Pillar 3 Report 2019

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List of acronyms

ABS	Asset-backed security
AFR	Available Financial Resources
A-IRBA	Advanced Internal Rating-Based Approach
ALCO	Asset Liability Committee
ALM	Asset and Liability Management
ASF	Available Stable Funding
AT1	Additional Tier 1 capital
BACC	Board Audit and Compliance Committee
BCL	Banque Centrale de Luxembourg
BCP	Business Continuity Plan
BoD	Board of Directors
BRC	Board Risk Committee
BRNC	Board Remuneration & Nomination Committee
BRNC-N	Board Remuneration and Nominations Committee sitting in nomination matters
BSP	BIL Structured Product
CAR	Compliance, Audit and Risk
CBA	Collective Bargaining Agreement
CBS	Core Banking System
CC	Crisis Committee
CCF	Credit Conversion Factor
CCO	Chief Compliance Officer
CCP	Central Counterparty
CDS	Credit Data Science
CCR	Counterparty Credit Risk
CEO	Chief Executive Officer
CET1	Common Equity Tier One
CFP	Contingency Funding Plan

CoCo bond	Contingent Convertible bond
COR	Operational Risk Correspondents
CPR	Conditional Prepayment Rate
CRCR	Credit Risk Calculation & Reporting
CRCU	Credit Risk Control Unit
CRMU	Credit Risk Management Unit
CRM	Credit Risk Mitigant
CRO	Chief Risk Officer
CRR	Capital Requirements Regulation
CSA	Credit Support Annex
CSSF	Commission de Surveillance du Secteur Financier
CVA	Credit Valuation Adjustement
DR	Default Rates
DRP	Disaster Recovery Plan
DTA	Deferred Tax Asset
EAD	Exposure At Default
EBA	European Banking Authority
ECAI	External Credit Assessment Institutions
ECAP	Economic Capital
ECB	European Central Bank
EFRM	Enterprise and Financial Risk Management
EL	Expected Loss
ERM	Enterprise Risk Management
EU	European Union
EV	Economic Value
FRM	Financial Risk Management
FRMD	Financial Risk Management Datamart

FOREX	Foreign Exchange
FVTOCI	Financial investment at fair Value Through OCI
GIP	Gestion Intensive et Particulière
GMRA	Global Master Repurchase Agreement
GMSLA	Global Master Securities Lending Agreement
HQLA	High Quality Liquid Assets
HR	Human Resources
ICAAP	Internal Capital Adequacy Assessment Process
ICC	Internal Control Committee
IFRS	International Financial Reporting Standards
ILAAP	Internal Liquidity Adequacy Assessment Process
IMM	Internal Model Method
IMVU	Internal Model Validation Unit
IR	Interest Rate
IRRBB	Interest Rate Risk in the Banking Book
IRS	Internal Rating Systems
ISDA	International Swap and Derivative Association
IT	Information Technology
JST	Joint Supervisory Team
KPI	Key Performance Indicator
LCR	Liquidity Coverage Ratio
LDP	Low Default Portfolio
LR	Leverage ratio
LGD	Loss Given Default
LiST	ECB 2019 Sensitivity Analysis of Liquidity Risk
MB	Management Board
MBS	Mortgage Backed Security

MCRE	Maximum Credit Risk Exposure
MMB	Member of the Management Board
MOC	Monthly Operational Committee
MREL	Minimum Requirement for own funds and Eligible Liabilities
MRT	Material Risk Takers
NACE	Nomenclature statistique des Activités économiques dans la Communauté Européenne
NCA	National Competent Authorities
NII	Net Interest Income
NMD	Non-Maturing Deposits'
NPC	New Products Committee
NPE	Non-Performing exposures
NSFR	Net Stable Funding Ratio
OBS	Off-Balance Sheet
OCI	Other Comprehensive Income
OCR	Overall Capital Requirement
ORM	Operational Risk Management
OTC	Over-the-counter
PCC	People, Culture and Communication
PD	Probability of Default
PM	Product & Markets
PSD II	Payment Services Directive II (EU/2015/2366)
P&L	Profit and Loss
P2G	Pillar 2 Guidance
P2R	Pillar 2 Requirement
QMFU	Quality Management Follow-Up
QIS	Quantitative Impact Study
RAF	Risk Appetite Framework

RAS	Risk Appetite Statement
RCSA	Risk Control Self-Assessment
RSF	Required Stable Funding
RWA	Risk Weighted Assets
SFT	Securities Financing Transaction
SC	Security Committee
SLA	Service Level Agreement
SNB	Swiss National Bank
SSM	Single Supervisory Mechanism
SRB	Single Resolution Board
SRM	Single Resolution Mechanism
STE	Short Term Exercise
WAL	Weighted Average Life
WIR	Weekly Incident Report

EBA tables and templates[1]

The content of the EBA qualitative tables are included in this report.

Templates	Reference	Name	CRR articles	Format	Frequency
1	EU OVA	Institution risk management approach	Article 435 (1)	Flexible	Annual
2	EU CRA	General qualitative information about credit risk	Article 435 (1)	Flexible	Annual
3	EU CCRA	Qualitative disclosure requirements related to CCR	Article 435 (1)	Flexible	Annual
4	EU MRA	Qualitative disclosure requirements related to market risk	Article 435 (1)	Flexible	Annual
5	EU LIA	Explanations of differences between accounting and regulatory exposure amounts	Article 436 (b)	Flexible	Annual
6	EU CRB-A	Additional disclosure related to the credit quality of assets	Article 442 (a)-(b)	Flexible	Annual
7	EU CRC	Qualitative disclosure requirements related to CRM techniques	Article 453 (a) - (e)	Flexible	Annual
8	EU CRD	Qualitative disclosure requirements on institutions' use of external credit ratings under the standardized approach for credit risk	Article 444 (a) - (d)	Flexible	Annual
9	EU CRE	Qualitative disclosure requirements related to IRB models	Article 452 (a) - (c)	Flexible	Annual
10	EU MRB	Qualitative disclosure requirements for institutions using the IMA	Article 455	N/A. The Bank uses the standardized approach.	N/A. The Bank uses the standardized approach.

List of EBA quantitative templates presented throughout this document.

Templates	Reference	Name	CRR articles	Reference
1	EU LI1	Differences between accounting and regulatory scopes of consolidation and the mapping of financial statement categories with regulatory risk categories	Article 436 (b)	Section 2.1.1
2	EU LI2	Main sources of differences between regulatory exposure amounts and carrying values in financial statements	Article 436 (b)	Section 2.1.1
3	EU LI3	Outline of the differences in the scopes of consolidation (entity by entity)	Article 436 (b)	Section 2.1.1
4	EU OV1	Overview of RWAs	Article 438 (c)-(f)	Section 2.1.3
5	EU CR10	IRB (specialized lending and equities)	Article 153 (5) or 155(2), Article 438	Section 2.1.4
6	EU INS1	Non-deducted participations in insurance undertakings	Article 438 (c)-(d) & article 49 (1)	Section 2.2
7	EU CRB-B	Total and average net amount of exposures	Article 442 (c)	Section 3.2.1
8	EU CRB-C	Geographical breakdown of exposures	Article 442 (d)	Section 3.2.2
9	EU CRB-D	Concentration of exposures by industry or counterparty types	Article 442 (e)	Section 3.2.3
10	EU CRB-E	Maturity of exposures	Article 442 (f)	Section 3.2.4
11	EU CR1-A	Credit quality of exposures by exposure class and instrument	Article 442 (g)-(h)	Section 3.2.5
12	EU CR1-B	Credit quality of exposures by industry or counterparty types	Article 442 (g)	Section 3.2.5
13	EU CR1-C	Credit quality of exposures by geography	Article 442 (g)	Section 3.2.6
14	EU CR1-D	Ageing of past-due exposures	Article 442 (g)	Section 3.3.2
15	EU CR1-E	Non-performing and forborne exposures	Article 442 (g)-(i)	Section 3.3.3
16	EU CR2-A	Changes in the stock of general and specific credit risk adjustments	Article 442 (i)	Section 3.3.4
17	EU CR2-B	Changes in the stock of defaulted and impaired loans and debt securities	Article 442 (i)	Section 3.3.5
18	EU CR3	CRM techniques – Overview	Article 453 (f) - (g)	Section 3.4.4
19	EU CR4	Credit risk exposure and CRM effects	Article 453 (f) - (g)	Section 3.5.3
20	EU CR5	Standardized approach	Article 444 (e)	Section 3.5.4

21	EU CR6	Qualitative disclosure requirements related to IRB models	Article 452 (e) - (h)	Section 3.6.5
22	EU CR7	Effect on the RWAs of credit derivatives used as CRM techniques	Article 453 (g)	N/A. The Bank does not have any credit derivatives. Section 3.7.9
23	EU CR8	RWA flow statements of credit risk exposures under the IRB approach	Article 438 (d) & Article 92 (3)	Section 3.6.6
24	EU CR9	IRB approach – Back testing of PD per exposure class	Article 452 (i)	Section 3.6.4
25	EU CCR1	Analysis of CCR exposure by approach	Article 439 (e), (f), (i) & article 92 (3	Section 3.7.2
26	EU CCR2	CVA capital charge	Article 439 (e) - (f)	Section 3.7.3
27	EU CCR8	Exposures to CCPs	Article 439 (e) - (f)	Section 3.7.4
28	EU CCR3	Standardized approach – CCR exposures by regulatory portfolio and risk	Article 444 (e)	Section 3.7.5
29	EU CCR4	IRB approach – CCR exposures by portfolio and PD scale	Article 452 (e)	Section 3.7.6
30	EU CCR7	RWA flow statements of CCR exposures under the IMM	Article 92 (3) - (4) & Article 438 (d)	N/A. The Bank does not use the IMM approach.
31	EU CCR5-A	Impact of netting and collateral held on exposure values	Article 439 (e)	Section 3.7.7
32	EU CCR5-B	Composition of collateral for exposures to CCR	Article 439 (e)	Section 3.7.7
33	EU CCR6	Credit derivatives exposures	Article 439 (g) - (h)	N/A. The Bank does not have any credit derivatives. Section 3.7.9
34	EU MR1	Market risk under the standardized approach	Article 445	Section 4.5
35	EU MR2-A	Market risk under the IMA	Article 455 (e)	N/A. The Bank uses the standardized approach.
36	EU MR2-B	RWA flow statements of market risk exposures under the IMA	Article 455 (e)	N/A. The Bank uses the standardized approach.
37	EU MR3	IMA values for trading portfolios	Article 455 (d)	N/A. The Bank uses the standardized approach.
38	EU MR4	Comparison of VaR estimates with gains/losses	Article 455 (g)	N/A. The Bank uses the standardized approach.

[1] In accordance with the publication EBA/GL/2016/11, version 2.

Foreword

Banque Internationale à Luxembourg (hereafter "BIL" or "the Bank") is a banking group located in Luxembourg at 69, route d'Esch, L-2953 Luxembourg and counts about 2.000 employees. It is the ultimate parent company of BIL group. BIL is present in the financial centre of Luxembourg, Denmark, Switzerland; Dubai, Hong Kong and Beijing.

This report meets the consolidated disclosure requirements related to the Part Eight of the Regulation (EU) No 575/2013, known as the Capital Requirements Regulation (CRR) on the one hand, and to the Circular CSSF 14/583 and the CSSF Regulation 14-01, which are the transpositions of the CRR into national law on the other hand, thereby setting the regulatory prudential framework applicable to credit institutions. The Guidelines on Disclosure Requirements under the Part Eight of the Regulation (EU) No 575/2013 (EBA/GL/2016/11) of August 2017, and the corresponding Circular CSSF 17/673 on the adoption of the European Banking Authority (EBA) Guidelines, and the final Guidelines on Disclosure of Non-Performing and Forborne Exposures (EBA/ GL/2018/10) of December 2018 are also taken into account.

Unless otherwise stated, the figures disclosed in this report are expressed in millions of euros.

Data are provided at a consolidated level, including subsidiaries and branches of BIL group.

In addition to this document, the annual report is available on the BIL's website (www.bil.com).

Introduction

This BIL group's Pillar 3 disclosure report is divided into seven sections and two appendices, as follows:

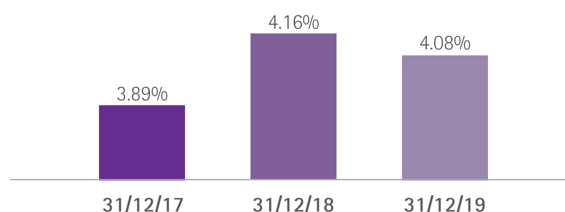
- The first section describes the structure and functioning of the risk organisation and governance;
- The second section covers the capital management and capital adequacy;
- The third section is dedicated to the credit risk management. It outlines the organisation, the methodological procedures and provides detailed breakdowns of the Bank's credit risk exposures;
- The fourth section describes the methodological procedures for the management of market risk while disclosing the Bank's corresponding risk profile;
- The fifth and sixth sections present the operational risk and the information security & business continuity frameworks and related key risk figures;
- Finally, the last section relates to the remuneration policy and practices.

It should be noted that BIL also publishes its Pillar 3 report on a semi-annual and quarterly basis.

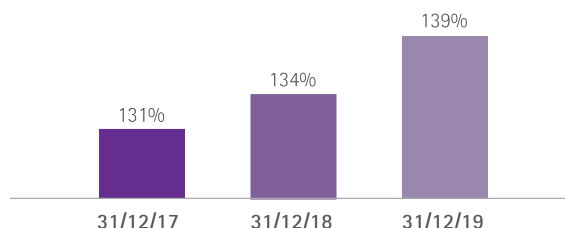
Main indicators as of 31 December 2019:

	SOLVENCY RATIO		
	31.12.17	**31.12.18**	**31.12.19**
CET1 Capital ratio	12.21%	12.04%	12.47%
Tier 1 ratio	14.47%	13.91%	14.52%
Total Capital Ratio	16.48%	15.62%	16.15%

Leverage ratio

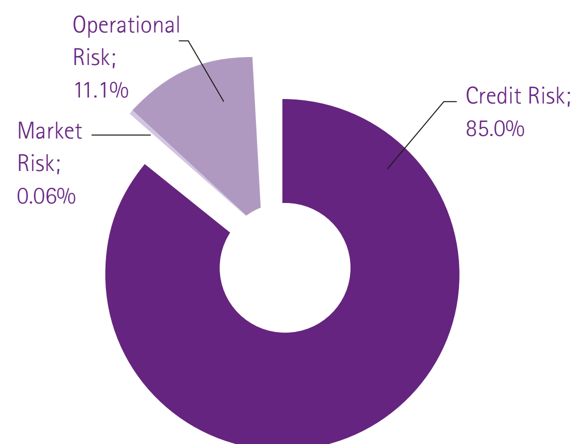


Liquidity Coverage ratio



Distribution of RWAs by type

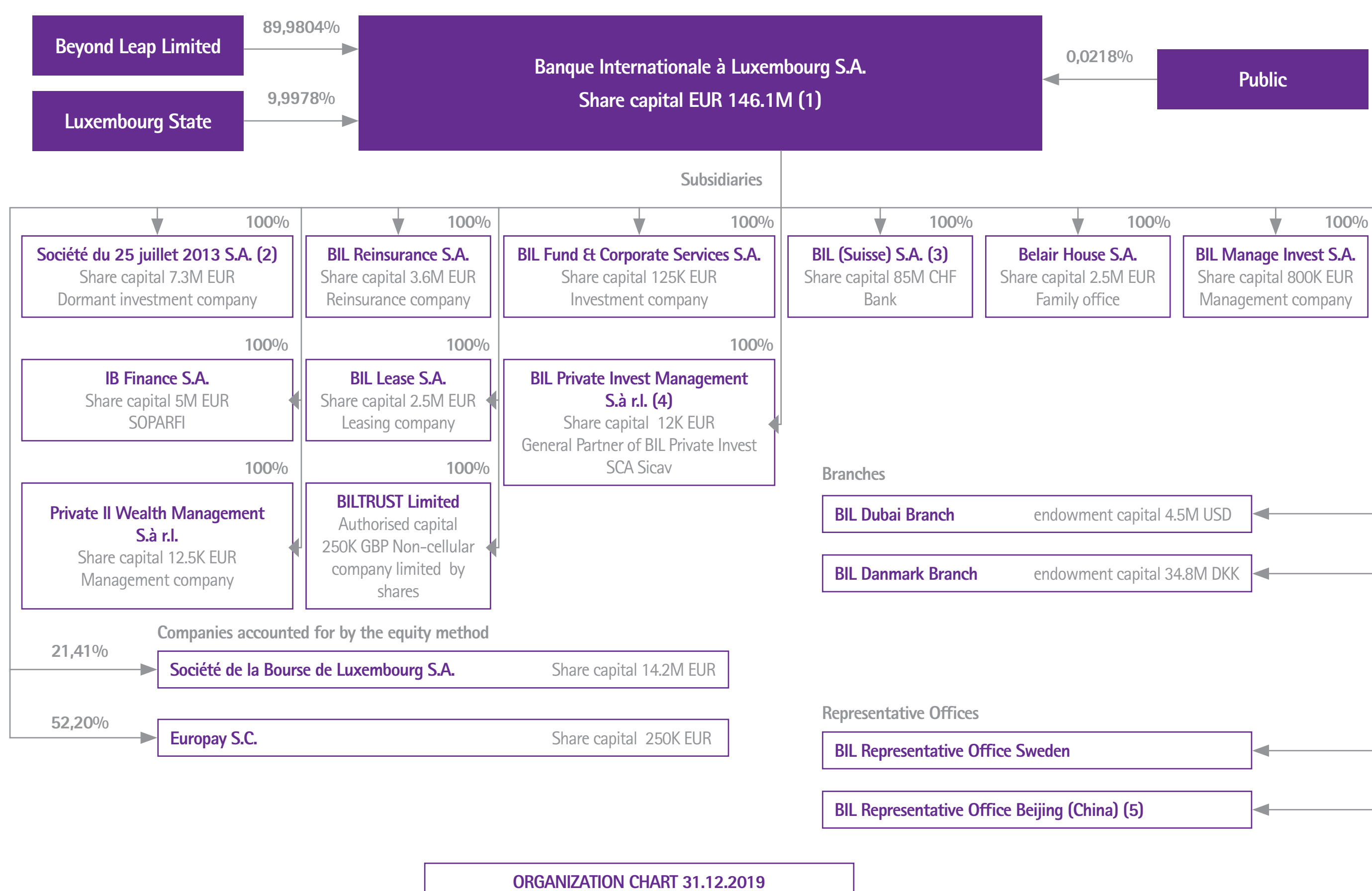
Total: EUR 8,543 million[1]



[1] CVA is included in RWAs of Credit Risk, accounting for 0.3%. Other distributions are as follows: Equity IRB: 2.2%, CCR: 0.9%, Securitisation: 0.2%.

Structure of BIL group

As from 2 July 2018, BIL group's shareholders' structure has changed due to the sale of Precision Capital's stake in BIL to Legend Holdings Corporation. BIL's Group structure with details on its branches and subsidiaries are presented as follows:



Background: Since late 2014, important strategic initiatives were undertaken at a group-wide level that changed BIL group's corporate structure. All these initiatives have been monitored closely by the Bank's Risk Management department whose main objective is to guide their implementation by ensuring that the related risks are continuously under control and compatible with the institution's risk appetite framework.
BIL group's risk management department monitored the Bank's activities and risk profile throughout 2019 in line with its strategy while implementing new regulatory requirements.

Global view on the different regulatory frameworks

In 2019, BIL continued to invest time and resources in ensuring that it continues to comply with regulatory standards. In particular, it implemented the supervisory slotting approach for specialised lending in relation to real estate exposures and the new regulatory definition of default.

Supervisory slotting approach for specialised lending in relation to real estate exposures: in 2019, BIL obtained regulatory approval from the European Central Bank to use a new approach regarding the assessment of the risk-weighted exposure method for specialised lending under supervisory slotting criteria. This assessment is based on five grades with predefined risk weightings ranging from strong (1) to weak (4) and default (5) for loans defined as A-IRB subclass" specialised real estate financing" loans such as Income Producing Real Estate (IPRE) and land Acquisition, Development and Construction (ADC).

In 2019, BIL implemented the New Definition of Default as well as the amendments concerning the non-performing exposures (NPE) and forbearance in accordance with the latest EBA guidelines. This implies in particular the implementation of strategic solutions including various elements such as the IT deployment. In a second step, the new internal models will be updated to take the New Definition of Default into account. Some developments have already been achieved: (i) the new loss database (LDB) based on the New Definition of Default (NDD) for LGD modelling and (ii) the NDD tactical database with clients' account movements for PD modelling. Both provide data which covers the past eleven years.

As part of the Targeted Review of Internal Models (TRIM), BIL has been monitoring the adequacy and appropriateness of its approved Pillar I internal models within the Single Supervisory Mechanism (SSM) as one of the significant institutions, thereby enhancing their soundness. Through the TRIM process, the ECB assesses whether the models comply with regulatory standards and seeks to harmonise supervisory practices. In 2019, an on-site mission on financial institution exposures was conducted by the ECB. The final letter from the ECB on this mission is expected in 2020. In 2019, as part of the supervisory programme, the Bank was also subject to an on-site mission by the ECB regarding Risk Governance matters.

As part of the revision of the Basel III framework, some matters were published by the Basel Committee ahead of the so-called Basel IV reforms. In 2019, the Bank analysed the various impacts and submitted its findings to the ECB.

In July 2018, the EBA published its final guidelines on the management of interest rate risk arising from non-trading book activities. This document refers to the Interest Rate Risk in the Banking book (IRRBB) and follows previous EBA (2015) and BCBS (2016) publications. It refers to the current or prospective risk to the Bank's capital and earnings, arising from adverse movements in interest rates that affect the banking book. The new standards were applicable from June 2019. In 2020, the Bank will continue to develop its framework.

The Bank Recovery and Resolution Directive (2014/59/EU), published in May 2014, was transposed into Luxembourgish law in late 2015. In this context, in 2019, the Bank elaborated its annual Recovery Plan, which was sent to the regulators at the end of September. Regarding the resolution part, BIL participated in different workshops with the Resolution Authority (the Single Resolution Board; SRB). In January 2020, the Bank submitted its working program to the SRB in order to establish the 2020 roadmap. A detailed version of BIL's Resolution Plan will be prepared and delivered to SRB for July 2020.

Concerning liquidity and funding matters, the Bank participated to the ECB Sensitivity Analysis of Liquidity Risk – Stress Test for 2019 (LiST). The results of the exercise reflected a sound liquidity risk situation. It should also be noted that the Bank has continued to review its framework for internal liquidity stress tests in line with market practices, notably by updating and developing various scenarios.

Regarding operational risk, as planned, an ECB on-site mission ran from the last quarter of 2018 until early April 2019. Actions have been taken to strengthen the management of operational risk. The Bank is also reviewing its information systems regarding operational risk.

Business continuity exercises were performed for all critical activities of the Bank in 2019. In September 2019, a crisis management exercise was realised to train the Management Board to manage a crisis in realistic conditions and to identify any necessary enhancements of our existing crisis management procedures.

The Bank is also fully committed to the BCBS 239 principles and has setup a three-year project (2019-2021). The project is structured in three sections: (i) overarching governance and infrastructure, (ii) risk data aggregation capabilities and (iii) risk reporting practices.

The first two sections have been accelerated by the Data programme (Risk Foundation Master, data quality management and data exploitation capabilities) and the growing Data Office (committees, governance).

1. Risk Management

1.1 Risk management responsibilities

BIL group Risk Management framework is based on a governance which enables prudent and sound management of risks. This governance structure is defined by:

- The responsibilities of the Board of Directors (assisted by the Board Risk Committee) and the Management Board and their respective roles in decision-taking and risk management;
- A number of Management Committees (with delegated powers by the Management Board) relating to risk topics to which at least one member of the Management Board is a participant;
- Other formalised Risk committees including experts and operational teams taking decisions related to the Bank's risk monitoring as well as its specific practices;
- The alignment with the Bank's Risk Appetite Framework, charters, policies, procedures and reporting's explaining the:
  - Activities;
  - Definition of limits for risk-taking by operational units;
  - Process of detection;
  - Assessment and measurement of the risks induced by the Bank's activities;
  - Reporting to the Management.

As a general principle, the internal risk functions of each BIL entity report to the appropriate risk functions at BIL Head Office level, from both a hierarchical and a functional perspective for branches and from a functional perspective for subsidiaries.

1.2 Risk organisation and governance

BIL group's Risk Management framework is based on a clear organisational structure with a transparent decision-making process that facilitates prudent management of risks.

The Bank's risk management model is based on the following principles:

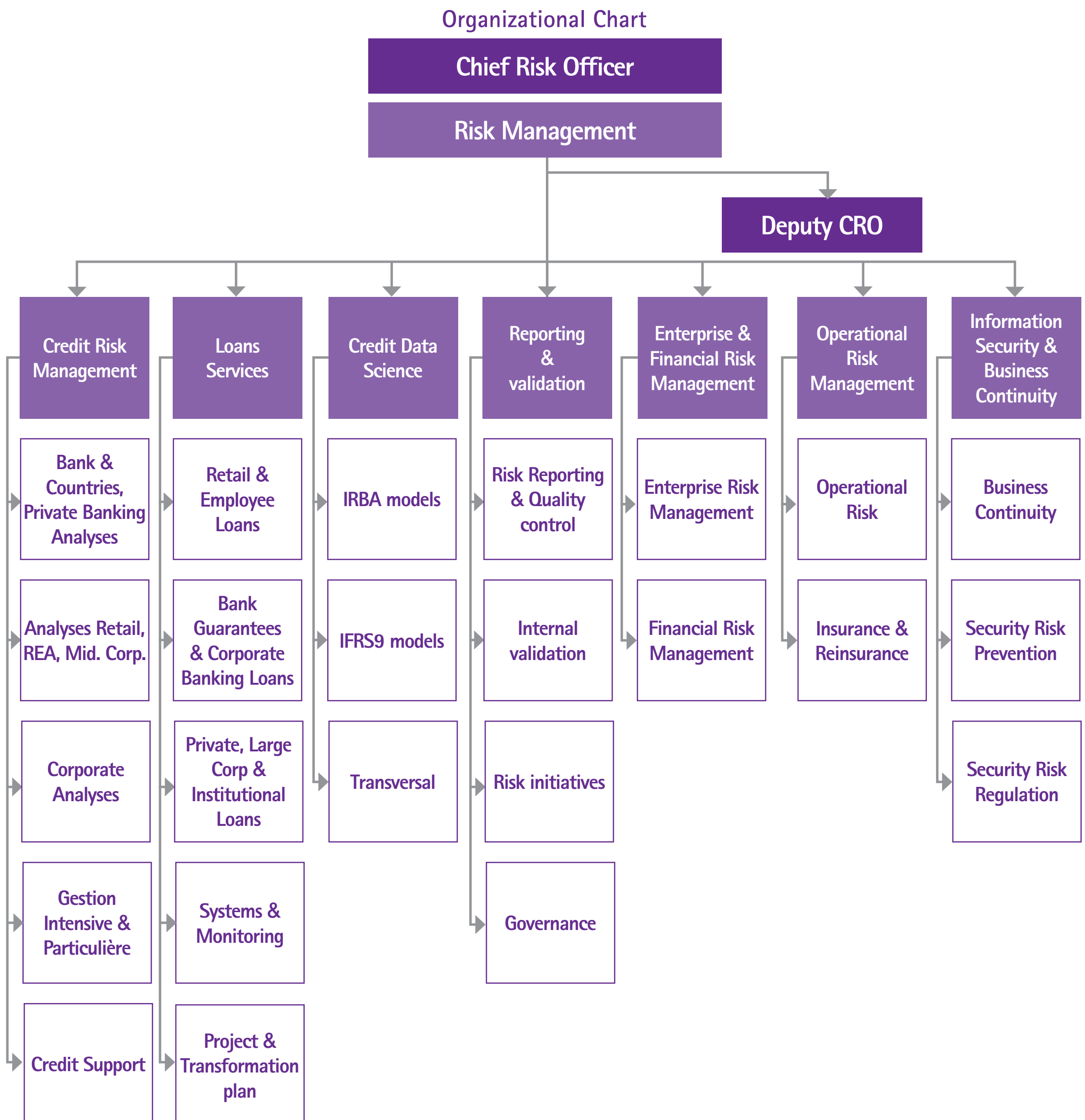
- Independence of the risk function with respect to the business;
- Collegial decision-making to ensure that opinions are challenged;
- Precise policies and procedures detailing limits of risk, responsibilities, monitoring and reporting of risks;
- Central control, whereby all departments, subsidiaries and branches report both organisational related and technical matters to Risk Management at BIL's Head office;
- Implementation of the same risk monitoring and data control system in all entities of BIL group.

1.2.1. Organisation

In order to reflect a sound Risk Management framework and to develop an integrated risk culture, the Bank has set up an effective Risk Management organisation that is consistent with its activities and encompasses the relevant risks associated with its activities. The Risk Management function has been designed to support the Bank in achieving its defined objectives under the BIL strategy and regulatory requirements.

In this context, the missions of the Risk Management missions can be described as follows:

- As a control function, Risk Management aims to contribute to the sustainable development of BIL by defining its risk appetite and setting up a risk management, monitoring and follow-up system;
- As an independent function, Risk management also collaborates with the BIL's business lines, the latter acting as the first line of defence regarding risk associated with their processes and transactions they initiate.



At the Management Board level, the overall Risk Management framework is under the Chief Risk Officer (CRO)'s responsibility. The CRO is responsible for providing any relevant information on risks to the Management Board (and the Executive Committee), enabling the capture and the management of the Bank's overall risk profile.

The specific units are described in further details hereafter.

Credit Risk Management

This unit is composed of different sub-teams:

- **"Banks & Countries, Private Banking Analyses"** is in charge of the assessment and the monitoring of the risk related to banks and sovereign counterparts and private banking counterparts;
- **"Retail, MidCorp, Real Estate Analyses"** is in charge of the assessment and the monitoring of retail and MidCorp counterparts and for the real estate specialised lending counterparts (property developments and professional real estate investments);
- **"Corporate Analyses"** is in charge of the assessment and the monitoring of the risk related to corporate and institutional counterparts, including providing support for complex files to the other teams;
- **"Gestion Intensive et Préventive"** (GIP – Intensive and Specific Management Unit) identifies and manages credit files showing early signs of difficulties and proactively propose in collaboration with business lines action plans to mitigate our risks and assist front-office teams in managing complex non-performing exposures requiring though negotiations of forbearance solutions in order to minimize the potential losses for the Bank in case of default of counterparty.
- **"Credit Support"** is responsible for defining and updating credit policies and procedures and also to providing support to the other CRM teams regarding the processing of audit recommendations (Internal Audit, JST…). It aims also to provide support on decisions about principles and methodology referring to credit risk (e.g. approval of reports of model validation) and to give advice on risks topics requiring transversal opinion and on issues of regulatory monitoring, results of stress-testing among others.

The three first analyses teams are in charge of the segmentation of BIL counterparts in line with regulatory requirements and of assigning internal ratings to their respective counterparts.

Loans Services

Loans Services is the back office dedicated to the implementation and follow-up of all loans granted by the Bank. This team has been integrated into Risk Management, in order to ensure a better control of the risks linked to the contractual implementation and monitoring of loans (and associated collateral packages).

Loans Services is:

- Accountable for the management of operational and legal risks related to the implementation and the maintenance of all credits granted by the Bank;
- Accountable for the disbursement of loans consecutively to their implementation in full adequacy with the decisions of the internal credit authorities and committees;
- Guarantor of the operational efficiency of the Bank, reflected in the capacity to implement loans and credits in conditions of form and time consistent with the expectations of our three main business lines (Retail & Digital Banking, Corporate & Institutional Banking and Wealth & Investment Management) and their customers while respecting the allocated budgets.

Loans Services is divided into five dedicated sub-teams.

- **"Retail and Employee Loans"** is in charge of:
  - The implementation of retail loans composed of a large number of highly standardised small to medium sized loans, mainly consumption and housing loans (in Luxembourg or the Greater Region);
  - The management of all life cycle events (disbursement, partial or full release of collateral, renewal of collateral, interest rates changes, repayment programs deferrals, etc. related to Retail and Corporate loans);
  - The final validation of mortgage deeds securing cross-border loans.
- **"Bank Guarantee & Corporate Banking Loans"** is in charge of:
  - Implementing business loans granted to small and midsized companies, these loans are also highly standardised and are mainly investment loans and overdraft facilities;
  - Managing the issuance of bank guarantees as well as the received bank guarantees portfolio.
- **"Private, Large Corporate and Institutional Banking Loan"** is in charge of:
  - Implementing Private Banking loans, mainly Lombard loans and investment loans which are quite standardised and secured by assets deposited in BIL;
  - Implementing tailor-made structured multiform facilities or cross-border mortgage loans for international wealth management clients and Ultra High Net Worth Individuals;
  - Implementing tailor-made structured or syndicated facilities for large corporate or institutional clients.
- **"The Systems and Monitoring"** is in charge of:
  - RMaintaining, updating and improving the Bank's risk monitoring system of stock of credit and security packages throughout their life cycle;

- Maintaining, updating and improving the Bank's system for monitoring the operational efficiency of the Loans Services line;
- Maintaining, updating and improving the quality monitoring system;
- Representing Loans Services as Business Leader in all projects related to the Lending Value Chain of the Transformation Plan;
- Representing Loans Services as application Owner for tools related to the Bank's activity.

- **"Project and Monitoring"** is in charge of:
  - Representing Risks as Business Leader in the Risk Value Chain of the Transformation Plan;
  - Representing Risks as Business Leader in the Loans Enhancement project;
  - Building and monitoring of the Risk Projects Portfolio under the guidance of the centralized Project Portfolio Management of our Bank.

Loan Services encompasses also the following tasks:

- Maintaining, updating and improving the Bank's risk monitoring system of stock of credit and security packages throughout their life cycle;
- Maintaining, updating and improving the Bank's system for monitoring the operational efficiency of the Loans Services line;
- Representing Loans Services as Business Leader in all projects related to the Lending Value Chain of the Transformation Plan;
- Representing Loans Services as application Owner for tools related to the Bank's lending activity.

Credit Data Science

The Credit Data Science team is in charge of the development and the maintenance of all the models related to credit risk quantification implemented in the context of:

- The credit risk management and monitoring;
- The computation of regulatory capital requirements (Pillar 1);
- The general and specific provisioning calculation according to the IFRS 9 standard;
- The forecasting of the risk parameters used in the stress test process.

It also manages and ensures the consistency of the internal rating system integration within the credit risk management process and policies of the Bank.

This team is composed of three different sub-teams:

- **The IRBA team** is in charge of the development of internal models for the Credit Risk parameters related to the Pillar 1 and of the monitoring of these parameters, according to the last regulatory guidelines;
- **The IFRS9 team** is in charge of all modelling activities related to the new accounting standard IFRS9;
- **The Credit DevOps team (Transversal)** is responsible for coordinating transverse projects involving other BIL stakeholders, such as core banking IT system, advanced analytics, etc. The DevOps team is also supporting the IRBA and IFRS9 teams on ad hoc projects.

Reporting and Validation

The reporting and validation team is composed by three units:

- **"Risk Reporting & Quality control"** is in charge of the development and maintenance of the data and risk systems used for the calculation of the credit risk capital requirements and the corresponding regulatory reporting. It is also responsible for the production of regulatory and internal reports related to Credit Risk such as the COREP, Large Exposures and covers ad hoc requests from regulatory authorities;
- **"Internal Model Validation Unit (IMVU)"** aims to ensure the robustness and soundness of the internal rating systems by validating all BIL risk quantification models under Pillar 1 and BIL risk quantification under Pillar 2 and IFRS 9. The unit is responsible for independently verifying that models proposed for use by model owners are fit for purpose through the whole model lifecycle, and that the associated model risks are appropriately identified and mitigated. IMVU has explicit authority and independence to provide effective challenging to related stakeholders, presenting issues and highlighting deficiencies. The key aspects of the models validated by the IMVU include model design, data quality, model implementation, model performance, and use-tests;
- **"Model Governance"** is in charge of overseeing compliance with the Model Risk Management Framework of the Bank. This unit ensures the documentation is in place for each model, that the model inventory and issue tracking tool is maintained and updated regularly, and provides challenge where appropriate to the Model Owners and Developers. Moreover, the Model Governance unit is responsible for organising the model risk committees by preparing agendas, writing minutes, and archiving documents. The unit is the central repository for all charters and policies related to the Model Risk Management Framework.
- **The Risk Initiatives team** is responsible to ensure that (i) The solutions design and deliver fit Risk Management requirements and processes with a transversal forward looking assessment; (ii) A proper and continuous communication within and outside Risk Management is established; (iii) A consolidated tracking of status/budgets of the projects including their respective deliverables/milestones is provided.

Enterprise and Financial Risk Management

The Enterprise and Financial Risk Management is composed of two teams:

- **"Enterprise Risk Management (ERM)"** is in charge of the deployment and monitoring of the various components of the SREP process. This process is based on:
  - The analysis of the Business Model of the Bank through its Risk Appetite;
  - The establishment of a framework for risk governance;
  - The deployment of an Internal Capital Adequacy Assessment Process (ICAAP) and an Internal Liquidity Adequacy Assessment Process (ILAAP);
  - A transversal stress testing device; and
  - The establishment of BIL's Recovery Plan and the deployment of the Resolution Plan.
  - Moreover, this team is responsible for the prudential consolidation of the risks of the Bank and regulatory monitoring. In line with this requirement, the Enterprise Risk Management Department (ERM) ensures the regulatory monitoring, activity monitoring, and the coordination of transversal projects related thereto; the realisation of regulatory transversal reports (Pillar 3 Report, Annual Report, Long Form Report, etc.) and the prudential risk consolidation for the Bank and its subsidiaries/branches.
  - Beyond these tasks, the team ensures the development and deployment of the quantitative and functional approaches for internal customers: other risk teams and/or their Business Line teams.
  - Two of its recent tasks can be presented as follows:
    - > The NMD and Prepayment projects within IRRBB framework; and
    - > Risk analyses regarding new loan-to-value (LTV) approaches for exposures with financial collaterals;
- **"Financial Risk Management (FRM)"** is in charge of the charters, policies and guidelines definition and their application for the financial market activities (Banking (of which ALM), Trading, Liquidity and Collateral Management). Moreover, this department is responsible for identifying, analysing, monitoring and reporting on risks and results of these topics at BIL and BIL group level. Furthermore, FRM is the functional responsible for the main tools (Kondor+, Bloomberg), the interfaces of the Dealing Room and FRM DataMart (FRMD). It is also strongly involved as such in the replacement of the current core banking system.

Operational Risk Management

The Operational Risk Management unit handles the management of operational risks and insurance and reinsurance matters.

This unit is composed of two different teams:

- **"Operational Risk"** is in charge of:
  - Developing and monitoring the set-up of a risk event collection system and the overseeing of operational risk matrices assessment (RCSA);
  - Putting in place, for BIL and its subsidiaries / branches, a system of control and actions to ensure an adequate operational risk exposure (internal fraud, external fraud, processes, systems, products, etc.) in line with the risk appetite as defined by the Bank;
  - Preventing the Bank from any operational risk exposure by taking part is new products and/or projects from the beginning.
- **"Insurance & Reinsurance"** is in charge of:
  - The establishment and regular updating of the insurance programme (BIL and employee coverage) within the Bank and its subsidiaries / branches;
  - A centralised management of insurance policies and claims within the Bank and its subsidiaries, acting as a single contact for both brokers and the insured;
  - Developing a comprehensive approach by ensuring the adequacy of the policy and the insurance device including the own reinsurance company of BIL (captive) for risk analysis.

Information Security and Business Continuity

"Information Security & Business Continuity" team aims to define the high level objectives in each domain of Information Security – as defined in ISO/IEC 27001:2013 and the corresponding roles defined in the CSSF Circular 12/552 – that must be fulfilled to ensure the security of the information of the bank. This unit is composed of three different teams:

- **"Security Risk Regulation"** ensures the establishment and maintenance of a global and transversal overview of various aspects of the bank's Information Security to provide BIL with adequate protection and prevent threats (theft, loss, destruction, alteration, inaccessibility, etc.) which could affect this information. This team performs regular controls on effective access rights to systems compared to declared and validated access in the Identity and Access Management tool. This team also performs information security risk analyses (with the support of other security stakeholders such as IT Security and Physical Security officers) when applicable and in particular for new projects or when

contracting with critical third parties. Finally, this team chairs the Management Committee "Security Committee" to oversee the risks linked to the BIL's information security and the security incidents, and make recommendations for decisions on projects with a potential link to the security of information assets;
- "**Security Risk Prevention"** is in charge of validating and controlling access according to the rules and principles set out in memo NS0032 (Access Management Policy) to ensure the security of systems and applications. This team is also in charge of maintaining the referential or resources available in the Identity and Access Management system;
- **"Business Continuity"** establishes and maintains the continuity plan (Business Continuity Plan), its alignment with the IT Recovery Plan (Disaster Recovery Plan) and performs an annual review of Business Impact Analysis with Business Lines in order to maintain an up-to-date continuity plan set out in Business Continuity and Crisis Management Charter.

1.2.2. Roles and responsibilities of the committees

Among its missions, the **Board of Directors (BoD)** is responsible for setting and overseeing the overall business strategy, the overall risk strategy and policy including the risk tolerance/ appetite and the Risk Management framework.

The **Board Risk Committee (BRC)** is responsible for proposing BIL's group risk policy to the BoD. This committee also ensures that BIL's activities are consistent with its risk appetite and, in that respect, make positive recommendations to the BoD with regards to the level of global limits for the main risk exposures. 6 meetings occurred in 2019. Risk teams and their CRO address a regular information flow on risk to the Management Body.

Other Board specialised Committees assist the Board in the performance of its responsibilities such as:
- Board Strategy Committee (BSC);
- Board Audit and Compliance Committee (BACC);
- Board Remuneration and Nominations Committee (BRNC).

The **Management Board (and the Executive Committee)** is responsible for implementing the strategies as approved by the BoD, and for establishing a safe and sound management, in accordance with the principles and objectives established by the BoD. The Management Board ensures that:
- Rigorous and robust processes for Risk Management and internal controls are in place; and that

Committee	Topics
Internal Control Committee	The Internal Control Committee is mandated by the Management Board to strengthen cooperation between the 3 lines of defence through coordination of the activities of each Internal Control function and decision on transversal issues related to Internal Control.
Commitments Committee	Those Committees are mandated by the Management Board to grant specific and decide for certain type of commitments (Risk Policy Committee has been merged with the Commitments Committee).
Risk Policy sub-Committee	This committee is mandated by the Management Board and his a subcommittee of Commitments Committee. It decides on the supervision of the perimeters of Risk and defines the general risk policies (changes and regular reviews with regard to BIL's Credit Guide Charter), as well as specific credit policy in different areas or for certain types of counterparty, and sets up the rules for granting loans, supervising counterparties' ratings and monitoring exposures. The Risk Policy sub-Committee validates all changes in procedures or risk policies, principles and calculation methods referring to risk.
Credit Committee	This Committee is mandated by the Management Board to validate commitments meeting certain criteria.
Employee Credit Committee	This Committee is mandated by the Management Board to decide for BIL and its domestic subsidiaries all commitments regardless of their level.
Default Committee	This Committee is mandated by the Management Board to deal with the incidents of default and define the principles to apply to BIL and its subsidiaries.
ALM Committee	This Committee is mandated by the Management Board to decide on the structural positioning of the bank's balance sheet in terms of rates, foreign exchange and liquidity.
Security Committee	This Committee is mandated by the Management Board to oversee the risks linked to the BIL's information security and the security incidents, and make recommendations for decisions on projects with a potential link to the security of information assets.
Regulatory Committee	This Committee is mandated by the Management Board to develop and promote a culture of regulatory strategy within the bank, oversee regulatory projects and provide assistance in the implementation of regulatory projects.
New Products Committee	Management Committee responsible for new products/ services on the basis of ideas coming from the entire Bank and for checking the relevance of the underlying business case against the bank strategy.
International Client Acceptance Committee	The International Client Acceptance Committee (ICAC) is mandated by the Management Board to oversee the risks related to PEP, MEP and UHNW clients. New business relationships with these types of clients must/may be submitted to this committee depending respectively on their citizenship, country of residence or strong link with a country where their business is or was established. Prior to the submission to ICAC, files presented by the entities must have been first validated by the entity Account Opening Committee (except for BIL Lux).

Finally, discussions and decisions related to Risk Management are also governed by **additional internal committees. These committees** allow to ensure, among others, that the processes set up for the Bank's A-IRB framework are in line with regulatory requirements and that the corresponding tools are used in an appropriate way.

1.2.3. Risk Charter and Policies

The Risk Management framework is governed by an integrated set of charters and policies. Internal BIL policies and procedures are needed to comply with regulatory requirements and must be aligned with BIL group's charters.

All charters, policies and procedures are centrally stored. Charters are reviewed with a frequency in line with regulatory requirements (annually or any other frequency). Policies and procedures are reviewed on at least a three-yearly basis.

Capital Adequacy Statement: Formal Statements on the Capital Adequacy

The purpose of this internal document is to address a request of regulators in the ECB letter dated February 7, 2019 on the technical implementation of the EBA Guidelines on the ICAAP and ILAAP information collected for SREP purposes and to produce a concise statement from the Management Body with regards to the institution's capital adequacy, supported by analysis of the ICAAP set-up and outcomes.

The Management Board's view on these documents is supported by the analysis of the ICAAP and ILAAP set-up and outcomes. They were presented and approved by BIL's Management Bodies as follows:

- The Management Board gave its approval on 21 April 2020;
- The Board of Directors approved the reports on 27 April 2020.

Liquidity Adequacy Statement: Formal Statements on the Liquidity Adequacy

The purpose of this document is to address a request of regulators in the ECB letter dated February 7, 2019 on the technical implementation of the EBA Guidelines on the ICAAP and ILAAP information collected for SREP purposes and to produce a concise statement from the Management Body with regards to the institution's liquidity adequacy, supported by analysis of the ILAAP set-up and outcomes.

The Management Board's view on these documents is supported by the analysis of the ICAAP and ILAAP set-up and outcomes. They were presented and approved by BIL's Management Bodies as follows:

- The Management Board gave its approval on 21 April 2020.
- The Board of Directors approved the reports on 27 April 2020.

1.2.4. Agenda of BRC's meetings

The BRC reviews and recommends to the BOD the Risk Management Framework of the BIL Group including but not limited to:

- The Risk Governance Structure, including the Risk Dashboard, the Risk Appetite Statement and the Risk Appetite Framework;
- The BIL Group Risk Charters and other Risk related Charters: review the design and implementation of risk charters, policies, guidelines and procedures for monitoring their adequacy and effectiveness;
- The BIL Group Risk appetite: recommend for annual approval by the BOD the risk appetite and tolerance;
- The Risk Management strategy in relation with the business strategy and business model of the BIL Group: the BRC provides oversight and advice in relation to current and future strategy, including determination of risk appetite, corresponding limits and tolerance; and the BRC reviews due diligence analysis or reports with regard to proposed strategic transactions, such as acquisitions or divestitures;
- The organisation of the Risk Management activities of the BIL Group: the BRC reviews the design and implementation of risk management activities; it ensures that adequate resources (funding, staff and technologies) are directed towards risk management within the Bank;
- The risk awareness: the BRC promotes a risk awareness culture within the Bank.

2. Own funds and capital adequacy

The aim of capital management is to guarantee BIL's solvency and sustain its profitability, while ensuring compliance with internal capital objectives and capital regulatory requirements. The Bank's ratios exceed the required levels.

BIL monitors its solvency using rules and ratios issued by the Basel Committee on Banking Supervision and the European Capital Requirements Directive.

These ratios (Common Equity Tier 1 capital ratio, Tier 1 capital ratio and Total Capital ratio) compare the amount of regulatory capital, eligible in each category, with BIL group's total weighted risks.

As at 31 December 2019, the breakdown of prudential capital requirement is the following:

Regulatory minimum of capital components	31/12/2019	31/12/2018
Minimum requirement for Core CET1 requirement	4.500%	4.500%
Minimum requirement for Conservation buffer	2.500%	2.500%
Minimum requirement for Countercyclical buffer	0.089%	0.041%
Minimum requirement for OSII (Other Systemically Important Institution) buffer	0.500%	0.375%[1]
Minimum requirement for Pillar II requirement buffer (P2R)	1.750%	1.750%
Overall Capital Requirement (OCR) – CET1	**9.00%**	**9.166%**

At 31 December 2019, the CET1 ratio of the Bank stands at 12.47% (with a numerator at EUR 1,065 million), the Tier 1 ratio 14.52% (with a numerator at EUR 1,240 million) and a Total Capital ratio of 16.15% (with a numerator at EUR 1,379 million).

The supervisory authorities (ECB and CSSF) require BIL to disclose the calculation of capital necessary for the performance of its activities in accordance with the prudential banking regulations, on the one hand, and in accordance with the prudential regulations on financial conglomerates on the other hand.

BIL did comply with all regulatory capital rules for all periods reported.

2.1. Regulatory capital adequacy (Pillar I)

2.1.1. Accounting and regulatory equity

This section provides information about the linkage between the carrying values presented in the financial statements and the regulatory exposures of the Bank. As requested by the CRR, the following table provides a breakdown of the balance sheet into the risk frameworks used to calculate the regulatory capital requirements.

[1] End of the gradual adjustment as from 1 January 2019, OSII buffer reaches 0,5%

TABLE EU LI1 – DIFFERENCES BETWEEN ACCOUNTING AND REGULATORY SCOPES OF CONSOLIDATION AND THE MAPPING OF FINANCIAL STATEMENT CATEGORIES WITH REGULATORY RISK CATEGORIES

(in EUR million)	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Carrying values of items				
			Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
Assets							
Cash and balance at central banks and demand deposits	3,541.54	3,541.54	3,541.54	-	-	-	-
Financial assets held for trading	63.54	63.54	-	-	-	63.54	-
Financial investments measured at FV	1,175.99	1,175.99	1,175.99	-	-	-	-
Loans and advances to credit institutions	1,190.63	1,190.63	1,190.63	-	-	-	-
Loans and advances to customers	14,716.15	14,716.15	14,716.15	-	-	-	-
Financial investments measured at amortised cost	6,392.84	6,392.84	6,324.15	-	68.69	-	-
Derivatives	334.98	334.98	-	334.98	-	-	-
Fair value revaluation of portfolios hedged against interest rate risk	0.30	0.30	0.30	-	-	-	-
Investments in associates	28.17	28.17	28.17	-	-	-	-
Investment property	0.80	0.80	0.80	-	-	-	-
Property, plant and equipment	143.42	143.42	143.42	-	-	-	-
Intangible fixed assets and goodwill	230.87	230.87	-	-	-	-	230.87
Current tax assets	0.90	0.90	0.90	-	-	-	-
Deferred tax assets	200.26	200.26	28.03	-	-	-	172.22
Other assets	80.00	80.00	75.13	-	-	-	4.86
Non-current assets and disposal groups held for sale	0.00	0.00	0.00	-	-	-	-
Total assets	**28,100.39**	**28,100.39**	**27,225.23**	**334.98**	**68.69**	**63.54**	**407.95**

TABLE EU LI1 – DIFFERENCES BETWEEN ACCOUNTING AND REGULATORY SCOPES OF CONSOLIDATION AND THE MAPPING OF FINANCIAL STATEMENT CATEGORIES WITH REGULATORY RISK CATEGORIES

(in EUR million)	Carrying values as reported in published financial statements	Carrying values under scope of regulatory consolidation	Carrying values of items				
			Subject to the credit risk framework	Subject to the CCR framework	Subject to the securitisation framework	Subject to the market risk framework	Not subject to capital requirements or subject to deduction from capital
Liabilities							
Amounts due to credit institutions	3,095.84	3,095.84	-	-	-	-	3,095.84
Amounts due to customers	18,987.05	18,987.05	-	-	-	-	18,987.05
Other financial liabilities	42.30	42.30					42.30
Financial liabilities measured at fair value through profit or loss	923.35	923.35	-	-	-	-	923.35
Derivatives	601.79	601.79	-	-	-	-	601.79
Fair value revaluation of portfolios hedged against interest rate risk	13.69	13.69	-	-	-	-	13.69
Debt securities	2,267.42	2,267.42	-	-	-	-	2,267.42
Subordinated debts	169.08	169.08	-	-	-	-	169.08
Provisions and other obligations	50.10	50.10	-	-	-	-	50.10
Current tax liabilities	2.22	2.22	-	-	-	-	2.22
Deferred tax liabilities	6.16	6.16	-	-	-	-	6.16
Other liabilities	214.91	214.91	-	-	-	-	214.91
Liabilities included in disposal groups held for sale	-	-	-	-	-	-	-
Subscribed capital	146.11	146.11	-	-	-	-	146.11
Additional paid-in-capital	760.53	760.53	-	-	-	-	760.53
Treasury shares	-	-	-	-	-	-	-
Other equity instruments	173.59	173.59					173.59
Reserves and retained earnings	521.83	521.83	-	-	-	-	521.83
Net income for the year	113.07	113.07	-	-	-	-	113.07
Gains and losses not recognised in the consolidated statement of income	11.37	11.37	-	-	-	-	11.37
Total liabilities	**28,100.39**	**28,100.39**	**-**	**-**	**-**	**-**	**28,100.39**

The following table illustrates the key differences between regulatory exposure amounts and accounting carrying values under the regulatory scope of consolidation. The carrying amount of financial Instruments shall include impairments whereas for the regulatory calculation, only the exposures in standard approach include impairments. Commitments related to securities given in collateral (repos) or securities lent are off-balance sheet information. Regulatory exposures also include the reverse repo.

