the group
		436(d)	Capital shortfalls in any subsidiaries outside the scope of consolidation	Not Applicable
		436(e)	Use of articles on derogations from a) prudential requirements or b) liquidity requirements for individual subsidiaries	Not Applicable

Article	Article Name	Article Reference Detail	Description	Document Reference
437	Own funds	437(1)(a)	Reconciliation of regulatory capital amounts to balance sheet	Table 5.6.T1: Regulatory Capital Resources Reconciliation to Accounting Balance Sheet
		437(1)(b)	Description of the main features of Capital Instruments issued	Table 5.6.1.T1: BofASE SA Capital Instrument Features
		437(1)(c)	Full terms and conditions of Capital Instruments issued	
		437(1)(d)-(e)	Disclosure of prudential filters, deductions, and any restrictions applied to the calculation of own funds	Table 5.6.2.T1: Own Funds Disclosure Template
		437(1)(f)	Where institutions disclose capital ratios calculated using elements of own funds determined on a different basis	Not Applicable
438	Capital requirements	438(a)	Approach to assessing adequacy of capital levels	Section 2.2.4: Internal Capital Adequacy Assessment Process
		438(b)	Result of ICAAP on demand from authorities.	Not Applicable
		438(c)	RWA amounts for credit risk for each Standardised approach exposure class.	Table A2.T2 EU CR4
		438(d)	Capital requirements amounts for credit risk for each Internal Ratings Based Approach exposure class	Not Applicable
		438(e)	Capital requirements amounts for market risk, settlement risk, or large exposures	Table 2.2.2.T1: RWAs and Pillar 1 Minimum Capital Requirement
		438(f)	Capital requirement amounts for operational risk	
		438 last paragraph	Requirement to disclose specialised lending exposures and equity exposures in the banking book falling under the simple risk weight approach	Not Applicable
439	Exposure to counterparty credit risk	439(a)	Discussion of process to assign internal capital and credit limits to CCR exposures	Section 4. Risk Management, Objectives and Policy
		439(b)	Discussion of process to secure collateral and establishing reserves	
		439(c)	Discussion of management of wrong-way exposures	4.4 Other Risk Considerations
		439(d)	Discussion of collateral to be provided in the event of a ratings downgrade	
		439(e)	Derivation of net derivative credit exposure	Table A2.T4: EU CCR5-A – Impact of netting and collateral held on exposure values
		439(e) and (f)	Derivation of derivative exposures and exposure values for applicable counterparty credit risk methods	Table A2.T7: EU CCR1 – Analysis of counterparty credit risk (CCR) exposure by approach
		439(g) and (h)	Notional amounts of credit derivatives	Table A2.T5: EU CCR6-A – Credit derivatives exposures
		439(i)	Estimate of alpha, if applicable	Not Applicable
440	Capital buffers	440	Countercyclical buffer	Section 5.5 Capital Buffers
441	Indicators of global systemic importance	441	Disclosure of the indicators of global systemic importance	Not Applicable