TABLE EU LI2 – MAIN SOURCES OF DIFFERENCES BETWEEN REGULATORY EXPOSURE AMOUNTS AND CARRYING VALUES IN FINANCIAL STATEMENTS

	(in EUR million)		Items subject to			
		Total	Credit risk framework	CCR framework	Securitisation framework	Market risk framework
1	**Assets carrying value amount under the scope of regulatory Consolidation (as per template EU LI1)**	**28,100.39**	**27,498.72**	**61.49**	**68.69**	**63.54**
2	Liabilities carrying value amount under the scope of regulatory (as per template EU LI1)	-	-	-	-	-
3	Total net amount under the regulatory scope of consolidation	28,100.39	27,498.72	61.49	68.69	63.54
4	Off-balance-sheet amounts	5,265.45	5,265.45	-	-	-
5	Differences in valuations	97.83	97.83	-	-	-
6	Differences due to different netting rules, other than those already included in row 2	-	-	-	-	-
7	Differences due to consideration of provisions	205.49	205.49	-	-	-
8	Differences due to prudential filters	-198.13	-177.61	-	-	-20.52
9	Reverse repos	2,001.46	2.001.46	-	-	-
10	**Exposures amounts considered for regulatory purposes**	**35,472.49**	**34,891.34**	**61.49**	**68.69**	**43.01**

The scope of prudential consolidation does not differ from the accounting scope of consolidation as reported in the financial statements (provided in BIL group's annual report).

TABLE EU LI3 – OUTLINE OF THE DIFFERENCES IN THE SCOPES OF CONSOLIDATION (ENTITY BY ENTITY)

Name of the entity	Method of accounting consolidation	Method of regulatory consolidation				Description of the entity
		Full consolidation	Equity Method	Neither consolidated nor deducted	Deducted	
Liabilities						
Société de la Bourse de Luxembourg	Equity Method		X			Other entity type
Europay Luxembourg SC	Equity Method		X			Other entity type
BIL Fund & Corporate Services SA	Full Consolidation	X				Investment firm
IB Finance SA	Full Consolidation	X				Other entity type
BIL Reinsurance SA	Full Consolidation	X				Insurance undertaking
BIL Manage Invest SA	Full Consolidation	X				Investment firm
Belair House SA	Full Consolidation	X				Investment firm
Société du 25 juillet 2013	Full Consolidation	X				Other entity type
Banque Internationale à Luxembourg (Suisse) SA	Full Consolidation	X				Credit Institution
Banque Internationale à Luxembourg SA (BIL)	Full Consolidation	X				Credit Institution

SHAREHOLDERS' EQUITY	31/12/2018		31/12/2019	
(in EUR million)	**Accounting scope of consolidation**	**CRR scope of consolidation**	**Accounting scope of consolidation**	**CRR scope of consolidation**
Subscribed capital	**141.21**	**141.21**	**146.11**	**146.11**
Additional paid-in capital	708.22	708.22	760.53	760.53
Treasury shares	-1.46	-1.46	0.00	0.00
Other equity instruments	0.00	0.00	173.59	173.59
Reserves and retained earnings	400.68	400.68	521.83	521.83
Other reserves	*214.04*	*214.04*	*257.68*	*257.68*
Retained earnings	*186.64*	*186.64*	*264.14*	*264.14*
Net income for the year	130.81	130.81	113.07	113.07
CORE SHAREHOLDERS' EQUITY	**1,379.47**	**1,379.47**	**1,715.12**	**1,715.12**
Gains and losses not recognised in the consolidated statement of income	5.09	5.09	11.37	11.37
Financial instruments at FV through OCI	*37.38*	*37.38*	*43.97*	*43.97*
Other reserves	*-32.29*	*-32.29*	*-32.60*	*-32.60*
GROUP EQUITY	1,384.55	1,384.55	1,726.49	1,726.49
Non-controlling interests	0.00	0.00	0.00	0.00
TOTAL SHAREHOLDERS' EQUITY	**1,384.55**	**1,384.55**	**1,726.49**	**1,726.49**

As at end-2019, shareholders' equity increased by EUR 342 million (+24.70%). 50% of the increase is due to issuance of new AT1 classified in equity (accounting perspective), partly refinancing the previous one classified in liabilities. Net impact on regulatory capital = New AT1 – old AT1.

2.1.2. Regulatory capital

According to the Basel III rules and the phasing-out of some prudential filters, the Bank's regulatory capital consists of:

- CET 1 capital: capital instruments, share premiums, retained earnings, including partial current year profit (in accordance with article 26 (2) of Regulation 575/2013 in conjunction with commission regulated delegation EU 241/2014 and ECB decision ECB/2015/4), foreign currency translation adjustment less intangible assets, defined benefit pension fund, own shares and deferred tax assets that rely on future probability;
- Tier 1 capital: CET 1 capital and Additional Tier 1 capital. The AT1 capital is represented by the issue of EUR 175 million of Fixed Rate Resettable Callable Additional Tier 1 Capital Notes at rate of 5.250%, on November 14, 2019;
- Tier 2 capital: eligible portion of subordinated long-term debt.

The Bank discloses the full terms and conditions of all CET1, Additional Tier 1 and Tier 2 instruments under the following link available to any stakeholder: **https://www.bil.com/fr/groupe-bil/relations-avec-les-investisseurs/Pages/index.aspx**

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

	Common Equity Tier 1 capital: Instruments and Reserves	(a) Amount At Disclosure Date	(b) Regulation (EU) No 575/2013 Article Reference	(c) Amounts Subject to Pre-Regulation (EU) no 575/2013 Treatment or Prescribed Residual Amount of Regulation (EU) 575/2013
1	Capital instruments and the related share premium accounts	906.6	26 (1), 27, 28, 29, EBA list 26 (3)	N/A
	of which: Instrument type 1	906.6	EBA list 26 (3)	N/A
2	Retained earnings	521.8	26 (1) (c)	N/A
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	11.4	26 (1)	N/A
3a	Funds for general banking risk		26 (1) (f)	N/A
4	Amount of qualifying items referred to in Article 484 (3) and the related share premium accounts subject to phase out from CET1		486 (2)	N/A
	Public sector capital injections grandfathered until 1 January 2018	-	483 (2)	N/A
5	Minority interests (amount allowed in consolidated CET1)		84, 479, 480	N/A
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	40.9	26 (2)	N/A
6	**Common Equity Tier 1 (CET1) capital before regulatory adjustments**	**1,480.7**		**N/A**
	Common Equity Tier 1 capital : regulatory adjustments			
7	Additional value adjustments (negative amount)	-2.8	34, 105	N/A
8	Intangible assets (net of related tax liability) (negative amount)	-230.9	36 (1) (b), 37, 472 (4)	N/A
9	Empty set in the EU			N/A
10	Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)	-172.2	36 (1) (c), 38, 472 (5)	N/A
11	Fair value reserves related to gains or losses on cash flow hedges	2.6	33 (a)	N/A
12	Negative amounts resulting from the calculation of expected loss amounts	-6.9	36 (1) (d), 40, 159, 472 (6)	N/A
13	Any increase in equity that results from securitized assets (negative amount)		32 (1)	N/A
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	-0.4	33 (1) (b) (c)	N/A
15	Defined-benefit pension fund assets (negative amount)	-4.9	36 (1) (e), 41, 472 (7)	N/A
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	-	36 (1) (f), 42, 472 (8)	N/A

17	Holdings of the CET1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)		36 (1) (g), 44, 472 (9)	N/A
18	Direct and indirect 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 10% threshold and net of eligible short positions) (negative amount)	-	36 (1) (h), 43, 45, 46, 49 (2) (3), 79, 472 (10)	N/A
19	Direct, indirect and synthetic holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	-	36 (1) (i), 43, 45, 47, 48 (1) (b), 49 (1) to (3), 79, 470, 472 (11)	N/A
20	Empty set in the EU			N/A
20a	Exposure amount of the following items which qualify for a RW of 1250%, where the institution opts for the deduction alternative		36 (1) (k)	N/A
20b	of which: qualifying holdings outside the financial sector (negative amount)		36 (1) (k) (i), 89 to 91	N/A
20c	of which: securitization positions (negative amount)		244 (1) (b) 258	N/A
20d	of which: free deliveries (negative amount)		36 (1) (k) (iii), 379 (3)	N/A
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met) (negative amount)		36 (1) (c), 38, 48 (1) (a), 470, 472 (5)	N/A
22	Amount exceeding the 15% threshold (negative amount)		48 (1)	N/A
23	of which: direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities		36 (1) (i), 48 (1) (b), 470, 472 (11)	N/A
24	Empty set in the EU			N/A
25	of which: deferred tax assets arising from temporary differences		36 (1) (c), 38, 48 (1) (a), 470, 472 (5)	N/A
25a	Losses for the current financial year (negative amount)		36 (1) (a), 472 (3)	N/A
25b	Foreseeable tax charges relating to CET1 items (negative amount)		36 (1) (l)	N/A
26	Regulatory adjustments applied to Common Equity Tier 1 in respect of amounts subject to pre-CRR treatment			N/A
26a	Regulatory adjustments relating to unrealised gains and losses pursuant to Articles 467 and 468			N/A
	Of which: ... filter for unrealised loss 1		467	N/A
	Of which: ... filter for unrealised loss 2		467	N/A
	Of which: ... filter for unrealised gain 1		468	N/A
	Of which: ... filter for unrealised gain 2		468	N/A
26b	Amount to be deducted from or added to Common Equity Tier 1 capital with regard to additional filters and deductions required pre CRR	-	481	N/A
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution (negative amount)		36 (1) (j)	N/A
28	**Total regulatory adjustments to Common Equity Tier 1 (CET1)**	**-415.4**		**N/A**
29	**Common Equity Tier 1 (CET1) capital**	**1,065.40**		**N/A**
Additional Tier 1 (AT1) capital: instruments				
30	Capital instruments and the related share premium accounts	175	51, 52	N/A
31	of which: classified as equity under applicable accounting standards			N/A
32	of which: classified as liabilities under applicable accounting standards	175		N/A
33	Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase out from AT1		486 (3)	N/A
	Public sector capital injections grandfathered until 1 January 2018		483 (3)	N/A
34	Qualifying Tier 1 capital included in consolidated AT1 capital (including minority interests not included in row 5) issued by subsidiaries and held by third parties		85, 86, 480	N/A
35	of which: instruments issued by subsidiaries subject to phase out		486 (3)	N/A

36	**Additional Tier 1 (AT1) capital before regulatory adjustments**	**175**		**N/A**
Additional Tier 1 (AT1) capital: regulatory adjustments				
37	Direct and indirect holdings by an institution of own AT1 instruments (negative amount)		52 (1) (b), 56 (a), 57, 475 (2)	N/A
38	Holdings of the AT1 instruments of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)		56 (b), 58, 475 (3)	N/A
39	Direct and indirect holdings by the institution of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)		56 (c), 59, 60, 79, 475 (4)	N/A
40	Direct and indirect holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)		56 (d), 59, 79, 475 (4)	N/A
41	Regulatory adjustments applied to Additional Tier 1 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)			N/A
41a	Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013		472, 473(3)(a), 472 (4), 472 (6), 472 (8) (a), 472 (9), 472 (10) (a), 472 (11) (a)	N/A
41b	Residual amounts deducted from Additional Tier 1 capital with regard to deduction from Tier 2 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013		477, 477 (3), 477 (4) (a)	N/A
41c	Amount to be deducted from or added to Additional Tier 1 capital with regard to additional filters and deductions required pre CRR		467, 468, 481	N/A
42	Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount)		56 (e)	N/A
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**			**N/A**
44	**Additional Tier 1 (AT1) capital**	**175**		**N/A**
45	**Tier 1 capital (T1=CET1+AT1)**	**1,240.40**		**N/A**
Tier 2 (T2) capital: instruments and provisions				
46	Capital instruments and the related share premium accounts	139.1	62, 63	N/A
47	Amount of qualifying items referred to in Article 484 (5) and the related share premium accounts subject to phase out from T2		486 (4)	N/A
	Public sector capital injections grandfathered until 1 January 2018		483 (4)	N/A
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 and 34) issued by subsidiaries and held by third parties		87, 88, 480	N/A
49	of which: instruments issued by subsidiaries subject to phase out		486 (4)	N/A
50	Credit risk adjustments		62 (c) & (d)	N/A
51	**Tier 2 (T2) capital before regulatory adjustments**	**139.1**		**N/A**
Tier 2 (T2) capital: regulatory adjustments				
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)		63 (b) (i), 66 (a), 67, 477 (2)	N/A
53	Holdings of the T2 instruments and subordinated loans of financial sector entities where those entities have reciprocal cross holdings with the institution designed to inflate artificially the own funds of the institution (negative amount)		66 (b), 68, 477 (3)	N/A
54	Direct and indirect holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)		66 (c), 69, 70, 79, 477 (4)	N/A
54a	Of which new holdings not subject to transitional arrangements			N/A

54b	Of which holdings existing before 1 January 2013 and subject to transitional arrangements			N/A
55	Direct and indirect synthetic holdings by the institution of the T2 instruments and subordinated loans of financial sector entities where the institution has a significant investment in those entities (net of eligible short positions) (negative amount)		66 (d), 69, 79, 477 (4)	N/A
56	Regulatory adjustments applied to Tier 2 in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)			N/A
56a	Residual amounts deducted from Tier 2 capital with regard to deduction from Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013		472, 472(3)(a), 472 (4), 472 (6), 472 (8), 472 (9), 472 (10) (a), 472 (11) (a)	N/A
	Of which items to be detailed line by line, e.g. material net interim losses, intangibles, shortfall of provisions to expected losses, etc.			N/A
56b	Residual amounts deducted from Tier 2 capital with regard to deduction from Additional Tier 1 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013		475, 475 (2) (a), 475 (3), 475 (4) (a)	N/A
	Of which items to be detailed line by line, e.g. reciprocal cross holdings in AT1 instruments, direct holdings of non-significant investments in the capital of other financial sector entities, etc.			N/A
56c	Amount to be deducted from or added to Tier 2 capital with regard to additional filters and deductions required pre CRR		467, 468, 481	N/A
	Of which: ... possible filter for unrealized losses		467	N/A
	Of which: ... possible filter for unrealized gains		468	N/A
	Of which:...		481	N/A
57	**Total regulatory adjustments to Tier 2 (T2) capital**			**N/A**
58	**Tier 2 (T2) capital**	**139.1**		**N/A**
59	**Total capital (TC=T1+T2)**	**1,379.50**		**N/A**
59a	Risk-Weighted Assets in respect of amounts subject to pre-CRR treatment and transitional treatments subject to phase out as prescribed in Regulation (EU) No 575/2013 (i.e. CRR residual amounts)			N/A
	Of which:... items not deducted from CET1 (Regulation (EU) No 575/2013 residual amounts) (items to be detailed line by line, e.g. Deferred tax assets that rely on future profitability net of related tax liability, indirect holdings of own CET1, etc.)		472, 472 (5), 472 (8) (b), 472 (10) (b), 472 (11) (b)	N/A
	Of which:...items not deducted from AT1 items (Regulation (EU) No 575/2013 residual amounts) (items to be detailed line by line, e.g. Reciprocal cross holdings in T2 instruments, direct holdings of non-significant investments in the capital of other financial sector entities, etc.)		475, 475 (2) (b), 475 (2) ©, 475 (4) (b)	N/A
	Items not deducted from T2 items (Regulation (EU) No 575/2013 residual amounts) (items to be detailed line by line, e.g. Indirect holdings of own T2 instruments, indirect holdings of non-significant investments in the capital of other financial sector entities, indirect holdings of significant investments in the capital of other financial sector entities etc.)		477, 477 (2) (b), 477 (2) (c), 477 (4) (b)	N/A
60	**Total Risk-Weighted Assets**	**8,543.00**		**N/A**
Capital ratios and buffers				
61	**Common Equity Tier 1 (as a percentage of risk exposure amount)**	**12.47%**	**92 (2) (a), 465**	**N/A**
62	**Tier 1 (as a percentage of risk exposure amount)**	**14.52%**	**92 (2) (b), 465**	**N/A**
63	**Total capital (as a percentage of risk exposure amount)**	**16.15%**	**92 (2) (c)**	**N/A**
64	**Institution specific buffer requirement (CET1 requirement in accordance with article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)**	**3.09%**	**CRD 128, 129, 140**	**N/A**
65	**of which: capital conservation buffer requirement**	**2.50%**		**N/A**
66	**of which: countercyclical buffer requirement**	**0.09%**		**N/A**
67	**of which: systemic risk buffer requirement**	**0.00%**		**N/A**

67a	**of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer**	**0.50%**	**CRD 131**	**N/A**
68	**Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)**	**7.97%**	**CRD 128**	**N/A**
69	[non relevant in EU regulation]			
70	[non relevant in EU regulation]			
71	[non relevant in EU regulation]			
Amounts below the thresholds for deduction (before risk weighting)				
72	Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	3.4	36 (1) (h), 45, 46, 472 (10)	N/A
			56 (c), 59, 60, 475 (4), 66 (c), 69, 70, 477 (4)	
73	Direct and indirect holdings by the institution of the CET1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold and net of eligible short positions)	21.1	36 (1) (i), 45, 48, 470, 472 (11)	N/A
74	Empty set in the EU			N/A
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	28.0	36 (1) (c), 38, 48, 470, 472 (5)	N/A
Applicable caps on the inclusion of provisions in Tier 2				
76	Credit risk adjustments included in Tier 2 in respect of exposures subject to standardized approach (prior to the application of the cap)		62	N/A
77	Cap on inclusion of credit risk adjustments in T2 under standardized approach		62	N/A
78	Credit risk adjustments included in Tier 2 in respect of exposures subject to internal ratings-based approach (prior to the application of the cap)		62	N/A
79	Cap on inclusion of credit risk adjustments in T2 under internal ratings-based approach		62	N/A
Capital instruments subject to phase-out arrangements (only applicable between 1 Jan 2013 and 1 Jan 2022)				
80	Current cap on CET1 instruments subject to phase out arrangements		484 (3), 486 (2) & (5)	N/A
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)		484 (3), 486 (2) & (5)	N/A
82	Current cap on AT1 instruments subject to phase out arrangements		484 (4), 486 (3) & (5)	N/A
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)		484 (4), 486 (3) & (5)	N/A
84	Current cap on T2 instruments subject to phase out arrangements		484 (5), 486 (4) & (5)	N/A
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)		484 (5), 486 (4) & (5)	N/A

Reconciliation between Regulatory Capital and Shareholders' equity as per Financial Statements, as required by Annex I of the Regulation (EU) No 1423/2013:

Solvency Ratios (in EUR)	12/31/2019	References to 2019 Financial Statements	Comments
Subscribed capital	146,108,270	Consolidated balance sheet, page 47	
Additional paid-in capital	760,527,961	Consolidated balance sheet, page 47	
Treasury shares	0	Consolidated balance sheet, page 47	
Reserves and retained earnings	521,826,621	Consolidated balance sheet, page 47	
Eligible Net Income included in regulatory capital	40,900,000	Consolidated balance sheet, page 47	The ECB published on February 4th, 2015, its decision ECB/2015/4 referring to the condition under which credit institutions are permitted to include interim or year-end profits in Common Equity Tier 1 capital in accordance with Article 26(2) of Regulation EU 575/2013 and in conjunction with commission regulated delegation EU 241/2014..
Gains and losses not recognized in the consolidated statement of income	11,366,081	Consolidated balance sheet, page 47	
Regulatory and transitional adjustments[1]	-415,370,913	Cf. hereunder	
TOTAL CET1	**1,065,358,020**		
Additional Tier 1 instrument (issued on November 14th, 2019)	175,000,000	Consolidated balance sheet, page 47	Notional amount is taken into consideration.
TOTAL Tier 1	**1,240,358,020**		
Subordinated liabilities	139,098,766	Note 8.6 page 100	Notional amounts are taken into consideration.
TOTAL CAPITAL	**1,379,456,786**		
[1] REGULATORY AND TRANSITIONAL ADJUSTMENTS - COMMON EQUITY TIER 1			
Goodwill and intangible assets	**-230,867,591**	Note 7.11 page 90	
Deferred tax assets that rely on future probability	**-172,223,392**	Note 9.2 page 114	Difference due to application of Article 38 (3) of Regulation EU 575/2013.
Fair value reserves related to gains or losses cash flow hedges	**2,620,964**	Note 9.1.L page 113	
Gains or losses on liabilities at fair value resulting from own credit	**-383,396**	Note 12.2.G page 143	
Additional Value Adjustment	**-2,785,398**		Information not disclosed in the financial statements - Application of Art 34 of Regulation EU 575/2013,
Defined benefit pension fund assets	**-4,861,001**	Note 7.13 page 91	
IRB shortfall	**-6,871,099**		Information not disclosed in the financial statements - Application of CSSF Circular 14/599 §12
TOTAL REGULATORY AND TRANSITIONAL ADJUSTMENTS ON COMMON EQUITY TIER 1	**-415,370,913**		

AVAILABLE DISTRIBUTABLE ITEMS AS AT END OF 2019

BIL SA figures – in EUR	31/12/2019
Number of shares	2,087,261
Total Equity	1,726,490,516
DISTRIBUTABLE RESERVES[1] (AVAILABLE DISTRIBUTABLE ITEMS)	522,707,760

Nature	Balance	Reason for exclusion
Subscribed Capital	146,108,270	Art 72-1 Law 10th August, 1915
Share Premium	760,527,961	Art 72-1 Law 10th August, 1915
Treasury Shares (-)	-	Own shares
Other equity instruments	173,592,617	AT1 instrument issued on November 2019
Statutory Reserves	14,122,409	Art 72-1 Law 10th August, 1915 & art 30 of BIL's articles of association
Untaxed unavailable reserves	-	Art 49-5 Law 10th August, 1915
Reserves	149,410,185	
Consolidation Reserves	98,065,418	CSSF Regulation 14-02 art3 § (1) b
Retained earnings	264,141,834	
Realized gains/losses on equities	-3,913,225	
2019 Income	113,068,966	
Non-realized performance - Debt instruments - Gross	22,453,956	CSSF Regulation 14-02 art3 § (1) b
Non-realized performance - Debt Instruments - Transfer to deferred tax	-5,595,959	CSSF Regulation 14-02 art3 § (1) b
Non-realized performance - Equity & var. rev. instr. - Gross	23,984,104	CSSF Regulation 14-02 art3 § (1) b
Non-realized performance - Equity & var. rev. instr. - Transfer to deferred tax	3,128,916	CSSF Regulation 14-02 art3 § (1) b
Hedging reserve - CF Hedges - Gross	-3,491,825	CSSF Regulation 14-02 art3 § (1) b
Hedging reserve - CF Hedges - Transfer to Deferred Tax	870,861	CSSF Regulation 14-02 art3 § (1) b
Net FX investment Hedge - Gross	-1,431,234	CSSF Regulation 14-02 art3 § (1) b
Net FX investment Hedge - Transfer to Deferred Tax	356,950	CSSF Regulation 14-02 art3 § (1) b
Non-realized performance - Associates	-	CSSF Regulation 14-02 art3 § (1) b
Reserve SORIE	-17,254,344	CSSF Regulation 14-02 art3 § (1) b
Reserve SORIE - Transfer to Deferred tax	3,433,895	CSSF Regulation 14-02 art3 § (1) b
Non-realized performance - Translation reserve (Consolidation)	-15,377,016	CSSF Regulation 14-02 art3 § (1) b
Own Credit Risk	287,777	CSSF Regulation 14-02 art3 § (1) b
TOTAL EQUITY	1,726,490,516	

[1] based on the law of 10 August 1915, CSSF regulation 14-02 and the company articles of association.

2.1.3. Overview of RWAs

In accordance with Article 138 (c) to (f) in the CRR, the following table shows RWA and regulatory capital requirements broken down by risk types and model approaches compared to the previous year-end. The capital requirement amounts are obtained by applying 8% to the corresponding weighted risks.

TABLE EU OV1 – OVERVIEW OF RWAS

(in EUR million)			RWAs		Minimum capital requirements
			31 Dec 2019	**31 Dec 2018**	**31 Dec 2019**
	1	Credit risk (excluding CCR and Equity IRB)	**7,258.79**	**6,860.64**[1]	**580.70**
Article 438(c)(d)	2	Of which the standardised approach	1,392.85	2,323.97	111.43
Article 438(c)(d)	3	Of which the foundation IRB (FIRB) approach			
Article 438(c)(d)	4	Of which the advanced IRB (AIRB) approach	5,865.94	4,536.67	469.28
Article 438(d)	5	Equity IRB under the simple risk-weighted approach or the IMA	190.40	169.53	15.23
Article 107 Article 438(c)(d)	6	CCR	**79.51**	**77.55**	**6.36**
Article 438(c)(d)	7	Of which mark to market	57.13	52.63	4.57
Article 438(c)(d)	8	Of which original exposure	-	-	
	9	Of which the standardised approach	-	-	
	10	Of which internal model method (IMM)	-	-	
Article 438(c)(d)	11	Of which risk exposure amount for contributions to the default fund of a CCP	-	-	
Article 438(c)(d)	12	Of which CVA	22.38	24.92	1.79
Article 438(e)	13	Settlement risk		-	
Article 449 (o)(i)	14	Securitisation exposures in the banking book (after the cap)	**13.70**	**28.06**	**1.10**
	15	Of which IRB approach	-	-	
	16	Of which IRB supervisory formula approach (SFA)	-	-	
	17	Of which internal assessment approach (IAA)	-	-	
	18	Of which the standardised approach	13.70	28.06	1.10
Article 438(e)	19	Market risk	**48.88**	**62.02**	**3.91**
	20	Of which the standardised approach	48.88	62.02	3.91
	21	Of which IMA	-	-	
Article 438(e)	22	Large exposures	-	-	
Article 438(f)	23	Operational risk	**951.70**	**836.58**	**76.14**
	24	Of which basic indicator approach			
	25	Of which standardised approach	951.70	836.58	76.14
	26	Of which advanced measurement approach	-	-	
Article 437(2), Article 48 and Article 60		Amounts below the thresholds for deduction (subject to 250% risk-weight)	-	-	
Article 500	28	Floor adjustment	-	-	
	29	**TOTAL**	**8,542.98**	**8,034.38**	**683.44**

[1] The amount reported here is different from what was published in the 2018 Pillar 3 Report (7,082.80 million) because the scope changed. The credit Risk amount here does not include item 5 – Equity IRB under the simple risk-weighted approach or the IMA nor item 6- CCR.

The Bank's total RWAs amounted to EUR 8.5 billion as of 31 December 2019, compared to EUR 8.0 billion as of 31 December 2018. The overall increase of EUR 0.5 billion mainly reflects increases in credit risk RWA. This increase is explained by methodological changes and by the net production of loans.

The RWA for others risks (Operational and Market risks) are subject to moderate changes. Market Risk RWA decreased by EUR 13.1 million, reaching to EUR 48.9 million; and Operational Risk RWA increased and amounting to EUR 951.7 million in 2019.

2.1.3.1. Weighted risks

Since 1 January 2008, the Bank has been compliant with the Basel III framework to calculate its capital requirements with respect to credit, market, operational and counterparty risk, and to publish its solvency ratios.

For credit risk, BIL group has decided to use the Advanced-Internal Rating Based (A-IRB) approach on its main type of counterparties (i.e. Sovereigns, Banks, Corporate, SMEs and Retail) for the assessment of its Risk-Weighted Assets (RWA).

For Market Risk, the Bank has adopted the Standardised method; this choice is based on the Bank's very moderate trading activity, whose sole purpose is to assist BIL's customers by providing the best service for the purchase or sale of bonds, foreign currencies, equities and structured products. The Standardised method is also used for the calculation of the weighted operational risks of the Bank

2.1.4 Equity exposures in the banking book

To comply with the last paragraph of Article 438, the following table shows Risk-Weighted Exposure Amounts (REA), in accordance with the Article 155(2) regarding equity exposures using the simple risk-weighted approach.

TABLE EU CR10 - IRB (EQUITY)

(in EUR million)	EQUITIES UNDER THE SIMPLE RISK-WEIGHTED APPROACH					
Categories	**On-balance-sheet amount**	**Off-balance-sheet amount**	**Risk weight**	**Exposure amount**	**RWAs**	**Capital requirements**
Private equity exposures	26.05	-	**190%**	**26.05**	**49.50**	**3.96**
Exchange-traded equity exposures	-	-	290%	-	-	-
Other equity exposures	3.04	-	370%	3.04	11.26	0.90
TOTAL	**29.10**	**-**	**-**	**29.10**	**60.76**	**4.86**

2.1.5 Countercyclical capital buffer disclosure template

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

2.1.5.1 Institution-specific countercyclical capital buffer

The following table shows an overview of the Bank's countercyclical exposure and buffer requirements (in EUR million):

TOTAL RISK EXPOSURE AMOUNT	**8,543**
Institution specific countercyclical buffer rate	0.0889%
Institution specific countercyclical buffer requirement	7.60

The final bank-specific buffer add-on rate (i.e. the weighted average of countercyclical capital buffer rates in jurisdictions to which the Bank has private sector credit exposures) applies to bank-wide total RWA (including credit, market, and operational risk). Countercyclical capital buffer rates are determined by Basel Committee member jurisdictions.

As per 31 December 2019, the institution-specific countercyclical capital buffer stood at 0.0889 %. The notable increase compared to last year (0.0410%) is mainly due to the fact that France is requiring lenders to hold a countercyclical capital buffer of 0.25% of their risk-weighted assets by July 2019, up from 0.00%. The Bank has 12.5% own fund requirement weight on French exposure, which boosts the total countercyclical buffer rate by 3.14 bps.

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

TEMPLATE FOR DISCLOSURE OF INFORMATION IN RELATION TO THE COMPLIANCE OF INSTITUTIONS WITH THE REQUIREMENT FOR A COUNTERCYCLICAL BUFFER

ROW		General credit exposures		Trading book exposures		Securitisation exposures		Own funds requirements				Own funds requirements weights	Countercyclical capital buffer rate
(in EUR million)		exposure value SA	exposure value IRB	Sum of long and short positions for SA exposures	Exposure for internal models	exposure value SA	exposure value IRB	of which: General credit exposures	of which: Trading book exposures	of which: Securitisation exposures	Total		
		010	020	030	040	050	060	070	080	090	100	110	120
010 **Breakdown by country**													
Albania	AL	0.00	0.01			0.00		0.00	0.00	0.00	0.00	0.000%	
Algeria	DZ	0.00	0.4			0.00		0.01	0.00	0.00	0.01	0.001%	
Andorra	AD	0.00	3.38	0.00	0.00	0.00		0.02	0.00	0.00	0.02	0.003%	
Angola	AO	0.00	0.06			0.00		0.00	0.00	0.00	0.00	0.000%	
Anguilla	AI	0.00	0.7			0.00		0.00	0.00	0.00	-	0.000%	
Antigua And Barbuda	AG	0.00	0.43			0.00		0.00	0.00	0.00	0.00	0.000%	
Argentina	AR	0.00	1.71	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.001%	
Armenia	AM	0.00	0			0.00		0.00	0.00	0.00	-	0.000%	
Australia	AU	0.00	1.17	0.00	0.00	16.59		0.03	0.00	0.27	0.3	0.055%	
Austria	AT	0.00	119.94			0.00		4.08	0.00	0.00	4.08	0.756%	
Aruba	AW	0.00	0			0.00		0.00	0.00	0.00	-	0.000%	
Azerbaijan	AZ	0.00	0.83			0.00		0.01	0.00	0.00	0.01	0.001%	
Barbados	BB	0.00	0.02			0.00		0.00	0.00	0.00	-	0.000%	
Burkina	BF	0.00	0			0.00		0.00	0.00	0.00	0.00	0.000%	
Bahamas	BS	0.00	1.42	0.00	0.01	0.00		0.01	0.00	0.00	0.01	0.003%	
Bahrain	BH	0.00	3.98			0.00		0.03	0.00	0.00	0.03	0.006%	
Belarus	BY	0.00	0.05			0.00		0.00	0.00	0.00	0.00	0.000%	
Belgium	BE	3.2	680.45	0.00	0.87	0.00		19.58	0.02	0.00	19.59	3.634%	0%
Belize	BZ	0.00	17.91	0.00	0.00	0.00		0.22	0.00	0.00	0.22	0.040%	
Bermuda	BM	0.00	0	0.00	0.00	0.00		0	0.00	0.00	-	0.000%	
Bolivia	BO	0.00	0.31			0.00		0.01	0.00	0.00	0.01	0.001%	
Bosnia And Herzegovina	BA	0.00	0.01			0.00		0.00	0.00	0.00	0.00	0.000%	
Brazil	BR	0.00	0.19			0.00		0.02	0.00	0.00	0.02	0.004%	
Bulgaria	BG	0.00	1.24	0.00	0.00	0.00		0.01	0.00	0.00	0.01	0.002%	1%
Burundi	BI										-	0.000%	
Cambodia	KH	0.00	0			0.00		0.00	0.00	0.00	0.00	0.000%	
Cameroon	CM	0.00	0			0.00		0.00	0.00	0.00	-	0.000%	
Canada	CA	0.00	1.18			0.00		0.08	0.00	0.00	0.08	0.015%	
Cape Verde	CV	0.00	0.12			0.00		0.00	0.00	0.00	0.00	0.000%	
Cayman Islands	KY	0.00	22.54	0.00	0.00	0.00		0.36	0.00	0.00	0.36	0.067%	
Chile	CL	0.00	0.52			0.00		0.00	0.00	0.00	0.00	0.000%	
China	CN	0.00	3.62	0.00	0.01	0.00		0.02	0.00	0.00	0.02	0.004%	
Colombia	CO	0.00	0.42	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.001%	

ROW		General credit exposures		Trading book exposures		Securitisation exposures		Own funds requirements					
(in EUR million)		exposure value SA	exposure value IRB	Sum of long and short positions for SA exposures	Exposure for internal models	exposure value SA	exposure value IRB	of which: General credit exposures	of which: Trading book exposures	of which: Securitisation exposures	Total	Own funds requirements weights	Countercyclical capital buffer rate
		010	020	030	040	050	060	070	080	090	100	110	120
Congo	CG	0.00	0.01	0.00	0.00	0.00		0.00	0.00	0.00	0	0.000%	
Congo, Democratic Republic	CD	0.00	0.02	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.000%	
Cook Island	CK	0.00	0			0.00		0.00	0.00	0.00	-	0.000%	
Costa Rica	CR	0.00	0.07			0.00		0.00	0.00	0.00	0.00	0.000%	
Côte D'Ivoire	CI	0.00	1.4			0.00		0.00	0.00	0.00	0.00	0.000%	
Croatia	HR	0.00	2.2			0.00		0.04	0.00	0.00	0.04	0.007%	
Cuba	CU	0.00	0			0.00		0.00	0.00	0.00	-	0.000%	
Curacao	CW	0.01	0.21			0.00		0.00	0.00	0.00	0	0.000%	
Cyprus	CY	0.01	56.54	0.06	0.02	0.00		4.38	0.01	0.00	4.38	0.813%	
Czech Republic	CZ	0.00	1.98	0.00	0.00	0.00		0.02	0.00	0.00	0.02	0.004%	2%
Denmark	DK	7.67	248.82	0.00	0.08	0.00		4.49	0.00	0.00	4.49	0.834%	1%
Dominican Republic	DO	0.00	0.04			0.00		0.00	0.00	0.00	0.00	0.000%	
Ecuador	EC	0.00	0.00			0.00		0.00	0.00	0.00	0.00	0.000%	
Egypt	EG	0.00	0.08	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.000%	
Estonia	EE	0.1	0.88			0.00		0.02	0.00	0.00	0.02	0.004%	
Ethiopia	ET	0.00	0			0.00		0.00	0.00	0.00	-	0.000%	
Finland	FI	16.45	27.93			0.00		1.97	0.00	0.00	1.97	0.365%	
Faroe Islands	FO	0.00	0.00			0.00		0.00	0.00	0.00	-	0.000%	
France (Including Dom-Tom)	FR	91.96	1528.87	0.00	0.00	18.37		67.11	0.00	0.29	67.41	12.502%	0%
Gabon	GA	0.00	0.01			0.00		0.00	0.00	0.00	0.00	0.000%	
Gambia	GM	0.00	0.14			0.00		0.00	0.00	0.00	-	0.000%	
Georgia	GE	0.00	0.86			0.00		0.00	0.00	0.00	0.00	0.001%	
Germany	DE	118.59	450.42	0.00	0.01	0.00		25.58	0.00	0.00	25.58	4.744%	0%
Ghana	GH	0.00	0	0.00	0.00	0.00		0.00	0.00	0.00	-	0.000%	
Gibraltar	GI	0.00	7.65	0.00	0.00	0.00		0.01	0.00	0.00	0.01	0.001%	
Greece	GR	0.00	3.01	0.00	0.00	0.00		0.02	0.00	0.00	0.02	0.003%	
Grenada	GD										-	0.000%	
Guernsey	GG	0.11	16.91	0.00	0.00	0.00		0.13	0.00	0.00	0.13	0.024%	
Guinea	GN	0.00	0.00			0.00		0.00	0.00	0.00	0.00	0.000%	
Guinea-Bissau	GW	0.00	0.00			0.00		0.00	0.00	0.00	0.00	0.000%	
Hong Kong	HK	17.94	55.29	0.00	0.03	0.00		3.71	0.00	0.00	3.71	0.689%	2.000%
Haiti	HT	0.00	0.00			0.00		0.00	0.00	0.00	-	0.000%	
Hungary	HU	0.00	2.15	0.00	0.07	0.00		0.04	0.00	0.00	0.04	0.007%	
Iceland	IS	0.00	0.02			0.00		0.00	0.00	0.00	0.00	0.000%	2%

ROW		General credit exposures		Trading book exposures		Securitisation exposures		Own funds requirements					
(in EUR million)		exposure value SA	exposure value IRB	Sum of long and short positions for SA exposures	Exposure for internal models	exposure value SA	exposure value IRB	of which: General credit exposures	of which: Trading book exposures	of which: Securitisation exposures	Total	Own funds requirements weights	Countercyclical capital buffer rate
		010	020	030	040	050	060	070	080	090	100	110	120
India	IN	0.00	0.5			0.00		0.00	0.00	0.00	0.00	0.000%	
Indonesia	ID	0.00	0.07	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.000%	
Iran, Islamic Republic Of	IR	0.00	0.13			0.00		0.00	0.00	0.00	0.00	0.000%	
Iraq	IQ	0.00	0			0.00		0.00	0.00	0.00	0.00	0.000%	
Ireland	IE	0.00	45.52	0.00	0.00	4.01		3.39	0.00	0.06	3.45	0.640%	1%
Isle Of Man	IM	5	0.00			0.00		0.4	0.00	0.00	0.4	0.074%	
Israel	IL	0.00	5.15	0.00	0.00	0.00		0.01	0.00	0.00	0.01	0.003%	
Italy	IT	1.07	32.52	0.00	0.00	0.00		0.45	0.00	0.00	0.45	0.083%	
Japan	JP	0.00	0.08			0.00		0.00	0.00	0.00	0.00	0.000%	
Jersey	JE	14.21	28.62			0.00		3.08	0.00	0.00	3.08	0.571%	
Jordan	JO	0.00	0			0.00		0.00	0.00	0.00	0.00	0.000%	
Kazakhstan	KZ	0.00	50.23			0.00		0.52	0.00	0.00	0.52	0.097%	
Kenya	KE	0.00	0.2			0.00		0.00	0.00	0.00	0.00	0.000%	
Korea, Republic Of	KR	0.00	0.02			0.00		0.00	0.00	0.00	0.00	0.000%	
Kuwait	KW	0.00	0.84			0.00		0.04	0.00	0.00	0.04	0.007%	
Kyrgyzstan	KG	0.00	0.00			0.00		0.00	0.00	0.00	-	0.000%	
Lao People's Democratic Republic	LA	0.00	0.00			0.00		0.00	0.00	0.00	0.00	0.000%	
Latvia	LV	0.00	0.65	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.000%	
Lebanon	LB	0.00	1.68			0.00		0.11	0.00	0.00	0.11	0.020%	
Liberia	LR	0.00	0.34			0.00		0.03	0.00	0.00	0.03	0.005%	
Libyan Arab Jamahiriya	LY	0.00	24.42			0.00		0.28	0.00	0.00	0.28	0.051%	
Liechtenstein	LI	4.56	7.52	0.00	0.00	0.00		0.43	0.00	0.00	0.43	0.079%	
Lithuania	LT	0.01	0.9			0.00		0.00	0.00	0.00	0	0.001%	1%
Luxembourg	LU	1031.73	10959.2	2.18	3.05	0.00		342.18	0.31	0.00	342.49	63.519%	0%
Macau	MO	0.00	0.00			0.00		0.00	0.00	0.00	-	0.000%	
Macedonia, Former Yugoslav Rep.	MK	0.00	0.31			0.00		0.00	0.00	0.00	0.00	0.000%	
Madagascar	MG	0.00	0.02	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.000%	
Malaysia	MY	0.00	0.37			0.00		0.00	0.00	0.00	0.00	0.000%	
Mali	ML	0.00	0.01			0.00		0.00	0.00	0.00	0.00	0.000%	
Malta	MT	5.76	22.9			0.00		0.71	0.00	0.00	0.71	0.132%	
Marshall Islands	MH	0.00	1.02			0.00		0.05	0.00	0.00	0.05	0.008%	

ROW		General credit exposures		Trading book exposures		Securitisation exposures		Own funds requirements					
(in EUR million)		exposure value SA	exposure value IRB	Sum of long and short positions for SA exposures	Exposure for internal models	exposure value SA	exposure value IRB	of which: General credit exposures	of which: Trading book exposures	of which: Securitisation exposures	Total	Own funds requirements weights	Countercyclical capital buffer rate
		010	020	030	040	050	060	070	080	090	100	110	120
Mauritius	MU	0.00	5.43	0.00	0.00	0.00		0.73	0.00	0.00	0.73	0.136%	
Malawi	MW	0.00	0			0.00		0.00	0.00	0.00	-	0.000%	
Mexico	MX	0.00	0.25	0.00	0.00	0.00		0.01	0.00	0.00	0.01	0.001%	
Moldova, Republic Of	MD	0.00	0.05			0.00		0.00	0.00	0.00	0.00	0.000%	
Monaco	MC	8.73	132.39	0.00	0.01	0.00		2.68	0.00	0.00	2.68	0.497%	
Montenegro	ME	0.00	1.2			0.00		0.01	0.00	0.00	0.01	0.003%	
Morocco	MA	0.00	5.46			0.00		0.02	0.00	0.00	0.02	0.003%	
Namibia	NA	0.00	0.32			0.00		0.00	0.00	0.00	0.00	0.000%	
Nepal	NP	0.00	0.22			0.00		0.00	0.00	0.00	0.00	0.000%	
Netherlands	NL	40.41	165.41	0.00	0.00	0.00		8.92	0.00	0.00	8.92	1.654%	
New Zealand	NZ	35.47	0			0.00		0.57	0.00	0.00	0.57	0.105%	
Niger	NE	0.00	0			0.00		0.00	0.00	0.00	-	0.000%	
Nigeria	NG	0.00	0.02	0.00	0.00	0.00		0.00	0.00	0.00	0	0.000%	
Norway	NO	0.07	103.76	0.4	1.48	0.00		0.17	0.06	0.00	0.23	0.042%	3%
Oman	OM	0.00	0.08			0.00		0.00	0.00	0.00	0.00	0.000%	
OTHER	OTHEI	42.77	0.03	0.31	0.00	0.00		0.01	0.02	0.00	0.03	0.006%	
Pakistan	PK	0.00	0			0.00		0.00	0.00	0.00	-	0.000%	
Panama	PA	0.00	14.64	0.00	0.00	0.00		0.48	0.00	0.00	0.48	0.089%	
Paraguay	PY	0.00	0			0.00		0.00	0.00	0.00	0.00	0.000%	
Peru	PE	0.00	0.08			0.00		0.00	0.00	0.00	0.00	0.000%	
Philippines	PH	0.00	0.38			0.00		0.00	0.00	0.00	0.00	0.000%	
Poland	PL	0.03	5.17			0.00		0.06	0.00	0.00	0.06	0.012%	
Portugal	PT	0.00	30.4	0.00	0.00	0.00		0.86	0.00	0.00	0.86	0.159%	
Qatar	QA	0.00	382.87			0.00		9.28	0.00	0.00	9.28	1.720%	
Romania	RO	0.00	19.31			0.00		0.25	0.00	0.00	0.25	0.046%	
Russian Federation	RU	0.12	43.73	0.00	0.1	0.00		0.62	0.00	0.00	0.63	0.116%	
Rwanda	RW	0.00	0			0.00		0.00	0.00	0.00	0.00	0.000%	
Saint Kitts And Nevis	KN	0.00	0.45			0.00		0.00	0.00	0.00	0.00	0.000%	
Saint Lucia	LC	0.00	0.01			0.00		0.00	0.00	0.00	0.00	0.000%	
Saint Vincent And The Grenadines	VC	0.06	0			0.00		0.01	0.00	0.00	0.01	0.001%	
San Marino	SM	0.00	0.01			0.00		0.00	0.00	0.00	-	0.000%	
Saudi Arabia	SA	0.00	11.75	0.00	0.00	0.00		0.3	0.00	0.00	0.3	0.056%	
Senegal	SN	0.00	0.03	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.000%	
Serbia	RS	0.00	0.29			0.00		0.00	0.00	0.00	0.00	0.000%	

ROW		General credit exposures		Trading book exposures		Securitisation exposures		Own funds requirements					
(in EUR million)		exposure value SA	exposure value IRB	Sum of long and short positions for SA exposures	Exposure for internal models	exposure value SA	exposure value IRB	of which: General credit exposures	of which: Trading book exposures	of which: Securitisation exposures	Total	Own funds requirements weights	Countercyclical capital buffer rate
		010	020	030	040	050	060	070	080	090	100	110	120
Seychelles	SC	0.00	1.46			0.00		0.00	0.00	0.00	0.00	0.000%	
Sierra Leone	SL	0.00	0.00			0.00		0.00	0.00	0.00	-	0.000%	
Singapore	SG	0.13	5.14	0.00	0.00	0.00		0.08	0.00	0.00	0.08	0.016%	
Slovakia	SK	0.00	2.43	0.00	0.00	0.00		0.01	0.00	0.00	0.01	0.002%	2%
Suriname	SR	0.00	0			0.00		0.00	0.00	0.00	0	0.000%	
Slovenia	SI	0.00	0.21			0.00		0.00	0.00	0.00	0	0.000%	
South Africa	ZA	0.01	1.74			0.00		0.03	0.00	0.00	0.03	0.006%	
Spain	ES	5.56	36.38	0.00	0.00	24.25		1.57	0.00	0.39	1.96	0.364%	
Sri Lanka	LK	0.00	2.95			0.00		0.00	0.00	0.00	-	0.000%	
Sweden	SE	20.87	117.58	0.00	0.04	0.00		4.38	0.00	0.00	4.38	0.813%	3%
Switzerland	CH	0.11	182.65	0.00	0.06	0.00		6.76	0.00	0.00	6.76	1.255%	
Syrian Arab Republic	SY	0.00	0.02			0.00		0.00	0.00	0.00	0	0.000%	
Taiwan	TW	0.00	0.07	0.00	0.00	0.00		0.00	0.00	0.00	0	0.000%	
Thailand	TH	0.00	3.69	0.00	0.02	0.00		0.04	0.00	0.00	0.04	0.008%	
Tajikistan	TJ	0.00	0.00			0.00		0.00	0.00	0.00	-	0.000%	
Togo	TG	0.00	0.00			0.00		0.00	0.00	0.00	0.00	0.000%	
Tunisia	TN	0.00	0.09			0.00		0.00	0.00	0.00	0.00	0.000%	
Turkey	TR	1.1	9.77			0.00		0.85	0.00	0.00	0.85	0.157%	
Ukraine	UA	0.00	49.33	0.00	0.00	0.00		0.34	0.00	0.00	0.34	0.063%	
United Arab Emirates	AE	1.59	237.03	0.00	0.00	0.00		5.6	0.00	0.00	5.6	1.039%	
United Kingdom (Not Norm.Isd/Man)	GB	26.73	132.41	0.00	4.73	5.27		4.04	0.01	0.08	4.14	0.768%	1%
United States	US	5.79	26.38	0.00	0.00	0.00		1.96	0.00	0.00	1.96	0.364%	
Uruguay	UY	0.00	0.99			0.00		0.00	0.00	0.00	0.00	0.001%	
Uzbekistan	UZ	0.00	0.01			0.00		0.00	0.00	0.00	0.00	0.000%	
Venezuela	VE	0.00	2.59	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.000%	
Viet Nam	VN	0.00	0.85			0.00		0.00	0.00	0.00	0.00	0.000%	
Virgin Islands, British	VG	2.02	95.19	0.00	0.00	0.00		3.29	0.00	0.00	3.29	0.610%	
Zambia	ZM	0.00	0.00			0.00		0.00	0.00	0.00	-	0.000%	
Zimbabwe	ZW	0.00	0.00			0.00		0.00	0.00	0.00	-	0.000%	
TOTAL		**1,509.96**	**16,284.06**	**2.95**	**10.59**	**68.49**	**-**	**537.65**	**0.44**	**1.10**	**539.18**	**100.00%**	

2.2. Non-deducted participations in insurance undertakings

The Bank hereby discloses the information required by Article 438(c) and (d) on exposures that are risk-weighted in accordance with Part Three, Title II, Chapter 2 or Chapter 3 by specifying information regarding non-deducted participations risk-weighted, when allowed (in accordance with Article 49(1) of the CRR) to not deduct their holdings of own funds instruments of an insurance undertaking, a re-insurance undertaking or an insurance holding company.

TABLE EU INS1 - NON-DEDUCTED PARTICIPATIONS IN INSURANCE UNDERTAKINGS

(in EUR million)	VALUE
Holdings of own funds instruments of a financial sector entity where the institution has a significant investment not deducted from own funds (before risk-weighted	6.35
TOTAL RWAs	**13.10**

2.3. Leverage ratio

The leverage ratio (LR) is introduced by the Basel Committee to serve as a simple, transparent and non-risk-based ratio to complete the existing risk-based capital requirements.

The Basel III leverage ratio is defined as the capital measure (the numerator) divided by the exposure measure (the denominator), with this ratio expressed as a percentage and having to exceed a minimum of 3%.

While the capital measure for the leverage ratio is the Tier 1 capital taking into account transitional arrangements, the total exposure measure corresponds to the sum of the following exposures: (a) on-balance sheet exposures; (b) derivative exposures; (c) Securities Financing Transaction (SFT) exposures; and (d) off-balance sheet (OBS) items.

As at December 2019, BIL group's leverage ratio amounted to 4.08%, showing a slight decrease compared to the year-end 2018 level of 4.16%.

The evolution of this ratio compared to year-end 2018 can be explained as follows:

- By the increase of the numerator: +11.0% increase of Tier 1 capital (i.e. increase of CET1 capital);
- By a higher increase +13.3% of the total leverage ratio exposure (denominator). In the denominator (Total Leverage Exposure), on-balance sheet exposures (Excl. SFT and Derivatives) accounted for an absolute major portion (91.3% in Q4 2019) and it was subject to a +10.2% increase compared to last year. Derivatives exposures increased by +24.5% and off-balance exposures decreased by -0.5% with a small weight (5.8%) in the total exposure. Starting from Q2 2019, the leverage ratio exposure of Securities Financing Transactions (SFT) started to be included in the denominator following the regulator's requirement. As of Q4 2019, SFT exposures reached EUR 967.08 million, weighting 3.30% of the total leverage ratio exposure.

The Bank takes into account the leverage ratio in its capital and financial planning to ensure that its forecasted commercial growth is consistent with this requirement. The Bank also actively manages its balance sheet size through its Treasury and ALM desks by limiting interbank transactions The leverage ratio is discussed on a regular basis at Management Board level as it is part of the Bank's Risk Appetite framework (with an early trigger above the minimum requirement).

With regards to the disclosure of the leverage ratio for institutions, the Official Journal (OJ) of European Union published on 15 February 2016 the European Commission implementing the Regulation EU 2016/200.

In this regard, the leverage ratio disclosures templates are made pursuant to this publication

SUMMARY RECONCILIATION OF ACCOUNTING ASSETS AND LEVERAGE RATIO EXPOSURES:

(in EUR million)		AMOUNTS
1	Total assets as per published financial statements	28,100.39
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	-
3	(Adjustment for fiduciary assets recognised on the balance sheet pursuant to the applicable accounting framework but excluded from the leverage ratio exposure measure in accordance with Article 429(13) of Regulation (EU) No 575/2013 "CRR")	-
4	Adjustments for derivative financial instruments	10.04
5	Adjustments for securities financing transactions "SFTs"	967.08
6	Adjustment for off-balance sheet items (i.e. conversion to credit equivalent amounts of off-balance sheet exposures)	1,742.55
7	7 Other adjustments	-407.95
8	**TOTAL LEVERAGE RATIO EXPOSURE**	**30,412.12**

LEVERAGE RATIO COMMON DISCLOSURE

(in EUR million)		AMOUNTS
On-balance sheet exposures (excluding derivatives and SFTs)		
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	27,773.10
2	(Asset amounts deducted in determining Tier 1 capital)	-399.78
3	**TOTAL ON-BALANCE SHEET EXPOSURES (EXCLUDING DERIVATIVES, SFTS AND FIDUCIARY ASSETS) (SUM OF LINES 1 AND 2)**	**27,357.46**
Derivative exposures		
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	134,.31
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	210.71
EU-5a	Exposure determined under Original Exposure Method	0.00
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	0.00
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	0.00
8	(Exempted CCP leg of client-cleared trade exposures)	0.00
9	Adjusted effective notional amount of written credit derivatives	0.00
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	0.00
11	**TOTAL DERIVATIVE EXPOSURES (SUM OF LINES 4 TO 10)**	**345.03**
Securities financing transaction exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	945.27
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	0.00
14	Counterparty credit risk exposure for SFT assets	21.81
EU-14a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Article 429b (4) and 222 of Regulation (EU) No 575/2013	0.00
15	Agent transaction exposures	0.00
EU-15a	(Exempted CCP leg of client-cleared SFT exposure)	0.00
16	**TOTAL SECURITIES FINANCING TRANSACTION EXPOSURES (SUM OF LINES 12 TO 15A)**	**967.08**
Other off-balance sheet exposures		
17	Off-balance sheet exposures at gross notional amount	1,750.63
18	(Adjustments for conversion to credit equivalent amounts)	0.00
19	**OTHER OFF-BALANCE SHEET EXPOSURES (SUM OF LINES 17 TO 18)**	**1,742.55**
Capital and total exposures		
20	Tier 1 capital	1,240.36
21	**TOTAL LEVERAGE RATIO EXPOSURES (SUM OF LINES 3, 11, 16, 19, EU-19A AND EU-19B)**	**30,412.12**
Leverage ratio		
22	Leverage ratio	4.08%
Choice on transitional arrangements and amount of derecognised fiduciary items		
EU-23	Choice on transitional arrangements for the definition of the capital measure	Transitional
EU-24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) NO 575/2013	

TABLE LRSPL: SPLIT-UP OF ON BALANCE SHEET EXPOSURES (EXCLUDING DERIVATIVES, SFTS AND EXEMPTED EXPOSURES)

		CRR leverage ratio exposures
EU-1	Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:	27,773.10
EU-2	Trading book exposures	42.11
EU-3	Banking book exposures, of which:	27,730.98
EU-4	Covered bonds	-
EU-5	Exposures treated as sovereigns	7,979.12
EU-6	Exposures to regional governments, MDB, international organisations and PSE NOT treated as sovereigns	576.98
EU-7	Institutions	3,098.69
EU-8	Secured by mortgages of immovable properties	7,062.45
EU-9	Retail exposures	2,683.19
EU-10	Corporate	5,337.95
EU-11	Exposures in default	370.70
EU-12	Other exposures (e.g. equity, securitisations, and other non-credit obligation assets)	621.92

2.4. Internal Capital Adequacy Assessment Process (Pillar II)

2.4.1. ICAAP Framework

2.4.1.1. Definition of the ICAAP

Article 73 of Directive 2013/36/EU defines the ICAAP as a set of "[...] *sound, effective and comprehensive strategies and processes to assess and maintain on an ongoing basis the amounts, types and distribution of internal capital that they consider adequate to cover the nature and level of the risks to which they are or might be exposed".*

ICAAP is an internal process allowing BIL group to hold the internal capital it deems appropriate in order to cover all the risks to which it is or could be exposed as a result of its Business Model and Strategy Plan, this being framed by its Risk Appetite framework and its risk bearing capacity.

This Capital must be of sufficient quantity and quality to absorb losses that may arise given the probability thresholds. The ICAAP shall therefore not only take into account the current situation of the Bank but also the forward-looking perspective, in order to ensure the internal capital adequacy on an ongoing basis

In order to achieve this objective, ICAAP is anchored within BIL group's decision-making processes, its business and risk strategies and its Risk Management and control processes. This requires the ICAAP to be, amongst others things, an integral part of BIL's limit systems and internal reporting frameworks, especially due to the fact that it is a system of forward-looking strategies and processes.

2.4.1.2. Purpose of the ICAAP

The main purpose of the ICAAP is, for the BoD, to proactively make a strategic assessment of its capital (and liquidity situation as these notions are clearly nested, cf. the ILAAP) requirements and adequacy considering its strategies, the Bank's business model and current situation. Further, the ICAAP also establishes the capital required for economic purposes and helps identifying its planned sources of capital to meet these objectives.

One of the benefits of the ICAAP includes greater corporate governance and improved risk assessment within banks, and thereby increases the stability of the overall financial system. It also allows to maintain capital levels in accordance with the Bank's strategy, risk profile, governance structures and internal Risk Management systems.

Finally, the ICAAP is to inform the senior Management and the Board of Directors on the on-going assessment of the Bank's risk profile, risk appetite, strategic model and capital adequacy. It also includes the documentation as to how the Bank intends to manage these risks, and how much current and future capital is necessary to meet its future plan.

2.4.1.3. ICAAP Components

BIL group's ICAAP is based on the following building blocks:
- Risk appetite framework (RAF);
- Risk Identification and Cartography;
- Capital Structure Analysis;
- Risk Assessment;
- Capital Adequacy process;
- Stress testing; and
- Business Integration.

Risk appetite framework (RAF)

a. Process

While defining the Bank's strategic priorities, it appears necessary to gauge the changes the related strategic initiatives will have on the risk profile and the risk bearing capacity while (re)defining (new) boundaries of its Risk Appetite.

b. Definition

In line with the principles developed in the FSB guidelines ("Principles for an Effective Risk Appetite Framework, November 2013"), BIL's Risk Appetite Statement (RAS) designs in written form the aggregate level and types of risks that BIL is willing to accept, or to avoid, in order to achieve its business model and strategic objectives. It includes qualitative statements as well as quantitative measures expressed relative to different axes (e.g. solvency, earnings, liquidity). It also addresses also more difficult to quantify risks such as reputation and operational risks, etc.

The RAS provides BIL with an objective and measurable view of whether or not the Bank is within its risk appetite boundaries related to the overall strategic objectives and the key current and future risks applicable to the Bank.

Amongst other features, BIL's RAS:

- Is easy to communicate;
- Is directly linked to the Bank's strategy;
- Addresses the material risks in a holistic fashion under both normal and stressed market and macroeconomic conditions;
- Sets clear boundaries and expectations by establishing quantitative limits in order to determine for each material risk, the maximum level of risk the Bank is willing to accept, and finally;
- Sets the overall tone for the approach to risk taking.

c. Governance and risk mitigation

The Risk Management department:
- Ensures that all risks are under control by identifying, measuring, assessing, mitigating and monitoring them on an on-going basis: Global risk policies and procedures define the framework for controlling all types of risks by describing the methods used and the defined limits, as well as the escalation procedures;
- Ensures that the risk limits are compatible with the strategy, the business model and the structure of the Bank through an effective risk appetite framework, which defines the level of risk the institution is willing to take in order to achieve its strategic and financial objectives;
- Ensures compliance with banking regulatory requirements by submitting regular reports to the supervisory bodies, participating in regulatory discussions and analysing all new requirements related to Risk Management that affect the Bank's activities (i.e. regulatory watch).

Amongst its missions, the BoD is responsible for setting and overseeing the overall business strategy, the overall risk strategy and policy including the risk tolerance/appetite and the Risk Management framework. Under the framework set by the RAS, the BoD:
- Approves BIL's Risk Appetite Statement and ensures it remains consistent with the short and medium term strategy, business and capital plans, risk capacity as well as compensation programs;
- Holds the CEO and other Senior Management accountable for the integrity of the risk appetite, including the timely identification, management and escalation of breaches in risk limits and of material risk exposures;
- Includes an assessment of risk appetite in its strategic discussions including decisions regarding mergers, acquisitions, growth in business lines or products, budget forecasting etc.;
- Regularly reviews and monitors the actual risk profile and risk limits against the agreed levels, and discusses and monitors them to ensure appropriate action is taken regarding "breaches" in risk limits (e.g. there are mechanisms in place to ensure Senior Management can act in a timely manner to effectively manage, and where necessary mitigate, material adverse risk exposures, in particular those that are close to or exceed the approved risk appetite statement or risk limits).

The BoD can be supported in these different tasks by dedicated specialised committees. As mentioned in the Section "1.2.2. Roles and responsibilities of the committees", one of these committees is the Board Risk Committee (BRC).

These principles concerning the Risk Appetite Statement are translated in the escalation procedure:
- When it is applicable within the Risk Appetite Statement, a traffic light approach – based on Triggers and Limits – is adopted building on different levels of the chosen key metrics;
- The limits constitute boundaries requiring immediate escalation to the BoD, BIL has also implemented a complementary escalation mechanism for the breach of the trigger indicators, in order to ensure that appropriate actions are taken timely;
- Moreover, all changes impacting materially the chosen key metrics between two consecutive periods are discussed and analysed by the Management Board, within the BRC and finally reported to the BoD.

d. 2019 Risk Appetite Statement evolution

A review of the BIL's Risk Appetite framework has been realized in 2019 in line with the definition of the Bank's strategy. The new 5-year "Create Together 2025" strategy brings some additional risks. However, it does not change significantly the risk profile of the Bank, it represents an evolution. The statements made for the five pillars remain:
- **Capital Adequacy**: Whilst the set-up of the different priorities defined for each business line maintain sufficient capital to support the Bank's risk profile, in both normal and crisis periods, and to ensure sound long-term credit ratings;
- **Earnings stability**: Generate a sustainable return on capital above the Bank's cost of capital together with achieving the Bank's strategy targets (including dividend payment);
- **Liquidity**: Maintain a strong liquidity position allowing the bank to deploy the different aspects of its strategy;
- **Reputation**: Maintain a strong reputation in targeted markets through focusing on relevant and innovative financial services which allow to achieve excellence and fair, dedicated value propositions;
- **Operational Effectiveness**: Focus on operational efficiency through:
  - Encompassing collaborative behaviours and preventing "silo-thinking";
  - Achieving service level optimization; and
  - Improving the current set-up.

e. 2019 Risk Appetite Statement situation

BIL group's updated Risk Appetite Framework includes, as described above, indicators to fit with the bank's risk profile and comply with new regulatory requirements. The table below shows an extract of the main solvency, profitability and liquidity indicators and their evolution between the year-end 2018 and 2019:

Category	Indicators	12/2018	12/2019	Internal limit
Capital	Basel III CET1	12.04%	12.47%	11.10%
	Basel III Total Capital ratio	15.62%	16.15%	14.60%
	Leverage ratio	4.16%	4.08%	3.30%
Liquidity	LCR	134%	139%	110%
	NSFR	108%	111%	104%

Risk Appetite figures below, as of 31 December, 2019 attest of the sound situation of BIL Group, according to solvency and liquidity axes. No limit breach is observed.

f. Risk identification and cartography

According to Circular CSSF 07/301 (as amended), the Bank shall, "in order to determine its internal capital requirements for risks, [...] first identify the risks to which it is exposed. The permanent and total internal capital adequacy requires this identification to refer to all the risks to which the institution is or might be exposed. This is the comprehensive nature of the ICAAP."

BIL group's risk cartography aims at fulfilling this principle. As a natural step of the ICAAP, the risk cartography must be:
- Exhaustive;
- Cover the risks to which the Bank is or might be exposed; and
- Be forward-looking in order to take into account the future developments which may affect its internal capital adequacy and risk management framework.

The risk identification cycle conducted internally is based on a four-step process comprising:
- The establishment/update of a risk glossary;
- The identification of the Bank's risks in accordance with this glossary;
- The assessment of the identified risks materiality;
- The formalization of the Bank's risk cartography.

Risk Glossary

The risk glossary is an exhaustive list of risks the Bank is or might be exposed to as a consequence of its activities and overall environment. This list summarizes the definitions commonly agreed at the Bank's level and anchored in the regulatory references (e.g. Basel regulation, CRR, CRD IV) and the commonly admitted market practices.

BIL group's risk glossary is based on five main categories (i.e. Credit Risks, Market and ALM Risks, Operational Risks, Enterprise Risks and Other risks.

Risk Identification

The second step of the cartography process consists in identifying the main risks the Bank is or might be exposed to according to its current and planned activities and the expected evolution of its business environment. This step aims at strengthening the capital strategic steering by prioritising of material risks and optimising the allocation of the Bank capital.

According to this, specific analyses and Risk Self-Assessment (RSA) exercise from BIL's business lines (as level 1 control) have been internally conducted and aimed at answering the following questions: Are the Bank, its business lines and its entities subject to a given risk type? Is this risk type considered as material[1]?

The core elements that form the basis of the risk identification process are summarized hereafter:

- Current Risk tools developed specifically for the ICAAP purpose. These tools ensure that the Bank has an up-to-date view on its risks:
  - The Bank's previous aggregated risk cartography;
  - The outcome of the previous ICAAP;
  - The detailed ECAP map, with for each entity and business line the ECAP requirements identified for each risk type and updated on a quarterly basis.
- The risk cartography uses also the on-going follow-up of the Bank's activities realized by the different departments of the Risk Management units and formalized, amongst others, through the various risk reports (e.g. Market Risk reports and Credit Risk reports), the complementary assessments realized by the internal control functions (i.e. Internal Audit cartography, Compliance report, RCSA etc.), and the financial planning assumptions and results;
- BIL's business lines have been requested to perform a RSA in order to:
  - Identify the risks managed within the business lines/departments;
  - Identify the main risks that arise on the daily basis, as well as the way risks are monitored and mitigated;
  - Have a forward-looking overview of their activities.
- Findings and issues highlighted by the supervisory authorities (e.g. comprehensive assessment and SREP) and views on the evolution of the Bank's environment (e.g. legal, regulatory, market and political expectations);
- Finally, the outcome of different regulatory or internal stress testing exercises (EU-wide stress testing exercise, regulatory and internal IRRBB scenarios, ICAAP/ILAAP, credit risk Pillar I, Recovery plan, Market Risk, etc...).

Risk Assessment

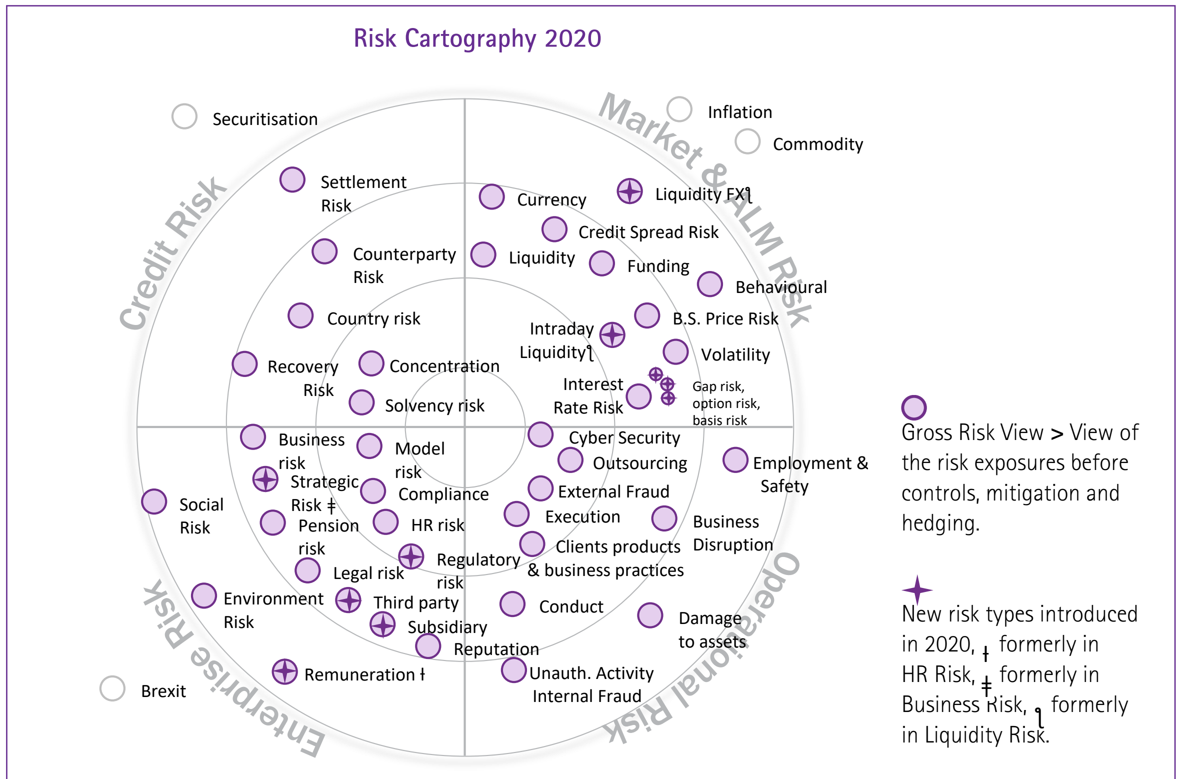
The materiality of each identified risk is based on its nature (in light of the Bank's activities) and the overall impact its materialization has or could have on BIL group's viability. In line with the review of BIL's development plans undertaken in 2018 and in 2019, the Bank has performed a new risk assessment exercise. The overall risk assessment is based on the effective materiality and the mitigation techniques the Bank has put in place in order to prevent the risk occurrence or reduce its impacts. Depending on its materiality and its nature, the risk identified will then be covered by economic capital, when deemed necessary, or apprehended through the establishment of dedicated internal governance processes and procedures. Whenever risks could strongly affect the achievement of the Bank's business objectives, reputation, create liquidity pressure, impact capital and/or revenues or lead to regulatory compliance issues, they are considered as material. A severity level (i.e. High, Significant, Medium, Low and Immaterial) is finally applied to each risk identified allowing to draw BIL group's risk cartography.

One of the main components of risk assessment is Economic Capital (ECAP). ECAP can be seen as the method or practices allowing banks to consistently assess risk and attribute capital to cover the economic effects of risk-taking activities. ECAP is defined as the potential deviation between a bank's economic value and its expected value, with a given confidence interval and time horizon. It aims at summarising in one single metric the unexpected losses of the Bank regarding the risks different activities and entities entail.

[1] A material risk is a capital-related downside risk that has a material impact on the Bank's overall risk profile, and thus may affect the capital adequacy of the Bank.

Risk Cartography Formalisation

The 2019 cartography process has led to the following risk radar



Key Highlights

High Risks

Credit Risk
- Solvency Risk
- Concentration

Enterprise Risk
- Model Risk
- Compliance
- Regulatory Risk
- Human Resource Risk

Market & ALM Risk

Operational Risk
- Cyber Security
- Execution, Delivery & Process Management
- Outsourcing
- External Fraud
- Clients, products and Business Practices

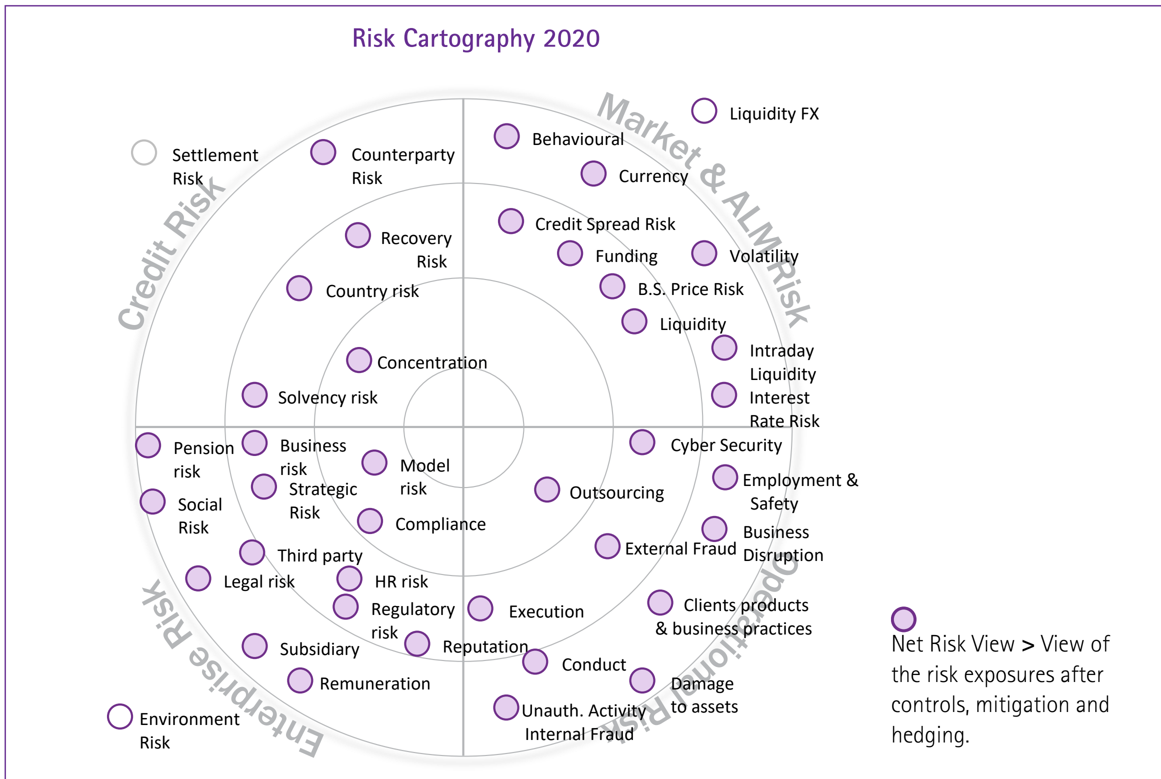
Medium Risks

Credit Risk
- Country Risk
- Recovery Risk
- Counterparty Risk

Enterprise Risk
- Business Risk
- Strategic Risk
- Subsidiary Oversight Risk
- Legal Risk
- Third Party Management Risk
- Pension Risk
- Reputation Risk

Market & ALM Risk
- Interest Rate Risk
- Liquidity Risk
- Intraday Liquidity
- Currency
- Credit Spread Risk
- Funding Risk
- B.S. Price Risk
- Volatility
- IRRRB sub-risks (basis, gap, option)

Operational Risk
- Business Disruption and Systems Failures
- Conduct



Net Risk Cartography 2020 Gross N.M. removed

High Risks

Credit Risk
- Concentration

Market & ALM Risk

Enterprise Risk
- Model Risk
- Compliance

Operational Risk
- Outsourcing

Medium Risks

Credit Risk
- Country Risk
- Recovery Risk
- Solvency Risk

Market & ALM Risk
- Liquidity
- Funding
- Credit Spread Risk
- BS Price Risk

Enterprise Risk
- Regulatory Risk
- Human Resource Risk
- Business Risk
- Strategic Risk
- Reputation Risk

Operational Risk
- Cyber Security
- External Fraud
- Execution

Note: full net risk methodology to be implemented for 2021.

	High Risk- GROSS view	NET View	Trend	Explanations
Credit Risk	Solvency risk	**Medium**	↓ **one notch**	Robust Governance Framework and increasing internal follow up (day-past-due; stronger GIP team)
Operational Rislk	External fraud risk	**Low**	↓ **two notches**	Robust internal procedures (call back procedures, ID verification, etc.)
	Clients, products and business practices risk	**Medium**	↓ **one notch**	- Improvement and large diffusion of businesss practices; - Strength on product governance & processes (WM, CIB, PM,COO); - Increase on number of quality controls; - Continuous effort on automatization system.
	Execution, delivery and process management risk	**Medium**	↓ **one notch**	- Reinforcement on internal controls with the clear objective to limit incidents and avoid operational errors; - Improvement of automatization.
	Cyber security risk	**Medium**	↓ **one notch**	- Implementation and maintenance of strict IT/Cyber security measures (firewall, etc.); - Robust monitoring on cyber incidents and governance (Security Committee and Escalation); - Enhancement of data sytem framework.
Enterprise Risk	Human resources risk	**Medium**	↓ **one notch**	- Reinforcement of hiring policy: senior profile and new talent; - Renumeration policy in line with the industry market.
	Regulatory risk	**Medium**	↓ **one notch**	- Close follow up of new regulary corpus; - Improvement of Risk awareness due to regular mandatory trainings; - Covid-19 situation: increasing capacity to address the different regulatory requirements linked to this crisis.

2.4.2. Capital Adequacy process

Capital adequacy process

The capital adequacy process mainly links the Economic Capital requirements with the Bank's Available Financial Resources (AFR). It aims to ensure that the Bank allocates sufficient capital considering its risk profile.

The following section summarises:
- The AFR calculation;
- The Economic Capital assessment; and
- The Pillar I and Pillar II capital adequacy.

Available Financial Resources

Definition

The AFR represent the loss absorbing financial capacity and availability over a given time horizon (one year for BIL group). AFR are materialised by the available financial capacity to cover the incurred risks and absorb the losses.

Core principles

Principle 1: Permanent, loss absorbing and available resources.

The bases of the AFR measure are BIL group's CET1 ratio but with some adjustments to have an economic view of the Bank's available resources and to respect the second principle.

Principle 2: Consistency with Economic Capital.

ECAP is a measure of the Bank's unexpected losses. According to this, AFR do not aim at absorbing the existing incurred losses for which provisions have been booked. The current P&L is not filtered for the AFR, contrary to CET1.

Principle 3: Continuity of operations.

Any resource should comply with a going concern scenario, meaning that the Bank is not looking for a measure in a resolution scenario.

Principle 4: Solidarity between the different constituents within the group.

Minority interests are considered making part of the available financial resources (up to a certain level in line with current Basel III understanding).

AFR as of end 2019

According to these principles and in line with the Basel III requirements, the Bank's AFR are adjusted according to economic considerations in order to ensure consistency with the key principles of the ECAP measure.

As at 31 December 2019, the BIL group AFR amounted to EUR 1,417 M.

BIL GROUP AFR	2019 YE	2018 YE	Delta
RESOURCES			
Core equity	906.6	848.0	58.7
Retained earnings & Reserves (P&L included)	601.7	487.6	114.1
HTCS Bonds	16.9	18.4	-1.5
AT1	175.0	150.0	25.0
TOTAL	**1,700.2**	**1,503.9**	**196.2**
DEDUCTIONS			
Intangible & goodwill	-230.9	-194.1	-36.8
Full deduction DTA Netting with DTL	-172.5	-201.6	29.2
TOTAL	**-403.4**	**-395.7**	**-7.6**
UCG on HTCS Equities after haircut 25%	20.3	14.2	6.1
UCG on real estate PLM after haircut 25%	100.6	100.2	0.4
UCG	**121.0**	**114.5**	**6.5**
TOTAL AFR	**1,417.8**	**1,222.7**	**195.1**

Economic Capital framework

In the context of BIL group, ECAP can be defined as the amount of capital that would be necessary to cover the unexpected risks inherent in the Bank's activities in order to ensure the continuity of its business over a given time period with a certain level of confidence. Hence, ECAP could be interpreted as the worst-case loss the Bank and its shareholders could face with a 99.93% confidence interval, corresponding to a long-term rating of A- over a one-year horizon.

The process for quantifying economic capital is based on the following two steps:

- Measurement of risk capital by type of risk, on the basis of dedicated statistical methods, whereby each risk is individually assessed;
- Aggregation based on an inter-risk diversification matrix to obtain a global ECAP figure and its reallocation to the various levels of risk (entities, business lines, etc.).

Firstly, an ECAP engine allows to aggregate the risk capital estimated for each risk and then allocate it to all risk levels (entities, business lines, etc.). This tool is based on the Markowitz approach: the total estimated capital is diversified using a calibrated correlation matrix.

As at 31 December 2019, BIL group's economic capital amounted to EUR 1039 M, allocated according to the following structure:

Capital Adequacy

BIL group's capital adequacy is represented in the following table (EUR M):

As at 2019 year-end, the ratio of economic capital resources to economic capital consumption (AFR/ECAP) had reached the level of 121%.

Risk Category	Risk Type	Pillar I	Pillar II
Credit	Credit Risk	603	396
	Concentration Risk		15
	Other Credit Risks		36
Market and ALM	Price Risk	4	92
	Interest Rate Risk		35
	Spread Risk		430
	Currency Risk		6
	Funding Risk		6
	Behavioural Risk		13
Operational	Operational Risk	76	52
Enterprise Risk	Business Risk	-	41
	Model Risk	-	49
TOTAL CAPITAL LEVEL		**684**	**1,171**
Capital Supplies		**1,379**	**1,418**
Adequacy Ratios		**202%**	**121%**

Risk Type	Approach	2018 YE		2019 YE		Variations			
		Risk Capital (EUR million)	Economic Capital (EUR million)	Risk Capital (EUR million)	Economic Capital (EUR million)	*Risk Capital*		*Economic Capital*	
Credit Risk	IRBaEco	538.53	387.10	535.28	395.82	*-3.26*	*-0.6%*	*8.72*	*2.3%*
	Granularity Adjustment	18.58	13.36	20.36	15.06	*1.78*	*9.6%*	*1.70*	*12.7%*
	Guarantee and Resolutions Funds	42.94	30.87	42.94	31.75	*0.00*	*0.0%*	*0.89*	*2.9%*
	CVA	1.99	1.43	1.79	1.32	*-0.20*	*-10.2%*	*-0.11*	*-7.6%*
Price Risk	VaR Banking	116.60	83.81	95.25	70.44	*-21.34*	*-18.3%*	*-13.37*	*-16.0%*
Interest Rate Risk	VaR Banking & Trading	56.28	40.46	43.90	32.46	*-12.38*	*-22.0%*	*-7.99*	*-19.8%*
Spread Risk	VaR Banking & Trading	404.62	290.84	559.92	414.05	*155.30*	*38.4%*	*123.21*	*42.4%*
Currency Risk	VaR limit	8.00	5.75	8.00	5.92	*0.00*	*0.0%*	*0.17*	*2.9%*
Funding Risk	Stress scenario	15.82	11.37	7.85	5.80	*-7.97*	*-50.4%*	*-5.57*	*-49.0%*
Behavioral Risk	Statistical approach	23.14	16.63	18.08	13.37	*-5.06*	*-21.9%*	*-3.26*	*-19.6%*
Operational Risk	Enhanced standardized approach	68.47	49.21	71.00	52.50	*2.53*	*3.7%*	*3.29*	*6.7%*
Pension Funds Risks	Credit Risk	9.27	6.66	4.08	3.02	*-5.19*	*-56.0%*	*-3.65*	*-54.7%*
	Credit Spread Risk	17.50	12.58	21.50	15.90	*4.00*	*22.9%*	*3.32*	*26.4%*
	Price Risk	27.00	19.41	28.80	21.30	*1.80*	*6.7%*	*1.89*	*9.7%*
	Interest Rate Risk	3.50	2.52	3.50	2.59	*0.00*	*0.0%*	*0.07*	*2.9%*
Business Risk	Statistical approach	45.44	32.66	55.61	41.12	*10.17*	*22.4%*	*8.46*	*25.9%*
Model Risk	Model risk add-on	47.48	34.13	66.36	49.07	*18.88*	*39.8%*	*14.94*	*43.8%*
TOTAL		**1,445.16**	**1,038.79**	**1,584.21**	**1,171.49**	**139.05**	**9.6%**	**132.70**	**12.8%**
Diversification rate		**28.12%**		**26.05%**					

2.4.3 Capital & Liquidity Planning

One of the main objectives of the ICAAP is to ensure the Bank has and will have sufficient capital and liquidity to support its business model and strategy on the long-run, under both normal and adverse circumstances.

Following this, Capital & Liquidity Planning can be defined as a tool allowing the Bank's Management to assess whether its capital and liquidity buffers levels (together with its funding structure) are adequate to support the strategy, taking into account various scenarios in a forward-looking perspective.

2.4.4 Stress testing

BIL sets up a Stress Testing Charter aiming at providing common organizational requirements, methodologies and processes for the performance of stress testing at BIL as part of our Risk Management Framework, when conducting both regulatory and internal stress testing exercises. The Charter outlines the principles for an effective, transversal and consistent management of stress testing at BIL. These principles are aligned with the best market practices and compliant with the regulatory requirements.

The Stress Testing Program covers the following information regarding each stress testing exercise:

- The stress test category: Recovery Plan Stress Test, EU wide Stress Tests, Pillar I Stress Tests, Pillar II Stress Tests and others:
  - Recovery Plan Stress Tests: This category includes any stress testing exercise that is performed in the course of the development or maintenance of BIL's group Recovery Plan. As explained in the "Section 2. Regulatory Requirements", the EBA "Guidelines on the range of scenarios to be used in recovery plans" (EBA/GL/2014/06, published 18 July 2014) create a link of the BRRD to stress testing;
  - EU wide Stress Tests: The CRD IV requires competent authorities to carry out appropriate supervisory stress tests on institutions they supervise, to facilitate the review and evaluation process (CRD IV Title VII, Chapter 2, Section III – in particular Article 100). This sets the legitimation for EU wide stress testing exercises such as the 2018 EBA/ECB stress test or the scheduled ones in 2021. This category covers all such stress testing exercises that may be required from BIL's group to be performed;
- Pillar I Stress Tests: This category includes any stress testing exercise that is performed to assess the adequacy of internal models (i.e. A-IRB models) developed and used for the quantification of minimum capital requirements under Pillar I. The requirements for such stress testing exercises are set in the CRR;
- Pillar II Stress Tests: Within this category, the Bank includes all stress testing exercises that are performed in the course of the Internal Capital Adequacy Assessment Process (ICAAP). As one of the main objectives of the ICAAP is to ensure the Bank has sufficient capital and funding to support its business model and strategy on the long-run under both normal and adverse circumstances, the Bank is required to perform stress tests within its ICAAP;
- Other Stress Tests: This category summarizes any stress testing exercise that does not fit in the categories described above but are required from a regulatory or business perspectives. This may include specific stress testing exercises required in local regulations (e.g. in CSSF Circular 12/552), Market Risk Stress Tests, IRRBB Stress Tests, etc.

2.5. Comparison of institution's own funds, and capital and leverage ratios

In line with the EBA Guidelines on uniform disclosures under the proposed draft Article 473a, paragraph Eight, of Regulation (EU) No 575/2013 as regards the transitional period for mitigating the impact on own funds of the introduction of IFRS 9, the Bank discloses each metric's value corresponding to the reporting period-end. In accounting, it is still required in practice. In the table below, regulatory own funds, risk-based capital ratios and leverage ratio are compared to the same metrics as if they were not subject to the IFRS 9 or analogous ECLs transitional arrangements. Further information about IFRS 9 treatment at BIL are provided in section "3.3.6 IFRS 9 provisioning" of this report.

OWN FUNDS, CAPITAL AND LEVERAGE RATIOS UNDER IFRS 9/ANALOGOUS ECLS TRANSITIONAL ARRANGEMENTS COMPARED TO FULLY LOADED IFRS 9/ANALOGOUS ECLS

(in EUR million)		31/12/2019	30/09/2019	30/06/2019	31/03/2019	31/12/2018
		T	T-1	T-2	T-3	T-4
AVAILABLE CAPITAL (AMOUNTS)						
1	Common Equity Tier 1 (CET1) capital	1,065	1,012	1,006	955	967
2	Common Equity Tier 1 (CET1) capital as if IFRS9 transitional arrangements were not applied	1,065	1,012	1,006	955	967
3	Tier 1 capital	1,240	1,162	1,156	1,105	1,117
4	Tier 1 capital as if IFRS9 transitional arrangements were not applied	1,240	1,162	1,156	1,105	1,117
5	Total capital	1,379	1,304	1,294	1,244	1,255
6	Total capital as if IFRS9 transitional arrangements were not applied	1,379	1,304	1,294	1,244	1,255
RISK-WEIGHTED ASSETS (AMOUNTS)						
7	Total risk-weighted assets	8,543	8,432	8,576	8,377	8,034
CAPITAL RATIO						
8	Common Equity Tier 1 (as a percentage of risk exposure amount)	12.47%	12.01%	11.73%	11.41%	12.04%
9	Common Equity Tier 1 (as a percentage of risk exposure amount) as if IFRS9 transitional arrangements were not applied	12.47%	12.01%	11.73%	11.41%	12.04%
10	Tier 1 (as a percentage of risk exposure amount)	14.52%	13.79%	13.48%	13.20%	13.91%
11	Tier 1 (as a percentage of risk exposure amount) as if IFRS9 transitional arrangements were not applied	14.52%	13.79%	13.48%	13.20%	13.91%
12	Total capital (as a percentage of risk exposure amount)	16.15%	15.47%	15.09%	14.86%	15.62%
13	Total capital (as a percentage of risk exposure amount) as if IFRS9 transitional arrangements were not applied	16.15%	15.47%	15.09%	14.86%	15.62%
LEVERAGE RATIO						
14	Leverage ratio total exposure measure	30,412	29,278	28,812	28,068	26,834
15	Leverage ratio	4.08%	3,97%	4.01%	3.94%	4.16%
16	Leverage ratio as if IFRS9 transitional arrangements were not applied	4.08%	3,97%	4.01%	3.94%	4.16%

2.6. Minimum Requirement for own funds and Eligible Liabilities (MREL)

Where the bail-in tool is envisaged as part of the resolution plan under the Bank Recovery and Resolution Directive (BRRD), the resolution authorities will require banks to raise and hold the capital resources (Eligible Liabilities) that will be either written-down or converted into equity ("bailed-in") as part of the resolution. MREL is the amount of the bail-inable liabilities banks have to maintain as per their resolution plan. This requirement is calculated as the amount of own funds and eligible liabilities expressed as a percentage of the institution's total liabilities and own funds. The calibration of MREL (and its gradual entry into force) is bank-specific, even if the SRB has established a general methodology. In summary, BIL's MREL calibration is comprised of 3 components:

Loss Absorption Amount	Capital resources the Bank maintains for its day to day operations and to meet the conditions of its license. These minimum requirements are expected to largely wipe out in the run up to resolution
Recapitalization Amount	Capacity that the Bank has to raise and maintain to finance and support its resolution in light of the plan drafted by the SRB and the resolution tools envisaged
Market Confidence Charge	Add-on that banks which are reliant on market access and wholesale funding will have to comply with, in order to sustain market confidence

During the first quarter of 2019, BIL received from the SRB and the CSSF an overall MREL binding level corresponding to 7.14% of total liabilities and own funds, which BIL already fulfils (considering that BIL senior unsecured debt is almost entirely eligible). Even though MREL subordination target was not yet communicated, the Bank will continue to build a Senior Non-Preferred debt buffer in order to protect its clients (including senior preferred bondholders) from bail-in.

3. Credit risk

Credit risk represents the potential loss (reduction in value of an asset or payment default) that BIL may incur as a result of a deterioration in the solvency of any counterparty.

3.1 Credit risk governance

3.1.1 Organisation

Please refer to the section 1.2.1 Organisation.

3.1.2 Policy

The BIL group's Risk Management department has established a general policy and procedural framework in line with the Bank's Risk Appetite. This framework guides the analysis, decision-making and monitoring of credit risk. The Risk Management department manages the loan issuance process by chairing credit and risk committees and by delegating within the limits set by the Bank's internal governance. As part of its monitoring tasks, the Credit Risk Management unit supervises changes in the credit risks with regards to the Bank's credit portfolio by analysing loan applications and reviewing counterparties' ratings. The Risk Management department also draws up and implements the policy on provisions, participates to the Default Committee which decides on specific provisions, and assesses default cases.

3.1.3 Committees

BIL Group's Risk Management department oversees the Bank's credit risk, under the supervision of the Management Board and dedicated committees.

The Risk Policy Sub-Committee defines the general risk policies, as well as specific credit policy in different areas or for certain types of counterparty, and sets the rules for granting loans, supervising counterparties' ratings and monitoring exposures. The Risk Policy Sub-Committee validates all changes in procedures or risk policies, principles and calculation methods referring to risk.

In order to streamline the decision-making process, the Management Board delegates its decision-making authority to credit committees or joint powers. This delegation is based on specific rules, depending on the counterparty's category, rating level and credit risk exposure. The BoD remains the ultimate decision-making body for the largest loan applications or those presenting a level of risk deemed to be significant. The Credit Risk Management department carries out an independent analysis of each credit application presented to the credit committees, including the counterparty's rating, and stating the main risk indicators; it also carries out a qualitative analysis of the envisaged transaction.

Alongside supervision of the issuance process, various committees are tasked with overseeing specific risks:
- **The Default Committee** identifies and tracks counterparties in default, in accordance with Basel regulations, by applying the rules in force at BIL, determines the amount of allocated specific provisions and monitors the cost of risk. The same committee supervises assets deemed to be sensitive which are under surveillance as "Special Mention" or put on a "Watch-list";
- **The Rating Committee** ensures that the internal rating systems are correctly applied and that rating processes meet pre-defined standards;
- **The Model Risk Committee** ensures the monitoring of BIL's internal rating systems' performance through time (i.e. back-testing, benchmarking, model validation) and discusses all the strategic choices related to this matter (e.g. new model development, material changes etc.).

3.1.4 Scope and nature of credit risk reporting

The Credit Risk Reporting team is responsible for producing regulatory reports and internal reports which facilitate the Management to effectively assess the risks within the decision-making process and to provide the necessary information to the supervisor.

The main reports compiled are the following:
- Regulatory reporting (COREP, Large exposures, Past Due, IFRS7, Leverage ratio, Credit risk information for the FINREP);
- External, on demand or periodical credit risk reporting (EBA, CSSF, ECB, Rating agencies);
- Monthly report on new Luxembourg real estate development transactions exceeding the EUR 10 million threshold, produced for the CSSF;
- Internal credit risk reporting (Residential mortgages follow-up, monitoring of Land Acquisition, Development and Construction (ADC) and Income Producing Real Estate (IPRE) exposures);
- Quarterly Credit Risk Dashboards;
- Risk-Weighted Asset projections within the context of planned investments;
- Regulations on oversight and monitoring of large exposures;
- Justification and analysis of accounting reconciliations in agreement with Finance.

3.1.5 Risk measurement

Credit risk measurement is primarily based on internal systems introduced and developed within the Basel framework. Each counterparty is assigned an internal rating by credit risk analysts, using dedicated rating tools. This internal rating corresponds to an evaluation of the level of default risk borne by the counterparty, expressed by means of an internal rating scale. Rating assessment is a key factor in the loan issuance process. Ratings are reviewed at least once a year, making it possible to identify counterparties requiring the close attention of the Default Committee.

To manage the general credit risk profile and limit concentration of risk, credit risk limits are set for each counterparty, establishing the maximum acceptable level for each one. Limits by economic sector and by product may also be imposed by the Risk Management department. The latter actively monitors limits, which it can reduce at any time, in light of changes in related risks. The Risk Management department may freeze specific limits at any time in order to take the latest events into account.

Metrics

The metrics used to measure risk exposure may differ from accounting metrics.

(1) Gross carrying amount: The accounting value before any allowance/impairments and CRM techniques are not taken into consideration. In the context of IFRS9, it refers to amortised cost of financial asset, before adjusting for any loss allowance;

(2) Net value of exposure: for on-balance-sheet items, the net value is the gross carrying value of exposure less allowances/impairments;

(3) The credit risk exposure measure known as Exposure-At-Default (EAD), which is used for the calculation of regulatory capital requirements includes (a) current and potential future exposures, and (b) credit risk mitigants (CRM) covering those exposures (under the form of netting agreements, financial collateral for derivatives and repo exposures, and guarantees for others);

(4) Moreover, BIL has defined an internal measure compliant with IFRS 7 norm, known as Maximum Credit Risk Exposure (MCRE) in order to compare figures published in the annual financial statements. This metric corresponds to the amortized cost or EAD before applying a credit conversion factor (CCF), after deducting specific provision, financial collateral (e.g. security type collateral and cash) and netting agreement effect. Physical collateral such as commercial real estate and residential real estate are out of scope.

3.1.6 Credit Risk Rating Process

Credit Risk Management is responsible for determining the risk rating based on the results of the Bank's credit analytical model (i.e. the Internal Rating Systems (IRS)).

For the retail models, the rating process is daily and is fully automated (behavioural scores) with no possibility of override by the credit analysts.

For the non-retail models, e.g. Financial Institutions, the rating process is semi-automated with qualitative ratios estimated by the analysts and the model output can be overridden.

Real estate exposures falling under Specialised Lending Exposures are rated using a Slotting Criteria model, with given specific risk-weighted factors and qualitative and quantitative factors ratios estimated by the analysts as per EU Regulation 575/2013.

For these models, the rating assignment process is fully documented so as to provide the analysts a robust framework for the estimation of the qualitative ratios.

These ratings must be evaluated at least once a year at the time of annual review of the borrower's credit and more frequently should there be a change in creditworthiness during the year.

The development and maintenance of the rating models used by the Bank, their ongoing review, enhancement and calibration is the responsibility of Credit Data Science (CDS) and their validation is the responsibility of the Internal Model Validation Unit (IMVU).

3.2 Credit risk exposure

Several metrics will be used throughout this report to express different views on the Bank's risk exposures.

3.2.1 Total and average amount of credit exposure by exposure classes

In the application of Article 442 (c) in the CRR, this table represents the year-end total and annual average exposure expressed in net values. For on-balance sheet items the "Net value of exposure" is calculated by deducting allowances/impairments from the gross amount and for off-balance sheet respective provisions have been deducted.

Hence, credit risk exposures values are shown after accounting offsets but before credit risk mitigation.

The year-end total exposure includes figures obtained using both the standardised approach and advanced methods. The average credit exposure is computed as the average of the net exposure values observed at the end of each quarter of the year 2019.

TABLE EU CRB-B – TOTAL AND AVERAGE NET AMOUNT OF EXPOSURES

	(in EUR million)	**Net value of exposures at the end of the period**	**Average net exposures over the period**
1	Central governments or central banks	6,558.45	6,309.49
2	Institutions	5,593.94	5,244.75
3	Corporates	6,713.01	6,732.23
4	*Of which: Specialised lending*	*2,140.36*	*2,003.44*
5	*Of which: SMEs*	*1,530.57*	*1,742.96*
6	Retail	11,202.71	10,904.60
7	Secured by real estate property	7,310.85	7,007.65
8	SMEs	287.15	278.78
9	Non-SMEs	7,023.70	6,728.87
10	Qualifying revolving	-	-
11	Other retail	3,891.86	3,896.95
12	SMEs	321.29	327.74
13	Non-SMEs	3,570.57	3,569.21
14	Equity	75.30	74.17
15	**Total IRB approach**	**30,143.40**	**29,265.24**

As of 31 December 2019, the Bank's total net value of credit risk exposure amounted to 35,211.25 million.

	(in EUR million)	**Net value of exposures at the end of the period (end of 2019)**	**Average net exposures over the period (2019)**
16	Central governments or central banks	55.02	64.89
17	Regional governments or local authorities	1,698.59	1,533.48
18	Public sector entities	225.86	265.78
19	Multilateral development banks	62.57	63.09
20	International organisations	193.88	195.89
21	Institutions	58.88	56.53
22	Corporates	2,143.09	2,213.06
23	*Of which: SMEs*	*1,142.01*	*1,321.19*
24	Retail	12.07	11.75
25	*Of which: SMEs*	*5.60*	*5.34*
26	Secured by mortgages on immovable property	110.41	247.19
27	*Of which: SMEs*	*4.87*	*7.12*
28	Exposures in default	4.63	24.21
29	Items associated with particularly high risk	43.51	359.57
30	Covered bonds	-	31.22
31	Claims on institutions and corporates with a short-term credit assessment	3.50	0.95
32	Collective investments undertakings	-	-
33	Equity exposures	20.18	20.15
34	Other exposures	435.66	553.13
35	**TOTAL STANDARDISED APPROACH**	**5,067.85**	**5,640.90**
36	**TOTAL**	**35,211.25**	**34,906.14**

3.2.2 Geographical breakdown of credit exposures

In the application of Article 442 (d) of the CRR, the table below shows the total exposure expressed in terms of net value broken down by exposure classes and geographic areas at year-end 2019. The geographical distribution is based on the legal residence of the counterparty or issuer. It comprises figures obtained using both the standardised and the advanced methods.

TABLE EU CRB-C – GEOGRAPHICAL BREAKDOWN OF EXPOSURES

(in EUR million)	Europe	*Of which: Luxembourg*	*Of which: France*	*Of which: Switzerland*	*Of which: Belgium*	*Of which: Germany*	United States and Canada	South and Central America	Asia	Other geographical areas	TOTAL
Central governments or central banks	6,047.43	*1,702.64*	*631.15*	*2,387.01*	*586.53*	-	393.86	-	117.17	-	**6,558.45**
Institutions	5,062.43	*883.61*	*1,343.52*	*52.61*	*474.16*	*434.1*	209.75	0.18	49.08	272.5	**5,593.94**
Corporates	6,124.63	*4,647.06*	*636.65*	*70.12*	*191.86*	*322.71*	20.69	-	521.02	46.66	**6,713.01**
Retail	10,735.55	*7,821.50*	*910.25*	*116.88*	*464.98*	*171.67*	7.37	58.4	286.71	114.68	**11,202.71**
Equity	75.18	*72.67*	-	1.39	*0.64*	-	-	0.1	-	-	**75.29**
Total IRB approach	**28,045.23**	**15,127.48**	**3,521,56**	**2,628.02**	**1,718.16**	**928.49**	**631.67**	**58.68**	**973.98**	**433.84**	**30,143.40**
Central governments or central banks	55.02	*55.02*	-	-	-	-	-	-	-	-	**55.02**
Regional governments or local authorities	1,419.44	-	*314.45*	-	*338.78*	*184.52*	279.15	-	-	-	**1,698.59**
Public sector entities	225.87	*209.1*	*6.76*	-	-	*9.93*	-	-	-	-	**225.87**
Multilateral development banks	-	-	-	-	-	-	-	-	-	62.57	**62.57**
International organisations	-	-	-	-	-	-	-	-	-	193.88	**193.88**
Institutions	58.88	*0.34*	-	-	-	*58.53*	-	-	-	-	**58.88**
Corporates	1,957.47	*1,271.16*	*135.55*	*0.17*	*5.98*	*161.89*	0.71	1.21	161.28	22.41	**2,143.08**
Retail	12.07	*12*	-	-	*0.01*	*0.05*	-	-	-	-	**12.07**
Secured by mortgages on immovable property	105.38	*102.03*	*1.15*	-	-	*2.21*	5.02	-	-	-	**110.41**
Exposures in default											
Items associated with particularly high risk	4.38	*-0.31*	*0.3*	-	-	*4.35*	-	-	-	0.25	**4.63**
Covered bonds	43.51	*43.51*	-	-	-	-	-	-	-	-	**43.51**
Claims on institutions and corporates with a short-term credit assessment	3.5	*3.5*	-	-	-	-	-	-	-	-	**3.5**
Collective investments undertakings	-	-	-	-	-	-	-	-	-	-	**-**
Equity exposures	20.18	20.17	-	-	-	-	-	-	-	-	**20.18**
Other exposures	389.58	*386.11*	-	*0.65*	-	-	0.62	-	0.04	45.42	**435.66**
Total standardised approach	**4,295.28**	***2,102.63***	***458.21***	***0.82***	***344.77***	***421.48***	**285.51**	**1.21**	**161.32**	**324.53**	**5,067.85**
TOTAL	**32,340.51**	***17,230.11***	***3,979.78***	***2,628.84***	***2,062.92***	***1,349.97***	**917.18**	**59.89**	**1,135,30**	**758.37**	**35,211.25**

As at 31 December 2019, the Bank's exposure was mainly concentrated in Europe (91.8%, 32,340.51 million) with 48.9% of the total exposure in Luxembourg, 11.3% in France, 7.5% in Switzerland, 5.9% in Belgium and 3.8% in Germany:

- Corporate activity is concentrated in Luxembourg (69.2%);
- Retail activity is concentrated in Luxembourg (69.8%) and its neighboring countries (8.1% in France, 4.2% in Belgium and 1.5% in Germany);
- Regarding the Central Governments and Central Banks exposures, the main counterparties of the Bank are the Central Bank of Luxembourg and the Swiss National Bank.

3.2.3 Exposure breakdown by industry sector

In the application of Article 442 (e) of the CRR, the table below shows the net value of exposure broken down by exposure class and industry at year-end 2019. The industry classification is based on NACE codes (NACE (Nomenclature des Activités Économiques dans la Communauté Européenne) is a European industry standard classification system for classifying business activities). It comprises figures obtained using both the standardised and the advanced methods.