Article	Article Name	Article Reference Detail	Description	Document Reference
442	Credit risk adjustments	442(a)	Definitions of past due and impaired	Section 5.3.4 Credit Quality of Assets
		442(b)	Approaches for calculating specific and general credit risk adjustments	
		442(c)	Total and average net credit risk exposures pre-CRM and by exposure class	Table A2.T1: EU CRB-B – Total and average net amount of exposures
		442(d)	Geographical breakdown of credit risk exposures pre-CRM and by exposure class	Table 5.3.2.T1 Counterparty and Credit Risk Exposure by Geographical Distribution
		442(e)	Industry breakdown of credit risk exposures pre-CRM and by exposure class	Table 5.3.1.T1 Counterparty and Credit Risk Exposure by Industry Distribution
		442(f)	Breakdown of credit risk exposures pre-CRM by residual maturity and exposure class	Table 5.3.2.T2 Counterparty and Credit Risk Exposure by Residual Maturity
		442(g)	Impaired and past due exposures, specific and general credit risk adjustments, and impairment charges for the period, by industry	BofASE SA has no impaired or past due exposures, and no specific or general credit risk adjustments to disclose at the disclosure date
		442(h)	Impaired and past due exposures, and amounts of specific and general credit risk adjustments by geographical area	
		442(i)	Reconciliation of changes in specific and general credit risk adjustments for impaired exposures	
443	Unencumbered assets	443	Encumbered and unencumbered assets	Section 3.2 Encumbered and Unencumbered Assets
444	Use of ECAIs	444(a)	Names of the ECAIs used in the calculation of Standardised approach risk-weighted assets and reasons for any changes	Section 2.2.3 Minimum capital requirement approach 5.3.1 Counterparty and Credit Risk by Type 5.3.3 Counterparty and Credit Risk Exposure by Credit Quality Step
		444(b)	Exposure classes associated with each ECAI	
		444(c)	Description of the process used to transfer credit assessments to non-trading book items	
		444(d)	Mapping of external rating to CQS	5.3.3 Counterparty and Credit Risk Exposure by Credit Quality Step
		444(e)	Exposure value pre and post-credit risk mitigation, by CQS	
445	Exposure to market risk	445	Position risk, large exposures, FX, settlement risk, commodities risk and specific interest rate risk of securitisation positions	Table 5.2.T1: Market risk under the standardised approach Table 2.2.2.T1 RWAs and Minimum Capital Requirements
446	Operational risk	446	Approaches used to calculate own funds requirements for operational risk	Section 2.2.3 Minimum Capital Requirement Approach
447	Exposures in equities not included in the trading book	447	Exposures in equities not included in the trading book	Section 4.4 Other Risk Considerations
448	Exposure to interest rate risk on positions not included in the trading book	448	Exposure to interest rate risk on positions not included in the trading book	Section 4.4 Other Risk Considerations

Article	Article Name	Article Reference Detail	Description	Document Reference
449	Exposure to securitisation positions	449(a)	Objectives in relation to securitisation activity	Section 5.4 Securitisation As at 31 December 2019, BofASE SA had an immaterial amount of exposure as investor in securitisations. BofASE SA has not acted as an originator or sponsor to any securitisations. Based on materiality no further disclosures for exposure to securitisation positions are made in this document.
		449(b)	Nature of other risks in securitised assets, including liquidity	
		449(c)	Risks in re-securitisation activity from seniority of underlying securitisations and underlying assets	
		449(d)	The different roles played by the institution in the securitisation process	
		449(e)	Indication of the extent of involvement in roles played	
		449(f)	Processes in place to monitor changes in credit and market risks of securitisation exposures, and how the processes differ for re-securitisation exposures	
		449(g)	Description of the institution's policies with respect to hedging and unfunded protection to mitigate the risks of retained securitisation and re-securitisation exposures	
		449(h)	Approaches to the calculation of risk-weighted assets for securitisations	
		449(i)	Types of SSPEs used to securitise third-party exposures as a sponsor	
		449(j)	Summary of accounting policies for securitisations	
		449(k)	Names of the ECAIs used for securitisations	
		449(l)	Description of Internal Assessment Approach where the IRB approach is used	
		449(m)	Explanation of significant changes in quantitative disclosures	
		449(n)	As appropriate, separately for the Banking and trading book securitisation exposures:	
		449(n)(i)	Amount of outstanding exposures securitised	
		449(n)(ii)	On balance sheet securitisation retained or purchased, and off balance sheet exposures	
		449(n)(iii)	Amount of assets awaiting securitisation	
		449(n)(iv)	Early amortisation treatment; aggregate drawn exposures, capital requirements	
		449(n)(v)	Deducted or 1,250%-weighted securitisation positions	
		449(n)(vi)	A summary of securitisation activity of the current period, including the amount of exposures securitised and recognised gains or losses on sales	
		449(o)	Separately for the trading and the non-trading book:	
		449(o)(i)	Retained and purchased positions and associated capital requirements, broken down by risk-weight bands	
		449(o)(ii)	Retained and purchased re-securitisation positions before and after hedging and insurance; exposure to financial guarantors broken down by credit worthiness	
		449(p)	Impaired assets and recognised losses related to exposures securitised by the institution and held in the banking book, by exposure type.	
		449(q)	Outstanding exposures securitised by the institution and subject to a capital requirement for market risk, broken down into traditional and synthetic, by exposure type;	
		449(r)	Whether the institution has provided non-contractual financial support to securitisation vehicles	
450	Remuneration policy	450	Remuneration Disclosure	Section 6.1 Remuneration Disclosure