(in EUR million)	Agriculture. foresty and fishing	Mining and quarrying	Manufacturing	Electricity, gas, steam and air conditioning supply	Water supply	Construction	Wholesale and retail trade	Transport and storage	Accommodation and food service activities	Information and communication
Central governments or central banks	-	-	-	-	-	-	-	-	-	-
Institutions	-	-	5.05	-	-	-	-	-	-	-
Corporates	23.03	0.43	767.73	105.91	9.16	1,505.30	506.11	171.18	269.10	93.62
Retail	126.62	6.44	131.08	8.94	2.09	403.10	339.39	60.57	232.46	152.62
Equity	-	-	-	-	-	0.00	-	42.70	-	0.64
Total IRB approach	**149.65**	**6.87**	**903.86**	**114.85**	**11.25**	**1,908.41**	**845.50**	**274.44**	**501.56**	**246.89**
Central governments or central banks	-	-	-	-	-	-	-	-	-	-
Regional governments or local authorities	-	-	-	-	-	-	-	-	-	-
Public sector entities	-	-	-	-	-	-	-	0.03	-	17.40
Multilateral development banks	-	-	-	-	-	-	-	-	-	-
International organisations	-	-	-	-	-	-	-	-	-	-
Institutions	-	-	-	-	-	-	-	-	-	-
Corporates	1.19	-	88.46	100.31	-	281.45	13.67	18.68	45.00	24.64
Retail	-	-	-	-	-	0.89	0.01	0.65	0.05	0.06
Secured by mortgages on immovable property	-	-	1.15	2.21	-	26.51	2.00	-	0.23	-
Exposures in default	-	-	-	-	-	-0.27	-	-	-	-
Items associated with particularly high risk	-	-	-	-	-	24.63	-	-	-	-
Covered bonds	-	-	-	-	-	-	-	-	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings										
Equity exposures	-	-	-	-	-	-	-	0.83	-	-
Other exposures	-	-	-	-	-	-	-	-	-	-
Total standardised approach	**1.19**	**-**	**89.60**	**102.52**	**-**	**333.20**	**15.68**	**20.19**	**45.27**	**42.10**
TOTAL	**150.84**	**6.87**	**993.47**	**217.37**	**11.25**	**2,241.61**	**861.18**	**294.63**	**546.84**	**288.98**

(in EUR million)	Financial and insurance activities	Real estate activities	Professional. scientific and technical activities	Administrative and support service activities	Public admnistration and defence. compulsory social security	Education	Human health services and social work activities	Arts. entertainment and recreation	Other services	TOTAL
Central governments or central banks	3,357.38	114.12	-	-	3,036.29	-	50.04	0.50	0.11	**6,558.45**
Institutions	5,024.18	-	-	-	486.84	-	-	-	77.87	**5,593.94**
Corporates	1,484.76	1,206.08	203.63	119.09	53.10	-	78.47	23.90	92.41	**6,713.01**
Retail	7,216.74	1,248.76	460.34	84.30	114.96	44.01	387.99	77.54	104.74	**11,202.70**
Equity	26.70	0.00	0.03	0.70	-	-	-	-	4.53	**75.30**
Total IRB approach	**17,109.77**	**2,568.96**	**663.99**	**204.09**	**3,691.18**	**44.01**	**516.50**	**101.94**	**279.66**	**30,143.40**
Central governments or central banks	4.81	-	-	-	22.65	-	-	-	27.56	**55.02**
Regional governments or local authorities	-	-	-	-	1,610.53	-	-	-	88.06	**1,698.59**
Public sector entities	-	-	-	14.89	127.11	0.26	63.93	-	2.24	**225.86**
Multilateral development banks	62.57	-	-	-	-	-	-	-	-	**62.57**
International organisations	-	-	-	-	193.88	-	-	-	-	**193.88**
Institutions	58.88	-	-	-	-	-	-	-	0.01	**58.88**
Corporates	1,164.59	282.06	9.60	9.79	77.89	5.36	9.72	-	10.68	**2,143.09**
Retail	0.93	2.11	0.06	0.06	-	0.66	1.48	2.09	3.01	**12.07**
Secured by mortgages on immovable property	16.14	61.55	-	-	-	-	0.00	0.35	0.28	**110.41**
Exposures in default	0.46	4.43	-	-	-	-	0.00	-	0.01	**4.63**
Items associated with particularly high risk	3.73	15.16	-	-	-	-	-	-		**43.51**
Covered bonds	-	-	-	-	-	-	-	-	-	**-**
Claims on institutions and corporates with a short-term credit assessment	3.50	-	-	-	-	-	-	-	-	**3.50**
Collective investments undertakings										
Equity exposures		-	-	-	-		-	-	19.35	**20.18**
Other exposures	44.86	-	-	-	-	-	-	-	390.79	**435.65**
Total standardised approach	**1,360.47**	**365.31**	**9.67**	**24.74**	**2,032.06**	**6.29**	**75.13**	**2.44**	**541.98**	**5,067.85**
TOTAL	18,470.24	2,934.27	673.66	228.82	5,723.25	50.30	591.63	104.38	821.64	35,211.25

As at 31 December 2019, the sectors "Financial and insurances activities" and "Public administration" represented the highest exposures with respectively 52.5% and 16.2% of the total exposures.

BIL continues to invest in low RWA cost counterparties such as Central Governments or strong Financial institutions.

3.2.4 Exposure breakdown by residual maturity

In the application of Article 442 (f) of the CRR, the table below shows the net value of exposure broken down by exposure classes and residual maturities at year-end 2019. It comprises figures obtained using both the standardised and the advanced methods.

TABLE EU CRB-E - MATURITY OF EXPOSURES

	NEXT EXPOSURE VALUE					
(in EUR million)	On demand	<= 1 year	> 1 year < = 5 years	> 5 years	No stated maturity	TOTAL
Central governments or central banks		1,274.28	935.96	1,480.85	2,867.36	6,558.45
Institutions		2,536.89	1,644.40	810.20	602.45	5,593.94
Corporates		1,180.17	1,804.77	2,657.35	1,070.72	6,713.01
Retail		682.71	1,396.98	7,876.55	1,246.46	11,202.70
Equity		-	-	-	75.30	75.30
Total IRB approach		**5,674.05**	**5,782.10**	**12,824.95**	**5,862.29**	**30,143.40**
Central governments or central banks		-	4,81	26.29	23.92	55.02
Regional governments or local authorities		128.51	521.09	1,048.99	-	1,698.59
Public sector entities		0.08	17.08	202.02	6,68	225.86
Multilateral development banks		-	32.36	30.21	-	62.57
International organisations		-	157.40	36.48	-	193.88
Institutions		0.07	9,15	49.45	0.23	58.88
Corporates		621.98	478.34	812.37	230.40	2,143.09
Retail		2.94	2.43	4.87	1.83	12.07
Secured by mortgages on immovable property		2.42	5.88	102.11	-	110.41
Exposures in default		0.15	0.04	0.95	3.49	4.63
Items associated with particularly high risk		1.99	3.11	5.15	33.26	43.51
Covered bonds		-	-	-		-
Claims on institutions and corporates with a short-term credit assessment		0,03	-	-	3.47	3.50
Collective investments undertakings		-	-	-	-	-
Equity exposures		-	-	-	20.18	20.18
Other exposures		0.59	1.83	0,21	433.03	435.66
Total standardised approach		**758.76**	**1,233.50**	**2,319,10**	**756.49**	**5,067.85**
TOTAL		**6,432.82**	**7,015.60**	**15,144,05**	**6,618.78**	**35,211.25**

This table shows that 38.2% of the total risk exposure does not exceed five years.

Over the longer term, 43.0% of the total risk exposure exceeds five years. This represents long-term bonds to central governments and central banks, retail banking mortgage activity and the financing of the real estate and construction sector.

Exposures classified as "no defined maturity" represent 19.0% of the total exposure and are essentially composed of debits accounts for the corporate and retail exposure class and Nostro accounts with central banks for the Central Governments and Central Banks exposure class.

3.2.5 Credit quality of exposures

In the application of Article 442 (g) of the CRR, the tables below provide a breakdown of defaulted and non-defaulted exposures by regulatory exposure classes and industries respectively. It comprises figures obtained using both the standardised and the advanced methods.

The Bank books specific credit risk adjustment and general credit risk adjustment.

TABLE EU CR1-A – CREDIT QUALITY OF EXPOSURES BY EXPOSURE CLASS AND INSTRUMENT

	Gross carrying value of		Specific credit risk adjustements	General credit risk adjustements	Accumulated write-offs	Credit risk adjustement charges of the period	Net values
(in EUR million)	Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
Central governments or central banks	**-**	**6,558.51**	**-**	**-0.06**	**-**		**6,558.45**
Institutions	**-**	**5,594.28**	**-**	**-0.34**	**-**		**5,593.94**
Corporates	**153.26**	**6,636.66**	**-44.49**	**-32.42**	**-3.93**		**6,713.01**
Of which: Specialised lending	*21.23*	*2,146.31*	*-2.27*	*-4.91*	*-*		*2,140.36*
Of which: SMEs	*127.07*	*1,446.89*	*-40.91*	*-2.48*	*-0.01*		*1,530.57*
Of which: Others	*4.96*	*3,043.46*	*-1.31*	*-5.03*	*-3.92*		*3,042.08*
Retail	387.24	10,939.11	-110.13	-13.51	-9.33		11,202.71
Secured by real estate property	220.34	7,127.68	-33.69	-3.47	-0.38		7,310.85
SMEs	7.93	280.91	-1.55	-0.14	-0.18		287.15
Non-SMEs	212.41	6,846.77	-32.14	-3.33	-0.20		7,023.70
Qualifying revolving	-	-	-	-	-		-
Other retail	166.90	3,811.44	-76.44	-10.04	-8.95		3,891.86
SMEs	24.18	312.81	-14.34	-1.36	-0.51		321.29
Non-SMEs	142.72	3,498.63	-62.10	-8.68	-8.44		3,570.57
Equity	3.56	83.91	-12.17	-	-		75.30
Total IRB approach	**544.07**	**29,812.47**	**-166.79**	**-46.33**	**-13.26**		**30,143.40**
Central governments or central banks	-	55.03	-	-0.01	-		55.02
Regional governments or local authorities	-	1,699.20	-	-0.61	-		1,698.59
Public sector entities	-	227.48	-	-1.62	-		225.86
Multilateral development banks	-	62.57	-	-	-		62.57
International organisations	-	193.88	-	-	-		193.88
Institutions	-	58.88	-	-	-		58.88
Corporates	-	2,148.52	-	-5.43	-		2,143.09
Of which: SMEs	*-*	*801.24*	*-*	*-0.25*	*-*		*800.99*
Retail	-	12.11	-	-0.04	-		12.07
Of which: SMEs		*1.26*	*-*	*-*	*-*		*1.26*
Secured by mortgages on immovable property	-	112.19	-	-1.78	-		110.41
Of which: SMEs		*101.90*	*-*	*-0.71*	*-*		*101.19*
Exposures in default	81.11		-76.48	-	-0.47		4.63
Items associated with particularly high risk		44.03		-0.52	-0.73		43.51
Covered bonds	-	-	-	-	-		-
Claims on institutions and corporates with a short-term credit assessment		3.50	-		-		3.50
Collective investments undertakings		-	-	-	-		-
Equity exposures		20.47	-0.29	-	-		20.18
Other exposures		435.68	-	-0.02	-		435.66
Total standardised approach	**81.11**	**5,073.55**	**-76.77**	**-10.03**	**-1.20**		**5,067.85**
TOTAL	**625.18**	**34,886.02**	**-243.56**	**-56.36**	**-14.46**		**35,211.25**
Of which: Loans	589.02	20,011.70	-60.50	-52.17	-14.46		20,488.04
Of which: Debt securities	21.76	7,400.76	-	-2.24	-		7,420.28
Of which: Off-balance-sheet exposures	33.93	5,231.52	-0.97	-8.30	-0.05		5,256.18

TABLE EU CR1-B - CREDIT QUALITY OF EXPOSURES BY INDUSTRY

	Gross carrying value of		Specific credit risk adjustements	General credit risk adjustements	Accumulated write-offs	Credit risk adjustement charges of the period	Net values
(in EUR million)	Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
Agriculture, foresty and fishing	1.02	150.55	-0.44	-0.30	0.00		150.84
Mining and quarrying	0.01	6.88	0.00	-0.01	0.00		6.87
Manufacturing	10.54	987.10	-2.71	-1.46	-0.03		993.47
Electricity, gas, steam and air conditioning supply	30.75	204.11	-16.26	-1.21	0.00		217.39
Water supply	0.02	11.24	-0.01	0.00	0.00		11.25
Construction	37.47	2,235.84	-18.09	-14.00	0.36		2,241.22
Wholesale and retail trade	24.87	851.64	-13.60	-1.72	-4.31		861.18
Transport and storage	1.70	293.38	-0.84	-0.43	-0.02		293.80
Accommodation and food service activities	13.50	538.06	-3.43	-1.29	-0.05		546.84
Information and communication	4.52	286.45	-1.17	-0.80	-0.01		288.99
Financial and insurance activities	334.39	18,316.98	-140.10	-14.80	-7.46		18,496.48
Real estate activities	130.47	2.847.54	-29.17	-14.57	-2.58		2,934.26
Administrative and support service activities	3.88	226.51	-0.81	-0.76	-0.11		228.81
Professional, scientific and technical activities	15.77	664.26	-5.49	-0.87	-0.25		673.66
Public admnistration and defence, compulsory social security	0.95	5,736.91	-2.43	-1.77	0.00		5,733.66
Education	0.14	50.59	-0.06	-0.36	0.00		50.30
Human health services and social work activities	6.23	588.18	-1.58	-1.19	0.00		591.64
Arts, entertainment and recreation	3.99	102.39	-1.82	-0.19	0.00		104.36
Other services	4.98	866.34	-5.53	-0.63	0.00		865.16
TOTAL	**625.18**	**34,964.94**	**-243.56**	**-56.36**	**-14.46**		**35,290.19**

3.2.6 Credit quality of exposures by geographical area

In the application of Article 442 (h) of the CRR, the table below provides a breakdown of defaulted and non-defaulted exposures by geographical areas. It comprises figures obtained using both the standardised and the advanced methods. The geographical distribution is based on the legal residence of the counterparty or issuer.

TABLE EU CR1-C – CREDIT QUALITY OF EXPOSURES BY GEOGRAPHY

(in EUR million)	Gross carrying value of		Specific credit risk adjustements	General credit risk adjustements	Accumulated write-offs	Credit risk adjustement charges of the period	Net values
	Defaulted exposures	Non-defaulted exposures					(a+b-c-d)
Europe	540.80	32,085.12	-167.75	-55.31	-14.46		32,402.86
Of which: Luxembourg	334.09	17,043.08	-102.05	-45.01	-0.77		17,230.11
Of which: France	124.70	3,905.07	-28.66	-2.97	-0.30		3,998.14
Of which: Switzerland	5.08	2,631.80	-7.79	-0.25	0.00		2,628.84
Of which: Belgium	15.25	2,051.46	-2.46	-1.32	-0.03		2,062.92
Of which: Germany	34.27	1,346.66	-18.85	-1.68	-6.39		1,360.40
United States and Canada	0.07	921.91	-4.23	-0.58	0.00		917.17
South and Central America	1.55	58.59	-0.22	-0.02	0.00		59.90
Asia	13.31	1,124.68	-2.35	-0.34	0.00		1,135.30
Other geographical areas	69.45	774.64	-69.01	-0.11	0.00		774.96
TOTAL	**625.18**	**34,964.94**	**-243.56**	**-56.36**	**-14.46**		**35,290.19**

3.3 Forbearance, impairment, past due and provisions

3.3.1 Definitions

BIL records allowances for impairment losses when there is objective evidence that a financial asset or group of financial assets is impaired as a result of one or more events occurring after initial recognition and is evidencing (i) A decline in expected cash flows and (ii) An impact on estimated future cash flows that can be reliably estimated.

3.3.1.1 Financial assets measured at amortised cost

First, BIL assesses whether objective evidence of impairment exists individually for financial assets. If no such evidence exists, the financial assets are included in a group of financial assets with similar credit risk characteristics and collectively assessed for impairment

Determination of the impairment

- Specific individual impairments: If an objective evidence exists individually on a significant asset classified as loans or other receivables or financial assets classified as held-to-maturity, the amount of impairment on specifically identified assets is calculated as the difference between the carrying amount and the estimated future cash flows being the present value of estimated future cash flows;
- Specific collective impairments for mass products: If the objective evidence is identified individually for insignificant assets or collectively for a group of assets with similar risk characteristics, specific impairments are recorded on these identified group of assets;
- Collective impairments: Collective provisions are calculated for counterparties for which no objective evidence of impairment exist but for which the Bank knows that from a statistical point of view, losses may have occurred unless such losses have not been identified yet.

We shall mention that a credit-impaired exposure is assigned to the Stage 3 under IFRS 9. According to the definition, a financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired includes observable data about the following events:

- Significant financial difficulty of the issuer or the borrower;
- A breach of contract, such as default or past due event;
- The creditor(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;
- It is becoming probable that the borrower will enter into bankruptcy or other financial reorganisation;
- The disappearance of an active market for that financial asset because of financial difficulties; or
- The purchase or origination of a financial asset at a deep discount that reflects the incurred credit losses.

It may not be possible to identify a single discrete event. Instead, the combined effect of several events may have caused financial assets to become credit-impaired.

In addition, the Bank will also consider the levels of and trends in delinquencies for similar financial assets. In order to adopt a prudent approach, the Bank considers all individual factor as a trigger event.

Accounting treatment of the impairment

BIL recognizes changes in the amount of impairment losses in the consolidated statement of income and reports them as "Impairment on loans and provisions for credit commitments". The impaired potential losses are reversed through the consolidated statement of income if the increase in fair value relates objectively to an event occurring after the impairment was recognised.

When an asset is determined by Management to be uncollectable, the outstanding specific impairment is reversed via the consolidated statement of income under the heading "Impairment on loans and provisions for credit commitments" and the net loss is recorded under the same heading. Subsequent recoveries are also accounted for under this heading.

3.3.1.2 Held to collect and sale (HTCS)

BIL recognizes the impairment of HTCS assets on an individual basis if there is objective evidence of impairment as a result of one or more events occurring after initial recognition.

Determination of the impairment

- Quoted equities: The potential need of impairment is analysed based on an impairment test which consists of identifying cases where the net carrying amount is higher than the net present value;
- Unquoted equities: The potential need of impairment on participations is reviewed based on a comparison between the purchase cost and the estimated fair value obtained through the latest annual accounts available of the entity (for consolidated participations) and/or any other information that can help evaluating the participation such as latest securities exchanges, internal memorandum on valuation, (for non-consolidated participations);
- Quoted/unquoted bonds: The potential need of impairment is analysed based on:
  - The same impairment test described for the quoted equities above and, in some cases;
  - An impairment test based on the evolution of the fair value referring to the credit spread.
- Private equity instruments: the potential need of impairment is analysed based on:
  - The net asset value of reported by the fund/company; and
  - A utility value calculated by the Credit Risk department.

Accounting treatment of the impairment

When HTCS financial assets are impaired, the OCI reserve is recycled and these impaired potential losses are reported in the consolidated statement of income as "Net income on investments". Additional decline in fair value is recorded under the same heading for equity securities.

When an impaired potential loss has been recognised on bonds, any subsequent decline in fair value is recognised under "Net income on investments" (if there is objective evidence of impairment). In all other cases, changes in fair value are recognised in "Other comprehensive income".

Impairments on equity securities cannot be reversed in the statement of income due to later recovery of quoted prices.

3.3.1.3 Past due

For the purposes of the application of point (b) of Article 178(1) of Regulation (EU) No 575/2013, where any amount of principal, interest or fee has not been paid at the date it was due, the Bank recognises this as the credit obligation past due. Where the credit arrangement explicitly allows the obligor to change the schedule, suspend or postpone the payments under certain conditions and the obligor acts within the rights granted in the contract, the changed, suspended or postponed instalments are not considered past due, and the counting of days past due is based on the new schedule once it is specified, according to Articles 178(1) and (3) of Regulation (EU) No 575/2013. Unauthorised overdraft amounts are also considered as past due amounts.

Past due amounts are monitored:

- At the level of each exposure for a day to day monitoring and the triggering of IFRS 9 stage 2
- At the level of each obligor for the counting of material days past due and the triggering of default. The past due amount at the level of an obligor is the sum of all amounts past due that are related to any credit obligation of the obligor to the Bank, or any of its subsidiaries..

Technical past due situations are not considered as default in accordance with Article 178 of Regulation (EU) No 575/2013. A technical past due situation is considered to have occurred in any of the following cases:

- Where the Bank identifies that the defaulted status was a result of data or system error, including manual errors of standardised processes but excluding wrong credit decisions;

- Where the Bank identifies that the defaulted status was a result of the non-execution, defective or late execution of the payment transaction ordered by the obligor or where there is evidence that the payment was unsuccessful due to the failure of the payment system;

- Where due to the nature of the transaction there is a time lag between the receipt of the payment by an institution and the allocation of that payment to the relevant account, so that the payment was made before the 90 days and the crediting in the client's account took place after the 90 days past due.

3.3.1.4 Default definition

Default is defined as the inability of a borrower or guarantor to meet obligations vis-à-vis one or more creditors at a given moment or on a lasting basis. The Bank must include all products and positions that are potentially at risk. Default is defined in the Basel II in the Article 178 of the CRR as follows:

"A default is considered to have occurred with regard to a particular obligor, when either or both of the two following events have taken place.

- The Bank considers that the obligor is unlikely to pay its credit obligations to the Banking group in full, without recourse by the Bank to actions such as realizing security (if held).
- The obligor is past due more than 90 days on any material credit obligation to the Bank group."

The EBA guidelines on the application of the definition of default (referred to as New Definition of Default – NDD) and the Commission delegated regulation 2018/171 specify the new materiality thresholds for past due amounts:

- the absolute thresholds are set to € 100 for retail exposures and € 500 for non-retail exposures
- The relative component is a limit in terms of the amount of the credit obligation past due in relation to the total amount of all on-balance sheet exposures to that obligor for BIL HQ, its parent undertaking or any of its subsidiaries excluding equity exposures and is set at 1 %.

	Current situation				Target situation			
	Retail[1]	Non-retail*			Retail[1]	Non-retail*		
Materiality of the overdraft to start counting dpd	RET[1] and PME_RET	Sovereign, Institutions and Banks	Pub sat. and collect.	Other non retail	RET[1] and PME_RET	Sovereign, Institutions and Banks	Pub sat. and collect.	Other non retail
Absolute threshold	125€	2,500€			100€	500€		
Relative threshold (to on-balance)	N/A	N/A			1%	1%		
Materiality of the overdraft to trigger a default once the dpd counter exceeds 90	1,250€	25,000€			N/A	N/A		
Number of days to trigger a default	90	1	180	90	90	90		

The materiality of the overdraft amount is computed at the level of the obligor (slide 8), respectively Joint Obligor (slide 10)
In the target situation, both absolute and relative thresholds must be exceeded to consider that the overdraft amount is material

[1] Retail and non Retail classification according to prudential / CRR rules.

3.3.2 Ageing of accounting past due

The following table provides an ageing analysis of past due exposures at year-end 2019.

TABLE EU CR1-D - AGEING OF PAST DUE EXPOSURES

	Gross carrying values		
	≤ 30 days	> 30 days ≤ 90 days	> 90 days
Loans	105.57	44.00	172.76
Debt securities	-	-	-
TOTAL EXPOSURES	**105.57**	**44.00**	**172.76**

3.3.3 Information on forborne exposure and non-performing loans

Forborne exposures

BIL closely monitors its forborne exposures, in line with the definition stated in the publication of the Official Journal of the European Union dated February 2015.

Forborne exposures are debt contracts in respect of which forbearance measures have been extended. Forbearance measures consist of concessions towards a debtor facing or about to face difficulties in meeting their financial commitments ("financial difficulties"). Those measures include in particular the granting of extensions, postponements, renewals or changes in credit terms and conditions, including the repayment plan.

Once those criteria are met, the credit files are flagged as being restructured and are added to a list closely followed by the team "Gestion Intensive et Préventive".

In order to comply with the regulatory standards, BIL Group has implemented the necessary framework for the whole forbearance process covering:

- The list of forbearance measures;
- The granting process of these short and long term forbearance measures;
- The duties in respect with forbearance measures;
- The probation periods; and
- The monitoring process

For all counterparties, dedicated analyses are carried out at single credit file level in order to identify those that should be classified as forborne according to the regulatory definition. The granting of forbearance measure is likely to constitute an impairment trigger, meaning that the loan should be assessed for impairment either individually or as part of a collective assessment.

For credit files in forbearance and in case of early repayment, the costs related to these transactions are either borne by the debtor (in one shot or spread over the term of the new loan) or recognised directly in the Bank's profit and loss.

As at end 2019, BIL group's forborne exposures amounted to EUR 317.4 million.

Non-performing exposures

According to EBA definition, non-performing exposures satisfying either or both of the following criteria:

- Material exposures which are more than 90 days past-due, even if the obligor is not in default;
- the debtor 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.

The 2018 EBA guidelines on management of non-performing and forborne exposures require to apply the same materiality thresholds and unlikely to pay trigger for the purpose of default and non performing management.

Exposures in respect of which a default (CRR) is considered to have occurred and exposures that have been found impaired (IFRS) are always considered as non-performing exposures.

Covid-19 context

Further to year 2019, BIL regularly re-examines the classification of its outstanding loans under moratorium extended in response of the Covid-19, on the basis of (i) regulatory texts and guidance provided by the EBA and (ii) changes in the situation of the counterparties concerned.

TABLE EU CR1-E - NON-PERFORMING AND FORBORNE EXPOSURES

	Gross carrying value of performing and non-performing exposures						
		Of which performing but past due > 30 days and <= 90 days	Of which performing forborne	Of which non-performing			
					Of which defaulted	Of which impaired	Of which forborne
Debt securities	7,507.76	-	-	21.76	21.76	21.76	-
Loans and advances	19,654.91	30.01	131.08	574.29	564.57	573.92	166.35
Off-balance-sheet exposures	4,125.00	-	0.77	30.15	21.84	-	10.15

	Accumulated impairment and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
	On performing exposures		On non-performing		On non-performing exposures	Of which forborne exposures
		Of which forborne		Of which forborne		
Debt securities	-2.29	-	-12.57	-	9.19	-
Loans and advances	-46.41	-0.37	-224.21	-47.79	318.15	238.83
Off-balance-sheet exposures	-8.32	-	-0.89	0.02	-	-

3.3.4 Changes in the stock of specific credit risk adjustments

In the application of Article 442 (i) of the CRR, the following table identifies the changes in the Bank's stock of specific credit risk adjustments held against loans and debt securities that are defaulted or impaired. The Bank makes a specific adjustment for credit risk justified by its perception of a significant deterioration in credit quality since it originally accepted the risk.

TABLE EU CR2-A – CHANGES IN THE STOCK OF GENERAL AND SPECIFIC CREDIT RISK ADJUSTMENTS

(In EUR million)	Accumulated specific credit risk adjustment	Accumulated specific credit risk adjustment
At 30 June 2019 (opening balance)	250.77	44.12
Increases due to amounts set aside for estimated loan losses during the period	4.38	14.87
Decreases due to amounts set aside for estimated loan losses during the period		
Decreases due to amounts taken against accumulated credit risk adjustment	-3.78	
Transfers between credit risk adjustment		-2.63
Impact of exchange rate differences	1.09	
Business combinations, including acquisitions and disposals of subsidiaries		
Other adjustments		
At 31 December 2019 (closing balance)	**243.56**	**56.36**
Recoveries on credit risk adjustments recorded directly to the statements of profit and loss		
Specific credit risk adjustments directly recorded to the statement of profit and loss	-8.9	

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

In the application of Article 442 (i) of the CRR, the following table identifies the changes in the Bank's stock of defaulted and impaired loans and debt securities for the year 2019.

TABLE EU CR2-B – CHANGES IN THE STOCK OF DEFAULTED AND IMPAIRED LOANS AND DEBT SECURITIES

(In EUR million)	Gross carrying value defaulted exposures
At 30 June 2019 (opening balance)	738.36
Loans and debt securities that have defaulted or impaired since the last reporting period	71.35
Returned to non-defaulted status	-176.55
Amounts written off	-14.46
Other changes	11.02
At 31 December 2019 (closing balance)	**629.72**

3.3.6 IFRS 9 provisioning

In July 2014, the International Accounting Standards Board (IASB) published a new accounting framework, International Financial Reporting Standard 9 (or IFRS 9), aiming at replacing the former one, International Accounting Standard 39 (or IAS 39), with an effective implementation date fixed on 1 January 2018. That new standard is structured around three phases:

- The classification and measurement of financial instruments;
- The impairment of financial instruments; and
- The hedge accounting. BIL's IFRS 9 implementation is described in three successive phases:

Phase 1 – Classification and measurement of financial instruments

Classification refers on how both financial assets and liabilities are accounted for in financial statements and, in particular, on how they are measured on an on-going basis. While there are no major changes as regards financial liabilities, IFRS 9 has introduced a new approach for the classification of financial assets according to their cash-flow characteristics and the business model under which an asset is held.

The assessment of contractual cash-flows aims at identifying whether these are "SPPI compliant", meaning that they correspond solely to the payment of principal and interests on the outstanding amount. Also, by considering the existing Bank's business models, IFRS 9 leads to measure financial assets in three distinct ways:

- Financial assets measured at amortized cost, when the business model is to collect cash flows;
- Financial assets measured at fair value through other comprehensive incomes, when the business model consists in collecting cash-flows and in selling the underlying assets;
- Financial assets measured at fair value through profit or loss, including notably:
  - -Derivatives held for trading activities and assets that the Bank intends to sell immediately or in the near term;
  - Non-trading financial assets for which the underlying business model is to collect cash-flows, or to collect and sell, but which do not pass the SPPI test.

The Bank's exposures are classified into two main portfolios:

- The first portfolio contains the dealing room exposures, notably the Investment Portfolio. The latter is split into two sub-portfolios which follow two different business models:
  - A portfolio of financial assets aiming at collecting contractual cash-flows ("Hold to Collect" or HTC business model);
  - A business model based on collecting contractual cash-flows and selling financial assets ("Hold to Collect and Sell" or HTC&S business model).
- The second portfolio concerns the loans activity: the objective of the Bank is clearly to only hold loans to collect contractual cash-flows and not to sell them (HTC model).

These portfolios were reviewed to satisfy the IFRS 9 requirements in terms of classification and measurement. In particular, all products (bonds, interbank exposures and loans) passed the SPPI test and the BIL's core banking system was adjusted accordingly with a dedicated chart of account.

In parallel, the Bank has established relevant procedures and has reviewed the loans granting process in order to ensure that the new production will be entirely SPPI compliant.

The Bank's business models were validated by the Management Board, the Board Strategy Committee and the Board of Directors in line with the BIL's strategy. The Bank is now ready to manage portfolios consistently within the new IFRS 9 classification. The Bank has also established an appropriate framework to deal with any potential future change in its business models.

Phase 2 – Impairment of financial instruments

In addition to Pillar I models which focus on unexpected credit losses (via minimum regulatory capital ratios), IFRS 9 defines principles for measuring Expected Credit Losses (ECL). Under this new accounting standard, the Bank is required to incorporate forward-looking information in its provisioning practices, notably by relating credit risk parameters – e.g. Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD) – with macro financial indicators that are projected considering several representative scenarios.

Practically, BIL has decided to retain three macroeconomic scenarios: a baseline situation having the higher likelihood of occurrence (60%) and two alternative ones describing different business cycle dynamics with the same probability of realization (20%) – typically, an upside (resp. a downside) scenario where the economic outlook is more (resp. less) favourable than in the baseline one. These macro scenarios strongly influence the projection of PD parameters over time, as well as collateral valuation in the case of mortgage loans.

ECL can be measured over either a 12-month or a lifetime horizon, depending on the credit risk evaluation of a given exposure. More specifically, this relies on the so-called IFRS

9 Staging process which consists in classifying financial instruments in three distinct stages according to both qualitative and quantitative credit risk factors:

- **Stage 1 (12-month ECL)**: The financial asset is performing and it has not experienced a significant increase in credit risk since its origination;
- **Stage 2 (Lifetime ECL)**: The financial asset is not in default, but it is subject to either:
  - A significant increase in credit risk;
  - Forbearance measures but it maintains a performing status;
  - A past due event which is higher than 30 days.
- **Stage 3 (Lifetime ECL)**: The financial asset is subject to either:
  - Forbearance measures together with having a non-performing status;
  - A defaulted or (pre-)litigation status.

Phase 3 – Hedge accounting

IFRS 9 introduces a reformed model for hedge accounting with enhanced risk management disclosures. While the IFRS9 hedge accounting disclosures will be applicable in any case; the standard gives the choice of either retaining IAS39 accounting policies for hedging purposes or switching to IFRS 9 hedge accounting. This choice remains until a formal standard on macro hedging will be issued. At this stage, the Bank retains the IAS 39 accounting policy requirements for hedging purposes.

3.4 Credit risk mitigation

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

Basel regulation recognises three main types of CRM:
- Collateral;
- Guarantees and credit derivatives;
- Netting agreements (applicable to on-balance sheet and off-balance sheet netting agreements – see below).

Main types of collateral

Collateral is represented by financial products or physical assets used to hedge exposures. BIL group manages a wide range of collateral types. From a regulatory point of view, three main categories of collateral exist:
- Pledges of financial assets – cash, blocked accounts, term deposits, insurance contracts, bonds and equity portfolios;
- Pledges of real estate (residential mortgages, commercial mortgages);
- Pledges of commercial assets (e.g. transfer of receivables).

Main types of guarantee

Guarantees refer to personal guarantees, first demand guarantees and support commitments.

Main types of netting agreements

A netting agreement is a technique for mitigating credit risk. Banks have legally enforceable netting agreements for on-balance sheet exposures (loans and deposits) and off-balance sheet exposures (derivatives) for which they may calculate capital requirements on the basis of net credit exposures subject to specific regulatory conditions.

3.4.2 Policies and processes

Collateral and Guarantees/Credit Derivatives

Within BIL, managing the CRM involves the following tasks:

- Analysis of the eligibility of all CRM under the standardised and advanced approaches;
- Collateral valuation in mark-to-market, on a regular basis;
- Description of all CRM characteristics in BIL group's risk systems, such as:
  - Mortgages – rank, amount and maturity;
  - Financial collateral – valuation frequency and holding period;
  - Guarantees/credit derivatives – identification of the guarantor, analysis of the legal mandatory conditions, check as to whether the credit derivative covers restructuring clauses;
  - Security portfolio: description of each security.
- Periodic review of the descriptive data.

At an operational level, different IT tools are used to manage collateral. These IT tools are used to record any relevant data needed to identify collateral characteristics, eligibility criteria and estimated value, in accordance with the Basel framework.

Main types of guarantor

Guarantees that BIL received are mostly given by bank counterparties. The Bank does not have credit derivatives exposures.

On- and off-balance sheet netting

BIL group does not make use of on- or off-balance sheet netting for regulatory purposes, except for over-the-counter (OTC) derivative products.

For these products, internal policies document the eligibility criteria and minimum requirements that netting agreements need to fulfil in order to be recognised for regulatory purposes under the Basel framework.

Appropriate internal procedures and minimum requirements have been implemented in the internal risk management process.

Information about market or credit risk concentrations

Concentration risk is related to a concentration of collateral in one issuer, country, industry or market. As a result, credit deterioration might have a significant impact on the overall value of collateral held by the Bank to mitigate its credit exposure.

An important part of the credit BIL portfolio is linked to the Luxembourgish real estate market. In order to mitigate this risk, most of its credit risk mitigants are linked to mortgage loans.

Mortgages

As a major Luxembourg-based bank, BIL makes a substantial contribution to the financing of local projects involving both residential and commercial real estate. As such, it is inevitably dependent on the effect Luxembourg's economic growth may have on the large amount of mortgages it takes as collateral for loans granted.

However, the Bank has strong governance and specific guidelines in place in order to adequately cover the risks involved in the granting of loans to its retail and corporate customers and to diversify the range of collateral it takes as a guarantee. This involves the approval of commitment/credit committees based on credit applications proposed by front officers, for which credit analysts give their opinion. This opinion takes into account the quality of the debtor through its rating, revenues, indebtedness level and repayment capacity, as well as the quality of the asset pledged as collateral for which a conservative loan-to-value ratio is assigned.

The Bank as well as the national regulator are well aware of this exposure and carefully monitor the concentration risk through regular reports and monitoring of limits on real estate exposure.

Financial collateral

Among its range of services to wealthy customers, the Bank proposes Lombard loans and investment lines of credit. These are granted against the pledge of eligible financial assets for which cover values are assigned by the Credit Risk team reflecting the quality, liquidity and volatility of the underlying collateral. As part of their contractual obligations and in order to limit the concentration risk within individual portfolios, customers using these kinds of facilities must not only maintain adequate cover values for their loans at all times, but are also required to comply with an obligation of diversification of their collateral portfolios.

Exposure and collateral values are continuously monitored to ensure the proper application of these instructions, and margin calls or close-out procedures are enforced when the market value of collateral falls below a predefined trigger level.

3.4.3 Basel III treatment

BIL group recognises the mitigation impact of netting agreements (subject to eligibility conditions), by applying the netting effect of these agreements to the calculation of the EAD used to compute its Risk- Weighted Assets.

For guarantees and credit derivatives, BIL recognises the impact by substituting the PD, LGD and risk weight formula of the guarantor to those of the borrower (i.e. the exposure is considered to be directly to the guarantor) if the risk weight of the guarantor is lower than the risk weight of the borrower.

For collateral (both financial and physical), BIL methodology relating to eligible CRM is based on the Basel III approach:

- Standardised exposures:
  - Eligible CRM (after regulatory haircuts) are directly taken into account when calculating the EAD (deduction).
- A-IRB approach exposures – Two methodologies may be applied:
  - CRM are incorporated into the calculation of the LGD based on internal loss data and A-IRB approach model calculations;
  - CRM are not incorporated into the LGD computed by the model. The impact of each individual CRM is taken into account in the LGD according to each transaction.

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3.4.4 Overview of credit risk mitigation techniques

In the application of Article 453 (f) and (g) of the CRR, this table provides an overview of the exposure value covered by Basel III-eligible CRM (after regulatory haircuts) and includes all collateral and financial guarantees used as credit risk mitigants for all secured exposures, irrespective of whether the standardised approach or IRB approach is used for RWA calculations. This table also includes the carrying amounts of the total population which are in default. Exposures unsecured (column a here under) represent the carrying amount of credit risk exposures (net of credit risk adjustments) that do not benefit from a credit risk mitigation technique, regardless of whether this technique is recognised in the CRR. Exposures secured (column b here under) represent the carrying amount of exposures that have at least one CRM mechanism (collateral, financial guarantees) associated with them.

TABLE EU CR3 – CRM TECHNIQUES – OVERVIEW

(In EUR million)	Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by guarantees	Exposures secured by credit derivatives
Total loans	13,037.32	9,717.29	9,407.24	310.20	-
Total debt securities	9,092.79	637.95	-	637.81	-
Total exposures	22,130.10	10,355.24	9,407.24	948.01	-
Of which defaulted	*148.63*	*237.03*	*237.03*	-	-

The Bank does not have any credit derivatives as credit risk mitigants.

3.5 Standardised approach

3.5.1 Introduction

As previously stated, BIL group uses the A-IRB approach to calculate its regulatory capital requirements. Nevertheless, the Bank applies the standardised approach for some portfolios corresponding to cases specifically authorised by regulation such as:
- Small business units with non-material exposures;
- Portfolios without enough data to build a sound model;
- ortfolios for which BIL has adopted a phased roll-out of the A-IRB approach.

As requested by the supervisory authorities, more than 85% of the exposures are treated under the A-IRB approach.

3.5.2 External credit assessment institutions

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

The rating used for regulatory capital calculation is the lower of the two ratings. If no external rating is available, the standardised approach provides specific risk weights defined by the regulator (depending on the counterparty type).

Credit rating agencies and credit quality step under the standardised approach:

Standard & Poor's	Moody's	Regulatory credit quality step
AAA to AA-	Aaa to Aa3	1
A+ to A-	A1 to A3	2
BBB+ to BBB-	Baa1 to Baa3	3
BB+ to BB-	Ba1 to Ba3	4
B+ to B-	B1 to B3	5
CCC+ and below	Caa and below	6

As presented in the Table EU CR4 below in the following section 3.5.3, the standardised risk-weighted exposures are broken down by the following regulatory assets:

- Central governments and central banks;
- Regional governments or local authorities;
- Public sector entities;
- Multilateral development banks;
- International organisations;
- Institutions;
- Corporates;
- Retail;
- Exposures secured by mortgages on immovable property;
- Exposures in the form of units or shares in collective investment undertakings;
- Equity;
- Other items.

Under the standard approach, BIL uses credit quality steps to calculate the RWAs associated with non-counterparty credit risk exposures. Each rated exposure in the standardised portfolio is assigned to one of six credit quality steps. The credit quality steps map to the rating of the major rating agencies, as shown in the table above. Each credit quality step is associated with a particular risk-weighting. Each exposure is multiplied by the appropriate risk weighting to calculate the relevant RWA amount.

3.5.3 Standardised approach – Credit risk exposure and Credit Risk Mitigation effects

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

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

TABLE EU CR4 - CREDIT RISK EXPOSURE AND CRM EFFECTS

(In EUR million)	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
Exposure classes	**On-balance-sheet amount**	**Off-balance-sheet amount**	**On-balance-sheet amount**	**Off-balance-sheet amount**	**RWAs**	**RWA density**
Central governments or central banks	27.96	27.07	26.92	13.54	57.99	1.43
Regional government or local authority	1,696.64	-	1,696.64	-	73.58	0.04
Public sector entities	169.71	57.77	91.24	3.08	6.83	0.07
Multilateral development banks	-		76.35	0.72	-	-
International organisations	186.00	-	186.00	-	-	-
Institutions	0.23	0.11	0.23	0.03	2.40	9.15
Corporates	1,269.44	876.13	786.92	118.37	857.02	0.95
Retail	4.50	7.61	4.47	2.37	3.91	0.57
Secured by mortgages on immovable property	111.89	0.30	111.41	0.06	102.70	0.92
Exposures in default	6.25	0.17	6.25	0.00	6.76	1.08
Exposures associated with particularly high risk	39.46	-	39.14	4.40	63.35	1.46
Covered bonds	-	-	-	-	-	-
Insitutions and corporates with a short-term credit assessment	3.47	-	-	-	0.02	196.63
Collective investment undertakings	-	-	-	-	-	-
Equity	-		20.18	-	50.44	2.50
Other items	416.39	0.17	416.32	0.08	173.13	0.42
Total	**3,931.95**	**969.32**	**3,462.07**	**142.64**	**1,398.12**	**0.39**

3.5.4 Standardised approach – exposures by asset classes and risk weights

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

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

TABLE EU CR5 – STANDARDISED APPROACH

(In EUR million)	Risk weight															Total	Of which unrated
Exposure classes	0%	2%	4%	10%	20%	50%	70%	75%	100%	150%	250%	370%	1250%	Others	Deducted		
Central governments or central banks	16.45								1.36		22.65					40.45	
Regional government or local authorities	1,328.75				367.89											1,696.64	
Public sector entities	60.19				34.12				-							94.32	
Multilateral development banks	77.07															77.07	
International organisations	186.00															186.00	
Institutions					0.26	-										0.26	
Corporates					55.27	10.71			834.31		5.01					905.29	839.31
Retail								6.84								6.84	6.84
Secured by mortgages on immovable property						15.56			95.90							111.47	111.47
Exposure in default									5.23	1.02						6.25	
Exposures associated with particularly high risk										43.54						43.54	43.54
Covered bonds																-	
Institutions and corporates with a short-term credit assessment					-	-										-	
Collective investment undertakings																-	
Equity											20.18					20.18	20.18
Other items	243.58								172.82							416.40	2.85
Total	**1,912.05**	**-**	**-**		**457.54**	**26.27**	**-**	**6.84**	**1,109.61**	**44.57**	**47.84**	**-**	**-**	**-**	**-**	**3,604.71**	**1,024.18**

3.6 Advanced Internal Ratings Based approach (A-IRB)

The exposure data included in the quantitative disclosures is that used for calculating the Bank's regulatory capital requirements. In what follows and unless otherwise stated, exposures will thus be expressed in terms of Exposure-at-Default (EAD).

3.6.1 Competent authority's acceptance of the approach

In a letter sent on 21st December, 2007 by the former Belgian regulator (the Banking, Finance and Insurance Commission), Dexia SA was authorised to use the advanced internal rating-based (A-IRB) approach for the calculation and reporting of its capital requirements for credit risk from 1 January 2008.

This acceptance was applicable to all entities and subsidiaries consolidated within the Dexia group, which are established in a member state of the European Union and are subject to the Capital Requirement Directive, which included BIL.

Following its former holding company's dismantlement, BIL group has decided to keep the A-IRB approach for the assessment of the credit risk related to its main counterparties, as agreed in 2012 with the Luxemburgish supervisor (CSSF).

3.6.2 Model management and global governance

3.6.2.1 Parameters

Internal rating systems have been set up to evaluate the three Basel credit risk parameters: Probability of Default (PD), Loss Given Default (LGD) and Credit Conversion Factor (CCF). For each counterparty type to which the advanced method is applicable, a set of three models, one for each parameter, has been or will be developed as part of the roll-out plan.

The PD models estimate the one-year probability of default of given obligors. Each model has its own rating scale and each rating on the scale corresponds to a probability of default used for regulatory and reporting purposes. The correspondence between the rating and PD for each scale is set during the calibration process, as part of the model development, and is reviewed and adjusted during the yearly back-testing, when necessary. The number of ratings on each scale depends on the characteristics of the underlying portfolio (the number of counterparties, their homogeneity, whether it is a low default portfolio or not) up to a maximum of 17 non-default classes. In addition, each scale has been attributed two internal default classes (named D1 and D2).

The LGD models estimate the ultimate loss incurred on a facility of a defaulting counterparty before taking the credit risk mitigants into account. The unsecured LGD depends on different factors such as the product type, the level of subordination or the rating of the counterparty.

CCF models estimate the portion of off-balance sheet commitments that would be drawn before a counterparty goes into default.

In addition to the calculation of the regulatory risk-weighted assets, internal estimates of Basel parameters are increasingly used within BIL group in the decision-making process, credit risk management and monitoring, as well as provisioning assessment.

3.6.2.2 Segmentation and principles used for estimating the PD, LGD and CCF

BIL group uses a wide range of models to estimate PD and LGD in respect of the following types of counterparty.

Risk weights are calculated using either the PD/LGD approach or the supervisory risk weights approach for specialised lending.

Segmentation

Sovereigns

The scope of the model encompasses sovereign counterparties, defined as central governments, central banks and all debtors whose liabilities are guaranteed irrevocably and unconditionally by central governments or central banks.

In addition, in-depth analysis of some public sector counterparties shows that they share the same credit risk as the "master" counterparties to which they are assimilated (usually local authorities or sovereigns). They are consequently attributed the same PD and LGD as their "master" counterparties.

Banks

The scope of the model encompasses worldwide bank counterparties, defined as legal entities that have banking activities as their usual profession. Banking activities consist of the receipt of funds from the public, credit operations and putting these funds at customers' disposal, or managing means of payment. Bank status requires a banking licence granted by the supervisory authority.

Corporates

Three models have been designed for corporate and mid-corporate counterparties:

- Corporates
  The scope of the model encompasses worldwide corporate counterparties. BIL defines a corporate as a private or a publicly traded company with total annual revenue higher than 50 million (250 million if Belgium and Luxembourg companies) or belonging to a group with total annual revenue higher than 50 million that is not a bank, a financial institution, an insurer or a public/private satellite.

- Mid-corporates
  This model is approved in accordance with the A-IRB approach for mid-corporates from Belgium and Luxembourg. BIL defines a mid-corporate as a private company with total revenue lower than 50 million (250 million if Belgium and Luxembourg companies) and belonging to a group with consolidated total revenue lower than 50 million and with total assets higher than 2 million that is not a bank, a financial institution, an insurer or a public/private satellite.

- Corporate real estate exposures classified as Real Estate Specialised Lending Exposures
  Within the corporate exposure class, real estate exposures identified as specialised lending exposures as defined in art. 147 (8) CRR are subject to a risk assessment according to the Supervisory Slotting Approach.

  In 2019, BIL obtained regulatory approval from the European Central Bank to use the Supervisory Slotting Approach to assign the risk weights and calculate the expected loss (EL) to specialised lending real estate exposures under art. 153 (5) CRR

  The Bank's loans defined as IRB subclass "Specialised real estate financing" loans such as Income-Producing Real Estate (IPRE) and Land Acquisition, Development and Construction (ADC) are reported under the Foundation IRBA, but regulatory risk weights are applied using the so called 'supervisory slotting criteria' approach as defined by Article 153 CRR. Under this approach, a number of prescribed factors (financial strength, political and legal environment, asset and transaction characteristics, strength of sponsor, security package) are weighted to produce an overall model score which is then mapped to one of four supervisory risk grades – Strong, Good, Satisfactory and Weak – with a separate grade for defaulted borrowers. This model does not use PD and LGDs to calculate capital, instead it uses the risk weights and expected loss values prescribed by the regulator

Retail

- Retail – Individuals
  These models are applied to retail customers (individuals). Individuals are defined as retail counterparties not engaged in a self-employed activity or a liberal profession (i.e. doctors, lawyers, etc.) and are not linked to the activity of a legal entity.

- Retail – Small professionals
  These models are applied to small professional retail customers defined as individuals engaged in a self-employed activity or a liberal profession, or small companies generating revenue lower than a certain threshold (EUR 0.25 million).

- Retail – Small companies
  These models are applied to small companies that are defined as companies generating revenue higher than a certain threshold (0.25 million), but which are still considered as retail counterparties based on certain criteria (i.e. not considered as mid-corporate or corporate counterparties). However, where these companies have a credit exposure higher than 1 million, they will be considered as non-retail counterparties from a regulatory reporting point of view.

Equity and securitisation transactions

No internal model has been developed specifically for equity or securitisation transactions.

Main principles used for estimating the PD, LGD and CCF

Main principles used for estimating the PD

Types of counterparty	Through-the-cycle models	Time series used	Internal/ external data
Sovereigns	Models are forward looking and through the cycle. They are designed to be optimally discriminative over the long term. The through-the-cycle aspect of the rating is also addressed in long term average PD on top of which is added different types of Margin of Conservatism (MoC) to define a global and conservative calibration of the PD.	> 10 years	External
Banks		> 10 years	External
Corporates		> 10 years	Internal + External
Mid-corporates		> 5 years	Internal
Retail		> 10 years	Internal
Equity	Mix of single risk weight and PD/LGD approach.	N/A	N/A
Securitisation	Standardised approach.	N/A	N/A

Main principles used for estimating the LGD

Types of counterparty	Main hypotheses	Time series used	Internal/ external data
Sovereigns	Expert score function based on Fitch country loss risk methodology and internal expert knowledge to distinguish between high and low loss risk.	> 10 years	Internal + External
Banks	Statistical model derived from the LGD corporate model which includes additional risk factors specific to banking counterparties (country of residence, business profile, etc.).	> 10 years	Internal + External
Corporates	Statistical model based on external rating agencies loss data. The LGD is based on counterparty rating, exposure seniority level, geographic region and macroeconomic factors.	> 10 years	Internal + External
Retail and Mid-corporates	The retail LGD model is based on statistical estimates of prior LGD and haircuts to compute LGD in line with the comprehensive CRM technique as part of the A-IRB approach.	> 5 years for Mid-corporates > 10 years for Retail	Internal
Equity	Mix of single risk weight and PD/LGD approach.	N/A	N/A
Securitisation	Standardised approach.	N/A	N/A

Main principles used for estimating the CCF

Regarding CCF models, a roll-out plan has been communicated to the regulators in the beginning of 2019 in order to develop the corresponding internal models. Currently, BIL Group has developed an internal CCF model regarding the parameter to apply on the Retail population. This model has been validated by the JST in August 2017 and is in application in the calculation of the regulatory risk-weighted assets since September 2017.

3.6.2.3 Model management process and internal governance

BIL has reviewed its internal model management process and internal governance in 2017 in order to allow the introduction, monitoring, maintenance and progressive development of the A-IRB framework in an adequate scaled and skilled way. This is reflected in a well-defined process, which is described below.

Credit Risk Control Unit

The Credit Risk Control Unit (CRCU), as the first line of defence of BIL, is an independent functional unit whose prime objective is to ensure the robustness of the Bank internal rating systems as part of the Model Risk Management scope.

The composition of the CRCU is formed from four units or teams of the BIL Risk Management Organisation: Credit Data Science; Credit Risk Quality Control; Risk Reporting; and Model Governance.

Pursuant to the Article 190 of CRR, the CRCU is responsible for the design, implementation, oversight, and the performance of all models, as defined within the Model Risk Management Framework of BIL group. It regularly produces and analyses reports on the output of the internal rating systems. The roles and responsibilities of each component of CRCU are as follow:

- **Credit Data Science**, which is in charge of the development and performance monitoring of the Basel III Pillar I approach and IFRS9 models for Credit Risk. In particular, this team:
  - Actively participates in the design or selection, implementation and validation of models used in the rating process;
  - Monitors model performance over time, and initiates model improvement requests;
  - Executes back testing of the models and proposes first conclusions to the Internal Validation team;
  - Regularly performs analysis of the risk parameters (e.g. distribution of exposures among rating classes, average probability of default, expected losses) of different asset class portfolio. Such analysis should be progressively refined to take into account of the changes in the internal rating system and the external environment;
  - Ongoing reviews models used in the rating process; and
  - Documents and reports any changes to the rating process including the reasons for the changes to the Internal Validation team and to the Model Risk Committee for approval
- **Credit Risk Quality Control Unit**, which is responsible for operational quality control and regulations for data and processes related to Basel risk parameters. In particular, this team:
  - Ensures that the data used by the models be accurate, complete, appropriate, and consistent according to defined materiality threshold;
  - Ensures models are used according to their respective model scope and the model user procedures;
  - Issues and follows recommendation about the model usage; and
  - Generates summary reports to the Rating Committee on the model usage.

- **Model Governance Unit**, which is in charge of overseeing compliance with the Model Risk Management Framework of the Bank. In particular, this team:
  - Oversees the governance of the CRCU by monitoring if CRCU is performing in compliance with the Model Risk Management policies and procedures as well as any Applicable Laws or Regulations;
  - Oversees models used in the rating process;
  - Co-operates with other teams or units to ensure a complete set of documentation is maintained by the CRCU, including any changes to the rating process, criteria or individual rating parameters; and
  - Implements the outsourcing policy regarding certain functions of CRCU as stated in the Article 190 (3) of CRR.

Internal Validation Unit

The Internal Validation team aims to ensure the robustness and soundness of the internal rating systems by validating all the BIL risk quantification models. The unit is responsible for independently verifying that models proposed for use by model owners are fit for purpose through the whole model lifecycle, and that the associated model risks are appropriately identified and mitigated. In order to do so, Internal Validation has explicit authority and independence to provide effective challenging to related stakeholders, presenting issues and highlighting deficiencies. The key aspects of models validated by the internal validation unit include model design, data quality, model implementation, and model performance.

Credit Risk Management Unit

The Credit Risk Management Unit (CRMU) is composed of five different teams (see 1.2.1):

- The Banks & Countries, Private Banking Analyses team is in charge of the assessment and the monitoring of the risk related to banks and sovereign counterparties on one side and private banking counterparties on the other side;

- The Retail, MidCorp, Real Estate Analyses team is in charge of retail and MidCorp counterparties on one side and for the real estate specialised counterparties on the other side;
- The Corporate Analyses team is in charge of the assessment and the monitoring of the risk related to corporate and institutional counterparties, including providing support for complex files to the other teams;
- Gestion Intensive et Préventive (GIP) proactively manages assets deemed to be "sensitive" in order to minimize the potential losses for the Bank in case of the default of a counterparty.
- Credit Support is responsible for defining and updating credit policies and procedures and also to providing support to the other CRM teams regarding the processing of audit recommendations (Internal Audit, JST…).

The credit risk analysts are the main users of the IRS; they are responsible for correct segmentation of counterparties and for the assessment and monitoring of credit risk. Specifically, regarding the model management framework, CRMU is in charge of assessing the ratings of the Bank's counterparties (i.e. PD) as well as their corresponding exposure facility type (i.e. LGD and CCF) and of documenting these results in the context of the loan approval process (i.e. mention on the "Fiche de Décision Crédit").

As a key member of the Default Committee, GIP is actively involved in default decisions and monitoring.

Moreover, credit analysts bring qualitative input to the model development stage and during back-testing and stress testing exercises

Audit

As part of its audit plan for the Bank, the Internal Audit function reviews whether the Bank's control systems for internal ratings and related parameters are sufficiently robust.

The main objective of the review is to ensure compliance with the legal and regulatory requirements related to the credit risk modelling framework and the effective assessment and management of all risks/weaknesses. In particular, internal audit may review Credit Risk Quality Control Unit activities, ensuring that the oversight process is properly managed.

3.6.2.4 Committees

Several committees have been designed to consolidate the credit risk model management framework and to provide adequate follow-up and decisions

Model Risk Committee

The Model Risk Committee (MRC) manages all subject matter in relation with model and model risks including but not limited to: methodology, back-testing, validation, implementation, model change, model inventory and audit recommendations.

The scope of the Committee is further defined by the definition of models within BIL group (refer to the Model Risk Management Framework) and as such includes all risk quantification models. If necessary, it will also discuss other points such as significant variation in RWA.

Consequently, the Model Risk Committee (MRC) copes with all topics in relation to Pillar I and II models, as well as IFRS9 models. It oversees the lifecycle of each model: methodology, back-testing, validation, implementation, as well as the model change and model inventory.

In particular, the MRC:
- approves the validation of model performance reports.
- initiates the new model development (change) or model update (extension) request.
- approves the new model development (change) or model update (extension) request.
- approves the new model development (change) or model update (extension) implementation.
- follows up the implementation of internal audit and regulator recommendations.
- informs Risk Policy Sub-Committee (RPsC) on model development.

Risk Policy Sub-Committee

The Risk Policy Sub-Committee (RPsC) is responsible for the implementation and maintenance of risk governance within the Bank. The RPsC validates all changed in procedures or risk policies, principles and calculation methods referred to risk.

In relation to the Model Risk, the RPsC:

- ensures the comprehensiveness and the consistency of the policies and procedures related to model risk concerns. In particular, approves the following policies:
  - Model Extension and Change Policy
  - Back-testing Policy or Model Validation Policy
  - A-IRB PD Modelling Policy
  - A-IRB LGD Modelling Policy
  - CCF Retail Model/ Modelling Policy
- gives the final approval in case of new internal model or material model changes and extensions on existing models before sending the notification to JST.

Default Committee

For BIL and its main subsidiaries and branches, this committee examines each case of default, classifies it (distinguishing between "true default" and "technical default"), assigns counterparties default level D1 or D2 according to general default indicators and parameters specific to each customer segment, and may decide on the reclassification as a non-default counterparty.

3.6.2.5 Model management process

The lifecycle of a model can be summarised as follows:

Model Development or Change

Model Development or Model Change is the starting point of a model's lifecycle:

- Model development occurs after a need for a new model has been identified by either the model user or the MRC.
- Model change occurs when the performance of the existing model is degraded, or other changes have occurred that bring into question the appropriateness of the current model's outputs.

Model Development and Model Change are similar processes, and both are performed by the model developer. The model developer, with the help of the model user, establishes the requirements for the model (model specifications) and proceeds to secure appropriate data for model construction. The construction of a model consists of the construction of a prototype which allows different aspects of the model to be tested. The model developer ensures that the model is constructed to agreed specifications and in compliance with regulations.

Model development guidelines specify details of modelling practices for different types of models.

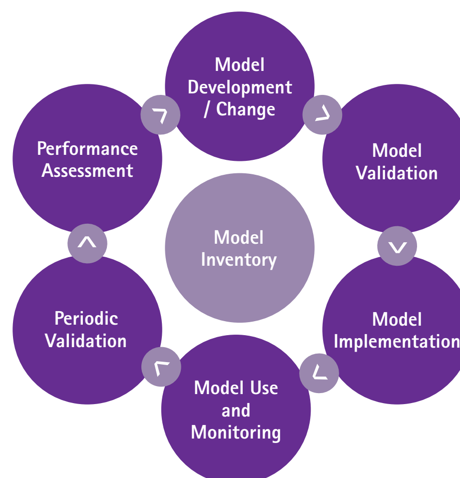
Model Validation

Model Validation is a control that reviews all characteristics of the model in order to provide assurance that the model is adequate for its intended use by challenging both quantitative and qualitative aspects of the model. In addition to both qualitative and quantitative characteristics of the model, Model Validation investigates also the environment in which the model was developed and in which it will operate. This includes data that the model is based on data that it will consume in its operation, regulatory compliance of the model, and adequacy of the model output for the intended business purpose. Finally, model validation also ensures that the model has been appropriately documented and that the documentation is up-to-date. Details of the model validation approach are specified in the Model Validation Policy.

Model Validation depth, i.e. the level of detail that is reviewed, may vary depending on whether a new model is being reviewed or just a change in an existing model. Model validation depth may also vary according to the materiality of the change in the model or according to the overall materiality of the model for BIL (model tiering). Degrees of the depth of validation and of model tiering are described in the Model Validation Policy.

The result of a model validation is a recommendation to the MRC to approve or not to approve the model for implementation and use. Next to the recommendation for approval, other recommendations of varying severity can be made to model stakeholders regarding changes to the model that need to be made before use or at a later point in time. Details of validation results and recommendation severity are described in the Model Validation Policy.

At BIL Group, model validation is performed by the Internal Validation department.



Model Implementation

Once the model has been validated, it is generally transferred to an appropriate technical team which implements it for use in an operational environment. The implementation is usually done within appropriate systems of the BIL computing infrastructure.

Implementation of the model is supervised by the model developer as is the testing of the model implementation that ensures the correctness of the implementation. The

model developer also ensures proper documentation of the implementation and testing.

Model validation also opines on the correctness of the implementation by reviewing implementation documentation and test results. Model validation may also conduct or request additional tests on the implementation of the model.

Approval of the model implementation for use in production is given by the MRC based on test reports and the reviewed by model validation.

Model Use and Monitoring

The model is used to manage risk in business decisions, as an input to other processes within BIL, and to produce internal and external reports.

Next to the use of the model, model monitoring is performed based on a pre-specified frequency. Model monitoring is a pre-determined and validated set of performance tests that are performed to ensure that the model is still adequately performing. For each model, the model monitoring methodology is described in the model documentation at the time of the development of the model and validated during model validation.

A key part of model monitoring is the analysis of outcomes, i.e. back-testing. Back-testing is performed according to a validated approach for each model when there is sufficient and appropriate data. Back-testing can be performed for model components as well as entire models.

Periodic Validation

A periodic validation is similar to a regular model validation. It is performed on existing models with a pre-defined frequency, after the model monitoring has been performed. The periodic validation focuses primarily on the current performance of the model by reviewing model monitoring results and performing additional tests as needed.

The result of the periodic validation consists of a recommendation to the MRC to keep the model in production or to change or re-develop the model based on the observed model performance and/or other changes that may have happened.

Periodic Validation is performed by the Internal Validation department at BIL HQ (Luxembourg). Details of the approach to periodic validation are described in the Model Validation Policy.

Performance Assessment

The assessment of model performance is made in the MRC based on periodic validation results and input from other stakeholders. Generally, the MRC can decide to:
a) Keep the existing model in production.
b) Apply changes to the model.
c) Re-develop the model.
d) Take another remedial action.

Model Inventory

The model inventory is a tool used to track the current status of each model in the model lifecycle as well as to store the history of past and present models' evolution through steps in the model lifecycle. The model inventory also stores relevant documentation from different steps in the model lifecycle.

The inventory also contains additional information about each model, such as its owner, developer, users, classification, purpose, etc.

Details on the operation of the Model Inventory are specified in the Model Inventory Procedure document.

Model Monitoring and Annual Review of Estimates

In order to ensure that the model provides the same level of performance over time, three types of controls are performed. The three types of controls are known as: quantitative validation, qualitative validation, and internal audit review and they are briefly described in the sections below:

Quantitative Validation

Quantitative validation of a model consists of performing a set of tests, which aim to monitor the consistency of the model's output over time. Quantitative controls include, but are not limited to:

- A representativeness analysis to identify potential difference between dataset used to calibrate model and the current population to which the model is applied;
- A benchmarking analysis by comparing model outputs and estimates with other benchmarks;
- Back-testing exercises completed by comparing the expected model output with observed outcome over time;
- The stability of the inputs and the stability of the output's population;
- An analysis of the predictive power of the model.

Model Validation and Back Testing policies provide a description of the controls to be applied during the quantitative validation.

Qualitative Validation

Qualitative validation consists of the operational validation of the model. This function aims to ensure the reliability of the inputs involved in the modelling process. Qualitative validation includes:

- Documentation: procedures are in place, assumptions are described, expert judgment is identified, models are registered in the inventory;
- Input Data and Model usage are aligned with model assumptions;
- Data are available and up-to-dated, missing data are limited, and data quality remains satisfactory;
- The methodology remains relevant with current market practices; and,
- The model's technical implementation satisfies all current business;
- The model remains compliant with new or changed regulatory requirement.

Model Validation and Back Testing policies describe the controls to apply for the qualitative validation.

Internal Audit Review

Internal Audit Review consists of assessing the model's compliance with BIL's internal business requirements and external regulatory requirements. It focuses on:

- Model documentation and its adherence to BIL's model development lifecycle;
- Model validation reports and its compliance with the Model Validation Policy;
- Model governance and its compliance with the Bank expectations and applicable regulatory requirements (especially the independence of the validation function).

Those controls are discussed during the MRC and the Model monitoring can lead to the recalibration or the review of the methodology if the model is not aligned with expected levels of performance. In this case, the model status of the current version will move to the Maintenance Phase to allow for the development of a new version of the model.

In addition to the performance tests applied during the methodological and model design stages, an impact analysis is performed to assess the materiality of the model evolution and to inform internal and external stakeholders (i.e., internal management, regulators and other stakeholders…), as required.

Business integration of internal estimates

Internal estimates of Basel parameters are increasingly used within BIL group and cover a large number of applications in addition to the calculation of the regulatory capital requirements. They are notably used in the following areas:

Decision-making process

Basel III parameters are the key elements considered by the Credit Committee in assessing the opportunity to accept or reject a transaction. Basel II parameters are thus integrated into the credit files to assess credit proposals.

Credit risk management and monitoring

Basel III parameters are actively used for the individual monitoring of distressed transactions and counterparties by the Default Committee.

The counterparty internal ratings, the LGD, the level of expected loss and the risk-weighted assets are the key Basel III parameters used for internal reports or specific analysis, with the aim of improving credit risk management best practices.

3.6.2.6 Model approval process

In the context of the Capital Requirement Regulation, the use of internal models for the assessment of the Risk-Weighted Assets may require preliminary approval by the competent Authority before effective implementation of one of the following cases:

- A new model is developed for a specific portfolio (Methodology and Model Design);
- An existing model is extended to a specific portfolio ("Methodology and Model Design" or "Model Maintenance" stage of the Model Lifecycle);
- Changes are applied to an existing model covering a specific portfolio ("Model Maintenance" stage of the Model Lifecycle).

For the first case, the permission of the competent authority is systematically required.

However, in the two other cases, the Bank is required to apply for permission, whenever it intends to implement any material extension and change to its internal approaches for credit risk.

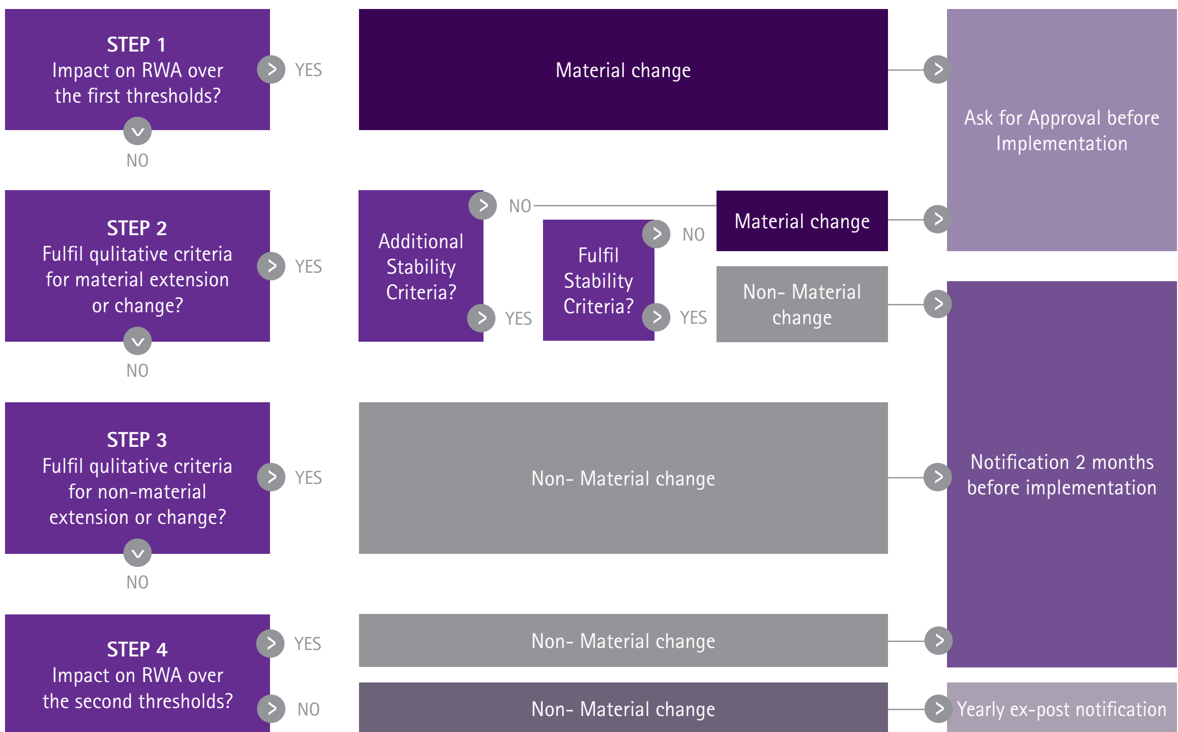
The model changes are sorted into three categories:

- Material changes and extensions need to be approved by the Joint Supervisory Team ('JST') before their implementation;

- Non-material changes and extensions, fulfilling a set of qualitative and quantitative criteria, need to be notified to the JST at least two months before their implementation, but do not require an approval;
- Minor changes and extensions can be consolidated and notified to the Authority on an annual or quarterly basis.

The assessment of the materiality of the extensions or changes within the Internal Ratings Based Approach ('IRBA') relies on the Commission Delegated Regulation (EU) n°529/2014 and the Final Draft RTS on assessment methodology for IRBA. The assessment is also based on the ECB TRIM Guide which provides additional information on the interpretation and application of the existing legal framework.

The rules defined below represent the classification as a four-step process of both quantitative and qualitative criteria regarding the assessment of the materiality:



The materiality is firstly assessed quantitatively:

- Extensions or changes are considered as material when the overall Risk-Weighted Asset of BIL group decreases of more than 1.5% or when Risk-Weighted Asset related to the range of application of a considered IRS decreases of more than 15%;
- Extensions or changes are considered as not material but should be notified before implementation when the Risk-Weighted Asset related to the range of application of a considered IRS decreases of more than 5% and less than 15%;
- Other impacts on Risk-Weighted Assets should be notified after implementation.

In addition to those quantitative criteria, qualitative criteria should also be considered to assess the materiality of changes and/or extensions of internal approaches.

In fact, if the first step concludes the RWA impacts are below the thresholds, then the Bank shall make a qualitative assessment of the model change as a second step. The qualitative criteria to be applied depends on the model change type:

- Changes related to the range of application (such as additional business unit, or new type of product);
- Changes related to the methodology of rating systems (such as changes in the default definition or in the rating methodology for IRB systems).

The materiality and the classification of changes and/or extensions are discussed during the MRC which states in which category the change should be classified. According to this, the appropriate communication stream with the regulatory authority is then applied.

3.6.3 Credit risk models performance

Regarding the latest model approvals:
- The Retail CCF model has been reviewed and approved by the regulators with a multiplicative add-on of 1.10 (i.e. +10%), and currently in production since September 2017.
- The Bank LGD model has been reviewed and approved by the regulators with a multiplicative add-on of 1.20 (i.e. +20%), capped at 100%, and currently in production since October 2018.
- The Supervisory Slotting Approach for real estate specialised lending (June 2019).

According to BIL credit risk model governance, the Credit Data Science Unit includes an ongoing reviewing process which aims to control that the expected level of performance of the credit risk models is ensured over time. This control is performed on a yearly basis and regards all risk models under the scope of the A-IRB approach. This control consists in a back-testing. Its primary purpose is to ensure the adequacy of the regulatory capital of the Bank with the credit risks it is exposed to. Since the capital adequacy relies on internally estimated credit risk factors (i.e. PD, LGD and EAD/CCF), the Bank has to provide evidences that its risk assessment is accurate or at least sufficiently conservative.

A second purpose of back-testing is the evaluation of the predictive power of the rating system and its evolution overtime to early detect its reduced performance. Reduced performance of the rating system as decision making tool may expose the Bank to model risk by impacting the risk assessments of the defined risk buckets and reduce the Bank's profitability. The performance is tracked by analysing the ability to predict default and losses, to discriminate between high and low risks, and by analysing the stability of IRS results.

According to this, the back-testing consists mainly in comparing calibrated and actual levels of risk parameters.

Especially, the calibrated PD is compared to the observed default rates, and the estimated LGD to (1 minus loss recovery rate) for the part of the portfolio for which BIL has experienced default. Therefore, BIL has experienced a limited number of defaults for a part of its portfolio (i.e. Low Default Portfolio, LDP). This regards Sovereigns, Banks and Corporates segments. The performance assessment of the models related to the LDP relies on external data due to the absence or the insufficient number of experienced losses.

The results of the last back-testing have not highlighted major issues regarding the conservativeness of the calibrated levels of PD and LGD.

However, given the implementation of the New Default Definition in October 2019, all the credit models will be reviewed. As part of the Credit Data Science agenda, the Retail models (PD, LGD and CCF) remodelling effort has started in 2019.

Retail and Small corporate PD model:

The PD of the Retail and Small Corporate rating models has been calibrated with internal experienced defaults. As a consequence, the resulting PD and default rates (i.e. DR) are very close over the considered period, especially for Retail model which relies on a large portfolio. The gap between PD and DR for Small corporate is more important, because the size of the Small corporate portfolio is smaller and therefore the level of uncertainty of the estimate is higher. This gap reflects Margin of Conservatism added in the PD to cover this uncertainty level. Nevertheless, the back-testing demonstrates that the calibration of PD is statistically conservative for both portfolios.

Corporate, Bank and Sovereign PD model:

Due to the absence or the limited number of experienced defaults, the PD of the Corporate, Bank and Sovereign rating model has been calibrated with external data. Especially, it relies on default data provided by external rating agencies Moody's and S&P. The performance of these PD models is assessed both with internal default and external defaults. Internal rating scale is mapped with the rating scales of rating agencies and the calibrated PD are tested with default rates provided by these agencies.

The results of the related back-test have demonstrated that the PD of these models is conservatively calibrated. It has been observed however some default rates higher than the calibrated PD, especially in 2012 for Corporate exposures. In fact, the default rate of corporate is higher than the PD while only two defaults have been observed in 2012. Despite these default rates higher than expected, the statistical tests of the back-testing have demonstrated that the PD are conservatively calibrated for the considered years and for the considered period.

With regards to the Bank PD model, it is noted that there is a significant increase in the average PD from 2014 onwards, because of a higher proportion of rating "NR" resulting from a number of outdated ratings of more than +24 months. An additional analysis excluding "NR" shows that the PD values are stable over the considered period.

Mid-Corporate:

During the back-testing of 2013, the default rates have appeared durably higher than the PD. The PD of the MidCorp rating model were originally calibrated with external data including mainly bankruptcies of Belgium corporates. Since the results of back-testing demonstrated that the PDs were not sufficiently calibrated, the PD scale has been recalibrated on the basis of internal experienced default. This new calibration has been in approved by the competent authority.

The following table shows the average PD and average default rates, as follows:

Cohort Years	Retail		Smal Corp		Mid Corp**		Corporate		Sovereign**		Bank**	
	PD%	DR%	PD%	DR%	PD%	DR%	PD%	DR%	PD%	DR%	PD%	DR%
2011	0.60	0.57	8.58	5.70	7.86	2.24	0.87	0.00	0.96	0.00	1.01	0.00
2012	0.66	0.61	9.00	6.40	8.01	3.80	0.86	2.60	1.42	0.00	2.75	0.00
2013	0.67	0.66	9.01	6.77	5.79	2.80	3.73	0.00	1.42	0.00	1.50	0.00
2014	0.65	0.62	8.59	6.80	7.06	2.15	2.04	0.00	1.93	0.00	2.41	0.00
2015	0.67	0.68	8.55	5.60	6.03	2.34	2.63	0.00	1.87	0.00	9.45	0.00
2016	0.69	0.69	8.02	5.92			1.45	0.00	0.91	0.00	9.38	0.00
2017	0.66	0.58	8.52	5.67			2.34	0.91	1.72	0.00	10.01	0.00
Average	0.64	0.58	8.27	5.74	6.94	2.70	1.68	0.52	2.38	0.31	6.22	0.00
Cohort Period	*2004-2017*		*2006-2017*		*2008-2015*		*2009-2017*		*2004-2017*		*2012-2017*	

The following table contains the average of the calibrated LGD and the average of the loss rates for the retail and small & middle corporates as reported in the back-testing. Loss rate is computed as the ratio between the not recovered part of defaulted exposures and the total amount of the defaulted exposures. This table reports closed defaults, i.e. the default files for which the recovery process is closed. Back-testing results have not highlighted calibration weaknesses. The loss rates are globally lower than the calibrated level of LGD for both and the LGD levels are considered as conservative enough. This is noted that there is no LGD back-testing since 2017.

Years	Retail		Smal & Mid Corp	
	LGD%	LR%	LGD%	LR%
2011	13.52	7.02	23.09	2.00
2012	14.23	6.63	13.60	7.90
2013	13.54	5.51	30.70	1.60
2014	10.69	3.75	20.50	0.70
2015	7.92	2.80	20.70	0.10
2016	5.02	1.48		
Average	16.17	9.50	10.75	6.68
Period	*2007-2016*		*2000-2015*	

Due to the limited number of experienced defaults for Sovereign, Bank and Corporate exposures, the comparison between LGD and loss rate cannot be performed. The calibration back-testing for these types of exposure relies on external loss data. The back-testing results have not highlighted conservativeness issues regarding the calibration of the LGD.

Real Estate Specialised Lending Exposures under Supervisory Slotting Criteria:
Specialised lending exposures include exposures to property developers (Land Acquisition, Development and Construction – ADC as well as Financial Completion Guarantees) and to professional real estate investors (Income-Producing Real Estate – IPRE)

Risk Category	Remaining Maturity	Risk Weight
Strong (1)	< 2.5 years	50%
	≥ 2.5 years	70%
Good (2)	< 2.5 years	70%
	≥ 2.5 years	90%
Satisfactory (3)	< 2.5 years	115%
	≥ 2.5 years	115%
Weak (4)	< 2.5 years	250%
	≥ 2.5 years	250%
In default (5)	< 2.5 years	0%[1]

3.6.4 Back-testing of probability of default (PD) per exposure class

The following tables provide the information on the back-testing of PD and compare, by exposure class and internal grade as of end of December 2019, the PD with the actual default rates. The back-testing data aims at validating the reliability of PD calculations. The results demonstrate that overall the current PD levels over different exposure classes and internal grades are sufficiently conservative.

[1] Cat. 5: Exposures categorised as 'default' do not attract a risk weighting but instead are treated as EL deductions at a rate of 50% of the exposure value.

TABLE EU CR9 – IRB APPROACH – BACK TESTING OF PD PER EXPOSURE CLASS

Exposure class	PD range	External rating equivalent	EAD	Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which new obligors	Average historical annual default rate
						End of previous year	End of the year			
Central Governments and Central Banks	0.00 to <0.15	AAA+ to A-	7,062.78	0.01%	0.02%	86	85	0	0	0.00%
	0.15 to <0.25	BBB+	-	0.00%	0.00%	1	0	0	0	0.00%
	0.25 to <0.50	BBB	-	0.00%	0.00%	0	0	0	0	0.00%
	0.50 to <0.75	BBB-	-	0.00%	0.00%	0	0	0	0	0.00%
	0.75 to <2.50	BB+ to BB	-	0.00%	0.00%	0	0	0	0	0.00%
	2.50 to <10.00	BB- to B	-	0.00%	0.00%	0	0	0	0	0.00%
	10.00 to <100.00	B- to CCC	0.11	30.87%	30.87%	2	2	0	0	0.00%
	100.00 (Default)	D	-	0.00%	0.00%	0	0	0	0	0.00%
	SUBTOTAL		**7,062.88**	**0.02%**	**0.73%**	**89**	**87**	**0**	**0**	

Exposure class	PD range	External rating equivalent	EAD	Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which new obligors	Average historical annual default rate
						End of previous year	End of the year			
Institutions	0.00 to <0.15	AAA+ to A-	4,206.62	0.05%	0.05%	98	116	0	0	0.00%
	0.15 to <0.25	BBB+	242.44	0.18%	0.18%	15	14	0	0	0.00%
	0.25 to <0.50	BBB	578.18	0.34%	0.34%	4	11	0	0	0.00%
	0.50 to <0.75	BBB-	56.41	0.71%	0.71%	4	5	0	0	0.00%
	0.75 to <2.50	BB+ to BB	2.08	0.95%	1.02%	0	2	0	0	0.00%
	2.50 to <10.00	BB- to B	2.28	9.07%	9.07%	1	1	0	0	0.00%
	10.00 to <100.00	B- to CCC	14.43	30.67%	30.58%	64	59	0	0	0.00%
	100.00 (Default)	D	-	0.00%	0.00%	0	0	0	0	0.00%
	SUBTOTAL		**5,102.45**	**0.18%**	**8.80%**	**186**	**208**	**0**	**0**	

Exposure class	PD range	External rating equivalent	EAD	Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which new obligors	Average historical annual default rate
						End of previous year	End of the year			
Corporates – SME	0.00 to <0.15	AAA+ to A-	-	0.00%	0.00%	0	0	0	0	0.00%
	0.15 to <0.25	BBB+	0.58	0.23%	0.23%	2	2	0	0	0.00%
	0.25 to <0.50	BBB	-	0.00%	0.00%	0	0	0	0	0.00%
	0.50 to <0.75	BBB-	88.25	0.60%	0.61%	16	34	0	0	1.84%
	0.75 to <2.50	BB+ to BB	440.73	1.67%	1.58%	546	462	0	0	1.16%
	2.50 to <10.00	BB- to B	447.64	4.21%	4.55%	292	283	0	0	1.85%
	10.00 to <100.00	B- to CCC	97.84	23.59%	25.53%	121	110	1	1	7.38%
	100.00 (Default)	D	123.08	100.00%	100.00%	49	51	51	2	0.00%
	SUBTOTAL		**1,198.11**	**14.43%**	**10.56%**	**1026**	**942**	**52**	**3**	

Exposure class	PD range	External rating equivalent	EAD	Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which new obligors	Average historical annual default rate
						End of previous year	End of the year			
Corporates – Other	0.00 to <0.15	AAA+ to A-	737.67	0.06%	0.06%	28	29	0	0	0.00%
	0.15 to <0.25	BBB+	355.21	0.18%	0.18%	20	21	0	0	0.34%
	0.25 to <0.50	BBB	410.66	0.34%	0.34%	27	27	0	0	0.00%
	0.50 to <0.75	BBB-	340.80	0.71%	0.71%	23	28	0	0	2.86%
	0.75 to <2.50	BB+ to BB	560.93	1.09%	1.32%	75	76	0	0	1.57%
	2.50 to <10.00	BB- to B	76.79	3.60%	3.96%	35	39	0	0	1.99%
	10.00 to <100.00	B- to CCC	27.88	28.78%	27.32%	10	11	0	0	13.64%
	100.00 (Default)	D	5.83	100.00%	100.00%	3	3	2	0	0.00%
	SUBTOTAL		**2,515.76**	**1.10%**	**3.80%**	**221**	**234**	**2**	**0**	

Exposure class	PD range	External rating equivalent	EAD	Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which new obligors	Average historical annual default rate
						End of previous year	End of the year			
Retail – Secured by immovable property SME	0.00 to <0.15	AAA+ to A-	-	0.00%	0.00%	0	0	0	0	0.00%
	0.15 to <0.25	BBB+	0.11	0.23%	0.23%	2	1	0	0	0.00%
	0.25 to <0.50	BBB	-	0.00%	0.00%	0	0	0	0	0.00%
	0.50 to <0.75	BBB-	26.85	0.60%	0.61%	56	52	1	0	7.18%
	0.75 to <2.50	BB+ to BB	70.23	1.69%	1.65%	182	202	0	0	1.04%
	2.50 to <10.00	BB- to B	89.00	4.41%	4.46%	217	232	2	0	2.93%
	10.00 to <100.00	B- to CCC	86.97	22.55%	21.65%	195	199	9	0	13.41%
	100.00 (Default)	D	7.55	100.00%	100.00%	43	44	44	2	0.00%
	SUBTOTAL		**280.71**	**11.56%**	**13.85%**	**695**	**730**	**56**	**2**	

Exposure class	PD range	External rating equivalent	EAD	Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which new obligors	Average historical annual default rate
						End of previous year	End of the year			
Retail – Secured by immovable property non-SME	0.00 to <0.15	AAA+ to A-	1,051.37	0.10%	0.09%	5565	4863	5	0	0.20%
	0.15 to <0.25	BBB+	196.71	0.23%	0.23%	346	442	0	0	0.69%
	0.25 to <0.50	BBB	979.97	0.34%	0.34%	3126	3032	7	0	0.24%
	0.50 to <0.75	BBB-	1,903.51	0.65%	0.65%	3748	4445	13	1	0.62%
	0.75 to <2.50	BB+ to BB	943.54	1.94%	1.95%	1849	2102	5	1	1.18%
	2.50 to <10.00	BB- to B	1,435.19	4.64%	4.63%	2060	2765	30	0	3.48%
	10.00 to <100.00	B- to CCC	326.61	16.95%	16.62%	806	624	17	5	12.15%
	100.00 (Default)	D	211.95	100.00%	100.00%	336	380	380	190	0.00%
	SUBTOTAL		**7,048.85**	**5.24%**	**3.74%**	**17,836**	**18,653**	**457**	**197**	

Exposure class	PD range	External rating equivalent	EAD	Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which new obligors	Average historical annual default rate
						End of previous year	End of the year			
Retail - Other SME	0.00 to <0.15	AAA+ to A-	0.17	0.06%	0.06%	11	13	0	0	0.00%
	0.15 to <0.25	BBB+	3.84	0.23%	0.23%	264	295	0	0	0.37%
	0.25 to <0.50	BBB	-	0.00%	0.00%	0	0	0	0	0.00%
	0.50 to <0.75	BBB-	22.31	0.62%	0.63%	1058	947	4	0	4.07%
	0.75 to <2.50	BB+ to BB	99.47	1.62%	1.66%	1673	1891	2	0	1.24%
	2.50 to <10.00	BB- to B	65.90	4.88%	4.63%	1311	1291	6	1	2.73%
	10.00 to <100.00	B- to CCC	56.77	21.50%	20.42%	1244	1028	32	2	12.67%
	100.00 (Default)	D	23.40	100.00%	100.00%	571	681	681	53	0.00%
	SUBTOTAL		**271.85**	**14.93%**	**16.09%**	**6,132**	**6,146**	**725**	**56**	

Exposure class	PD range	External rating equivalent	EAD	Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which new obligors	Average historical annual default rate
						End of previous year	End of the year			
Retail - Other non-SME	0.00 to <0.15	AAA+ to A-	516.28	0.09%	0.08%	32648	34011	34	3	0.60%
	0.15 to <0.25	BBB+	55.52	0.23%	0.23%	1100	1445	4	0	0.41%
	0.25 to <0.50	BBB	363.67	0.34%	0.31%	13014	14554	23	1	0.40%
	0.50 to <0.75	BBB-	451.20	0.64%	0.65%	10060	11982	38	4	1.25%
	0.75 to <2.50	BB+ to BB	585.37	2.03%	2.00%	5419	6149	29	2	1.29%
	2.50 to <10.00	BB- to B	921.37	4.68%	4.46%	8776	9134	78	3	3.68%
	10.00 to <100.00	B- to CCC	70.36	16.12%	15.35%	2758	2,203	68	10	13.92%
	100.00 (Default)	D	138.68	100.00%	100.00%	2540	3,606	3606	983	0.00%
	SUBTOTAL		**3,102.44**	**6.76%**	**5.57%**	**76,315**	**83,084**	**3,880**	**1,006**	

Exposure class	PD range	External rating equivalent	EAD	Weighted average PD	Arithmetic average PD by obligors	Number of obligors		Defaulted obligors in the year	Of which new obligors	Average historical annual default rate
						End of previous year	End of the year			
Equity - IRB PD/LGD Approach	0.00 to <0.15	AAA+ to A-	0	0.00%	0.00%	0	0	0	0	0.00%
	0.15 to <0.25	BBB+	0	0.00%	0.00%	0	0	0	0	0.00%
	0.25 to <0.50	BBB	0	0.00%	0.00%	0	0	0	0	0.00%
	0.50 to <0.75	BBB-	0	0.00%	0.00%	0	0	0	0	0.00%
	0.75 to <2.50	BB+ to BB	46.13	1.25%	1.26%	5	6	0	0	0.00%
	2.50 to <10.00	BB- to B	0.07	4.34%	4.34%	1	1	0	0	0.00%
	10.00 to <100.00	B- to CCC	0.00	30.87%	30.87%	4	4	0	0	0.00%
	100.00 (Default)	D	-	0.00%	0.00%	0	0	0	0	0.00%
	SUBTOTAL		**46.20**	**1.26%**	**12.31%**	**10**	**11**	**0**	**0**	

3.6.5 Credit risk exposures by exposure class and PD range

In the application of Article 452 (d-g) in the CRR, the following tables provide the main parameters used for the calculation of capital requirements for IRB models and show the exposure classes according to PD grades.

Please note that Corporates-Specialized lending exposure class is not reported here. For Specialized Lending Incoming Producing Real Estate (IPRE) and Land Acquisition, Development and Construction (ADC) exposures, even though they are treated under slotting methodology which falls into category of A-IRB Approach, they don't have PD or LGD data, and supervisory slotting risk weights are applied. The EAD and RWA of Specialized Lending exposure as of 31 December 2019 are EUR 1,782.8 million and EUR 1,398.8 million respectively.

Additionally, Equity – Simple Risk Weight Approach exposure is also treated under A-IRB Approach, while risk weights (190%, 290% and 370%) are applied and PD or LGD data are not available. This type of exposure has EUR 29.10 million EAD and EUR 60.76 million RWA in the end of year 2019.

TABLE EU CR6 – QUALITATIVE DISCLOSURE REQUIREMENTS RELATED TO IRB MODELS

	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligators	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
Central Governments and Central Banks	0.00 to <0.15	6,316.04	211.95	100%	7,062.78	0.0%	85.00	7%	2.64	150.34	2%	0.10	0.00
	0.15 to <0.25												
	0.25 to <0.50												
	0.50 to <0.75												
	0.75 to <2.50												
	2.50 to <10.00												
	10.00 to <100.00	0.11	-	100%	0.11	30.9%	2.00	7%	2.37	0.04	40%	0.00	0.00
	100 (default)												
	SUBTOTAL	**6,316.14**	**211.95**	**100%**	**7,062.88**	**0.0%**	**87.00**	**7%**	**2.64**	**150.38**	**2%**	**0.10**	**0.00**

	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligators	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
Institutions	0.00 to <0.15	2,416.38	149.09	100%	2,469.13	0.0%	105.00	20%	3.25	313.31	13%	0.29	
	0.15 to <0.25	236.87	1.11	100%	237.98	0.2%	10.00	14%	2.35	65.57	28%	0.10	
	0.25 to <0.50	91.27	3.35	100%	94.62	0.3%	10.00	0%	2.21	24.79	26%	0.06	
	0.50 to <0.75	45.73	10.27	100%	56.00	0.7%	4.00	19%	1.99	21.00	38%	0.08	
	0.75 to <2.50	0.59	0.63	100%	1.22	1.0%	2.00	27%	1.00	1.42	116%	0.01	
	2.50 to <10.00	2.28	-	100%	2.28	9.1%	1.00	27%	1.00	2.44	107%	0.06	
	10.00 to <100.00	403.72	3.56	100%	13.53	30.9%	56.00	15%	2.63	12.29	91%	0.66	
	100 (default)	-	-	0%	0.00	0.0%							
	SUBTOTAL	**3,196.84**	**168.02**	**100%**	**2,874.76**	**0.2%**	**188.00**	**19%**	**3.11**	**440.83**	**15%**	**1.24**	**0.00**

	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligators	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
Corporates - SME	0.00 to <0.15												
	0.15 to <0.25	0.57	0.01	100%	0.58	0.2%	2.00	17%	1.00	0.07	13%	0.00	0.00
	0.25 to <0.50												
	0.50 to <0.75	49.41	34.62	96%	88.25	0.6%	34.00	16%	3.68	29.00	33%	0.09	0.00
	0.75 to <2.50	330.20	316.16	90%	440.73	1.7%	462.00	9%	3.18	97.73	22%	0.61	0.00
	2.50 to <10.00	366.34	218.24	93%	447.60	4.2%	283.00	6%	2.75	82.20	18%	1.22	0.00
	10.00 to <100.00	86.79	41.25	95%	97.84	23.6%	110.00	5%	2.73	23.89	24%	1.22	0.00
	100 (default)	123.53	6.82	99%	123.08	100.0%	51.00	7%	2.24	76.93	63%	36.40	36.32
	SUBTOTAL	**956.83**	**617.10**	**93%**	**1,198.08**	**14.4%**	**942.00**	**8%**	**2.92**	**309.81**	**26%**	**39.54**	**36.32**

	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligators	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
Corporates - Other	0.00 to <0.15	693.97	17.99	100%	725.83	0.1%	29.00	55%	2.68	207.30	29%	0.25	0.00
	0.15 to <0.25	364.17	67.65	100%	353.79	0.2%	21.00	35%	3.29	155.07	44%	0.22	0.00
	0.25 to <0.50	390.43	85.75	97%	410.64	0.3%	27.00	46%	3.29	298.74	73%	0.65	0.00
	0.50 to <0.75	335.14	162.70	99%	340.61	0.7%	28.00	53%	3.05	381.81	112%	1.29	0.00
	0.75 to <2.50	444.20	299.35	93%	559.86	1.1%	76.00	38%	3.53	523.29	93%	2.20	0.00
	2.50 to <10.00	45.89	91.81	79%	76.77	3.6%	39.00	22%	1.67	53.84	70%	0.63	0.00
	10.00 to <100.00	21.16	7.73	100%	27.88	28.8%	6.00	9%	2.41	12.69	46%	0.44	0.00
	100 (default)	5.72	0.22	99%	5.83	100.0%	3.00	58%	1.90	3.03	52%	1.53	1.23
	SUBTOTAL	**2,300.67**	**733.19**	**97%**	**2,501.20**	**1.1%**	**37.91**	**45%**	**3.07**	**1,635.76**	**65%**	**7.20**	**1.23**

	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligators	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
Retail - Secured by immovable property SME	0.00 to <0.15												
	0.15 to <0.25	0.10	0.01	100%	0.11	0.2%	1.00	10%	0.00	0.01	5%	0.00	0.00
	0.25 to <0.50												
	0.50 to <0.75	22.54	4.48	99%	26.85	0.6%	52.00	11%	0.00	2.59	10%	0.02	0.00
	0.75 to <2.50	66.89	7.60	98%	70.23	1.7%	202.00	11%	0.00	10.96	16%	0.14	0.00
	2.50 to <10.00	84.09	7.60	99%	89.00	4.4%	232.00	12%	0.00	21.61	24%	0.45	0.00
	10.00 to <100.00	84.61	3.00	100%	86.97	22.5%	199.00	11%	0.00	35.40	41%	2.22	0.00
	100 (default)	7.19	0.73	98%	7.55	100.0%	44.00	0%	0.00	4.72	63%	1.52	1.52
	SUBTOTAL	**265.42**	**23.42**	**99%**	**280.71**	**11.6%**	**191.91**	**11%**	**0.00**	**75.29**	**27%**	**4.34**	**1.52**

	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligators	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
Retail - Secured by immovable property non-SME	0.00 to <0.15	979.19	72.70	100%	1,051.37	0.1%	4,863.00	11%	0.00	27.13	3%	0.11	0.00
	0.15 to <0.25	175.45	22.19	100%	196.71	0.2%	4,42.00	11%	0.00	9.96	5%	0.05	0.00
	0.25 to <0.50	932.03	48.53	100%	979.97	0.3%	3,032.00	11%	0.00	64.75	7%	0.35	0.00
	0.50 to <0.75	1,782.06	125.76	100%	1,903.51	0.6%	4,445.00	11%	0.00	197.46	10%	1.32	0.00
	0.75 to <2.50	897.90	46.62	100%	943.54	1.9%	2,102.00	10%	0.00	189.09	20%	1.90	0.00
	2.50 to <10.00	1,356.04	81.55	100%	1,435.19	4.6%	2,765.00	11%	0.00	406.47	28%	7.31	0.00
	10.00 to <100.00	313.28	13.48	100%	326.61	17.0%	624.00	11%	0.00	160.06	49%	5.98	0.00
	100 (default)	206.46	5.95	100%	211.95	100.0%	380.00	0%	0.00	132.47	63%	31.40	31.40
	SUBTOTAL	**6,642.41**	**416.77**	**100%**	**7,048.85**	**5.2%**	**18,653.00**	**10%**	**0.00**	**1,187.39**	**17%**	**48.42**	**31.40**

	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligators	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
Retail – Other SME	0.00 to <0.15	0.12	0.04	100%	0.17	0.1%	13.00	17%	0.00	0.00	3%	0.00	0.00
	0.15 to <0.25	2.15	1.69	100%	3.84	0.2%	295.00	17%	0.00	0.28	7%	0.00	0.00
	0.25 to <0.50								0.00				
	0.50 to <0.75	11.91	11.92	97%	22.26	0.6%	946.00	13%	0.00	2.30	10%	0.02	0.00
	0.75 to <2.50	74.97	55.53	90%	99.33	1.6%	1,890.00	12%	0.00	13.33	13%	0.20	0.00
	2.50 to <10.00	50.87	31.89	93%	65.90	4.9%	1,291.00	13%	0.00	11.82	18%	0.42	0.00
	10.00 to <100.00	54.20	16.26	96%	56.77	21.5%	1,028.00	12%	0.00	14.02	25%	1.46	0.00
	100 (default)	22.87	2.35	99%	23.39	100.0%	681.00	17%	0.00	14.62	63%	13.04	13.03
	SUBTOTAL	**217.10**	**119.69**	**93%**	**271.65**	**14.9%**	**1,359.43**	**13%**	**0.00**	**56.38**	**21%**	**15.13**	**13.03**

	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligators	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
Retail – Other non-SME	0.00 to <0.15	238.57	378.41	94%	516.07	0.1%	33,999.00	9%		13.55	3%	0.04	0.00
	0.15 to <0.25	32.21	30.87	95%	55.52	0.2%	1,444.00	9%		2.90	5%	0.01	0.00
	0.25 to <0.50	250.72	208.31	92%	363.49	0.3%	14,550.00	12%		29.28	8%	0.15	0.00
	0.50 to <0.75	335.30	163.98	97%	451.19	0.6%	11,981.00	14%		61.37	14%	0.39	0.00
	0.75 to <2.50	475.29	192.60	96%	584.58	2.0%	6,038.00	24%		197.77	34%	2.85	0.00
	2.50 to <10.00	769.81	345.85	94%	918.71	4.7%	9,134.00	12%		188.71	21%	5.22	0.00
	10.00 to <100.00	64.76	7.89	99%	70.36	16.1%	2,203.00	19%		31.08	44%	1.99	0.00
	100 (default)	127.39	15.56	99%	138.68	100.0%	3,606.00	17%		86.68	63%	59.47	59.47
	SUBTOTAL	**2,294.04**	**1,343.48**	**95%**	**3,098.60**	**6.8%**	**82,955.00**	**14%**		**611.34**	**20%**	**70.13**	**59.47**

	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligators	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
Equity - PD/LGD APPROACH	0.00 to <0.15												
	0.15 to <0.25												
	0.25 to <0.50												
	0.50 to <0.75												
	0.75 to <2.50	46.13	-	100%	46.13	1.3%	6.00	90%	5.00	129.29	280%	0.52	0.00
	2.50 to <10.00	0.07	-	100%	0.07	4.3%	1.00	90%	5.00	0.34	476%	0.00	0.00
	10.00 to <100.00	4.40	-	100%	0.00	30.9%	4.00	90%	5.00	0.01	571%	0.00	0.00
	100 (default)	36.87	-										
	SUBTOTAL	**87.47**	**-**	**100%**	**46.20**	**1.3%**	**5.99**	**90%**	**5.00**	**129.64**	**281%**	**0.52**	**0.00**

	PD scale	Original on-balance-sheet gross exposures	Off-balance-sheet exposures pre-CCF	Average CCF	EAD post CRM and post CCF	Average PD	Number of obligators	Average LGD	Average maturity	RWAs	RWA density	EL	Value adjustments and provisions
Other items	0.00 to < 0.15	2.15	-	100%	2.15	0.0%	16.00	8%	1.00	0.00	0%	0.00	0.00
	0.15 to < 0.25		-									0.00	0.00
	0.25 to < 0.50		-									0.00	0.00
	0.50 to < 0.75	0.00	-	100%	0.00	0.7%	1.00	25%	1.00	0.00	0%	0.00	0.00
	0.75 to < 2.50	0.00	-	100%	0.00	1.2%	1.00	50%	1.00	0.00	0%	0.00	0.00
	2.5 to < 10		-									0.00	0.00
	10.00 to <100.00	16.66	-	100%	16.66	30.9%	7.00	5%	1.00	0.00	0%	0.00	0.00
	100 (default)		-									0.00	0.00
	SUBTOTAL	**18.81**	**-**	**100%**	**18.81**	**27.3%**	**25.00**	**5%**	**1.00**	**0.00**	**0%**	**0.00**	**0.00**

3.6.6 RWA flow statements of credit risk exposures

In the application of Article 438 (d), the following table provides a flow statement explaining variations in the credit RWAs between year-end 2018 and 2019, Standardized (STD), Advanced (A-IRB) and Securitization (TIT) are all included.

The main variation over the period is mostly explained by the slotting approach, internal models (PD floor for Sovereign), New Definition of Default and asset quality (rating).

TABLE EU CR8 - RWA FLOW STATEMENTS OF CREDIT RISK EXPOSURES UNDER THE IRB APPROACH

(In EUR million)	RWA amounts	Capital requirements
Credit Risk RWAs (ADV+STD +TIT with CCR) as at the end of the previous reporting period (31/12/2018)	7,135.79	570.86
Total adjustments from Standardised Approach (with CCR)	**-928.91**	**-74.31**
Adjustment from Asset size (without Real Estate)	92.72	7.42
Adjustment from Asset size (Real Estate)	-92.84	-7.43
Adjustment from Asset quality	11.55	0.92
Adjustment from Model updates	-940.33	-75.23
Slotting approach methodology (real estate becomes slotting, Sep-19)	-940.33	-75.23
Total adjustments from Advanced Approach (with CCR)	**1,352.42**	**108.19**
Adjustment from Asset size (without Real Estate)	331.16	26.49
Adjustment from Asset size (Real Estate)	338.91	27.11
Adjustment from Asset quality	-126.66	-10.13
Adjustment from Model updates	788.28	63.06
Modification of PD for Midcorp exposures (Feb-19)	0.29	0.02
Decrease of LGD Bank for Repo-like transactions (Aug-19)	1.73	0.14
Slotting approach methodology (real estate becomes slotting, Sep-19)	639.88	51.19
Add-on of Corp/Mid Corp defaulted exposures (Sep-19)	40.46	3.24
PD floor 1 bp for Sovereign exposures (Sep-19)	55.70	4.46
New Definition of Default implementation (Oct-19)	25.20	2.02
Joint Obligor implementation (Nov-19)	48.09	3.85
LGD Sovereign change for China, Ireland, Poland, Slovakia, Spain and Lithuania (Nov-19)	-23.07	-1.85
Adjustment from Methodology and policy		
Adjustment from Acquisitions and disposals (Redsky SA)	30.02	2.40
Adjustment from Foreign exchange movements		
Adjustment from Other	-9.28	-0.74
Total adjustments from CVA	**-2.54**	**-0.20**
Total adjustments from Securitisation	**-14.36**	**-1.15**
RWAs as at the end of the reporting period (31/12/2019)	**7,542.40**	**603.39**

3.6.7 Foreseen material model changes

According to the EU Regulation (CRR), EBA Guideline, ECB Process Guidance, BIL has implemented the New Definition of Default (NDD). BIL has worked on the construction of the NDD covering the internal rating system and performed a gap and impact analysis between the currently implemented and the NDD. The implementation of the NDD in the core banking system has been performed in October 2019, with to ECB's approval.

As the result of the adoption of this New Definition of Default, a series of changes are ongoing for the Bank's databases and models as listed below for the main projects:

1 - A new Loss Database has been developed in 2019 and validated by the Validation unit,

2 - A new modeling database used for PD parameter has been built in 2019 and is under validation by the Validation Unit,

3 - A new modeling database for CCF parameter is still being finalized,

4 - Then, the new LGD Retail model has been developed and is under validation by Internal Audit (LGD Retail as well as the new Loss Database),

5 - The PD Retail model is in a finalization stage in the Credit Data Science team,

6 - The new CCF Retail model is planned to be finished in August 2020.

3.7 Counterparty credit risk

3.7.1 Management of counterparty risk

A counterparty risk attached to derivatives exists in all over-the-counter (OTC) transactions such as interest rate swaps, foreign exchange swaps, inflation or commodity swaps and credit default swaps.

All OTC transactions are monitored within the credit limits that are set for each individual counterparty, and are subject to the general delegation rules. Sub-limits may be put in place for each type of product. Credit limits granted to Banking counterparties are first analysed by the credit risk Banks & Countries analysis team and then proposed to the Board committee for decision. These limits are annually reviewed by the Board committee.

Derivatives

In order to reduce counterparty risk, derivatives transactions are traded with counterparties with whom BIL has master agreement (ISDA/CSA). It takes into account the general rules and procedures set out in the credit risk policies of the Bank. Collateral postings for derivative contracts are regulated by the terms and rules stipulated in the CSA negotiated with the counterparty. The CSA to master agreements provides for rating dependent triggers (called threshold), where addition collateral has to be pledged if a party's rating is downgraded.

Remark: The valuations and the margin calls of the deals under CSA are calculated daily.

In case of derivative contracts cleared by a Central Counterparty (CCP) (in the respect of the EMIR Regulation), the valuation and the margin call are managed by the CCP. FRM daily checks its own Marked-to-Market (MtM) with those of the CCP. These trades are daily revaluated MtM which leads to margin calls or to margin delivery from or to the counterparty according to the advantage or disadvantage for the Bank of the deals MtM included in the ISDA/CSA contract. The collaterals are in cash.

Repo/reverse repos

All repo/reverse repo are dealt with counterparties under GMRA. In case of bilateral repo or reverse repo, FRM manages the margin call (mainly in cash) on a daily basis. The valuations are calculated daily.

Tripartite repo/reverse repo are managed by Clearstream, Euroclear and SIX, based on defined baskets that correspond to BIL's risk profile. The margin calls are daily.

Securities lending

Securities lending are traded with counterparties with whom BIL has also collateral agreement called Global Master Securities Lending Agreement (GMSLA).

Global procedure

Currently, exchanged collateral is cash. Within EMIR regulation, it is forecasted to treat non-cash collateral. This will be taken into account in the collateral management rules.

As reminder, BIL's Financial Risk Management (FRM) process ensures that the risk incurred by positions on the Dealing room are identified, measured, monitored, mitigated, supervised and reported. The approach allows that risks on the balance sheet of the Bank (both Trading and Banking) are correctly managed and are in line with BIL's strategy, objectives, requirements and risk appetite. FRM daily checks the existence of a contract for each counterparty that concluded a derivative with BIL. Likewise, the collateral management activity is framed by procedures that clearly detail the escalation process in case of dispute with a counterparty

Collateral in case of a downgrade in the Bank's credit rating

A higher amount of collateral may be provided to the counterparties in case of a downgrade in the Bank's credit rating, either because of rating dependent contractual clauses in CSA and GMRA or because of the increase in CVA of the counterparties toward the Bank.

In the active CSA (VM CSA) negotiated by the Bank, there is no contractual clauses that could potentially lead to additional margin delivery in case of a downgrade, as:

- The Thresholds (the fraction of exposure not covered by margin call in a given direction) are all equal to 0;
- The Minimum Transfer Amount (MTA) is not rating dependent.

Regarding the active GMRA, the impact would be very limited as:

- The Thresholds are all equal to 0;
- Only one agreement contains a rating dependant MTA for which the actual level is low (EUR 0.2 M); a downgrade by one notch will lead to a MTA level of EUR 0.1 M.