Article	Article Name	Article Reference Detail	Description	Document Reference
451	Leverage	451(1)(a)	The leverage ratio, and whether any transitional provisions are applied	Section 2.4.1 Leverage Ratio Summary Table 2.4.1.T1: Leverage Ratio
		451(1)(b)	Breakdown of leverage ratio exposure measure and reconciliation to financial statements	Section 5.7.2 Table 5.7.2.T1. Summary Reconciliation of Accounting Assets and Leverage Ratio Exposures Table 5.7.2.T2. Leverage Ratio Common Disclosure Table 5.7.2.T3. Split of On-Balance Sheet Exposures (excluding derivatives and SFTs)
		451(1)(c)	Where applicable, the amount of derecognised fiduciary items	Not Applicable
		451(1)(d)	Description of the processes used to manage the risk of excessive leverage	Section 5.7.3 Management of Risk of Excessive Leverage
		451(1)(e)	Factors that impacted the leverage ratio during the year	Section 2.4.2 Leverage Ratio Key Movements
452	Use of the IRB Approach to credit risk	452(a)	Permission for use of the IRB approach from the competent authority	Not applicable.
		452(b)	Explanation of:	
		452(b)(i)	Internal rating scales, mapped to external ratings;	
		452(b)(ii)	Use of internal ratings for purposes other than capital requirement calculations;	
		452(b)(iii)	Management and recognition of credit risk mitigation;	
		452(b)(iv)	Controls around ratings systems.	
		452(c)(i)-(v)	Description of ratings processes for each IRB asset class, provided separately.	
		452(d)	Exposure values by IRB exposure class, separately for Advanced and Foundation IRB.	
		452(e)-(f)	For each exposure class, disclosed separately by obligor grade: Total exposure, separating loans and undrawn exposures where applicable, and exposure-weighted average risk weight.	
		452(g)	Actual specific risk adjustments for the period and explanation of changes.	
		452(h)	Commentary on drivers of losses in preceding period.	
		452(i)	Estimates against actual losses for sufficient period, and historical analysis to help assess the performance of the rating system over a sufficient period.	
		452(j)	For all IRB exposure classes:	
		452(j) (i)-(ii)	Where applicable, PD and LGD by each country where the bank operates.	
453	Use of credit risk mitigation techniques	453(a)	Use of on and off-balance sheet netting	Section 4.3 Key Risk Types; Credit Risk; Loss and Credit Risk Mitigation Activities
		453(b)	Collateral valuation management	
		453(c)	Types of collateral used	
		453(d)	Main types of guarantor and credit derivative counterparty, and creditworthiness	
		453(e)	Market or credit risk concentrations within credit mitigation taken	
		453(f)	Exposure value covered by eligible collateral	Appendix 2 Table: EU CR3 – CRM techniques – Overview Appendix 2 Table: EU CR4 – Standardised approach – credit risk exposure and CRM effects
		453(g)	Exposures covered by guarantees or credit derivatives	
454	Use of the Advanced Measurement Approaches to operational risk	454	For institutions using the Advanced Measurement Approaches to operational risk, a description of the use of insurance or other risk transfer mechanisms to mitigate operational risk	Not applicable.

Article	Article Name	Article Reference Detail	Description	Document Reference
455	Use of Internal Market Risk Models	455(a)(i)	Characteristics of the market risk models	Section 4.3.3 Market Risk Section 5.2 Market Risk
		455(a)(ii)	Methodologies used to measure incremental default and migration risk (IRC) and comprehensive risk measure (CRM)	
		455(a)(iii)	Stress testing applied to the portfolios	
		455(a)(iv)	Approaches used for back-testing and model validation	
		455(b)	Scope of the internal model permission	
		455(c)	Policies and procedures for determining trading book classification and compliance with prudential valuation requirements	5.2.1 Internal model based capital requirement 5.6 Capital Resources
		455(d)	Highest, lowest and mean values over the year of VaR, SVaR, IRC and CRM	Table 5.2.1.T1 MR3 IMA values for trading portfolios
		455(e)	Market risk internal model based own funds requirements	Table 5.2.T2 Market risk under IMA
		455(f)	Weighted average liquidity horizon for portfolios covered by internal models for IRC and CRM	Section 5.2.1 Internal Model Based Capital Requirement Incremental Risk Charge; Comprehensive Risk Measure
		455(g)	Comparison of end-of-day VaR measures compared with one day changes in the portfolio’s value	Figure 5.2.1.F1 EU MR4 - Comparison of VaR estimates with gains/losses