To assess the additional margin delivery caused by a potential increase in CVA level of the counterparties, a simulated Debit Value Adjustment (DVA) of the Bank has been computed over 2019 (on a quarterly basis)., under different downgrade magnitude scenarios. The results are displayed below:

in EUR K	DVA impact –downgrade in credit rating		
	-1 notch	-2 notch	-3 notch
Average	-37.3	-117.2	-154.4
Maximum	-56.1	-185.1	-243.9

According to this assessment, in the event of a downgrade in the Bank's credit rating by one notch, an additional collateral amount of EUR 0.056 M would have to be pledged (worst case scenario in 2019).

From a liquidity perspective, these amounts of additional margin delivery are very limited compared to the usual collateral net deposit levels:

- The net cash collateral deposits (CSA, GMRA and CCP) as of 31/12/2019 is of EUR 330 M;
- The average absolute net 30-day collateral flow realised during the preceding 24 months is EUR 29 M.

Remark: The Bank's credit ratings have been very stable over the last years.

3.7.2 Analysis of CCR exposures by model approach

In the application of Article 439 (f) in the CRR, the following table shows the methods used for calculating the regulatory requirements for CCR exposure including the main parameters for each method. Exposures relevant for CVA charges and exposures cleared through a CCP are excluded but are presented separately in the following tables.

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

TABLE EU CCR1 – ANALYSIS OF CCR EXPOSURE BY APPROACH

(In EUR million)	Notional	Replacement cost/current market value	Potential future credit exposure	EEPE	Multiplier	EAD post CRM	RWAs
Mark to market		136.55	111.26			247.81	27.03
Original exposure							
Standardised approach							
IMM (for derivatives and SFTs)							
Of which securities financing transactions							
Of which derivatives and long settlement transactions							
Of whichfrom contractual cross-product netting							
Financial collateral simple method (for SFTs)							
Financial collateral comprehensive method (for SFTs)							
VaR for SFTs							
Total		**136.55**	**111.26**			**247.81**	**27.03**

3.7.3 CVA capital charge

In the application of Article 439 (f) in the CRR, the following table provides the exposure value and risk exposure amount of transactions subject to capital requirements for credit valuation adjustment. The standardised approach is used to calculate the CVA capital charge.

TABLE EU CCR2 – CVA CAPITAL CHARGE

(In EUR million)	Exposure value	RWAs
Total portfolios subject to the advanced method	-	-
(i) VaR component (including the 3x multiplier)	-	-
(ii) SVaR component (including the 3x multiplier)	-	-
All portfolios subject to the standardised method	155.81	22.38
Based on the original exposure method	-	-
Total subject to the CVA capital charge	155.81	22.38

3.7.4 Exposures to CCP

The table below presents an overview of exposures and capital requirements to central counterparties arising from transactions, margins and contributions to default funds. For tripartite or CCP the netting is done by currency.

TABLE EU CCR8 – EXPOSURES TO CCPS

(In EUR million)	EAD post CRM	RWAs
Exposures to QCCPs (total)	**58.53**	**2.34**
Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which:	58.53	2.34
- OTC derivatives	58.53	2.34
- Exchange-traded derivatives	-	-
- SFTS	-	-
- Netting sets where cross-product netting has been approved	-	-
Segregated initial margin	-	-
Non-segregated initial margin	-	-
Prefunded default fund contributions	-	-
Alternative calculation of own funds requirements for exposures	-	-
Exposures to non-QCCPs (total)	**2,249.26**	**54.79**
Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which:	2,249.26	54.79
- OTC derivatives	247.81	27.03
- Exchange-traded derivatives	-	-
- SFTS	2,001.46	27.76
- Netting sets where cross-product netting has been approved	-	-
Segregated initial margin	-	-
Non-segregated initial margin	-	-
Prefunded default fund contributions	-	-
Unfunded default fund contributions	-	-

3.7.5 Standardised approach – CCR exposures by exposure class and risk weight

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

TABLE EU CCR3 – STANDARDISED APPROACH – CCR EXPOSURES BY REGULATORY PORTFOLIO AND RISK

(In EUR million)	Exposure classes	Risk weight				Total	Of which unrated
		4%	20%	50%	100%		
	Institutions	58.53	0.01			58.54	-
	Corporates				2.61	2.61	-
	Short Term			0.03		0.03	-
	Other items				0.31	0.31	-
	Total	**58.53**	**0.01**	**0.03**	**2.92**	**61.49**	-

3.7.6 IRB approach – CCR exposures by exposure class and risk weight

In the application of Article 444 (e) in the CRR, the following table provides the counterparty credit risk exposures under the IRB approach broken down by exposure classes and PD scale..

TABLE EU CCR4 – IRB APPROACH – CCR EXPOSURES BY PORTFOLIO AND PD SCALE

	PD scale	EAD post CRM	Average PD	Number of obligors	Average LGD	Average maturity	RWAs	RWA density
Institutions	0.00 to <0.15	1,737.50	0.00%	38.00	0.10%	0.49	23.76	1.37%
	0.15 to <0.25	4.46	0.20%	7.00	0.00%	1.69	0.85	19.04%
	0.25 to <0.50	483.55	0.30%	5.00	0.00%	0.22	23.57	4.88%
	0.50 to <0.75	0.42	0.70%	1.00	0.00%	1.88	0.03	
	0.75 to <2.50	0.85	0.90%	1.00	0.00%	1.00	-	
	2.50 to <10.00							
	10.00 to <100.00	0.90	27.70%	8.00	0.00%	1.96	-	0.00%
	100 (default)							
	SUBTOTAL	**2,227.68**	**0.10%**	**60.00**	**0.00%**	**0.43**	**48.21**	**2.16%**
	PD scale	EAD post CRM	Average PD	Number of obligors	Average LGD	Average maturity	RWAs	RWA density
Corporates – SME	0.00 to <0.15							
	0.15 to <0.25							
	0.25 to <0.50							
	0.50 to <0.75							
	0.75 to <2.50							
	2.50 to <10.00	0.04	5.90%	1.00	13.10%	1.00	0.02	47.73%
	10.00 to <100.00							
	100 (default)							
	SUBTOTAL	**0.04**	**5.90%**	**1.00**	**13.10%**	**1.00**	**0.02**	**47.73%**
	PD scale	EAD post CRM	Average PD	Number of obligors	Average LGD	Average maturity	RWAs	RWA density
Corporates – Other	0.00 to <0.15	11.84	0.00%	2.00	17.70%	2.86	1.26	10.68%
	0.15 to <0.25	1.42	0.20%	1.00	50.10%	5.00	1.07	75.29%
	0.25 to <0.50	0.03	0.30%	3.00	50.10%	1.00	0.01	49.41%
	0.50 to <0.75	0.19	0.70%	2.00	61.40%	1.00	0.17	90.49%
	0.75 to <2.50	1.07	2.00%	1.00	13.10%	1.00	0.36	34.10%
	2.50 to <10.00	0.01	2.80%	1.00	13.10%	1.00	0.00	38.00%
	10.00 to <100.00	-	0.00%	5.00	0.00%	0.00	0.00	
	100 (default)							
	SUBTOTAL	**14.56**	**0.20%**	**15.00**	**21.20%**	**2.90**	**2.89**	**19.87%**

	PD scale	EAD post CRM	Average PD	Number of obligors	Average LGD	Average maturity	RWAs	RWA density
Retail – Other SME	0.00 to <0.15							
	0.15 to <0.25							
	0.25 to <0.50							
	0.50 to <0.75	0.05	0.60%	3.00	17.20%	-	0.01	13.75%
	0.75 to <2.50	0.14	1.90%	3.00	14.10%	-	0.02	16.80%
	2.50 to <10.00	-	0.00%	1.00	0.00%	-	-	
	10.00 to <100.00							
	100 (default)							
	SUBTOTAL	**0.19**	**1.50%**	**7.00**	**15.00%**	**-**	**0.03**	**15.92%**

	PD scale	EAD post CRM	Average PD	Number of obligors	Average LGD	Average maturity	RWAs	RWA density
Retail – Other non SME	0.00 to <0.15	0.20	0.10%	43.00	13.30%	-	0.01	4.36%
	0.15 to <0.25	-	0.00%	1.00	0.00%	-	-	
	0.25 to <0.50	0.17	0.30%	15.00	13.30%	-	0.02	9.61%
	0.50 to <0.75	0.01	0.60%	14.00	17.20%	-	0.00	17.24%
	0.75 to <2.50	0.79	2.10%	151.00	0.70%	-	0.01	1.20%
	2.50 to <10.00	2.66	4.70%	41.00	13.30%	-	0.66	24.78%
	10.00 to <100.00							
	100 (default)							
	SUBTOTAL	**3.83**	**3.70%**	**265.00**	**10.70%**	**-**	**0.70**	**18.14%**

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

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

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

TABLE EU CCR5-A – IMPACT OF NETTING AND COLLATERAL HELD ON EXPOSURE VALUES

(In EUR million)	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
Derivatives	215.41	64.50	150.92	50.07	100.85
SFTS	2,696.11	691.28	2,004.83	1,833.56	171.27
TOTAL	**2,911.52**	**755.77**	**2,155.75**	**1,883.63**	**272.12**

The second table discloses a breakdown of all types of collateral posted or received to support or reduce CCR exposures related to derivatives and SFT.

TABLE EU CCR5-B - COMPOSITION OF COLLATERAL FOR EXPOSURES TO CCR

	Collateral used in derivative transactions				Collateral used in SFTs	
	Fair value of collateral received		Fair value of posted collateral		Fair value of collateral received	Fair value of posted collateral
(In EUR million)	Segregated	Unsegregated	Segregated	Unsegregated		
Cash	50.05		440.43		1,564.17	7.00
Bonds	0.01				269.39	
Bonds	0.01					
Equity securities						
TOTAL	**50.07**		**440.43**		**1,833.56**	**7.00**

3.7.8 Management of the Wrong-Way Risk

Wrong-way risk occurs when an exposure to a counterparty is adversely correlated with the credit quality of that counterparty. At the Bank level, the derivatives transactions are mainly concluded to cover the rate risk (interest rate risk hedging to the fixed rate bonds portfolio) and structured products issued by the Bank. The derivative exposures are collaterized by cash and margin call are performed daily.

3.7.9 Credit derivatives

BIL does not use credit derivatives for the management of its counterparty risk.

3.8. Exposure in equities not included in the trading book

This section provides accounting policies and valuation methods applied to equity instruments. In addition, data are provided on any amounts of such capital instruments not included in the trading book.

3.8.1 Fair value of financial instruments

IFRS 13 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Quoted market prices on an active market for identical instruments are to be used as fair value, as they are the best evidence of the fair value of a financial instrument.

If a financial instrument is not traded on an active market, recourse is provided by valuation models. The objective of a valuation model is to determine the value that is most representative of fair value under current market conditions.

The valuation model should take into account all factors that market participants would consider when pricing the financial instrument. Measuring the fair value of a financial instrument requires consideration of current market conditions. To the extent that observable inputs are available, they should be incorporated into the model.

Financial assets and liabilities measured at fair value are categorised into one of the three fair value hierarchy levels

The following definitions used by the Bank for the hierarchy levels are in line with IFRS 13 rules:

- Level 1: Quoted prices (unadjusted) on active markets for identical assets and liabilities;
- Level 2: Valuation techniques based on inputs other than quoted prices included within Level 1 that are observable, either directly or indirectly;
- Level 3: Valuation techniques for which significant inputs are not based on observable market data.

Financial instruments measured at fair value for which reliable quoted market prices are available

If the market is active, market prices are the most reliable evidence of fair value and therefore shall be used for valuation purposes. The use of market prices quoted on an active market for identical instruments with no adjustments qualifies for inclusion in Level 1 within the IFRS 13 fair value hierarchy, contrary to the use of quoted prices on inactive markets or the use of quoted spreads.

Financial instruments measured at fair value for which no reliable quoted market prices are available and for which valuations are obtained by means of valuation techniques

Financial instruments for which no quoted market prices are available on an active market are valued by means of valuation techniques. The models used by the Bank range from standard market models (discount models) to in-house developed valuation models. In order for a fair value to qualify for Level 2 inclusion, observable market data should mainly be used. The market information incorporated in the Bank's valuation models is either directly observable data (prices) or indirectly observable data (spreads), and or own assumptions about unobservable market data. Fair value measurements that rely significantly on own assumptions qualify for Level 3 disclosure.

3.8.2. Equity exposures by type of asset and calculation process

The following table shows the amount of exposure to equities included in the banking book broken down by accounting class and level at year-end 2019.

It provides an analysis of the fair value of financial instruments measured at fair value after their initial recognition, grouped in three levels from 1 to 3, according to the degree of observability of the fair value.

(in EUR)	31/12/19			
	Level 1	Level 2	Level 3	Total
Financial assets at FV through OCI - equities	0	138,298	51,716,128	51,854,426
Financial assets mandatorily at FV through PL - equities	0	23,984,096	89,199	24,073,295
TOTAL	**0**	**24,122,394**	**51,805,327**	**75,927,721**

3.8.3. Equity portfolio

At 31 December 2019, the Bank had an equity portfolio in the non-trading book at fair-value (FV) through other comprehensive income of EUR 51.85 million.

Financial assets at FV through OCI – equities (in EUR)	31/12/19		
	Acquisition cost	Fair Value Adjustment	Carrying Amount
Financial assets at FV through OCI - equities	10,173,399	-1,783,774	8,389,625
Operational Participations	8,589,167	-7,842,672	746,495
Other	427,513	-394,507	33,006
Strategic Participations	8,059,638	34,625,662	42,685,300
TOTAL	**27,249,717**	**24,604,709**	**51,854,426**

The Bank had also at 31 December 2019 an equity portfolio in the non-trading book at fair-value (FV) through P&L of EUR 24.07 million.

Financial assets mandatorily at FV through PL – equities (in EUR)	31/12/19		
	Acquisition cost	Fair Value Adjustment	Carrying Amount
Investment Funds	21,836,740	2,236,554	24,073,294
Private Equities	0	0	0
TOTAL	**21,836,740**	**2,236,554**	**24,073,294**

Capital instruments whose fair value cannot be reliably measured are carried at cost concerning equities at FV through OCI:

Financial assets at FV through OCI – equities (in EUR)	31/12/19		
	Carrying Amount	*Of which at cost*	*Of which Fair Valued*
Operational Participations	8,389,625	*2,384,352*	*6,005,273*
Other	746,495	*0*	*746,495*
Private Equities	33,006	*0*	*33,006*
Strategic Participations	42,685,300	*0*	*42,685,300*
TOTAL	**51,854,426**	**2,384,352**	**49,470,074**

Capital instruments whose fair value cannot be reliably measured are carried at cost concerning equities at FV through P&L:

Financial assets mandatorily at FV through PL – equities (in EUR)	31/12/19		
	Carrying Amount	*89,099*	*Of which Fair Valued*
Investment Funds	24,073,294	*0*	*23,984,195*
Private Equities	0	*89,099*	*0*
TOTAL	**24,073,294**	**0**	**23,984,195**

3.8.4. Gains or losses on equity

3.8.4.1. Realised gains or losses arising from sales and liquidations

The following table shows the cumulative realised gains or losses arising from sales or liquidations, impairments allowances and write-backs in 2018 and 2019.

(in EUR)	**2018**	**2019**
Financial assets available for sale – equities	-5,175,576	-10,276
Financial assets mandatorily at FV through OCI– equities	52,674	-371,208
TOTAL	**-5,122,902**	**-381,484**

3.8.4.2. Unrealised gains or losses included in own funds

The total unrealised gains or losses related to equity instruments amounted to 27.64 million as at 31 December 2019.

(in EUR)	**2018**	**2019**
Financial assets available for sale – equities	15,690,804	23,984,104
Financial assets mandatorily at FV through OCI– equities	-1,611,980	3,652,349
TOTAL	**14,078,824**	**27,636,453**

3.9 Securitisation exposures

3.9.1 Introduction: Theoretical considerations on securitisation

The following disclosures refer to traditional securitisations held in the banking book and regulatory capital on these exposures calculated according to the Basel III standardised approaches to securitisation exposures.

BIL's role in the securitisation process is that of investor since it has EUR 68.5 million of asset-backed securities (ABS) on a total portfolio of EUR 5.9 billion. BIL has exclusively securitisation exposures in the banking book referencing different types of underlying assets including residential mortgage-backed security, auto loans, consumer loans and credit cards receivables.

A traditional securitisation is a financial transaction or mechanism that takes the credit risk associated with an exposure or pool of exposures and divides it up into transferable tranches with the following characteristics:

a) Payments in the transaction or mechanism are dependent upon the performance of the securitised exposure or pool of exposures;

b) The subordination of tranches determines the distribution of losses during the life of the transaction or mechanism. A distinction is made between the Equity tranche (first-loss tranche), which is the riskier tranche, the Mezzanine tranche and the senior tranche. The senior tranche will be defined as BIL solely bought ABS with such a tranching.

The senior tranche can be defined as any tranche that is neither a first-loss nor a mezzanine tranche. Within the senior tranches, the super senior tranche is the top tranche in the priority of payments, without taking into account for these purposes any amounts owed under interest rate or currency derivatives, brokerage charges or similar payments

.

3.9.2 Management of the bank's securitisation activity

The only activity in securitisation is done through investments in the banking book of the Bank. The Bank has no role of originator or sponsor of securitised deal.

To invest in securitised assets, the Bank complies to the strict investment guidelines that were approved by the Board of Directors. These guidelines stipulate that:

- Exposures on securitised assets could not exceed 10% of total size of portfolio;
- The Weighted Average Life (WAL) of each exposure must not exceed 5-year at the time of the trade;
- The evolution of the WAL must be followed on a monthly basis. If the WAL exceeds 5-year during the life of the issue, a specific investment committee is organised to make a decision on the future of the exposure;
- For any securitised asset in the portfolio, the portfolio manager will review the trustee reports once it is published and communicate it to the Credit Risk department;
- In the case the portfolio manager is uncomfortable with the published figures due to a weak performance of the pool, he will present the situation to the Investment Committee, which decides whether the exposure has to be sold or to be monitored further.

In 2019, the Bank did not invest in securitised products.

On 31 December 2019, the total EAD for securitised products amounted to 68.5 million for 14 exposures. The exposure could be split as follows:

Chart 1: Breakdown by country of Risk (by EAD)

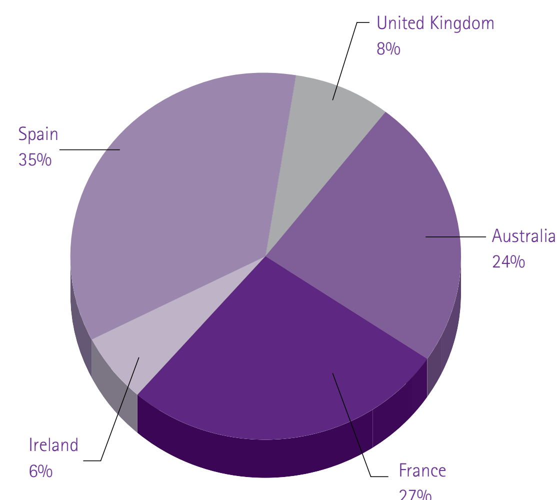
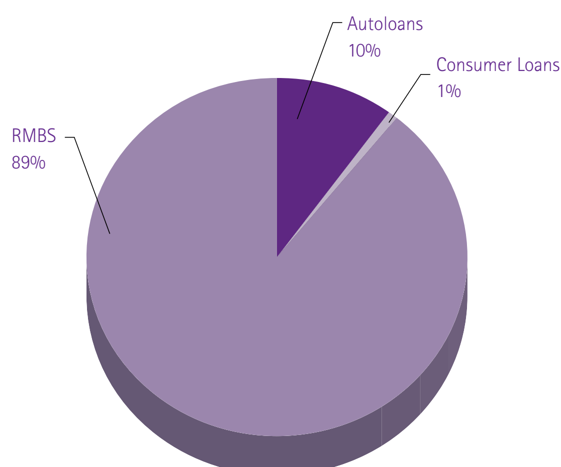


Chart 2: Breakdown by type of assets (by EAD)



3.9.3 Securitisation accounting policies

Currently, the Bank does not own any securitisation for which it would be originator/initiator. Therefore, policies as described in the CRR 449 J are not deemed necessary at this stage.

Indeed, the Bank owns securitisations (ABS, MBS etc.) that it has acquired and not originated. These types of securitisation are classified in the portfolio of the Bank as Fair-Value-Through-OCI (FVTOCI) securities. Therefore, the accounting treatment as explained in IAS 39 applies.

The Bank recognizes FVTOCI securities initially at fair value plus transaction costs.

Interest is recognised based on the effective interest-rate method and recorded under "Net interest income".

The Bank subsequently measures FVTOCI financial assets at fair value.

Unrealised gains and losses arising from changes in the fair value of financial assets classified as FVTOCI are recognised within equity, under the heading "Gains and losses not recognised in the consolidated statement of income". When securities are disposed of, or impaired, BIL recycles the related accumulated fair value adjustments in the consolidated statement of income as "Net income on investments".

BIL recognizes the impairment of FVTOCI assets on an individual basis if there is objective evidence of impairment as a result of one or more events occurring after initial recognition.

When FVTOCI financial assets are impaired, the OCI reserve is recycled and these impairment losses are reported in the consolidated statement of income as "Net income on investments".

3.9.4 Breakdown of securitisation exposures

The following table shows the securitisation breakdown by weighted risk in the banking book at year-end 2019.

	EAD (Standard)	RWA
Traditional securitisations	**<= 20% RW**	**<= 20% RW**
Auto laons	6.77	1.35
Consumer Loans	0.86	0.17
RMBS	60.87	12.17
TOTAL	**68.49**	**13.70**

4. Market risk

Market risk is the risk of losses resulting from adverse movements of market risk parameters (e.g. interest rate risk, spread risk, equity price risk and foreign exchange risk):

- The interest rate risk is the risk that an investment's value will change due to a change in the absolute level of interest rates, in the spread between two rates, in the shape of the yield curve, or in any other interest rate relationship;
- The spread risk is the risk of a reduction in market value of an instrument due to changes in the credit quality of the debtor / counterparty;
- The risk associated with the equity price represents the risk arising from the reduction in value of the Bank's equity positions;
- The foreign exchange risk represents the potential decrease in value due to currency exchange rate movements.

Assets & Liabilities Management covers all the banking book's structural risks, namely interest-rate risk, foreign exchange risk and liquidity risk.

Liquidity risk measures BIL's ability to meet its current and future liquidity requirements, both expected and unexpected, whether or not the situation deteriorates.

Counterparty risk measures on a daily basis BIL's exposure to an external counterparty.

4.1 Market risk governance

4.1.1. Organisation

Please refer to the section *1.2.1 Organisation.*

4.1.2. Policy and committees

In order to manage market and ALM risks in an efficient manner, BIL group has defined a framework based on:

- An exhaustive risk measurement approach, which is an important part of BIL's risk profile monitoring and control process;
- A sound set of policies, procedures and limits governing risk-taking;
- As a core principle, the system of limits must be consistent with the overall risk measurement (including risk appetite) and management process and it must be proportionate to the capital position. These limits are set for the largest panel of risks as possible;
- An efficient risk management structure for identifying, measuring, monitoring, controlling and reporting risks: BIL's development of a general risk management framework is suited to the type of challenges it faces. This approach offers an assurance that market risks have been managed in accordance with BIL's objectives and strategy, within its overall risk appetite.

he Financial Risk Management (FRM) department oversees market risk under the supervision of the Management Board and specialised risk committees. FRM, which is part of EFRM, which is a support unit within the Risk Management Based on its global risk management approach, FRM is responsible for identifying, analysing, monitoring and reporting risks and results (including the valuation of assets) associated with financial market activities at BIL and BIL group level. The FRM team is in charge of the charters, policies and guidelines definition and their application on financial market activities (Banking (of which ALM), Trading, Liquidity and Collateral Management (EMIR)). Moreover, FRM is the functional responsible of the main tools (Kondor+, Bloomberg), interfaces of the Dealing Room and the FRM Datamart (FRMD).

The ALM Committee (ALCO) decides on the structural balance sheet positioning regarding the rates, foreign exchange and liquidity. It defines and revises market risk limits. Additionally, FRM, in its day-to-day activity, is supported by two operational committees: Monthly Operational Committee (MOC) and New Products Committee (NPC), which is detailed in "Operational Risk" section hereafter. FRM is a permanent member of the ALCO and the MOC.

The unit takes part in some projects involving the dealing room which require financial expertise and a global knowledge of the Bank on specific matters such as IFRS, Basel III, EMIR, MIFID, etc. due-diligence and ECB/EBA stress tests exercises.

Finally, FRM is fully involved and takes an active part in the BIL transformation plan at several level, especially with the migration of a new Kondor+ interfaced with the new CBS (core banking system) planned in 2023.

4.1.3. Market risk reporting

Each desk of trading is covered by a set of appropriate reports. Financial instruments in a trading book are purchased or sold to facilitate trading for the Bank's customers, to profit from trading spreads between the bid and the ask prices, or to hedge against various types of risks. Financial instruments in a banking book are held for medium and long term period or until maturity.

The Dealing Room is organized by activity and desk:

- Banking (Line Finance): Treasury, Investment Portfolio, ALM and Long Term Funding;
- Trading (Line Products & Markets): FOREX and Securities Trading.

Each desk has specific access in the front-office system. Each book in the tool has a specific setting: Banking or trading, but not both. All the settings of the front-office system are under the responsibility of Financial Risk Management (FRM). A Trading dealer cannot not access to Banking book s and a Banking dealer cannot access to Trading books. Trading dealers have not access to products like Loans & Deposits and so, they cannot take interbank positions (deposit for example) to reduce their exposures. The creation of a new book is submitted to an ad-hoc committee. Finally, in the framework of the internal audit mission "Trading Book & Prudent Valuation".

BIL's FRM department and BIL's entities have the responsibility of implementing the Trading Policy. This policy is implemented through the activities guidelines of the document that are validated by the ALM Committee (ALCO).

4.1.3.1 Trading Scope – FOREX

The different products are summarised in the table below (with n.a meaning non-authorised transaction):

TRADING (close / open positions)	Luxembourg	Denmark	Swizerland
FX Spot	open	close	close
FX Forward	open	close	close
FX Swap	open	close	close
FX Option (plain vanilla)	open	n.a	close
Non-deliverable forward	open	n.a	close
Non-deliverable options	close	n.a	n.a
Spot transactions on precious metals: gold, silver, platinum	open	n.a	close

To be validated, the derivatives must be evaluated on a daily basis by the local system, in order to be executed. This assumes that FRM has daily market data and sufficient information about the products processed and re-evaluation methodology.

The underlying scheme includes a global view on the composition and structure of the market risk management framework. This framework has been conceived in such a way as to be commensurate with the type of risks inherent to the different business poles of the Trading prudential activity.

Target FRM framework	FX Spot Forward NDF	FX Option
VaR (IR & FX)	x	x
P&L – triggers	x	x
Stop Loss	x	x
Nominal limits	x	n.a
Greeks	n.a	x
Authorised maturity	x	x
Authorised currency	x	x

Triggers are calculated from the year-to-date (YTD) high in order to preserve the YTD P&L:
- Trigger 1: 25% of VaR;
- Trigger 2: 37.5% of VaR;
- Trigger 3: 50% of VaR.

The" stop loss" level is reached when the annual loss on the P&L reaches 65% of the VaR limit.

The FOREX position of the Bank is managed in real time in Kondor+ (from Finastra).

FRM produces on a daily basis reports whose objective is to:
- Measures the FOREX risk and P&L;
- Analyses and explains FOREX risks and P&L evolution;
- Monitors exposures versus limits;
- Produces reports with a view on VaR, sensitivity, P&L and Mark-to-Market, for each FOREX instrument.

4.1.3.2 Trading Scope – Fixed income

The product framework of the Fixed Income perimeter is detailed in the table below (n/a meaning non-authorised transaction):

	BIL LU	BIL DEN	BIL CH	Constraints
Bonds	**Position (YES) – Back-to-Back (BtB)**			
ABS – MBS – Convertible	BtB	BtB with Lux		
Danish Mortgage bonds	YES	YES	BtB with Lux	Liquid-Market Price
Other	YES	BtB		Liquid-Market Price
Interest Rate Swap	**For hedging purpose**			
Plain Vanilla	YES	n/a	n/a	
Future Medium/Long Term				
Germany 2Y-5Y-10Y	YES	n/a	n/a	
Italian 3Y-10Y	YES	n/a	n/a	
France 3Y	YES	n/a	n/a	
US 5Y-10Y	YES	n/a	n/a	
AUD 3Y-10Y	YES	n/a	n/a	

The different types of limit are established and it is summarised in the table below:

	IR VaR	P&L Triggers	IR Sensitvity	Spread sensitivity	Nominal	Holding Period	Stress Test	Greeks
Fixed Income	X	X	X	X	X	X	X	X

Remark:
- Regarding the negative evolution of the P/L, a system of early warning signals and limits is set and based on risk indicators (VaR and sensitivity).
- The BSP comes from the potential sell-back of client's positions.

FRM produces on a daily basis reports whose objective is to:
- Measure the fixed income risk and P&L;
- Analyse and explains fixed income risks and P&L evolution;
- Monitor exposures versus limits;
- Present a view on VaR, sensitivity, P&L, Mark-to-Market, holding period (by product and rating).

4.1.3.3 Transaction & Execution

The product framework of the Transaction & Execution activity is detailed in the table below:

<table>
<tr><th colspan="5">BROKERAGE FUNDS & EQUITIES</th></tr>
<tr><th></th><th>BIL LU</th><th>BIL DEN</th><th>BIL CH</th><th>Constraints</th></tr>
<tr><th colspan="5">Position (YES) – Back-to-Back (BtB)</th></tr>
<tr><td>Equity</td><td rowspan="6">BtB</td><td rowspan="2">YES[1]</td><td rowspan="2">BtB with Lux</td><td rowspan="2"></td></tr>
<tr><td>Fund</td></tr>
<tr><td>ETF + Warrant</td><td colspan="2" rowspan="4">BtB with LUX</td><td rowspan="4"></td></tr>
<tr><td>Mini Futures</td></tr>
<tr><td>Option (plain vanilla)[2]</td></tr>
<tr><td>Futures</td></tr>
</table>

Brokerage Funds & Equities organize – in cooperation with IT and Back-Office Securities Departments – the process and routing of BIL client orders to different brokers, stock exchanges, Transfer Agents and funds promoters.

It should be noted that, neither BIL Luxembourg, BIL Suisse, BIL Denmark nor BIL Dubai are allowed to take positions in equities (no trading).

FRM produces on a daily basis the reports which document:
- The positions when they are closed;
- The level of VaR for the equities and funds (BIL Denmark), when the positions could not be liquidated during the day.

4.1.3.4 Distribution & Structuring

During the primary period, the structured products presents a risks from the lack of client interest for the issue

FRM produces on a daily basis the reports which document:
- The level of the positions during the primary period. For a new issue, the position must be sold entirely. If it is not the case, the position will be either transferred to the secondary book or end to be unwinded.

4.1.4. Risk measurement

The Bank uses sensitivity and Value-at-Risk (VaR) measurement methodologies as key risk indicators. VaR measures the maximal expected potential loss that can be experienced with a 99% confidence interval, within a 10-day holding period. Risk sensitivity measurements reflect the impacts on the exposure of a parallel movement of 1% on the interest rate curve.

BIL applies sensitivity and VaR approaches to accurately measure the market risk inherent to its various portfolios and activities:
- General interest rate risk and currency risk are measured through historical VaR;
- Trading portfolio equity risk is measured through historical VaR;
- Non-linear risks are measured through historical VaR;
- Specific interest rate risk (spread risk) is measured through sensitivities.

As a complement to the VaR measurement and income statement triggers, the Bank applies a broad range of other measurement to assess assessing risks associated with its various business lines and portfolios (e.g. nominal limits, maturity limits, market limits, sensitivity to various risk factors etc.).

Finally, the Bank sets up a stress testing[3] framework (scenario, triggers, limits) taking into account exceptional market occurrences. These stress tests cover the trading activity and the banking book. They are computed each month and the results are regularly communicated to the ALM Committee.

1 Only Danish or Scandinavian positions in Denmark.
2 isted option (OTC is an exception).
3 Stress testing is a risk management technique used to evaluate the potential effects on an institution's financial condition of a specific event and/or movement in a set of financial variables. The traditional focus of stress testing relates to exceptional but plausible events.

4.1.5. Governance of limits[1]

Allocated limits

BIL's market limits are governed by the delegation principles approved by the BoD specifying the competence levels required to approve limits and overdrafts. The approval of limits is based on the following escalation structure:

FIGURE: ESCALATION STRUCTURE OF ALLOCATED LIMITS

Limit level	Action	Businee Line	Desk	Other
BIL Group	Definition	MB HO	n.a.	n.a.
	Temporary increase[2]			
Head Office	Definition	MB HO	MB HO or ALCO HO[3]	MB HO or ALCO HO[4]
	Temporary increase[2]			
Entity	Definition	MB HO or ALCO HO[5]	ALCO HO	MOC HO or local[6]
	Temporary increase[2]			

Above those thresholds, the new limit request process is triggered.

Overdraft limits

FIGURE: ESCALATION STRUCTURE OF LIMITS OVERDRAFTS

Limit level	Action	Businee Line	Desk	Other
BIL Group	Definition	MB HO	n.a.	n.a.
	Proposition	Head of BL		
Head Office	Definition	MB HO	ALCO HO	ALCO HO
	Proposition	Head of BL	Head of Activity	Head of Activity
Entity	Definition	ALCO HO	ALCO HO	MOC HO or local
	Proposition	MB Local	Head of Activity	Head of Activity

[1] This responds to the Article 435(1)(b) of the qualitative "Table EU MRA – Qualitative disclosure requirements related to market risk"
[2] Temporary increases are authorized for up to 3 months: with an impact of less than 25% for business line and desk limits.
[3] The Head Office desk limits are approved by the MB. Others desks (sub-) limits are approved by the ALCO.
[4] Committee upon FRM decision.
[5] If entity – business line limit <= 10% BIL Group – business line limit:
- Then the Head-Office (HO) ALCO is the approving instance for that limit
- Else the agreement of the HO Management Board is required.
[6] The "other" limits may be defined and / or increased by local authorities if they are additional limits to the framework defined by HO.

Temporary overdraft is allowed for up to 3 months with an impact of less than 25% for business line and desk limits.

In case of overdraft:
An exceeding report must be drawn up jointly by the entity's Risk and Front Office. The Risk Department describes the overdraft and sets out the exposure to risk and the effects on revaluations. The Front Office proposes a solution. That report is filed by the Risk Department and forms part of the escalation process.

Any overdraft of the limits is notified on the same day in reports for the Front Office and for the Management Board.

Triggers

Triggers are defined as the alerts identifying deterioration in the value, P&L or the Other Comprehensive Income (OCI[1]) reserve of an activity. Any substantial loss recorded at entity or TFM level is therefore automatically preceded by activation of a trigger at a lower threshold.

Depending on the risk measurement and limits defined for the activity, triggers are expressed as a percentage of the VaR limits, the upper sensitivity/scenario limits or the budgets.

There are several levels of triggers, depending on the levels of losses. Those levels may be defined in terms of either a business line or a desk.

The standard trigger thresholds are:
- Trigger 1: 50%;
- Trigger 2: 75%;
- Trigger 3: 100% of the limit indicator but may be varied depending on the characteristics of the business line or the specific desk in order to best reflect the Financial Risk Management for that line or desk in the best way.

Triggers are applied to the Banking and trading books.

A stop loss is an exceptional trigger which causes the activity to be stopped. However, that stoppage is not automatic and its implementation must be determined by the MB.

The stop loss level is reached when the annual loss on the P&L reaches 3[2] times the VaR limit. It applies only to trading activities.

Calculation methods:
Triggers are activated as the result of a variation in the P&L over one year. The trigger calculation is based on the highest level of the P&L during the year. The aim is thus to monitor any negative change in the P&L over the year.

Trigger = ecP&LMax – ecP&LD

The P&L Max level which is used as the basis of calculating the triggers is reset daily and is compared with the P&L for the day (P&LD).

The triggers activating a stoppage of activity (Stop Loss) are measured on the basis of the yearly P&L for the day.

Stop_Loss = P&LD

Depending on the activity, if there is no VaR, an estimated figure is proposed based on the sensitivity/scenario.

Procedures relating to triggers:
Any trigger activation, threshold resetting and any activity stopping as the result of trigger activation must follow a precise and rigorous procedure.

Trigger activation:
The responsibility level increases with the trigger level and the area in which the trigger overdraft occurs.

[1] The Other Comprehensive Income reserve (OCI Reserve) comes from financial investment that are booked in Held to Collect & Sales, meaning neither held for trading, nor held to maturity. Gains or losses from revaluation of the asset are put through a reserve in shareholder's equity except to the extent that any losses are assessed as being permanent, and the asset is therefore impaired, or if the asset is sold or otherwise disposed of. If the asset is impaired, sold or otherwise disposed of, the revaluation gains or loss implicit in the transaction is recognized as a revenue or expense.
[2] Economic Capital is defined as 4 times the VaR limit (and represents the 1 year VaR limit). To give leeway in decision-making, stop loss is set at 75% of the amount.

FIGURE: ESCALATION STRUCTURE OF LIMITS OVERDRAFTS

Limit level	Action	Businee Line	Desk
BIL Group	1	HO BL[1]	
	2	ALCO	n.a.
	3	MB	
Head Office	1	HO BL[1]	HO Desk
	2	ALCO	HO BL[1]
	3	MB	ALCO
Entity	1	HO BL Local	HO Desk Local
	2	HO BL Local	HO BL Local
	3	ALCO	ALCO

When a trigger is activated:

- The FRM department informs the Front Office of the overdraft and analyses the re-evaluated positions;
- The Front Office drafts its proposal which it submits to the decision making-instance;
- The decision-making-instance reaches a decision on issues concerning positions or a stoppage of activity and the ensuring practical consequences (business continuity, knowledge and skills transfer, monitoring, reporting, etc.).

Reports concerning triggers must be documented both by FRM and the Front-Office.

Reports concerning overdraft of triggers must include a revaluation of the positions and must be filed by FRM.

Trigger overdraft are notified on the day they occur in the reports for the Front Office and the Management Board.

Trigger resetting:

When the ad hoc committee addresses the trigger activation, it may decide to reset or to retain the trigger level. Resetting the trigger implies that the actions carried out have resolved the situation and/or recorded the losses. The resetting may be full or partial. When the triggers are reset, FRM defines the operational arrangements for the change and they are approved by the ALCO. Retention of the trigger level signals a real concern and a wish to keep evolution of the position under surveillance.

Activation of the trigger:

When a stop loss trigger is reached, the Management Board decides whether the activity is to be stopped or continued. There are a number of exceptions to a stoppage of activity as the result of a stop loss being triggered (exceptional market conditions, etc.). The Management Board takes the conditions into account when making its decision.

Specific features of limits

VaR and other measures:

Under the circumstance that there is a VaR limit in combination with other limits, and the latter may govern the same risk in a different context, both of them must be respected.

Limit currencies:

Limits are expressed in €. When there is a sharp variation in the exchange rate, the limits should be reviewed.

Review of limits:

BIL's consolidated limits and limits by entity must be reviewed at least once a year in accordance with the approval process described in section 6.2 (governance of limits).

[1] The HO BL (Business Line) is represented either by HO Treasury, ALM or Financial Market.

4.2 Market risk exposure

4.2.1. Treasury and Financial Market

The detailed Trading (Fixed Income, FOREX and Equity) VaR used for Financial Market activities is disclosed in the table below. The average Value at Risk was EUR 0.26 million in 2019, compared with EUR 0.23 million in 2018. In 2019, BIL reduced the total VaR limit to be in line with the risk appetite, on the level of 2 million euros[1].

VaR (10 days 99%) (in EUR million)		2018							
		IR[1] & FX[2] (trading and banking)				EQT trading			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
By risk factor	Average	0.42	0.28	0.22	0.13	0.01	0.01	0.01	0.01
	Maximum	0.68	0.52	0.73	0.38	0.04	0.02	0.07	0.04
Global	Average	0.26							
	Maximum	0.73							
	End of period	0.09							
	Limit	**8.00**							

VaR (10 days 99%) (in EUR million)		2019							
		IR[1] & FX[2] (trading and banking)				EQT trading			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
By risk factor	Average	0.30	0.26	0.18	0.16	0.01	0.01	0.01	0.02
	Maximum	0.64	0.62	0.78	0.46	0.05	0.02	0.05	0.43
Global	Average	0.23							
	Maximum	0.79							
	End of period	0.09							
	Limit	**2.00**							

Regarding the Fixed Income as of 31 December, 2019:

- the directional spread sensitivity (+1bp) is EUR -9,573 for a limit set at EUR 30,000 (EUR -10,789 in 2018);
- the absolute spread sensitivity (+1bp) is EUR 22,050 for a limit set at EUR 60,000 (EUR 34,396 in 2018).

The Treasury activity is daily monitored through sensitivity limit, based on a +100bp parallel shift.

At as of 31 December, 2019, the Treasury sensitivity was EUR 0.68 million compared with EUR 0.53 million in 2018. In a low rate environment, the Bank keep a quasi-neutral sensitivity.

Sensitivity +1% (in EUR million)	2018			
	Treasury			
	Q1	Q2	Q3	Q4
End of period	0.67	0.59	0.79	0.53
Limit	20.00			

Sensitivity +1% (in EUR million)	2019			
	Treasury			
	Q1	Q2	Q3	Q4
End of period	1.25	0.57	-1.20	0.68
Limit	20.00			

[1] In 2018, the VaR limit was set on the level of 8 million euros, and it was the case for 2019 as well. The change to 2 million euros was made at the end of 2019, at the request of JST.

4.2.2 Asset & Liability Management (ALM)

Asset and Liability Management (ALM) in general terms is referred to as an on-going process of formulating, implementing, monitoring, and revising strategies related to assets and liabilities in an attempt to achieve financial objectives for a given set of risk tolerances and constraints.

The ALM function scope covers both a prudential component (management of all possible risks, rules and regulations), and an optimization role (management of funding costs and generating results on balance sheet position), within the limits of compliance (implementation and monitoring with internal rules and regulatory set of rules). ALM intervenes in these issues of current business activities but is also consulted to organic

development and external acquisition to analyse and validate the funding terms options, conditions of the projects and any risks (i.e., funding issues in local currencies).

The Management Board mandates the Asset & Liability Committee (ALCO) to decide on the structural positioning of the Bank's balance sheet in terms of rates, foreign exchange and liquidity. The ALCO has the central purpose of attaining goals defined by the short- and long-term strategic plans.

The ALM programs focus traditionally on interest rate risk and liquidity risk because they represent the most prominent risks affecting the organization balance-sheet (as they require coordination between assets and liabilities). ALM is represented by FRM, and the latter is responsible for is responsible for controlling, measuring and monitoring the ALM activity at mother company's and legal entities' levels.

These tasks are organized on a daily basis for operational and mark-to-market aspects. Financial Risk Management ensures daily that the operational framework is able to prevent fraud or abnormal transactions from occurring.

Regulatory reports are produced on a monthly basis. The following balance sheet risk figures are calculated and communicated to the ALM Department for presentation to the ALCO.

The limits are monitored by Financial Risk Management. In case of a breach, the ALM Committee is warned and must decide:
- Either to ratify the breach until further notice or until a specific event or date (in case of technical overdraft or rapid resolution);
- Or to charge the ALM Department to take countermeasures to regularize the situation.

Financial Risk Management also challenges on a monthly basis the "Rate ALM result" calculated by the ALM Department. P&L and Financial investment at fair Value Through OCI (FVTOCI) triggers are also monitored on this occasion. When figures are validated, Financial Risk Management informs Finance and the "Rate ALM result" can be reported to the Management Board.

Finally, Financial Risk Management is responsible on an ad-hoc basis for:
- Following-up specific risk;
- Defining risk calculation methodologies and ensuring their consistency;
- Ensuring compliance with market and counterparty limits;
- Keeping guidelines and policies up-to-date at TFM and Bank (for liquidity) levels.

As at 31 December 2019, the ALM sensitivity amounted to EUR -1.6 million (vs EUR 6 million as at end 2018).

Over 2019, the ALM department managed its rate position in order to keep a neutral sensitivity.

The limit of interest-rate sensitivity for a 100 bp parallel shift was EUR 119 million as at 31 December 2019 (EUR 81 million last year's limit).

4.2.3 Investment portfolio

The investment case of this portfolio is both to earn a reasonable risk adjusted return, and to serve as a liquidity reserve for the Bank in the framework of the Liquidity Coverage Ratio

The interest-rate risk of the Investment Portfolio is transferred and managed by the Treasury department or by the ALM department, depending on various criteria (i.e. maturity, sector, etc.).

FRM monitors on a monthly basis:
- The duration;
- The liquidity aspects (Central banks eligibility limits, LCR eligibility limits);
- The geographical breakdown (global view and PIIGS exposure);
- The currency limits;
- The asset type (global, securitization assets);
- Type of issue and coupon type;
- The average rating and rating limits;
- Concentration limits (individual exposure, individual exposure by rating bucket).

The sensitivity of the portfolio is dispatching between the ALM and the Treasury departments. Concerning the treasury, the risk figures are calculated on a daily basis while it is on a monthly basis for the ALM.

The investment portfolio had a total nominal exposure of EUR 6.7 billion as at 31 December 2019 (against EUR 5.9billion as at 31 December 2018). Following IFRS 9 introduction, most of the bonds are classified in the "financial investments measured at cost" portfolio: EUR 5.7 billion as at 31 December 2019 (EUR 4 billion as at 31 December 2019). The remaining part is classified in the FVTOCI portfolio: EUR 1 billion as at 31 December 2019 (EUR 1.3 billion in 2018).

As far as the FVTOCI portfolio, the sensitivity of fair value (and the OCI reserve), to a one basis point widening of the spread, was EUR (0.38) million as at end 2019 (compared with EUR (0.57) million per basis point as at 31 December 2018).

Investment portfolio FVTOCI (in EUR million)	**Notional amount**		**Rate bpv**		**Spread bpv**	
	31/12/2018	**31/12/2019**	**31/12/2018**	**31/12/2019**	**31/12/2018**	**31/12/2019**
Treasury	514	261	-0.02	-0.01	-0.15	-0.05
ALM	798	740	-0.69	-0.01	-0.42	-0.33

4.2.4 Model management

4.2.4.1 Backtesting

The back-testing measures the accuracy of the VaR's model by comparing the predicted losses from calculated VaR with the actual losses realised at the end of the specified time horizon. There are two methods:

- Hypothetical back-testing is carried out daily based on the fixed positions of two days before (D-2) and then, it compares the profits and losses with the market data from changes between two days before (D-2) and the day before (D-1). That difference is then compared with the VaR (99%, 1D) for the previous day. BIL has adopted this method;
- Actual back-testing uses the same method, but compares the results of actual days' trading with the VaR (99%, 1D). It is based on the actual P&L for the day and therefore, the day's purchases/sales and any costs and commission..

An exception occurs when the calculated P&L exceeds the VaR (99%, 1D).

In 2019, the hypothetical back-testing calculated on the trading portfolio revealed 5 downward back-testing exceptions following market data variations:

- Decrease of EUR/GBP exchange rates and decrease of EUR / USD interest rates;
- Decrease of EUR/USD exchange rates;
- Decrease of EUR/JPY exchange rates and decrease of EUR / USD interest rates;
- Increase of EUR/NOK and EUR/SEK exchange rates;
- Increase of EUR/JPY exchange rates, decrease of EUR/SEK exchange rates and increase of USD interest rates.

4.2.4.2 Systems and controls

On a daily basis, FRM calculates, analyses and reports on the risks and results at a consolidated level.

All market activities are backed by specific charters and policies describing the objectives, the authorised products, sensitivity, VaR and/or outstanding limits, etc.

The systems and controls established inside the Bank are described in various procedures to ensure that a comprehensive framework is in place to support those who are responsible for managing market risks.

4.3 Liquidity risk

BIL's approach to liquidity management aims to ensure that it will always have sufficient liquidity when due, under both normal and stressed conditions, to meet payment obligations in a timely manner and at acceptable costs.

The Head-Office (HO), the branches and the subsidiaries are each responsible for meeting their own liquidity needs in coordination with the HO. HO acts as the lender of the last resort.

The main actor of the liquidity management is the Banking Book Management Department, which encompasses the Treasury, the ALM, the Long-Term Funding and the Investment Portfolio departments. This department is under the responsibility of the Head of Banking Book Management who directly reports to the Chief Finance Officer.

The responsibility for monitoring liquidity lies with FRM.

The liquidity management process is based upon covering funding requirements with available liquidity reserves. Funding requirements are assessed carefully, dynamically and comprehensively by taking the existing and planned on- and off-balance sheet asset and liability transactions into consideration. Reserves are constituted with assets eligible for refinancing with the central banks to which BIL has access (Banque Centrale du Luxembourg (BCL) and Swiss National Bank (SNB)).

Regular information channels have been established for Management Bodies to manage the liquidity on a continuing way:

- A daily report ("Daily Liquidity Dashboard" that groups the LCR and the projection of liquidity needs up to 5 days) is sent to the Treasury and ALM teams, the CRO and the CFO;
- A weekly report ("Liquidity Risk Stress Test" that compares the liquidity reserves to liquidity needs up to 3 months according 3 scenarios) is sent to the CEO, the CRO, the ALM Committee members, the Risk Management, the Treasury and ALM teams. The Bank is currently developing a set of 12-months scenario as well as a reverse stress test that will enter in force during the 1st semester of 2020.

These reports are sent to the Banking Book Management Department, which is charge of the liquidity management.

In parallel, the Contingency Funding Plan (CFP) groups information to respond to severe disruptions to a bank's ability to fund some or all of its activities in a timely manner and at a reasonable cost. A robust CFP contains clear policies and procedures that will enable the Management to make timely and well-informed decisions, execute contingency measures rapidly and proficiently, and communicate effectively to implement the plan efficiently, including:

- A set of recovery options;
- Clear allocation of roles and responsibilities, including the authority to invoke the CFP;
- Names and contact details of members of the team responsible for implementing the CFP;
- Designation of alternates for key roles.

An analysis of the balance sheet development (e.g. customer deposits) is also presented and commented during the ALM Committee meetings.

In accordance with the regulation[1], BIL is submitted to the Internal Liquidity Adequacy Assessment Process (ILAAP). The ILAAP thus contains all the qualitative and quantitative information necessary to underpin the Risk Appetite, including the description of the systems, processes and methodology to measure and manage Liquidity and Funding Risks. BIL will produce, at least once per year, a clear and formal statement on its liquidity adequacy, supported by an analysis of ILAAP outcomes and approved and signed by the Management Board. The Bank integrates ILAAP outcomes regarding the evolution of material risks and indicators into their internal reporting at an appropriate frequency (ALM Committee, the Risk Dashboard, etc.).

Finally, the Bank produces the Liquidity Adequacy Statement ("LAS"). The purpose of this document is to address a request from the ECB, as stated in a letter (7 February 2019) entitled as the *"Technical implementation of the EBA Guidelines on ICAAP and ILAAP information collected for SREP purposes"*, to produce a concise statement about the view of the Management Bodies with regards to the institution's capital adequacy, supported by the analysis of the ILAAP set-up and results.

4.3.1. Main reference documents

The reference documents to monitor the Liquidity and the Funding management framework of BIL group are detailed in:

- The Liquidity Risk Charter, which defines the normative and organizational framework governing the Liquidity Management activity line within the Bank;
- The Fund Transfer Pricing Charter, which is an important tool in the management of the Bank's balance sheet structure and in the measurement of risk adjusted profitability taking into account liquidity spread, maturity transformation and interest rate;
- The Contingency Funding Plan (CFP), as already mentioned above, which is the set of policies, procedures and action plans for responding to severe disruption. The CFP is activated immediately after the breaches happened to the indicators inside the Liquidity Risk Appetite Statement (RAS). The CFP is in line with the Recovery Plan of the Bank

4.3.2. Concentration of funding and liquidity source

BIL uses differentiated funding sources as at 31 December 2019 of which:

- Standard:
  - Deposits (EUR 17,591 million): Retail (EUR 4,930 million), Wealth Management (EUR 5,894 million), Institutional (EUR 113 million), Corporate (EUR 6,655 million);
  - Schuldscheine (EUR 8 million).

[1] Article 86 of Directive 2013/36/EU (CRD IV), Guidelines on ICAAP and ILAAP information collected for SREP purposes" (EBA/GL/2016/10).

- EMTN programme:
  - BIL Structured Products (BSPs): debt issuances distributed in BIL's own network (retail, private banking) (EUR 881 million);
  - Senior debt to Third Party Investors (EUR 1,628 million);
  - Senior Non-Preferred debt (EUR 552 million);
  - Subordinated debt (Tier II, EUR 139 million);
  - Subordinated debt (Additional Tier 1, EUR 206 million).

It is worth mentioning that 82% of the bond portfolio is ECB eligible and the excess cash at Central Banks is EUR 2.87 billion at 31 December 2019.

4.3.3 Risk measurement

The internal liquidity management framework includes indicators enabling the assessment of BIL's resilience to liquidity risk. These indicators include liquidity ratios and liquidity gaps; the latter compares liquidity reserves with liquidity needs. These ratios are sent to the CSSF and to the ECB, on a daily and a weekly basis respectively.

4.3.4 Risk exposure

Each day, a liquidity report containing the liquidity projection up to five days and a daily estimated LCR solo is sent to the Chief Risk Officer, the Chief Financial Officer, the ALM and Treasury teams.

In addition, a weekly stress liquidity report is sent to the Chief Executive Officer, the Chief Risk Officer, the ALM Committee members, the Risk Management, the ALM and Treasury teams. The liquidity risk is captured through three scenarios which are considered as an early warning indicator for the LCR evolution within the next three months:
- Market-wide scenario, which focuses on a depreciation of the Bank's assets and additional margin calls taking into account of the of adverse market conditions;
- Idiosyncratic scenario, which highlights a loss of confidence from BIL's counterparties;
- Combined scenario, which is a mix of the two previous scenarios.

Stress (in EUR million)	**Market-Wide 3M**		**Idiosyncratic 3M**		**Combined 3M**	
	Cumulated funding gap	**Cumulated buffer**	**Cumulated funding gap**	**Cumulated buffer**	**Cumulated funding gap**	**Cumulated buffer**
31/12/2018	**2,464**	**4,572**	**3,783**	**4,705**	**3,968**	**4,572**

Stress (in EUR million)	**Market-Wide 3M**		**Idiosyncratic 3M**		**Combined 3M**	
	Cumulated funding gap	**Cumulated buffer**	**Cumulated funding gap**	**Cumulated buffer**	**Cumulated funding gap**	**Cumulated buffer**
31/12/2019	**2,787**	**5,154**	**3,648**	**5,424**	**4,131**	**5,154**

The stress results are presented to the ALCO with the other main liquidity indicators (e.g. LCR, NSFR, variation customer deposits, etc.).

In addition to the Management Board, this report is sent weekly to the ECB.

The excess cash has been partially invested through the Bank's liquidity buffer bonds portfolio. This portfolio is mainly composed of Central Bank-eligible bonds which are also compliant with the Basel III package requirements, i.e. the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR)..

4.3.5 Liquidity Coverage Ratio

As the main short-term liquidity reference indicator, the LCR requires the Bank to hold sufficient High-Quality Liquid Assets (HQLA) to cover its total net cash outflows over 30 days. The methodology of the ratio is compliant with the CRR (Delegated Act based on art. 462 of the CRR).

It is worth mentioning that the LCR has an impact on the asset structure as well as the funding profile of the Bank. LCR forecasts therefore become an integral part of the decision-making process of the Management Bodies.

(in EUR million)	31/12/2018	31/12/2019
Stock of HQLA	4.42	6.34
Net Cash Outflows	3.30	4.55
LCR ratio	134%	139%
Regulatory limit	100%	
Internal limit	110%	
Trigger	115%	

The LCR increased from 134% as of 31 December, 2018 to 139% as of 31 December, 2019.

The Stock of HQLA grew much faster far more than the Net Cash Outflows. This resulted from new sources of stable funding and major investments eligible as HQLA. To be more specific,

- Main sources of stable funding were sight deposits from retail and non-financial counterparties, deposits with a residual maturity greater than 30 days and long-term debts issued by the Bank.
- On the investment side, the purchases of HQLA bonds, more deposits of excess liquidity in Banque Centrale de Luxembourg and the termination of some securities lending transactions impacted positively the Stock of HQLA.

For further details, please refer to the hereafter table elaborated in line with the circular CSSF 18/676 on LCR disclosure.

EU LIQ1: LCR DISCLOSURE TEMPLATE AND THE TEMPLATE ON QUALITATIVE INFORMATION ON THE LCR (ANNEX II) WHICH COMPLEMENTS ARTICLE 435(1)(F) OF REGULATION (EU) NO 575/2013

	Scope of consolidation (consolidated) Currency and units (EUR million)	Total unweighted value				Total weighted value			
	Quarter ending on (DD Month YYY)	**31 March 2019**	**30 June 2019**	**30 September 2019**	**31 December 2019**	**31 March 2019**	**30 June 2019**	**30 September 2019**	**31 December 2019**
	Number of data points used in the calculation of averages	**12**	**12**	**12**	**12**	**12**	**12**	**12**	**12**
	HIGH-QUALITY LIQUID ASSETS								
1	Total high-quality liquid assets (HQLA)					**4,460,65**	**4,688,86**	**4,978,09**	**5,551,93**
	CASH-OUTFLOWS								
2	Retail deposits and deposits from small business customers, of which:	8,018.24	8,228.43	8,463.65	8,654.34	860.06	888.64	920.56	943.55
3	*Stable deposits*	3,121.53	3,171.66	3,226.91	3,280.47	156.08	158.58	161.35	164.02
4	*Less stable deposits*	4,896.71	5,056.77	5,236.74	5,373.88	703.99	730.05	759.22	779.53
5	Unsecured wholesale funding	7,931.59	7,864.48	8,100.06	8,250.47	5,570.24	5,432.89	5,594.81	5701.99
6	*Operational deposits (all counterparties) and deposits in networks of cooperative banks*	0	0	0	0	0	0	0	0
7	*Non-operational deposits (all counterparties)*	7,914.09	7,838.21	8,088.79	8,239.2	5,552.74	5,406.62	5,583.55	5,690.72
8	*Unsecured debt*	17.50	26.27	11.27	11.27	17.50	26.27	11.27	11.27
9	Secured wholesale funding					33.88	52.37	53.94	59.44
10	Additional requirements	1,848.53	1,912.08	1,992.65	2,185.38	302.35	298.44	301.54	314.59
11	*Outflows related to derivative exposures and other collateral requirements*	171.10	165.21	162.56	159.70	171.10	165.21	162.56	159.70
12	*Outflows related to loss of funding on debt products*	0	0	0	0	0	0	0	0
13	*Credit and liquidity facilities*	1,677.43	1,746.87	1,830.09	2,025.68	131.24	133.23	138.98	154.89
14	Other contractual funding obligations	0	0	9.67	9.67	0	0	9.67	9.67
15	Other contingent funding obligations	2,227.24	2,315.33	2,402.67	2,352.42	0	0	0	1.42
16	**TOTAL CASH OUTFLOWS**					**6,766.54**	**6,672.34**	**6,880.52**	**7,030.65**
	CASH-INFLOWS								
17	Secured lending (eg reverse repos)	0	0	0	0	0	0	0	0
18	Inflows from fully performing exposures	2,688.05	2,665.36	2,794.46	2,575.31	2,557.13	2,538.96	2,660.27	2,444.57
19	Other cash inflows	2,325.53	2,227.42	2,189.42	2,144.51	757.25	640.95	553.44	467.54
EU-19a	(Difference between total weighted inflows and total weighted outflows arising from transactions in third countries where there are transfer restrictions or which are denominated in non-convertible currencies)					0	0	0	0
EU-19b	(Excess inflows from a related specialized credit institution)					0	0	0	0
20	**TOTAL CASH INFLOWS**	**5,013.58**	**4,892.78**	**4,983.89**	**4,719.82**	**3,314.38**	**3,179.92**	**3,213.71**	**2,912.11**
EU-20a	***Fully exempt inflows***	0	0	0	0	0	0	0	0
EU-20b	***Inflows Subject to 90% Cap***	0	0	0	0	0	0	0	0
EU-20c	***nflows Subject to 75% Cap***	**5,013.58**	**4,892.78**	**4,983.89**	**4,719.82**	**3,314.38**	**3,179.92**	**3,213.71**	**2,912.11**
21	**LIQUIDITY BUFFER**					**4,460.65**	**4,688.86**	**4,978.09**	**5,551.93**
22	**TOTAL NET CASH OUTFLOWS**					**3,452.16**	**3,492.42**	**3,666.81**	**4,118.54**
23	**LIQUIDITY COVERAGE RATIO (%)**					129.81%	134.74%	136.22%	135.82%

Qualitative information on LCR, which complements the LCR quantitative disclosure template above:

Concentration of funding and liquidity sources	**Please refer to the dedicated section in "4.3.2. Concentration of funding and liquidity source"**
Gross derivative exposures	• Derivative **assets**, gross of variation margin received: 92.24 million (Partially margined) and 2.50 million (Un-margined Netting sets (NS)); • Derivative **liabilities**, gross of variation margin received: -249.71 million (Fully margined), -104.22 million (Partially margined) and -0.11 million (Un-margined Netting sets (NS)).
Currency mismatch in the LCR	The only relevant currency is USD. The consolidated LCR USD ratio is about 40.61%. Please note that it is in line with a SREP obligation, BIL closely monitors its LCR in USD.
A description of the degree of centralisation of liquidity management and interaction between the group's units	The degree of centralisation of BIL's liquidity management is high. The Luxembourg Head Office offers quotation, deposit and funding services to our branches and subsidiaries, and acts as lender of last resort for both BIL Denmark and BIL Switzerland. The funding needs of the Danish entity are covered on a back-to-back basis with the Head Office. The Swiss unit has a limited treasury activity and could potentially trade in the market outside the BIL group. However, given the current environment with a declining interbank market, it concludes most of its deals with the Head Office as well. Furthermore, both entities hold their Nostro accounts with BIL Luxembourg, in addition to a Nostro account with their respective central bank. The interaction between the different entities is governed by a SLA.
Other items in the LCR calculation that are not captured in the LCR disclosure template but the institution considers relevant for its liquidity profile	N/A

4.3.6 Net Stable Funding Ratio

The NSFR, reflecting the long-term liquidity position of an institution, requires the available amount of stable funding to exceed the required amount of stable funding over a one-year period of extended stress. Pending the official EU calibration of the NSFR, the calculations are based on Basel III calibration included in the Quantitative Impact Study (QIS) and reported in the Short-Term Exercise (STE).

in EUR billion	**2018**	**2019**
Available Stable Funding (ASF)	16.42	17.76
Required Stable Funding (RSF)	15.18	16.01
NSFR ratio	108%	111%
Limit	100%	

The increase of the NSFR (from 108% in 2018 to 111% at the end of 2019) is comes from 3 axes:

- The increase of capital (EUR 58 million),
- Long-term issues (EUR 120 million in net view), and
- An important deposit (EUR 313 million) of the Luxembourg State Treasury.

4.3.7 Asset encumbrance

Since December 2014, BIL group's asset encumbrance is reported on a quarterly basis to the CSSF. This report includes the whole balance sheet split into encumbered and non-encumbered assets, collateral received and sources of encumbrance.

The Bank set up a report of key metrics and a limit regarding asset encumbrance which is based on data of regulatory reporting. The following metrics have been selected to provide key information:

- Level of asset encumbrance;
- Credit quality of unencumbered debt securities;
- Sources of encumbrance;
- Contingent encumbrance.

A reference to the LCR classification has been added in the section "Credit quality of unencumbered debt securities" in order to give complementary information about the quality of unencumbered assets.

The European asset encumbrance ratio has been calculated and added in the internal report. The components also rely on metrics of regulatory reporting:

$$AE\% = \frac{\text{Total encumbered assets + Total collateral received re-used}}{\text{Total assets + Total collateral received available for emcumbrance}}$$

This ratio measures the asset encumbrance of credit institutions in Europe in a harmonised way. The overall weighted average encumbrance ratio calculated and published regularly by the EBA (for example 27.9% in December 2018[1]) is an available benchmark. By comparison, BIL's ratio is around 14% and reflects a low/moderate level of asset encumbrance compared to other institutions. It is worth mentioning that the limit in the Risk Appetite Framework remains at a level of 25%.

In line with the exemptions mentioned in the Article 16a of Commission Implementing Regulation (EU) 680/2014 for supervisory reporting on asset encumbrance, BIL does not disclose the required template on asset encumbrance (EBA/RTS/2017/03) in 2019 Indeed, the BIL's total assets is below EUR 30 billion. However, the hereafter table is realised with internal data.

(in EUR million)	31/12/18	31/12/19
Level of asset encumbrance		
Encumbered assets	3,439	2,671
Collateral received re-used	184	250
Total amount	3,623	2,921
Ratio[2]	**14%**	**10%**
Limit	**25%**	**25%**
Credit quality of unencumbered debt securities[3]		
Step 1 (AAA to AA-)	2,088	3,248
of which eligible as LA for LCR	*1,799*	*3,058*
Step 2 (A+ to A-)	1,322	1,481
of which eligible as LA for LCR	*1,077*	*1,219*
Step 3 (BBB+ to BBB-)	1,072	809
of which eligible as LA for LCR	*998*	*974*
Non-rated securities	143	729
of which eligible as LA for LCR	*41*	*35*
Total amount	***4,626***	***6,266***
of which eligible as LA for LCR	***3,916***	***5,287***
Sources of encumbrance		
OTC Derivatives	502	602
Repurchase agreements	1,245	1,318
Collateral swaps	775	945
Securities Lending	301	2
Central Bank Reserves	550	179
Total amount	**3,373**	**3,046**
Contingent encumbrance[4]		
OTC Derivatives	72	135
Repurchase agreements	403	395
Collateral swaps	322	290
Securities Lending	125	1
Total amount	**922**	**821**

[1] Cf. the "EBA REPORT ON ASSET ENCUMBRANCE.
[2] Asset encumbrance ratio = (Encumbered assets + Collateral received re-used) / (Total assets + Total collateral received)..
[3] Assets and collateral received available for encumbrance.
[4] Additional amount of encumbered assets resulting from a decrease by 30% of the fair value encumbered assets.

As of 31 December, 2019, the amount of EUR 2.9 billion of BIL group's balance sheet is presented by the encumbered asset assets were encumbered and the asset encumbrance ratio was 10%. The yearly variation of the ratio is explained mainly by the closure of the asset securities lending (ASL) program, (EUR 400 million) and the change of the calculation method relating to the Central Bank Reserves (average amount instead of accounting amount).

Key sources of encumbrance are the participation to the ECB Targeted Long Term Refinancing Operations (TLTRO) (EUR 700 billion), collateral swaps (EUR 0.95 billion) and repos (EUR 1.32 billion).

The disclosure requirements in Article 443 of the CRR are specified in the EBA Guidelines on the disclosure of encumbered and unencumbered assets (the EBA Guidelines 2014/03). The required information is provided in the tables hereafter:

- The encumbered and unencumbered assets in carrying and in fair value amounts is categorised by broad asset type (Template A);
- Collateral received by the institution, by broad product type (Template B);
- Carrying amount of encumbered assets/collateral received and associated liabilities (Template C).

TEMPLATE A-ASSETS LEVEL OF ASSET ENCUMBRANCE

		Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of non-encumbered assets		Fair value of non-encumbered assets	
			of which: notionally eligible EHQLA and HQLA eligible		*of which: notionally eligible EHQLA and HQLA eligible*		*of which: notionally eligible EHQLA and HQLA eligible*		*Fair value of non-encumbered assets*
		010	030	040	050	060	080	090	100
010	**Assets of the reporting institution**	**2,902,144,072**	***2,262,068,572***			**24,086,625,873**	***3,703,627,323***		
030	Equity instruments	0	*0*	0	*0*	80,496,925	*0*	*58,918,613*	*0*
040	Debt securities	2,214,851,310	*1,564,107,288*	2,259,772,582	*1,615,394,559*	5,164,513,323	*3,703,627,323*	*5,200,795,708*	*3,753,988,368*
050	*of which: covered bonds*	*126,949,322*	*125,793,117*	*129,137,148*	*127,980,944*	*661,349,655*	*573,006,946*	*664,714,799*	*576,368,609*
060	*of which: asset-backed securities*	*41,661,131*	*0*	*41,798,009*	*0*	*47,078,605*	*0*	*47,089,408*	*0*
070	*of which: issued by general governments*	*1,390,527,511*	*1,387,392,436*	*1,446,980,495*	*1,443,686,807*	*3,087,544,544*	*2,608,790,350*	*3,129,745,300*	*2,645,084,665*
080	*of which: issued by financial corporations*	*761,814,198*	*167,445,067*	*761,072,424*	*169,279,147*	*1,606,042,821*	*884,668,200*	*1,596,579,094*	*891,221,732*
090	*of which: issued by non-financial corporations*	*98,788,635*	*61,730,998*	*99,454,032*	*62,337,152*	*568,438,910*	*174,934,356*	*571,680,023*	*175,300,274*
120	Other assets	636,429,507	*636,429,507*			18,875,455,407	*0*		

TEMPLATE B-COLLATERAL RECEIVED

		Fair value of encumbered collateral received or own debt securities issued		Fair value of collateral received or own debt securities issued available for encumbrance	
			of which: notionally eligible EHQLA and HQLA eligible		*of which:notionally eligible EHQLA and HQLA eligible*
		010	030	040	060
130	**Collateral received by the reporting institution**	**250,171,740**	*0*	**798,300,182**	**93,594,223**
140	Loans on demand	0	*0*	0	*0*
150	Equity instruments	0	*0*	0	*0*
160	Debt securities	250,171,740	*0*	699,868,573	*0*
170	*of which: covered bonds*	*0*	*0*	*0*	*0*
180	*of which: asset-backed securities*	*0*	*0*	*0*	*0*
190	*of which: issued by general governments*	*0*	*0*	*344,328,167*	*0*
200	*of which: issued by financial corporations*	*250,171,740*	*0*	*355,540,406*	*0*
210	*of which: issued by non-financial corporations*	*0*	*0*	*0*	*0*
220	Loans and advances other than loans on demand	0	*0*	93,594,223	*93,594,223*
230	Other collateral received	0	*0*	0	*0*
240	**Own debt securities issued other than own covered bonds or ABSs**	**0**	**0**	**43,782,781**	**0**
250	**TOTAL ASSETS, COLLATERAL RECEIVED & OWN DEBT SEC ISSUED**	**3,153,059,838**	**0**		

TEMPLATE C-ENCUMBERED ASSETS/COLLATERAL RECEIVED AND ASSOCIATED LIABILITIES

		Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
		010	030
010	Carrying amount of selected financial liabilities	1,849,119,096	1,745,397,605

4.4. Interest rate risk in the banking book

Interest Rate Risk in the Banking Book (IRRBB) refers to the current or prospective risk to a bank's capital and its earnings, arising from the impact of adverse movements in interest rates on its banking book.

The reference document for the IRRBB framework is the IRRBB Policy, validated by the ALM Committee. The document covers the key topics of the Regulation:

- Regulatory context;
- Scope;
- Methodology (accounting reconciliation, Economic Value (EVE) / Net Interest Income (NII), products specificities, stress scenario); and
- Governance (frequency, limits and triggers for EVE and NII).
- The drafting of this policy allows BIL to manage the IRRBB in compliance with the current regulatory framework[1].

Two complementary methods measure the impacts of changes on the IRRBB: Section 4.4.1changes in economic values and changes in expected earnings (earnings based measures, Section 4.4.2)

The IRRBB strategy of BIL is part of the overall Bank strategy and is steered by the ALCO as the emanation of the Management Body. BIL's risk appetite for IRRBB is notably expressed in relation with the total capital for economic value and in relation with the CET1 for earnings. The Bank has a limited optional for risk and strives to reduce its natural commercial gap and basis risk.

4.4.1. Monitoring of Economic Value of Equity

BIL defines its EVE measure as the measure of changes in the net present value of all interest rate sensitive instruments (over the remaining life for the fixed rate instruments or over their next repricing date for floating rate instruments) resulting from interest rate movements. The EVE measurement is defined by the difference of the current EVE and expected EVE under an alternative scenario.

In accordance with the principle 8 of BCBS[2] and the EBA 2018 Guidelines on IRRBB, BIL discloses the measurement of EVE variation with the following basis:

- The EVE measurement is a scenario-base measurement and the scenario is an instantaneous shock to the current yield curves:
- The EVE measurement is a calculation assuming a run-off balance sheet;
- All positions from interest rate sensitive instruments are taken into account;
- For EVE exposures purposes, the instruments with unconditional cash flows are neither renewed nor extended after their maturity date and the instruments with conditional cash flows are amortized according to a central scenario;
- For the supervisory outlier tests, the non-interest-bearing assets and liabilities are excluded of the EVE measurement. The other EVE measurement takes into account all non-interest-bearing including the capital. The additional Tier 1 and 2 instruments with a call date are part of the EVE measure until their next call date. The Tier 2 instruments without any call dates are part of the EVE measure until their contractual date;
- The change in the present value of the commercial assets and the liabilities is measured based on their respective rate transfer pricing (RTP), assuming a discount factor based on a risk-free yield curve;
- The change in the present value of the financial instruments is measured based on their full cash flows, assuming a discount factor based on a risk-free yield curve;
- The EVE measure does not depend on the accounting rules.

[1] Interest rate risk in the banking book standard, April 2016 and EBA/GL/2015/08 EBA guidelines on the management of interest rate risk arising from non-trading activities.

[2] Basel Committee on Banking Supervision – Standards – Interest rate risk in the banking book – April 2016.

Definition of EVE limits:

The Bank defines a set of limits in respect within the BCBS standards[1] and EBA 2018 guidelines on IRRBB. Depending on the type of scenarios (regulatory or internal shocks), specific set of triggers and limits were defined in million EUR (based on 2020 projections):

EV measures (in EUR Million)	Regulatory Limit		Internal Limit		Trigger	
Supervisory outlier test (+/- 200 bp)	297	20% of total capital=outlier	238	80% of total outlier	n.a	n.a
BCBS standardized scenario	n.a	n.a	238	80% of outlier	201	15% of Tier 1 (EWS)
+/- 100 bp parallel shift	n.a	n.a	119	40% of outlier	100	15% of Tier 1 (EWS)
Expert scenarios	n.a	n.a	238	80% of outlier	201	15% of Tier 1 (EWS)

Frequency of the calculation:

The Bank computes the EVE on a monthly basis. The results are presented to the ALM Committee. The figures are included in the Risk Appetite Summary.

4.4.2. Monitoring of Net Interest Income

The earnings risk is the difference between expected earnings under a base scenario and expected earnings under an alternative scenario (more adverse or more stressed). The earnings measurement is not limited to the interest income and expenses. Depending on the accounting treatment, the impact of interest rate on the market value of instruments that are measured either through P&L or through OCI are taken into the earnings measurement:

- In accordance with the BCBS and EBA standards, the Bank adopts the following principles to measure the earnings risk: The earnings risk is calculated assuming a constant balance sheet, where maturing or repricing cash flows are replaced by new ones with identical features, with regard to the amount, repricing period and spread components;
- The earnings risk is limited to the interest income and expenses. The impact of interest rate on the market value of instruments that are measured either through P&L or through OCI are not taken into account in the earnings risk;
- The earnings risk is measured before tax;
- The earnings risk includes expected cash flows arising from all interest rate-sensitive instruments and products in the banking book;
- The non-interest-bearing assets and liabilities are excluded from the calculation measuring the earnings risk;
- The earnings risk takes into account the effectiveness of hedging relationship;
- The earnings measures and associated risk are not limited to the Rate Transfer Pricing (RTP) but include also the Liquidity Transfer pricing (LTP) and the commercial margin;
- The non-performing exposures (net of provision) are part of the earnings measure based on their expected cash flows and their timing;
- The treatment of options (automatic and behavioural) is dependent on the specific interest rate scenario. The callable structured deposits are called on the first call date and the puttable structured deposits are repaid on their maturity date;
- The earnings risk should be measured over a horizon greater or equal to 1 year (currently 1 year). The variation of NII is disclosed as the difference in the future interest income over a rolling of 12-months period.

Definition of NII limits:

Unlike the economic value, the Basel Committee and the ECB do not define a limit for the net interest income. The definition and the calibration of the limits and the triggers is a specific decision to each financial institution, but institutions should articulate their risk appetite for IRRBB in term of earning risk[2].

The BIL's timeline of the NII limit is over 1 year. The definition of the limit and the trigger is based on the potential impact on the CET1 ratio of (i) a depletion of 60bp of the projected 2020 ratio (EUR – 60M) for the limit and (ii) a depletion of 40bp of the projected 2020 ratio (EUR – 40M) for the trigger.

	IRRBB	
Scenarios	Trigger[3]	Limits[3]
Parallel shock up 200bp - BCBS	25[4]	30[5]
Parallel shock down -200bp - BCBS		

[1] Basel Committee on Banking Supervision – Standards – Interest rate risk in the banking book– April 2016.
[2] Interest rate risk in the Banking book, standard, April 2016 and EBA/GL/2015/08 EBA guidelines on the management of interest rate risk arising from non-trading activities.
[3] Mios EUR
[4] As of 2017, this trigger is equal to 1/12 of the NII budget or around 40bp of the CET1
[5] As of 2017, this limit is equal to 10% of the NII budget or around 50bp of the CET1

Frequency of the calculation:

The Bank computes the NII on a quarterly basis for the next 12 months. The results are presented to the ALM Committee and the Management Body through the RAF, especially the Risk Dashboard.

4.4.3. Products specificities

4.4.3.1. Modelling of non-maturing deposits (NMD)

BIL developed a new model that reflects the principles stated in the IRRBB BIS document and the EBA guidelines. The model covers customers' current and savings accounts (in EUR and USD only) for a balance of EUR 12.3 billion of deposits modelled as of end of December 2019. The dataset is built at the account level, on a monthly basis within a 11-year historical data. The Data collection encompasses qualitative and quantitative variables. Four variable were used to define the groups of customers with similar behaviours and to determine the NMD components:
- Products;
- Currency;
- Basel categories; and
- Total assets buckets.

Based on these variables, 28 NMD times series were analysed for the assessment of BIL's overall amount of stable and core deposits.

The modelling elements of core deposits is defined as stable deposits less the absolute value of NMD volatility times NMD's sensitivity to the interest rates, less a conservative haircut for model risk:
- Stable deposits are obtained based on a Value-at-Risk approach, with a NMD volatility based on the absolute value of historical VaR;
- NMD sensitivity to interest rates is based on the Sobol's first order index (variance-based method);
- The haircut is calibrated based on a catastrophic scenario to cope with a situation where the modelled interest rates' sensitivity is none and the effective sensitivity is equal to one.

The duration associated to core deposits is calibrated based on a model that takes volume and number of customers into account and uses a cap of 4 to 5 years (depending on Basel category), in line with the BIS document.

The method used to back-test the model for core deposits is the same as for back-testing VaR.

4.4.3.2. Explicit and implicit options

The explicit options concern products with contractual (automatic) options. These options take into account the interest rate curves scenarios.

The implicit options are derived from client behavioural assumptions on specific products (e.g. early repayments in the context of the Luxemburgish law of 23 December 2016).

BIL is studying the implementation of a specific prepayment model. Two datasets have been analysed: an internal dataset on retail mortgages and an external public dataset on US mortgage provided by Fannie Mae.

Several prepayment models have been tested. Those models predict directly the conditional prepayment rate (CPR) given the input.
- Firstly, the classification models were investigated. It allows to decide for each month whether a specific mortgage will be prepaid or not.
- A second strategy contains a set of explanatory variables of the prepayment, including the main loan characteristics (outstanding amount, client's rate, time to maturity...) into a regressive model.

4.4.4. IRRBB Stress scenario

In addition to the supervisory outlier stress test and the pre-defined BCBS / EBA scenario, the Bank defined a set of expert scenarios to stress the earnings risk and the EVE.

4.4.4.1. EVE: IR scenario for the supervisory outlier test

The supervisory outlier test is defined as follows[5]:

- Sudden parallel +/- 200 basis point shift of the yield curve.
- The shock is applied for each material currency.
- The shock is applied by deal (or position) and the result is first aggregated by tenor and then by currency. The negative or positive changes are full applied.
- Depending on the final result:
  - negative change is fully taken into account,
  - a 50% factor is applied to positive change.

4.4.4.2. EVE: IR BCBS standardized scenarios

The Bank applies six standardized interest rate scenarios to capture parallel and non-parallel gap risk for EVE :
- Parallel shock up;
- Parallel shock down;
- Short rates shock up;
- Short rates shock down;
- Steepener shock; and,
- Flattener shock.

The next table displays the values type, applied for the parallel, short and long IR shocks for the main currencies:

Type	EUR	USD	CHF
Parallel	200	200	100
Short	250	300	150
Long	100	150	100

As for the supervisory outlier test, the following principles are applied to each scenario:
- A floor is applied to each currency starting with -100 bp for the overnight maturity and an increase by 5 bp per year (eventually reaching a floor of 0% for maturities of 20 years and more).
- The shocks are applied for each material currency
- When calculating the aggregated EVE change for each shock scenario, the Bank adds together any negative and positive changes occurring in each currency. Positive changes are weighted by a factor of 50%.

[1] According to paragraph 113 and 115 EBA/GL/2018/02

Term	BCBS Parallel Up			BCBS Parallel Down			BCBS Steepener			BCBS Flattener			BCBS Short Rate Negative			BCBS Short Rate Positive		
	EUR	USD	CHF	EUR	USD	CHF	EUR	USD	CHF	EUR	USD	CHF	EUR	USD	CHF	EUR	USD	CHF
1M	200	200	100	200	200	100	157	188	94	195	233	116	245	294	147	245	294	147
3M	200	200	200	200	200	100	147	175	86	184	220	109	235	282	141	235	282	141
6M	200	200	100	200	200	100	133	156	75	169	201	99	221	265	132	221	265	132
1Y	200	200	100	200	200	100	107	122	56	142	167	80	195	234	117	195	234	117
2Y	200	200	100	200	200	100	63	65	24	98	110	49	152	182	91	152	182	91
3Y	200	200	100	200	200	100	29	21	1	63	66	25	118	142	71	118	142	71
4Y	200	200	100	200	200	100	3	14	21	36	31	6	92	110	55	92	110	55
5Y	200	200	100	200	200	100	18	40	36	14	5	8	72	86	43	72	86	43
6Y	200	200	100	200	200	100	34	61	48	2	16	20	56	67	33	56	67	33
7Y	200	200	100	200	200	100	46	78	57	15	33	29	43	52	26	43	52	26
8Y	200	200	100	200	200	100	56	90	65	25	45	36	34	41	20	34	41	20
9Y	200	200	100	200	200	100	63	100	70	33	55	41	26	32	16	26	32	16
10Y	200	200	100	200	200	100	69	108	75	39	63	45	21	25	12	21	25	12
15Y	200	200	100	200	200	100	84	127	86	54	82	56	6	7	4	6	7	4
20Y	200	200	100	200	200	100	88	133	89	58	88	59	2	2	1	2	2	1
25Y	200	200	100	200	200	100	90	134	90	59	89	60	0	1	0	0	1	0

4.4.4.3. EVE: IR internal expert scenarios

In addition to the regulatory IR scenarios, the Bank applies three historical scenarios and defines three non-standard scenarios specific to BIL that are more related to the Bank's balance sheet characteristics.

Those scenarios are applied for the EVE Measure and are defined as follows:

- The sudden parallel shocks are defined in accordance with the table displayed below and are applied to all yield curves;
- The IR shocks are not floored;
- When calculating the aggregated EVE change for each shock scenario, the Bank adds together any negative and positive changes occurring in each currency.

The following table displays the sudden shocks applied for each internal expert scenario:

Term	1st Expert scenario		2nd Expert scenario		3rd Expert scenario		Historical Monetary crisis 1992	Historical Terrorist Attack 2001	Historical Financial Crisis 2008
	EUR & CHF	USD	EUR & CHF	USD	EUR & CHF	USD	ALL	ALL	ALL
1M					20	100	150	80	240
3M					20	100	147	77	244
6M					20	100	141	73	242
1Y					20	100	131	66	240
2Y	25	13	13	6	23	95	110	50	223
3Y	50	25	25	13	25	90	100	46	205
4Y	75	38	38	19	28	85	90	43	188
5Y	100	50	50	25	30	80	80	39	170
6Y	90	45	60	30	34	74	70	35	154
7Y	80	40	70	35	38	68	60	31	138
8Y	70	35	80	40	42	62	50	28	122
9Y	60	30	90	45	46	56	40	24	106
10Y	50	25	100	50	50	50	30	20	90
15Y	45	20	110	55	55	50	30	13	60
20Y	40	20	120	60	60	50	30	7	30
25Y	40	20	125	60	60	50	30		

4.4.5. IRRBB Outcomes

4.4.5.1 EVE Outcomes

The results of the **+200/-200 bp scenarios (EBA/GL/2018/02 -Article 113)** are disclosed below:

	31/12/2019 In EUR million					
	TOTAL	REGULATORY LIMIT	INTERNAL LIMIT	EUR	USD	CHF
Δ EVE under a Parallel -200 bp	-6.4	297.0	238.0	25.4	-15.2	-3.9
Δ EVE under a Parallel +200 bp	-15.9			-34.2	13.6	23.0

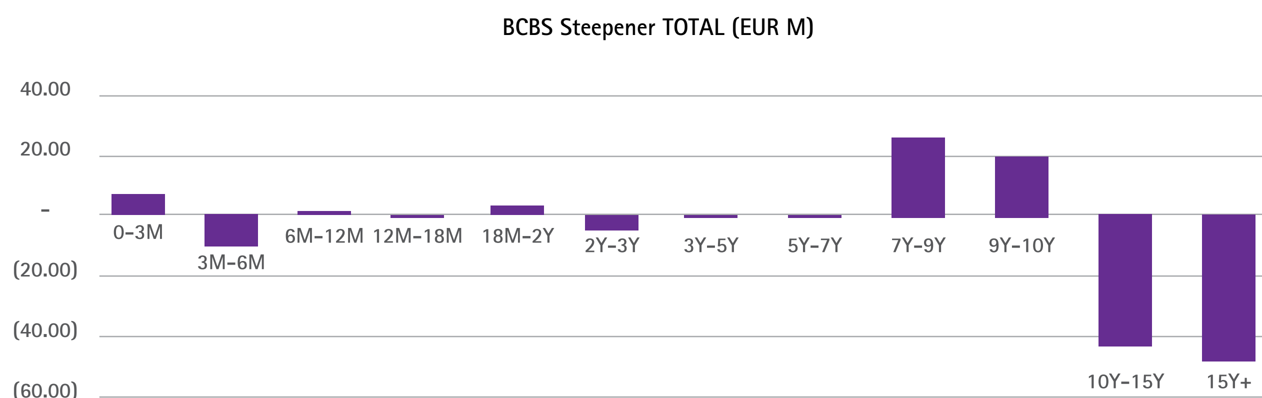
The results of the **BCBS standardized scenarios (EBA/GL/2018/02 – Article 114)** are disclosed below:

	31/12/2019 In EUR million					
	TOTAL	REGULATORY LIMIT	TRIGGER (15% of Tier 1)	EUR	USD	CHF
Parallel Shock Down	-6.4	238.0	201.0	25.4	-15.2	-3.9
Parallel Shock Up	-21.5			-34.2	13.6	11.8
Shock Rates Shock Down	-37.8			-28.0	-6.0	-3.8
Shock Rates Shock Up	35.0			57.7	5.7	6.5
Steepener	-71.4			-74.6	3.3	3.2
Flattener	40.6			80.8	-0.1	0.6

The most adverse scenario is the BCBS steepener (EUR 71.4M). No trigger or limit has been reached in 2019.

The chart below details the distribution of the BCBS steepener scenario for all currencies by bucket (31/12/2019).

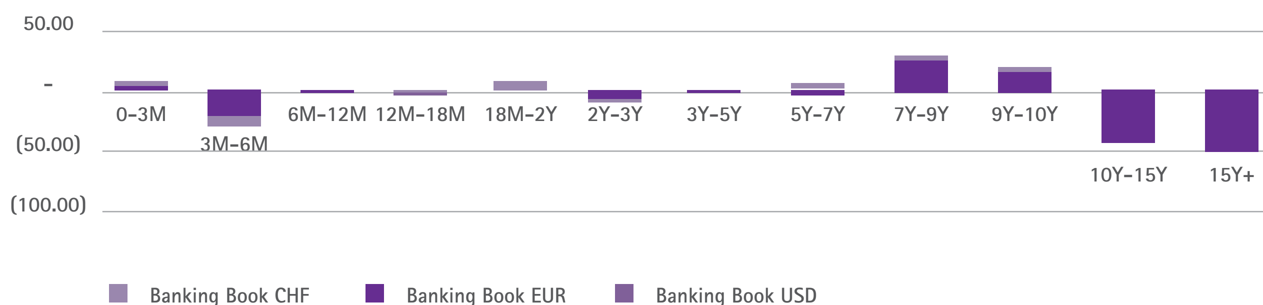
BCBS Steepener TOTAL (EUR M)



On the very short term, the shock is important until 2 years (between -100bp and -200bp depending on the currencies for the first bucket), the shock is slight from 3 years to 6 years and even more important beyond 6 years. The negative impact on the 3M-6M mainly comes from the floating rate bonds (assets). The medium term is globally neutral. The positive impact on the [7Y-9Y] and [9Y-10Y] buckets comes from the Non-Matured Deposit (liabilities), while the 2 last buckets are negatively impacted by the material positive shocks on the fixed rate mortgage loans.

Steepener scenario results by currency:

BCBS Steepener EUR – USD – CHF (EUR M)



The EUR currency is the most widely contributing currency, and EUR represents almost 75% of the total balance sheet. The rest are USD representing for 15% and CHF for 6%.

4.4.5.2. NII Outcomes

	31/12/2019					
	In EUR million					
	TOTAL	INTERNAL	TRIGGER	EUR	USD	CHF
Change in the forecasted Net Interest income within 12 months under a parallel interest rate shock down	-30.2	-60	-40	-30.3	-0.5	0.6
Change in the forecasted Net Interest income within 12 months under a parallel interest rate shock up	53.2			53.1	-2.2	2.3

From a global view, the 2019 NII stress results are similar to those of 2018. The asymmetry between the +200bp and -200bp mainly comes from the floor applied to the curves on the currencies that are in negative area. Indeed:
- As of 31/12/2018, the -200bp shock was applied in totality;
- As of 31/12/2019, the -200bp shock is floored at -100bp in negative territory.

The table below presents the results of the main BIL currencies. The main drivers of the results are EUR and USD. The application of the floors on the negative rates tends to moderate the impacts of the -200bp scenario. The evolution of the EUR is mainly driven by:
- The application of the floors;
- The new model of non-matured deposits.

The increase of the NMD (EUR 7.3M as of end of December vs EUR 5.3M in 2018) coupled with the floor have a negative impact on the NII in case of negative stress. Indeed, in case where the negative stress in not floored, from a theoretical and mathematical point of view, the full impact could lead to negative interest for the customers. The floors limit this impact and it is finally an opportunity for the Bank.

The evolution of the USD comes from the decrease of the term deposits volume in 2019 compared to 2018 (respectively USD 259M at end of 2019 vs USD 706M in 2018). The mechanical effect on the contribution on the NII is less important.

	2018		2019	
EUR million	-200bp	+200bp	-200bp	+200bp
EUR	-5	42	-30	53
USD	-11	11	-1	-2
CHF	-1	3	1	2

No limit or trigger has been breached in 2019.

4.5. Assessment of the regulatory capital requirement

BIL no longer applies the internal VaR model to calculate its regulatory capital requirement for general interest rate risk and currency risk within trading activities.

From 2013 onward, all market risks are treated under the Basel III standardised approach. The table below presents the Bank's regulatory capital required broken down by risk type for both year-end 2018 and 2019.

TABLE EU MR1 – MARKET RISK UNDER THE STANDARDISED APPROACH

	2018		2019	
	RWAs	Capital requirements	RWAs	Capital requirements
OUTRIGHT PRODUCTS				
Interest rate risk (general and specific)	45	4	32	3
Equity risk (general and specific)	0	0	0	0
Foreign exchange risk	17	1	17	1
Commodity risk				
OPTIONS				
Simplified approach				
Delta-plus method				
Scenario approach				
Securitisation (specific risk)				
Total	**62**	**5**	**49**	**4**

5. Operational risk

Operational risk is the risk of losses stemming from inadequate or failed internal processes, people, systems or external events. This definition includes legal risk but excludes strategic risk. It also excludes losses resulting from commercial decisions.

5.1 Operational risk governance

5.1.1 Organisation

Please refer to the section *1.2.1 Organisation*.

5.1.2 Policies and committees

BIL group's Operational Risk Management (ORM) framework relies on strong governance, with clearly defined roles and responsibilities

Policies

BIL's Operational Risk Management Policy describes a framework which aims at:

- identifying areas presenting operational risks to the Bank,
- defining the control framework to prevent this risks,
- drawing up action plans to contribute to the continuous improvement,
- communicating results to the Management so that it can manage operational risks within organization.

This framework is implemented through a preventive approach via the Risk and Control Self-Assessment (RCSA) and is completed by an insurance framework which covers certain risks.

The last review of the Operational Risk Management Policy was done in October 2018 (required every three years).

Committees

BIL's ORM framework relies on strong governance, which defined roles and responsibilities.

The following committees are responsible for operational risk at BIL:

- ***The Internal Control Committee (ICC)***, (which is a management committee) is in charge of supervising the Operational Risk, following operational incidents, RCSA results, Business Continuity Management, and Information Security for BIL;

- ***The New Product Committee (NPC)*** (which is a management committee) is a transversal management committee and is responsible for new products, services and markets on the basis of ideas coming from the entire Bank including the Innovation & Digital Forum and for checking the relevancy of the underlying business case against the Bank's strategy. The Head of BIL's Products & Markets acts as the chairman and the deputy CRO acts as a member for risk matters;

- ***The Monthly Operational Committee (MOC)***, under the responsibility of the Products & Markets business line (PM), and with the participation of ORM, supervises BIL's PM projects and operational risks, takes decisions of tackling day-to-day problems and monitors other risks related to PM Luxembourg's activities;

- ***The Crisis Committee (CC)*** is mandated by the Management Board to create an Operational Crisis Management Committee consisting of functions necessary for the management of any crisis; depending on the type of crisis, this committee is complemented by the heads of the entities affected. This Committee also deals with the Information Security subjects.

5.1.3 Risk reporting

The main internal reporting on Operational Risks are the following:

Report	Freq	Topics covered by internal report	Committee	Scope
Incidents	Q	Incidents: statistics data, detailed information on incidents, KRI	Management Committee (ICC)	Group BIL
RCSA	Y	Report on risks evaluations /assessment from RCSA matrix.		
Actions	H	Follow up of RCSA action plan.		
Insurance	Y	Renewal of Group BIL Policies		
ORM	H	Focus on ORM topics: Incidents, RCSA, KRI	Board of directors Committee (BRC)	Group BIL
WIR/QMFU[1]	W/M	Report on IT incidents with high or critical status & on investigations performed	Operational Committee: WIR or QMFU	BIL

Q=Quartely / Y=Yearly / H=Half-yearly / M= Monthly / W= Weekly

The main external reports produced by ORM are:

- The COREP C17, which reports the Operational losses on incidents;
- The Basel III QIS, which is a qualitative assessment to collect data on incidents and produced on half-yearly basis;
- The reporting on Internal & external Fraud linked to payment service providers linked (PSD II regulation). This newly report requested for the first time in 2019 is produced on yearly basis;
- The reporting on the Operational & Security Risks linked to payment service providers (PSD II regulation) This newly report requested for the first time in 2019 is produced on yearly basis.

5.1.4 Risk measurement

The operational risk framework is based on the following elements:

- Efficient data collection;
- Self-assessment of risks;
- Corrective and preventive action plans;
- Development, implementation and follow up of Key Risk Indicators.

[1] WIR: Weekly Incident Report - QMFU: Quality Management Follow Up

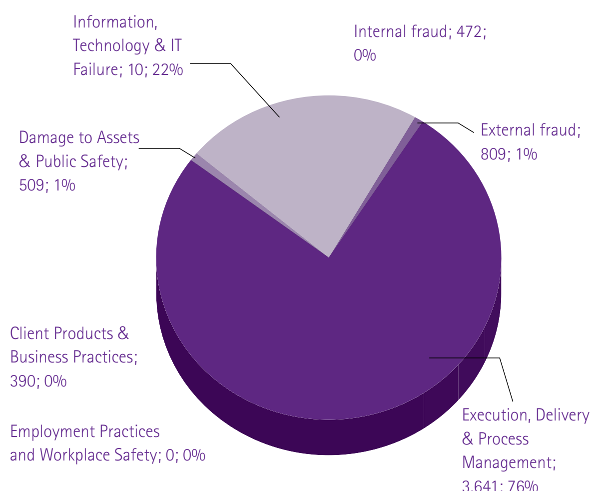
Operational risk event data collection

According to the Basel Committee, the systematic recording and monitoring of operational incidents is a fundamental aspect of risk management: "Historical data on banking losses may provide significant information for assessing the Bank's operational risk exposure and establishing a policy to limit/ manage risk";

Regardless of the approach used to calculate the capital, data collection is required. Having a relevant procedure in place ensures that BIL complies with the Basel Committee's requirements. The guidelines for reporting operational incidents have been reviewed in 2019 to be in line with the organisation of the Bank. At the same time, recording incidents provides information that may be used to improve the internal control system and determine the Bank's operational risk profile.

The split of BIL group's gross losses for the year 2019 by risk event type is disclosed in the chart below. The total gross impact is calculated on an absolute value basis, including losses, profits and excluding recoveries. This explains possible differences with other regulatory reports which are only based on a losses point of view.

Gross impact in EUR thousand and share in %



Execution, Delivery & Process Management incidents represent only 76% (vs 14% in 2018) of the total number of BIL group's operational incidents. Losses related to these incidents were mainly incurred due to human errors and the main operational risk lies in the wrong execution of instructions. These losses do not include high recoveries (business recovery for a double payment executed twice by error and recovered with delay from counterparty, and business recovery to a standard order payment wrongly executed.

The incidents linked to the *Client Products & Business Practices* category represents 0.3% (vs 85% in 2018) of the total amount of operational incidents.

In 2019, the Bank recorded 27 operational incidents related to *External Fraud* among which 70% of these frauds have been stopped by the Bank (fraud attempts) for a risk exposure amount of EUR 130,246. Four external frauds were executed and recoveries (business or insurance) represent 67.7% of the losses. Main external frauds are due to payment executed without performing the call back, and to a bomb attack (with gas) of one of our GAB.

The *Internal Fraud* reported in 2019 was detected in 2014 and only closed in 2019 after a fully recovery of the amount. The former employee had realised fraudulent cash withdrawals on customer's account which was a hold-mail account. Cash withdrawal procedure was updated in 2014 and monitoring of withdrawal by Inspection team were strengthened.

In the *Information, Technology, and Infrastructures category* (22% of the incident number but 0% of the losses) the operational incidents were linked to disturbances in the IT systems. BIL does not estimate the related financial impacts except if they have direct financial consequences for clients. The main impact is calculated in man/days cost.

In the *Damage to Assets & Public Safety* category, recovery represent 88 % of the losses observed during the year on the category. All losses of the category are not always recovered due to the insurance excess or the (partial) exclusion of the case from the insurance contracts. Reported Incidents include also data breaches (39) and IT security incidents (77).

In terms of control, an exhaustive monthly document is produced for each line manager (head office, subsidiaries and branches). It covers every incident that has arisen in their business over the previous month and that has been declared to the ORM team. Recipients analyse their report and verify that all incidents brought to their attention have been treated and reported.

ORM presents an operational risk report to the ICC at the end of each quarter and an operational risk report to the BRC at the end of each semester since 2019.

RCSA and the Operational Risk mitigation

A Risk Control Self-Assessment (RCSA) exercise is performed each year to identify the most significant operational risk areas of the Bank, which covers all departments of the Bank in a 2-year plan.

This assessment, which is forward-looking, provides a good overview of the various activities and existing checks and can lead to the definition of mitigating actions.

The results of these assessments are reported to the management during the ICC.

The RCSA methodology has been revised in 2019 strengthened the control identification and its impact on the inherent risks assessed, has revised the quantification, no longer giving rise to an amount but rather the outcome of an equation between probability and severity.

The methodology and the assessment are declined in a specific guideline, which is updated in July 2019. A dedicated training was developed to help all Operational Risk correspondents (COR) to realise the assessment.

The reporting of RCSA has been as well rethought and from now included both Financial and Non-financial risks analysis as well as an action-plan follow-up reporting. This updated version ensures that the residual risks are high, even if the control is already strict for those risks. To be more specific, these risks are appropriately covered by adequate action or escalated to management for validation.

Definition and follow-up of action plans

As part of the operational risk management, corrective action plans linked to major risks and events are monitored closely.

Two types of action plans are managed through ORM:

- **Action plans – Incidents**: Following a significant incident, Management has to implement action plans in order to reduce the impact or prevent its reiteration;

- **Action plans – RCSA**: In the event of unacceptable risk exposure, Management must identify ad hoc action plans mitigating the identified risk.

5.2 Calculation of the regulatory capital requirement

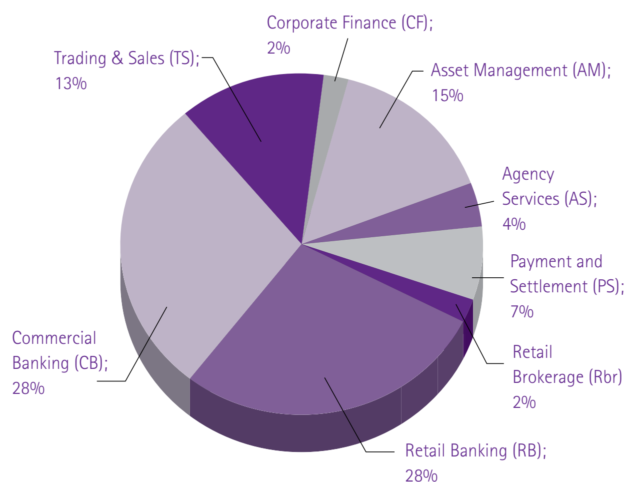
BIL group applies the standardised approach to calculate the regulatory capital requirements for operational risk. This approach consists in applying a percentage (called the "beta factor", ranging from 12% to 18%) to an appropriate activity indicator, calculated for each of the eight business lines defined by the Basel Committee (i.e. corporate finance, commercial banking, retail banking, trading and sales, asset management, agency services, retail brokerage, payment and settlement).

The relevant indicator is defined by the regulator and is based on the operational results of the underlying business lines, using an average over the past three years. It should be noted that In 2019, the methodology used to allocate the revenue per COREP Business Line was reviewed to include all six categories. In the year 2018, only Commercial Banking, Retail Banking, Trading and Sales were covered.

The calculation is updated at the end of each year. The amount of operational risk-weighted assets has increased compared with the 2018 figures (836,6 million) to 951,7 million at year-end 2019.

Banking activities (EUR million)	**Beta Factor**	**P&L**	**Capital Requirements 2019**	**Capital Requirements 2018**	**Capital Requirements 2017**
Commercial Banking	15%	145,2	21,8	18.5	**15.3**
Retail Banking	12%	178,8	21,4	45.1	**45.3**
Trading and sales	18%	57,5	10,3	2.8	**5.9**
Corporate Finance	18%	7,5	1,4		
Payment and Settlement	18%	31,8	5,7		
Retail Brokerage	12%	15,2	1,8		
Agency Services	15%	21,9	3,3		
Asset Management	12%	98,8	11,9		
TOTAL		**556,7**	**77,6**	**66.5**	**66.5**

The chart below presents the breakdown by business lines (according to Basel definitions) of the capital requirement for operational risk as at 31 December 2019.



6. Information Security & Business Continuity

The Information Security & Business Continuity unit aims to define the high level objectives in each domain of Information Security – as defined in ISO/IEC 27001:2013 and the corresponding roles defined in the CSSF circular 12/552 – that must be fulfilled to ensure the security of the information of the Bank.

6.1 Information Security governance

6.1.1 Organisation

The Information Security & Business Continuity unit is composed of three different teams::

- The Security Risk Regulation team is responsible to establish and maintain a global and transversal overview of the Bank information security to ensure an adequate protection of BIL against threats which could affect the confidentiality, integrity or availability of its information. This team performs regular controls on effective access rights to systems compared to declared and validated access in the Identity and Access Management tool. This team also performs information security risk analyses (with the support of other security stakeholders such as IT Security and Physical Security officers) when applicable and in particular for new projects or when contracting with critical third parties. Finally, this team chairs the Management Committee "Security Committee" to oversee the risks linked to the BIL's information security and the security incidents, and make recommendations for decisions on projects with a potential link to the security of information assets;
- The Security Risk Prevention team is in charge of logical access management in line with the security policy of the Bank, including validation, control and monitoring of staff movements. This team is also in charge of maintaining the referential of resources available in the Identity and Access Management system;
- The Business Continuity team establishes and maintains the business continuity program, which includes the crisis management capability and business continuity planning, to ensure the Bank can provide appropriate resilience and recovery for critical business processes, systems and data. This team also verifies on an annual basis the alignment of the Business Continuity Plan with business needs through Business Impact Analysis, and ensures that the Disaster Recovery Planning is adequate in order to maintain an up-to-date continuity plan set out in Business Continuity and Crisis Management Charter.

6.1.2 Policies and committees

Policies

To ensure it continuously maintains an appropriate level of information security, BIL has built its Cyber Security Strategy and adapt accordingly its security solutions.

In this context and following the review of the Information Security Charter, the entire Information Security framework has been reviewed for alignment with the global security strategy. The aim of this review was to describe further the security objectives and the related enhancements of technical security controls and security processes.

The framework components (charters, policies and procedures) were reviewed and validated by the Security Committee. For each component, the gaps of the current implementation were identified, documented and an action plan was prepared and implemented.

Committees

Topics related to Information Security are dealt in the following committees:

- **The Crisis Committee (CC)** is convened in case a major incident requires the activation of the crisis management process. It is mandated by the Management Board to formally declare a crisis situation and take decisions for the management of the crisis. It can convene, when required, an Operational Crisis Management Committee with different members of the functions necessary for the management of the crisis. In the event of a BIL crisis impacting a BIL Group Entity, a member of the impacted entity's management board/executive committee is invited;
- **The Security Committee (SC)** is mandated by the Management Board to oversee the risks to BIL Information Security and those of its subsidiaries and branches, as well as all risks of loss of confidentiality, availability or integrity of the Bank's information assets. It is also in charge of monitoring security incidents, taking decisions on projects that may have a potential impact on the security of BIL's information assets and ensuring that the implementation of the Business Continuity Plan (BCP) follows the strategy defined by the Management Board.

6.1.3 Risk reporting

The main reporting on Information Security risks are the following:

Report	Freq	Topics covered by the report	Recipients	Scope
IS risks	B	Security risks linked to projects or solutions Security risks linked to outsourcing	Internal Management Committee (Security Committee)	Group
Security threat landscape	H	Global Information Security Risks	Internal Management Committee (Internal Controls Committee)	Group
PSD2 risks report	Y	Mandatory report on Operational and Information Security risks on payment services	CSSF	BIL
IS risks	Y	Global Information Security Risks	Internal Management Committee (Security Committee)	Group

Y=Yearly / H=Half-yearly / B= Every two months

6.1.4 Risk measurement

Security Risk assessment and mitigation

The information security risk assessment process of BIL is composed of the following high-level activities:

- Risk identification;
- Risk analysis;
- Risk evaluation.

Risk identification is based on the identification of:

- Informational assets and their security needs in terms of confidentiality, integrity and availability;
- Supporting assets and their vulnerabilities;
- Threats (including their likelihood of occurrence).

Risk analysis consists in identifying and measuring the controls in place that allow to address the vulnerabilities and thus reduce the risk.

Risk evaluation is a computation of:

- The impact in case of availability, confidentiality or integrity loss;
- The likelihood of the threats;
- The coverage of vulnerabilities by security controls.

The output of the risk evaluation is a score representing the residual risk for the Bank taking into account the mitigation measures in place.

Results of the most recent analysis

A global security risk analysis was performed in Q1 2019 to identify the Bank's main information security risks and agree on a treatment plan. 24 risk scenarios were evaluated as part of this analysis and rated on a 4-levels scale (Very Low, Low, High, Very High). Out of these, 14 were rated as Low (i.e. below the risk appetite of the Bank) and 10 were rated as High (i.e. above the risk appetite of the Bank).

No Very High risk was identified.

The 10 High risks were linked to the following domains:

- Logical intrusion in BIL information system
- Third party security risks (loss of service, environment compromise, data leakage)
- Hardware or software failure
- Human errors
- Loss of confidential paper documents
- Human resources unavailable
- Crisis management issues

Definition and follow-up of action plans

An action plan was defined for each risk above the risk appetite of the Bank. These plans were designed to reduce the risk to an acceptable level. A new execution of the analysis will be performed in Q1 2020 to review the risk status and update the action plans accordingly.

All risks are subject to one or more of the following treatment actions:
- Acceptation: The risk is knowingly accepted as is and no further remediation is taken;
- Transfer: The risk is transferred to a third party (e.g. insurance);
- Avoidance: The activity or condition that gives rise to the risk is avoided. In that case, the risk no longer exists;
- Mitigation: Remediation controls are implemented to reduce the likelihood and/or the impact of the risk.

Risks below the risk acceptance level defined by the Bank (i.e. Low and Very Low) are automatically accepted. Other risks are presented to the Security Committee for validation of the treatment plan.

The implementation of the treatment plans is monitored and reported to the Security Committee

7. Remuneration Charter and practices

7.1 Key pillars

The Remuneration Charter (the "Charter") defines BIL group's core values in terms of remuneration policies and principles in compliance with the regulatory requirements and applies to all entities of BIL group.

The Charter is reviewed and approved by the BoD on an annual basis as proposed by the Board Remuneration & Nominations Committee (BRNC).

The Charter is defined around the following pillars:

- **Maintain a sound and effective risk management framework**

The Charter and its associated practices aim at defining the remuneration within BIL group with a view to protect the interests of BIL group's clients, providers, employees, shareholders as well as BIL group's financial sustainability in a long-term perspective.

The Charter is consistent with and promotes sound and effective risk management and does not induce excessive risk-taking. It is fully aligned with BIL group's aim to efficiently manage conflicts of interests and promote best banking industry practices.

- **Attract and retain talent with competitive remuneration packages**

Client satisfaction and protection remain at the heart of the philosophy of BIL group. BIL group wishes to attract, retain, and motivate highly qualified professionals in their respective domains. Therefore, BIL group offers remuneration packages that, while in line with market practices, are attractive and competitive, both in terms of amounts and structure.

The remuneration components granted by BIL group to its staff are regularly benchmarked through market studies performed by experts or external consultants, in order to verify the positioning of its remuneration packages in comparison to any given reference market. The remuneration analyses may be carried out at local or international level and aim to provide a benchmark of BIL group's position against comparable financial institutions.

By decision of the BoD, ad hoc measures may be envisaged in certain entities of BIL group when significant distortions are observed, with a view to enable BIL group to attract the talent it needs and keep those already in position. Although remuneration must be kept attractive, it must respect the budgetary framework set by the BoD and not jeopardise the financial situation of BIL group.

- **Ensure primacy of clients' interests**

In order to ensure that clients are treated fairly and th
interests are not impaired by the remuneration practices,
group does not remunerate or assess the performance of
staff in a way that conflicts its duty to act in the best inter
of its clients.

In the same way, when BIL group acts as an insura
distributor, no arrangement should be made that could prov
an incentive to recommend a particular insurance prod
to a customer when the insurance distributor could offe
different insurance product which would better meet
client's needs.

- **Link between performance and remuneration**

Variable remuneration is part of the standard compensat
package offered by BIL group. To protect the interests of
stakeholders, and encourage responsible business condu
variable remuneration must be aligned with short, mid, a
long-term collective and individual performance. Effect
performance is therefore subject to strict assessment rules t
primarily aim at preventing excessive risk-taking behavio
This is why the BIL group Remuneration Charter takes i
account the main outcomes of the ICAAP. Moreover, and m
generally, BIL group does not reward failure.

Remuneration and similar incentives shall not be solely
predominantly based on quantitative commercial crite
and shall consider appropriate qualitative criteria reflect
compliance, the fair treatment of clients and the qua
of services provided to clients. A balance between fi
and variable components of remuneration shall always
maintained, so that the remuneration structure does
favour the interests of BIL group against the interests
clients.

- **Comply with the regulatory framework**

The Charter complies with the requirements on remunerat
policy and practices in the financial sector that have be
defined by applicable and mandatory laws and regulations.

- **Foster transparency**

Transparency is a keystone of the charter. Detailed informat
on the charter's rules and practices is made available b
internally and externally to ensure that employees as w
as stakeholders are timely and accurately informed ab
BIL group's Remuneration Charter.

• Ensure group consistency
BIL group Remuneration Charter is applicable to all BIL entities (including subsidiaries, branches, and representation offices) in Luxembourg and abroad. In order to ensure consistency throughout the group, all entities of BIL group are requested to examine the conformity of the charter versus local specific rules and regulations and should mandatory specific local rules apply, local entities should adapt the charter accordingly. Should local regulations provide stricter rules, the later shall prevail.

BIL group regularly carries out internal audits in group's entities to verify compliance by such entities with the Charter.

7.2. Determination of the Identified Staff

BIL performs, at least on an annual basis, a detailed analysis in order to identify those staff members who, at group level, have a material impact on BIL group's risk profile (hereafter referred to as the "Identified Staff").

BIL group applies the guidance provided by the EBA when determining the Identified Staff. The list of Identified Staff is established every year based on the analysis of job functions and responsibilities according to the following governance:

1. Each entity is requested to identify staff members who meet the Identified Staff criteria and definition. This analysis is made based on:
   - The qualitative and quantitative criteria detailed in the Commission Delegated Regulation EU 604/2014 on the identification of categories of staff whose professional activities have a material impact on an institution's risk profile and, whenever appropriate;
   - The specific definition set forth in the context of AIFMD.

2. The analysis is combined into a consolidated Identified Staff list which is assessed at group level during an ad hoc meeting;

3. This annual process is coordinated by People, Culture and Communication (PCC) in close collaboration with Risk Management, Compliance, Audit and Secretary General Office departments;

4. The final consolidated list is reviewed by the BRNC-N and recommended by the BRNC-N to the BoD for decision and approval.

• Proportionality principle at the level of Identified Staff
The charter applies to all Identified Staff at BIL group level.

However, as foreseen by the CSSF Circular 11/501, BIL may apply the remuneration requirements in a proportionate way to Identified Staff who have a less material impact on BIL group's risk profile.

More precisely, BIL applies the proportionality principle to Identified Staff whose material impact on BIL group's risk profile is limited and who benefit from an annual variable remuneration below or equal to EUR 100,000.

Based on past practices in a normal year, a significant proportion (+/- 85%) of the Identified Staff is considered to fall within the criteria foreseen in the CSSF Circular 11/505.

In this context, the following specific remuneration requirements are neutralised for the Identified Staff for whom the proportionality principle is applied:

- Requirement to pay out a part of the variable remuneration in instruments and, as a consequence, the related instrument retention obligations;

- Requirement to pay out a part of the variable remuneration through a deferral scheme and, de facto, the related ex-post risk adjustment obligations (malus).

7.3. Determination of the "Relevant Persons"

As per Commission Delegated Regulation (EU) 2017/565 of 25th April 2016 supplementing Directive 2014/65/EU, BIL group identifies and establishes, on a regular and continuous basis, a list of relevant persons. The list is established and yearly reviewed by PCC and Compliance Departments. It is to be noted that, even before the implementation of Directive 2004/39/CE in 2007, BIL had already adopted and still maintains measures to define appropriate criteria to be used to assess the performance of relevant persons. These measures include the definition of qualitative criteria encouraging the relevant persons to act in the best interest of the client. In addition, organisational measures are in place, in order to ensure that, when launching new products or services, BIL group appropriately takes into account the remuneration policies and practices and the risks that these products or services may have in terms of conduct of business and conflicts of interests.

7.4. Performance assessment

7.4.1. Performance management system

7.4.1.1. Main characteristics of the system

In 2018, a new performance management model, called "Feedback Model" has been set up. It aims at establishing continuous feedback as a main driver of collective development and continuous improvement.

BIL strongly believes that a sound feedback culture that focuses on employees' strengths and development areas and that is provided in the spirit of "growth mind-set" is a key driver to reach BIL's targets in a sustainable and risk-aware way.

BIL has defined key behaviours and key objectives that it considers to be the main drivers for individual and collective performance and against which it assesses the employees and managers on a regular basis and at least once a year.

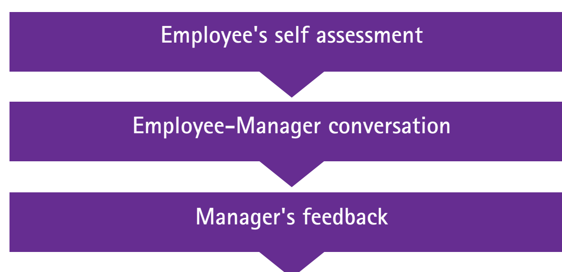
BIL has implemented various tools and trains its staff and managers on a regular basis in order to encourage an open dialogue and continuous feedback across business lines and hierarchical levels.

7.4.1.2. The Yearly Feedback (mandatory process)

In order to formalize feedback, BIL has set the yearly feedback as a mandatory process that requires managers and employees to record feedbacks on performance in writing. The process includes the following steps:

The aim of the yearly feedback is to:
- Assess the performance of the employee against the key behaviours and key objectives identified by BIL as key drivers of sustainable success;
- Identify the strengths of the employee and recognize his or her contribution to the success of the Bank;
- Identify development areas of the employee and set up a development plan to help him or her address weaknesses;
- Discuss career evolution opportunities and appropriate development plans.
- Each will be evaluated by the people manager, respecting the following code: Purple: the employee is a true role model in this area;
- Green: the employee masters this area correctly;
- Yellow: the employee masters this area partly but still has some attention points to work on;
- Red: this area is an issue and needs to be addressed.

As outlined in the key result "Compliance, Risk and Business Ethics" it is also the aim of the feedback model to address potential issues in terms of risk management and compliance, including compliance with the Code of Conduct of the Bank. Each Internal Control Function as well as the Legal department gives its feedback and shares potential findings on every employee for the assessment year. PCC compiles the findings, ensures their appropriateness and prepares with the employee's manager the feedback to be given to the concerned employee. Should the Internal Control Functions and Legal Department raise unsatisfactory findings, PCC coordinates appropriate actions to be taken with the people manager. These actions are to be aligned with the underlying reasons for underperformance and will range from the setting-up of a dedicated development plan with close follow-up to a change of role or to disciplinary actions including warning letters and / or the adjustment of the variable remuneration level.



7.4.1.3. Link between remuneration and performance

BIL group aims to attract, retain, and motivate highly qualified professionals. BIL group offers remuneration packages that, while in line with market practices, are competitive and attractive, both in terms of amount and structure. An important element of the employees' remuneration packages is the variable component which is strongly linked to the performance of BIL group, the entity, the department, and the individual. If an employee is eligible for a variable remuneration, the manager confirms that the following criteria are met:
- No gross misconduct/appropriate compliance with policies, internal rules, applicable legal requirements, risks standards and procedures;
- No gross misconduct observation of the BIL Code of Ethics, company's standards which govern relationship with clients and investors and relationships with internal clients and team members;
- Appropriate performance and behaviour.

After confirmation that the conditions above are met, managers make a proposal in terms of variable remuneration, increase of fixed remuneration or promotion.

The variable remuneration recommendation is based on a reference amount per Hay Group. Depending on the results of the feedback model, the variable remuneration can be set:
- Above the standard level (120% to 150% of the reference amount);
- At a standard level (80% to 120% of the reference amount);
- Below the standard level (50% to 80% of the reference amount);
- At zero for a poor performance or non-respect of the above-mentioned rules.

The reward exercise is validated during a special executive committee meeting called "Promotion Board". During the Promotion Board, the variable remuneration of all the identified staff of BIL Luxembourg based entities is validated.

7.5. Remuneration structure & pay out modalities

7.5.1. Description of the remuneration structure and components

The principles set out below apply to all employees of BIL group.

However, since BIL group is active in multiple countries, it sometimes needs to align its practices with local regulatory framework (e.g. labour, social security and tax laws, codes, rules, circulars issued by the local regulator, etc.) and with local remuneration market practices. Therefore, the structure and components of remuneration packages may slightly differ from one country to another.

The remuneration at BIL group is structured around two pillars: fixed and variable remuneration.

Fixed remuneration

Base salary:
A portion of the total remuneration periodically received in cash. It remunerates the competencies of the staff members, is based on the role and experience of the staff members and is guaranteed irrespective of their performance. A fixed remuneration may be impacted by a Collective Bargaining Agreement (CBA) and is generally composed of the following elements:
- Monthly salary;
- Additional monthly or annual fixed premium if provided for by the employment contract or by a Collective Bargaining Agreement;
- Mandatory additional premiums provided by a CBA.

Fringe benefits:
All advantages received in kind by an employee in addition to his/her base salary (such as a company car, pension schemes and loans). These benefits are non-discretionary and do not encourage under any circumstance, excessive risk-taking.

These benefits are linked to the employees' classification in the CBA or internal grading (Hay grading) for executives, as well as the seniority within the BIL group.

None of these benefits are linked to performance. Fringe benefits depend on each entity's remuneration structure.

Variable remuneration

A portion of the total remuneration received in cash (or cash and instruments for Identified Staff for whom proportionality cannot be applied) which is entirely at BIL group entities' discretion and is determined on the basis of individual and collective, financial and non-financial performance criteria. In particular, it enables the interests of the employee to be aligned with those of BIL group.

7.5.2. Staff identified as Material Risk Takers (MRT)

On 31 December 2019, BIL group has identified 112 Identified Staff.

7.5.3 Variable Remuneration principles & Upper Limits

A Variable Remuneration is allocated to staff members according to:
- The status of the employee (employee/manager/ executive) and his/her job level;
- The appraisal obtained through the performance assessment process on the basis of individual and collective, quantitative and qualitative performance criteria;
- The average presence of the employee during the year.

The proportion of variable remuneration to the fixed remuneration of the Identified Staff depends on the categories of Identified Staff, as well as to the entities or countries where the entities are located.

As a general principle, and as per the CRD IV and the financial sector legal requirements, the variable component shall not exceed 100% of the fixed remuneration. On an exceptional basis, a higher maximum level of the ratio between the fixed and variable components can be decided but will in no case exceed 200% of the fixed component. In such a case, and to comply with the CRD IV requirements, the BoD of the relevant entity, subject to a prior decision by the General Meeting of Shareholders of BIL, will submit to their respective shareholders a detailed recommendation describing the reasons for, and the scope of, the approval sought (incl. the number of staff concerned, their functions and the expected impact on the requirement to maintain a sound capital base). The shareholders' decision will be taken at the General Meeting.

The procedure for increasing the ratio (including the quorum and voting thresholds) as described in CRD IV, the financial sector legal framework and the EBA Guidelines, which are strictly followed. Copies of both the recommendation of the BoD to the shareholders and the shareholders' decision are provided to the regulator.

If one of BIL group entities is located in another EU Member State which has set a lower maximum percentage, the ratios defined in the Remuneration Charter will no longer apply and the local mandatory requirements will be respected.

A supplementary special program has been set up for senior management key members. The senior management of BIL may participate to a Long-Term Incentive Plan ("LTIP"). The beneficiaries are selected by BRNC.

LTIP is a profit-sharing plan based on the issuance of two types of finite certificates (The Certificates reward senior management for the value created over an extended period of 5 plus 1 year. Rewards are based on the value of the institution's equity above a hurdle value of 7% and capped at an absolute maximum value per Certificate.

The Certificates, issued during the year, cannot be accessed, sold, pledged as security or mortgaged in any way during a blocking period and can be redeemed before the expiration date.

Each Certificate owned by the Holder who is still under employment contract with BIL on a specific date (triggering date) will be valued at its Redemption price per Certificate. Otherwise, upon termination of employment before the triggering date, each Certificate will be valued at its Redemption price with penalty per Certificate.

Upon redemption of the Certificates and based on the risk adjustment provision of the Group Remuneration Policy, BRNC assesses whether an ex post adjustment (i.e. malus provision) is required. In addition, BRNC assesses at the end of the blocking period whether the Certificates should be subject to the clawback provision as stated in the Group Remuneration policy.

7.5.4. Variable Remuneration principles for specific categories of staff

7.5.4.1. Non-executive directors in BIL group entities

The annual General Meeting of the Shareholders of BIL, upon proposal of the BRNC, decides each year on the remuneration of the Chairman, Vice-Chairman and the Members of the BoD, including the remuneration of the directors who are members of the specialised Board Committees.

Non-executive directors do not receive variable remuneration. The remuneration of non-executive directors of BIL for the exercise of their mandates, is set by the annual General Meeting of Shareholders of BIL, to the extent permitted pursuant to the applicable rules.

A director of BIL (or of a BIL group entity) who is an employee of BIL (or of such a BIL group entity), does not receive any remuneration for the exercise of his/her director mandate, unless such a director represents the staff.

7.5.4.2. Member of the Management Board (MMB) of BIL group

The remuneration of a MMB is defined by the BoD, upon recommendation of the BRNC in accordance with the internal governance rules. The BRNC may if the Committee decides so, be assisted by independent external advisers (who are experts in the field of remuneration) and/or by the Risk, PCC, Compliance, Legal and Tax Departments of BIL.

In order to offer remuneration which is in line with market practice, the BRNC regularly receives a benchmarking study on the basis of which, if need be, it makes proposals to the BoD to adapt the remuneration conditions of the MMBs, including on the variable components.

In case a MMB receives a remuneration (allowances or attendance fees) for a mandate that he/she exercises in the name of or on behalf of BIL group, this remuneration is retroceded to BIL group.

Amount of variable remuneration

At the beginning of the year, objectives are set and a target bonus is agreed upon.

This target bonus represents a percentage of the fixed remuneration of the MMB. The variable remuneration eventually paid out may be higher or lower than the target bonus and depends on the level of achievement of the objectives.

Variable remuneration is by no means guaranteed, remains discretionary and can be set to zero by the BoD if the BIL group / business / individual performance targets are not met.

Drivers of variable remuneration

Variable remuneration is determined on the basis of Key Performance Indicators (KPIs) of three types, each type being assessed on the basis of quantitative or qualitative, financial or non-financial criteria:

• Group KPIs

These KPIs are common to all MMBs. BIL group results determine whether and to what extend the KPIs are met. They are calculated based on of the financial indicators set by the BoD, acting upon recommendation of the BRNC.

• Business KPIs

The business KPIs are analysed individually with respect to the targets which have been set for the MMBs. The performance assessment depends on the manner in which the business or the support line has taken an active part in the achievement of the group targets. The performance assessment includes the monitoring of the risk elements specific to the MMB's activity line.

• Individual KPIs

The individual component is analysed separately with respect to the targets which have been set for the MMBs, on the basis of qualitative criteria such as management skills, the manner in which the MMB has participated in the elaboration and/or the implementation of the transformation plan for his/her entity, support line or business line, and compliance with rules, procedures and values of the BIL group. Below a certain result in the individual assessment, the entire variable remuneration may be set to zero. This decision is made by the BoD, upon the recommendation of the BRNC.

7.5.4.3. Members of Management Boards in BIL group entities

For members of management boards in a BIL group entity (other than BIL S.A.), variable remuneration components will depend on business and individual KPIs. In case the performance of the entity is not satisfactory, the BRNC can decide to lower the variable remuneration. The variable remuneration is not always in direct connection with BIL group's results.

7.5.4.4. Internal Control functions

The performance analysis and the decision on the variable remuneration are performed in all independence for the Internal Control Functions. More precisely, in order to avoid conflicts of interests, the performance indicators in the Internal Control Functions mainly consist of non-financial individual criteria and do not in any case contain financial criteria related to the entities or activities they control.

The performance is assessed on the basis of targets that are mainly qualitative and specific to the Internal Control Functions. Although there is no direct link with BIL group's results, the variable remuneration is, per se, conditioned by the good results of BIL group that impact on the Bonus Pool.

For the avoidance of doubt, the CRO is appraised taking into consideration the specific KPIs of the heads of the Internal Control Functions.

The remuneration components of the heads of the Internal Control Functions are defined in accordance with the TOR of the BRNC and decided by the BoD upon the BRNCs' recommendation at BIL group level.

For the variable portion of the remuneration, the appraisal and the objectives' setting for the heads of the Internal Control Functions are prepared by the CEO, and submitted to:

- The Chairman of the Board Audit and Compliance Committee (BACC) for the Chief Internal Auditor, in accordance with the TOR of the BACC, for his consideration, assessment and further recommendation to the BRNC, and;
- The BRNC for the CRO and CCO, in accordance with the TOR of the BRNC, for assessment and further recommendation of the BoD.

7.5.4.5. Identified Staff for whom a Target Bonus Model may be set

Variable remuneration for all other Identified Staff is discretionary.

For some Identified Staff members, a target bonus model may be set in order to condition the pay-out of a bonus to the achievement of certain objectives.

Notwithstanding the setting of the target bonus, the variable remuneration is in no way guaranteed and its pay-out may be set to zero if the group / business / individual performance targets are not fulfilled.

7.5.4.6. Selected sales functions

For selected sales functions, a formula-based bonus may be set by a BIL group entity for a determined period of time. The formula-based approach takes into consideration financial KPI's such as net revenues, net new assets.

An adjustment factor (reducing the formula- based bonus up to zero) may apply if the qualitative criteria are not met. Qualitative criteria for formula-based bonuses are set as follows:

- Observation of the BIL Code of Ethics;
- Compliance with policies issued by BIL, internal rules, applicable legal requirements, the risks standards and procedures of the Bank;
- Proper and on time documentation of clients and transactions;
- Proper ethical behaviour in line with the company's standards which govern relationship with clients and investors and relationships with internal clients and team members;
- All key behaviours and key results outlined in the Bank's feedback model.

A dedicated committee called "Variable Remuneration Validation Committee" (composed of the heads of the Internal Control Functions, the head of business line and the global head of PCC) decides on the compliance aspects and pay-out of the formula-based bonuses.

7.5.4.7. Selected categories of staff

BIL Group may set up retention programs for selected categories of staff whose engagement, competencies or potential are important for the Bank to retain in the short, medium or long term.

These retention programs might be dedicated to selected individuals or to groups of individuals and may have different lengths. These retention programs are limited in time and their pay-out may be bound to specific conditions.

7.5.5. Variable remuneration pay-out principles for Identified Staff

7.5.5.1. Procedure governing the payment of variable remuneration

The variable remuneration of Identified Staff members for whom the proportionality principle applies, is paid out annually and in cash; the rules described below are hence only applicable to the Identified Staff members for whom the proportionality principle cannot be applied.

7.5.5.2. General rules for deferral

Variable remuneration of an Identified Staff member from an amount higher than EUR 100,000 shall be deferred in order to establish a clear link between the variable remuneration and the evolution of his/her performance and potential future impact. In that respect, the performance assessment is part of a multi-annual framework, thereby guaranteeing an assessment of long-term performance. The deferred part will not be paid out in case performance conditions are not met.

7.5.5.3. Calculation of the deferred part of the variable remuneration

For the MMB, 50% of the total variable remuneration is deferred over a period of five years.

For other Identified Staff, 40% of the total variable remuneration is deferred over a period of three years.

If the variable remuneration is of a particular high amount, the portion of the variable remuneration to be deferred will be increased to 60%. Whether the variable component is considered as of a particular high amount will be determined by reference to the CSSF guidelines, once such guidelines will be issued. In the meantime, it has to be understood as Variable Remuneration above EUR 1,000,000.

7.5.5.4. Terms of payment of the variable remuneration for the MMB

• **Principles applied to the non-deferred part**

The non-deferred part related to performance year Y, i.e. 50% of the total variable remuneration, is paid during the first semester of Y+1:

- 50% (=25% of the total variable remuneration) in cash;
- 50% (=25% of the total variable remuneration) in the form of phantom shares, with a retention period of one year.

• **Principles applied to the deferred part**

- 50% of the deferred part (=25% of the total variable remuneration) is paid in cash in Y+2, Y+3 and Y+4, Y+5, Y+6, vesting on a pro rata basis;
- 50% of the deferred part (=25% of the total variable remuneration) is paid in the form of phantom shares in Y+2, Y+3 and Y+4, Y+5, Y+6, vesting on a pro rata basis and subject to one-year retention period.

7.5.5.5. Terms of payment of the variable remuneration for other Identified Staff

• **Principles applied to the non-deferred part**

The non-deferred part related to performance year Y, i.e. 60% of the total variable remuneration, is paid during the first semester of Y+1:

- 50% (=30% of the total variable remuneration) in cash;
- 50% (=30% of the total variable remuneration) in the form of phantom shares, with a retention period of one year.

• **Principles applied to the deferred part**

- 50% of the deferred part (=20% of the total variable remuneration) is paid in cash in Y+2, Y+3 and Y+4, vesting on a pro rata basis;
- 50% of the deferred part (=20% of the total variable remuneration) is paid in the form of phantom shares in Y+2, Y+3 and Y+4, vesting on a pro rata basis and subject to one-year retention period.

7.5.5.6. Conditions of vesting of the deferred element

Any vesting of a deferred variable remuneration is subject to a prior analysis of a long-term multi-year performance assessment that has to be verified and confirmed within the assessment review. Actual payment of the deferred part of the variable remuneration requires in any case the fulfilment of the following conditions:

• **Performance/ex-post risks adjustments**

BIL group may reduce part of, or the entire variable remuneration that has not been paid out yet in case the sustainability of the performance of the institution as a whole, the entity and / or the staff member is not in line with expectations. As an ex-post risk adjustment measure, malus will be used to reduce a part of, or all the deferred remuneration in order to take into account the potential negative underlying performance of BIL group as a whole, of BIL group entity or of the Identified Staff individually.

A malus will be applied:

- In case of misbehaviour or serious error by the staff member (e.g. breach of code of conduct and other internal rules, especially concerning risks). If a malus is applied, all deferred but not yet vested bonus amounts (as well as the bonus amount for the current year) will be reduced in proportion to the severity and impacts of the error / misbehaviour;
- When BIL group and/or the underlying BIL group entity suffers a significant downturn in its financial performance. If the performance for the year, assessed at Group and entity level under review is more than 20% lower than those in place when the deferred bonuses were granted, these deferred bonuses will be reduced in proportion to the performance decrease, unless this decrease is fully independent of the strategy employed during the previous years;
- When BIL as a whole and/or the underlying BIL group entity in which the staff member works suffers a significant failure of risk management. If this is the case, all deferred, but not yet vested, bonus amounts (as well as the bonus amount for the current year) will be reduced in proportion to the severity and impacts of the failure;
- In case of significant changes in the institution's economic base or regulatory updates

• **Existence of a professional relationship**

There needs to be a professional relationship under a contract of employment or, as the case may be, a mandate as a director and/or as a member of a management board, linking the beneficiary to a BIL group entity on the date of payment. Notwithstanding this principle, if the contract is terminated by statutory or early retirement, or on BIL group's initiative on grounds other than serious misconduct, or by automatic termination of the employment contract in accordance with article L.121-4 of the Labour Code or by death, the beneficiary whose contract is terminated may, nonetheless, remain entitled to the deferred parts of his variable remuneration. The deferred parts of the variable remuneration will be settled in line with the original vesting schedule and the principles of the charter (in particular ex-post risk adjustments). The deferred parts of the variable remuneration will not be paid in case of voluntarily departure or of termination based on

serious misconduct. Nevertheless, the BoD reserves the right to adopt a more favourable position, on a case-by-case basis, upon recommendation of the BRNC, in accordance with the applicable laws and the TOR BRNC.

7.5.6. Specific provisions

7.5.6.1. Claw-back

The payment of variable remuneration is based on the premise that, during the period when the Identified Staff member was working within BIL group, he / she fully observed the law and the regulations specific to the relevant entity as well as the values of BIL group.

In case fraud is observed after the award of variable remuneration, and in cases where it has been granted on the basis of intentionally erroneous information, the BoD reserves the right to claim back the part of the variable remuneration which might already have been paid, or at least to recover equivalent damages and interest, in cases where BIL might have suffered a significant loss.

BIL has the authority to reclaim any variable compensation granted. The claw-back provision is applied in case of established or proven fraud or in case of use of misleading information, if enforceable under local employment law

7.5.6.2. Prohibitions of guaranteed variable remuneration

A variable remuneration is in no way guaranteed. In very particular circumstances, the only exception relates to the recruitment of new staff members to whom a variable remuneration might be guaranteed during the first year of employment.

7.5.6.3. Compensation and buy out from previous employment contract

In exceptional circumstances, the Identified Staff could be entitled to a one-time lump sum compensating the loss of the variable remuneration by leaving his/her previous employer.

Variable remuneration pay-out principles will apply automatically and a dedicated clause will be inserted in the employment contract.

7.5.6.4. Severance payments

Without prejudice to the application of the relevant and applicable legal and regulatory framework and agreements binding the relevant entity, payments associated with the early termination of an employment contract and/or a mandate as a MMB must reflect effective performance achieved over time and are designed not to reward failure or misconduct.

There are no so-called "Golden Parachutes" in the BIL group's Remuneration Charter.

The BRNC decides in a consolidated manner, on termination packages for MBBs, in the event of termination of an employment and it recommends to the BoD for approval.

A severance payment will not be awarded in case of an obvious failure allowing the relevant entity of the BIL group to terminate the employment contract with immediate effect. Failure by Identified Staff will be assessed on a case by case basis and will notably include the situations described in the EBA Guidelines (e.g. acting contrary to BIL internal rules, values and procedures, not meeting BIL's standard of fitness and proprietary).

Severance pay will not be awarded in case the employee/member of the MMB resigns. In case the employment contract is terminated by mutual consent, the potential severance payment will be considered and reviewed on a case by case basis and subject to applicable laws definition by the BRNC, and recommended to the BoD for decision.

Severance payments may be paid out in the context of a settlement agreement in order to prevent or terminate a potential or current labour dispute leading to costly and long Court procedures. Severance payments are granted in the event a Court might declare the dismissal as unfair. In order to assess whether a dismissal is likely to be declared unfair by a Court, BIL group will (as need may be) seek the assistance of internal or external lawyers.

BIL group will ensure that it does not pay severance amounts above what is applicable under the relevant laws, regulations and CBAs or exceeding the benefits generally fixed by the relevant Courts.

A severance pay is considered by the EBA Guidelines, as variable remuneration. Severance paid to Identified Staff will thus in principle be subject to all principles described in the Remuneration Charter (e.g. deferral and payment in instruments) except for those amounts of severance payments that are mentioned in the EBA Guidelines.

7.5.6.5. Prohibition of personal hedging

It is forbidden for staff members to use personal hedge or insurance strategies linked to the remuneration or to responsibility in order to offset the impact of the ex-ante and ex-post risk alignment measures. Every Identified Staff is asked to comply which such requirement by accepting the principles laid in the Remuneration Charter.

7.6. Governance: roles and responsibilities in the design, implementation and ongoing supervision of the Remuneration Charter

7.6.1. The Board of Directors (BoD)

The BoD is responsible for the design, the review and the correct implementation of the Remuneration Charter ("Charter"). It ensures its compliance with mandatory laws and regulations applicable to BIL.

In this context, the BoD acts upon recommendation of the BRNC, based on preparation and proposed amendments of the relevant Internal Control Functions (Risk Management, Compliance, Internal Audit), PCC and Secretary General departments. If needed, the BoD or the BRNC may seek the assistance of external remuneration specialists.

The BoD ensures that the implementation of the Charter is reviewed on a regular basis by the BRNC, which must be assisted by the Internal Control Functions or by external experts. Such an independent review will assess whether the remuneration system:
- Operates as intended; and
- Is compliant with the law definitions.

The BOD has final decision power and responsibility regarding all aspects of the Remuneration Charter.

7.6.2. The Board of Remuneration and Nominations Committee (BRNC)

BIL operates in the financial market place giving rise to business, regulatory, financial, operational and human capital issues from many aspects of its activities. The BRNC is a BoD specialised committee and has been set up by the BoD in order to ensure the smooth management and operation of all relevant nomination and remuneration matters and as part of the governance structure of BIL. The BRNC operates through two sub-meetings provided for in the BRNC TOR.

The responsibilities and the functioning of the BRNC at the level of BIL is laid down in the TOR of the BRNC. The TOR BRNC are reviewed annually by the BRNC and subsequently considered and if thought fit, approved by the BOD to ensure its perfect compliance with the Applicable Laws.

The BRNC is organised in two sub-meetings:
- Sub-meeting BRNC sitting for Nominations matters;
- Sub-meeting BRNC sitting for Remuneration matters..

7.6.3. The Management Board Members

Whereas the overall responsibility for the Charter is in the hands of the BoD, the Management Board of BIL ensures the correct operational implementation of the Charter throughout the BIL group and takes all appropriate measures to ensure that the Charter is applied properly and in line with mandatory local regulations.

7.6.4. The Internal Control Functions

BIL group Internal Control Functions actively contribute to the design, application and review of the Charter.

7.6.4.1. Internal Audit

- Takes part, in the annual identification of the Identified Staff;
- Takes part in the annual review of the Charter in collaboration with other Control Functions and the Legal department;
- Reviews on an annual basis the practical application of the Charter within BIL group;
- Assesses employees against the key result "Compliance, Risk and Business Ethics.

7.6.4.2. Compliance

- Takes part, in the annual identification of the Identified Staff;
- Takes part to the annual review of the Remuneration Charter to ensure it effectively complies with regulatory requirements, in close collaboration with the other Control Functions and the Legal department;
- Communicates to the PCC Department any new regulations to be taken into account with regard to the Charter;
- Takes part of the annual review of the Charter to ensure it effectively complies with regulatory requirements: it does so in close collaboration with PCC, other Internal Control Functions, and the legal department;
- Assesses employees against the key result "Compliance, Risk and Business Ethics".

7.6.4.3. Risk Management

- Takes part, if need be, in the update of the Charter, especially regarding the definition/identification of the identified Staff;
- Takes part in the annual review of the Charter to ensure it effectively complies with regulatory requirements. It does so in close collaboration with PCC, the other Internal Control Functions and the legal department;
- Assesses employees against the key result "Compliance, Risk and Business Ethics".

7.6.5. Human Resources

The function of HR is carried out by the "People, Culture and Communication" department.

- PCC is the process owner and coordinator of the Charter definition and implementation process;
- PCC proceeds to the annual review and updates the Charter on the basis of the new regulatory requirements in collaboration with other Control Functions and adapts BIL group procedures and processes accordingly;
- PCC informs staff and concerned parties about all changes;
- PCC coordinates the circulation of the Charter within BIL group, follow-up on the approval by local management, keeps track of the finalised version applicable in each entity;
- PCC ensures that BIL group entities comply with the Charter during the appraisal/reward process (coherence checks, awareness of managers, etc...);
- PCC, together with General Secretary, initiates updates especially regarding the identification of the Identified Staff;
- PCC manages the day-to-day performance assessment and pay-out processes.

7.7. Diversity and succession plan at the level of the Management Body

The Board of Directors of BIL has reviewed and approved (on 22 March 2019) the Diversity Charter to be considered by the Bank when selecting members of the Management Bodies (BoD and MB).

The purpose in establishing the Diversity Charter is to document the principles, commitments, and measurable objectives in relation to diversity upon which BIL forms and implements its nomination strategy for the Management Bodies.

In making recommendations to the BoD regarding potential director candidates, the BRNC-N sitting in nomination matters (the BRNC-N) will consider, among others, the following diversity criteria:

- Specific skills, expertise and/or experience that would complement the overall competence of the Management Body;
- Age and experience;
- Gender;
- Geographical background;
- Educational background;
- Cultural background;
- Directors elected by the staff..

The quantitative objective laid down in the Diversity Charter with regard to the underrepresented women gender in the Management Bodies is to reach a minimum of three persons representing at least 5% of the total number of the Management Bodies members by the year 2020, and a minimum of five persons representing at least 10% of the total number of the Management Bodies members by the year 2024.

The BRNC-N is responsible for reviewing on a regular basis the Diversity Charter and assess on an annual basis its implementation.

Regarding the recruitment policy for the selection and appointment of the Management Bodies member(s) to fill vacancies (as further defined in the Bank's Succession Plan Charter), the assessment will consider the candidate(s) good repute, the balance of knowledge, skills, diversity, time and availability to perform his/her duties, gender, experience and the number of executive and non-executive directorships of the candidate. The BRNC-N receives the whole application file

documents (e.g. fit and proper, CV etc.) providing those details on whose basis an assessment is carried out and documented in regard to a checklist "Initial Suitability Assessment". On that basis the skills, experiences and competencies are analysed and duly documented. The Management Body shall possess adequate collective knowledge, skills, and experience to be able to understand the Banks' activities, including main risks.

When a position of Management Body member(s) vacates, the members of the BRNC-N will liaise and cooperate in order to select and recommend an appropriate candidate(s) to fill the vacancy as soon as possible, taking into account the following criteria: reputation, experience, governance, independence (Board candidates), as well as individual and collective requirements. The suitability of the Management Bodies member(s) is assessed according to the EBA guidelines of 26 September 2017 (EBA/GL/2017/12).

The initial assessment of candidate(s) and the periodic assessment of members of the Management Bodies is performed in accordance with the above principles as further defined in the Bank's Succession Plan Charter, including a matrix, on which basis the actual knowledge, skills and expertise of the member of the Management Body is documented.

For the year 2019, two new Board members were assessed to replace two departing Board members. The fit and proper exercise was positive, and the regulators' non-objection was granted in each case. There are no foreseeable changes in 2020.

At the level of the Management Board no new member has been assessed in 2019.

The non-executive members of the Board of Directors have considerable experience at senior level within the financial sector as well as in different fields such as economics, finance, politics, risk management, consulting and auditing. The very good balance in terms of collective knowledge, skills, complementarity and experience fosters an independent, effective and proper supervision of the management of the Bank.

The members of the Management Board have a wide and strong experience in the Banking sector and a good balance in terms of collective knowledge in the fields of economics, finance, risk management, legal affairs & corporate governance, business administration & operations and human resource management. Most members of the Management Board held senior executive or/and director positions before joining the Management Board.

The biographies of the members of the Management Bodies are available on the website of the Bank, where the Bank will disclose the actual knowledge, skills and expertise of the members of the management body

7.8. CRD IV mandates limitation

All members of the Management Bodies comply with the mandate limitation requirement and the time spent requirement established by CRD IV and article 38-2 of the Law of 5 April 1993 on the Financial Sector, as amended.

Upon positive recommendation by the BRNC-N, the Board concluded that the annual assessment carried out in 2019 did not reveal any issues of potential violation of either the mandate limitation requirement or the time spent requirement. Consequently, the members of the Management Bodies are considered to have sufficient time available to perform their duties as directors of BIL.

The number of directorships as defined in CRD IV regulations held by the members of the Management Bodies is as follows (2019 year-end):

Board of Directors[1]:
- Mr. Luc Frieden holding two non-executive directorships;
- Mr. Peng Li holding one executive directorship;
- Mr. Marcel Leyers holding one executive directorship and one non-executive directorship;
- Mr. Maurice Lam holding one non-executive directorship;
- Ms. Jing Li holding one executive directorship;
- Mr. Christian Schaack holding two non-executive directorships;
- Mr. Vincent Thurmes holding two non-executive directorships;
- Mr. Pierrot Rasqué holding one non-executive directorship;
- Mr. Chris Van Aeken holding three non-executive directorships;
- The staff representatives on the Board of Directors holding one non-executive directorship each.

Management Board:
- Mr. Marcel Leyers holding one executive directorship and one non-executive directorship;
- Mr. Nico Picard holding one executive directorship and one non-executive directorship;
- Mr. Stéphane Albert holding one executive directorship;
- Mr. Yves Baguet holding one executive directorship;
- Mr. Hans-Peter Borgh holding one executive directorship;
- Mr. Olivier Debehogne holding one executive directorship;
- 'Mr. Bernard Mommens holding one executive directorship.

7.9. Disclosure

7.9.1. Internal disclosure

Employees of the BIL group are informed through the Colibri intranet and/or by their hierarchy on the annual performance assessment and reward process and the main principles of the Remuneration Charter.

The discretionary nature of the variable remuneration is mentioned in the employment contracts.

BIL group informs its staff members appropriately and timely of any amendments to the Remuneration Charter which might affect them.

7.9.2. External disclosure

As set out in article 450 (Part Eight) of EU Regulation 575/2013 on prudential requirements and article 22(2) (f) of the EU Directive 2011/61 on AIFM, BIL group complies with the aforementioned rules and ensures that the relevant BIL group entity makes available to the public information regarding its remuneration policy and practices for those categories of staff whose professional activities have a material impact on BIL group's risk profile (i.e. the Identified Employees).

7.9.3. Recommendation

To respond the CRR A.450(1)(a), for BIL, there is no external consultants whose services have been used for the determination of the remuneration and Allen Overy is solicited in respect of the matter when required.

7.10. Quantitative information

The tables below show data on remuneration for all staff and are expressed in EUR.

Information on remuneration of Identified Staff on 31 December 2019:

	Senior Management	Other Identified Staff
Members (headcount)	**44**	**60**
TOTAL FIXED REMUNERATION (IN EUR)	**12,334,052**	**10,181,912**
of which: variable in cash	*12,334,052*	*10,181,912*
Of which: fixed in shares and share-linked instruments	*0*	*0*
Of which: fixed in other types of instruments	*0*	*0*
TOTAL VARIABLE REMUNERATION (IN EUR)	**11,509,939**	**3,963,515**
of which: variable in cash	*3,684,602*	*2,587,626*
of which: variable in shares and share-linked instruments	*0*	*0*
of which: variable in other types instruments	*7,825,336*	*1,375,889*
TOTAL AMOUNT OF VARIABLE REMUNERATION AWARDED IN YEAR N WHICH HAS BEEN DEFERRED (IN EUR)	**1,695,869**	**765,375**
Of which: deferred variable in shares and share-linked instruments in year N	*847,935*	*382,688*
Of which: deferred variable in shares and share-linked instruments in year N	*0*	*0*
Of which: deferred variable in other types of instruments in year N	*847,935*	*382,688*
Additional information regarding the amount of total variable remuneration		
Article 450 h(iii)CRR – total amount of outstanding deferred variable remuneration awarded in previous periods and not in year N (in EUR)	7,634,505	
Total amount of explicit ex post performance adjustment applied in year N for previously awarded remuneration (in EUR)	0	0
Number of beneficiaries of guaranteed variable remuneration (new sign-on payments)	0	1
TOTAL AMOUNT OF GUARANTEED VARIABLE REMUNERATION (NEW SIGN-ON PAYMENTS) (IN EUR)	**0**	**20,000**
Number of beneficiaries of severance payments	0	0
Total amount of severance payments paid in year N (in EUR)	0	0
Article 450 h(v) – Highest severance payment to a single person (in EUR)	0	0
Number of beneficiaries of contributions to discretionary pension benefits in year N	0	0
TOTAL AMOUNT OF CONTRIBUTIONS TO DISCRETIONARY PENSION BENEFITS (IN EUR) IN YEAR N	**0**	**0**
Total amount of variable remuneration awarded for multi- year periods under programmes which are not revolved annually (in EUR)	**6,009,913**	**419,170**

In 2019, 3 Identified Staff member has received a total remuneration between 1 million and 1,5 million Euro.

In 2019, 1 Identified Staff member has received a total remuneration between 2 million and 2,5 million Euro.

Information on remuneration for all staff on 31 December 2019

Business areas	Senior Management	Investment banking	Retail banking	Asset management	Corporate functions	Independent control functions	All other
Number of members (Headcount)	44	0	585	479	737	230	53
Total remuneration (in EUR)	**23,843,991**	**0**	**48,435,222**	**58,630,524**	**60,473,073**	**21,348,897**	**2,919,499**

Appendix 1: Declaration of the Management Board

In accordance with point 61 of the CSSF Circular 12/552, as amended (the Circular), the Management Board confirms that it respects the Circular, among others, in its aspects related to risk management, and that they are adequate with regard to the Bank's risk profile and strategy being already implemented or making part of an action plan with the aim to reach this objective.

This declaration is based on the reliability of the risk-related information communicated to the Management Board through the dedicated channels foreseen by the governance where risk exposures are compared to the Bank's risk appetite, and where significant risk events and issues are reported and discussed.

Additionally, in April 2019, the Management Body approved the Capital Adequacy Statement (CAS) and Liquidity Adequacy Statement (LAS) which respectively describe capital and liquidity adequacy of the Bank, supported by the risk management objectives and policies for each separate category of risk. This formal statement has been communicated to the ECB on 30 April 2019.

Appendix 2: Qualitative tables

TABLE 1: EU OVA – INSTITUTION RISK MANAGEMENT APPROACH

Regulation	Pillar 3 disclore requirement	Disclosure
Article 435(1)(f)	Business model and overall risk profile	- "Introduction" describes the business model in general - Business model and Bank's strategy is taken into account for the risk analysis in Section "2.4 Internal Capital Adequacy Assessment Process (Pillar II)" - "Appendix 1" - Annual Report 2019, section "8, Strategic outlook"
Article 435(1)(b))	Risk governance	- Introduction" with the "Structure of BIL group" Section "1. Risk Management" detailing the responsibilities, organisation and governance of the Risk - Section "2.4 Internal Capital Adequacy Assessment Process (Pillar II)" - Sections "3.1.5 Credit Risk measurement", "4.1.4 Market Risk measurement", "4.3.3 Liquidity Risk measurement / exposure","5.1.4 Operational Risk measurement" and "6.1.4 Information Security Risk measurement" - Section "7. Remuneration Charter and practices" - Annual Report 2019, Risk Management objectives and governance, Risk measurements sections for each risks
Article 435(1)(b)	Channels to communicate, present and enforce the risk culture	- Section "1.2 Risk organisation and governance" - Section "2.4 Internal Capital Adequacy Assessment Process (Pillar II)"
Article 435(1)(c)	Scope and main features of risk measurement systems	- Dedicated sections on Sections "3. Credit risk", "4. Market risk", "5. Operational risk" and "6. Information Security & Business Continuity" - More specifically Sections "3.1.5 Credit Risk measurement", "4.1.4 Market Risk measurement", "4.3.3 Liquidity Risk measurement", "5.1.4 Operational Risk measurement" and "6.1.4 Information Security Risk measurement"
Article 435(2)(e)	Process of risk information reporting	- Section "1. Risk Management" detailing the responsibilities, governance and committees - Section "2.4 Internal Capital Adequacy Assessment Process (Pillar II)" - More specifically Sections "3.1.4 The scope and nature of credit risk reporting", "4.1.3. Market risk reporting", "4.3. Liquidity risk" and "4.3.4. Risk exposure", "5.1.3 Risk reporting" and "6.1.3 Risk reporting"
Article 435(1)(a)	Qualitative information on stress testing	- "Introduction: Global view on the different regulatory frameworks impacting the Bank" - Section "4.1.4. Market Risk measurement"
Article 435(1)(a) and (d)	Strategies and processes to manage, capture and mitigate risks	- Section "2.4 Internal Capital Adequacy Assessment Process (Pillar II)" with "2.4.1.3.c. Governance and risk mitigation"; - Sections "3.4 Credit Risk Mitigation", "3.5.3 Standardised approach – Credit risk exposure and Credit Risk Mitigation effects", "Standardised approach – Exposures by asset classes and risk weights", "3.7.7 Impact of netting and collateral held on exposure value for derivatives and SFTs"; - Sections "4.1.3 Market risk reporting", "4.2.2 Asset & Liability Management (ALM)", "4.3 Liquidity Risk" and "4.4 IRRBB Policy"; - Annual report 2019, Section "1.13 Hedge derivatives", "1.14 Hedge of the interest-rate risk exposure of a portfolio" and Note 9.1 "Derivatives and hedging activities" including "fair value hedge", "cash flow hedge"," portfolio hedge" and "investment in foreign operations"; - Section "5.1.4 Risk measurement" with "RCSA and Operational Risk mitigation" and "Definition and follow-up of action plans"; - Section "6.1.4 Risk measurement" with "Security Risk assessment and mitigation" and "Definition and follow-up of action plans".

TABLE 2: EU CRA – GENERAL QUALITATIVE INFORMATION ABOUT CREDIT RISK

Regulation	Pillar 3 disclore requirement	Disclosure
Article 435(1)(f)	Impact of business model on the components of the Bank's credit risk profile	- Business model is taken into account for the risk analysis in Section "2.4 Internal Capital Adequacy Assessment Process (Pillar II)" - Section "3.1 Credit risk governance"
Article 435(1) (a) (d)	Criteria and approach used for defining the credit risk management policy and for setting credit risk limits	- Section "3.1.2 Policy" - Section "3.1.3 Committees" - Section "3.1.5 Risk measurement"
Article 435(1)(b) Article 435(1)(b)	Structure and organisation of the credit risk management and control function Relationships between credit risk management, risk control, compliance and internal audit functions	- Section "1. Risk Management" with Sections "1.1 Risk management responsibilities" and "1.2 Risk organisation and governance" - Section "3.6.2 Model management and global governance"

TABLE 3: EU CCRA – QUALITATIVE DISCLOSURE REQUIREMENTS RELATED TO CCR

Regulation	Pillar 3 disclore requirement	Disclosure
Article 435(1) (a)	Risk management objectives and policies related to CCR	- Section "3.7.1 Management of counterparty risk"
Article 439 (a)	The method used to assign the operating limits defined in terms of internal capital for counterparty credit exposures	- Section "3.7.1 Management of counterparty risk"
Article 439(b)	Policies relating to guarantees and other risk mitigants and assessments concerning counterparty risk, including exposures towards CCPs	- Section "3.7.1 Management of counterparty risk" - Section "3.7.7 Impact of netting and collateral held on exposure value for derivatives and SFTs"
Article 439 (c)	Policies with respect to wrong-way risk exposures	- Section "3.7.8 Management of the Wrong-Way Risk"
Article 439(d)	The impact in terms of the amount of collateral that the institution would be required to provide given a credit rating downgrade	**There are no specificities, the Bank matches with the CRR** - Section "3.7.1 Management of counterparty risk"

TABLE 4: EU MRA – QUALITATIVE DISCLOSURE REQUIREMENTS RELATED TO MARKET RISK

Regulation	Pillar 3 disclore requirement	Disclosure
Article 435(1) (a) (d)	Strategies and processes of the Bank for market risk	- Section "1.2.1 Organisation" - Bank's strategy is taken into account for the risk analysis in section "2.4 Internal Capital Adequacy Assessment Process (Pillar II)" - Covered through the whole section "4. Market Risk"
Article 435(1)(b)	Structure and organisation of the market risk management function (communication mechanisms)	- Section "1.2.1 Organisation" - Section "4.1 Market Risk Governance" with Section "4.1.5. Governance of limits"
Article 455(c) related to Article 104	Scope and nature of reporting and/or measurement systems (procedures and systems)	- Section "4.1.3 Market risk reporting" - Section "4.1.4 Risk measurement"

TABLE 5: EU LIA – EXPLANATIONS OF DIFFERENCES BETWEEN ACCOUNTING AND REGULATORY EXPOSURE AMOUNTS

Regulation	Pillar 3 disclore requirement	Disclosure
Article 436(b)	Differences between accounting amounts and regulatory exposure amounts	- Section "2.1.1 Accounting and regulatory equity"(templates EU LI1, LI2 and LI3)
Article 436(b)	(a) Significant differences between the amounts in columns (a) and (b) in EU LI1 - **No difference**	- *No difference* "2.1.1. Accounting and regulatory equity" (template EU LI1)
	(b) Differences between carrying values under the regulatory scope of consolidation and amounts considered for regulatory purposes	- Section "2.1.1. Accounting and regulatory equity" (template EU LI2)
Article 455(c) Article 34 Article 105 Article 435(a) Article 436(b)	(c) For exposures from the trading and the non-trading book that are measured at fair value, the bank should describe systems and controls to ensure that the valuation estimates are prudent and reliable. These disclosures can be provided as part of the market risk disclosures for exposures from the trading book and should include: • Valuation methodologies, including an explanation of how far mark-to-market and mark-to-model methodologies are used; • Description of the independent price verification process; • Procedures for valuation adjustments or reserves (including a description of the process and the methodology for valuing trading positions by type of instrument)	***Cf. Extract of BIL's Internal User Guide "Prudent valuation of fair valued positions" here below***

EXTRACT OF BIL'S INTERNAL USER GUIDE "PRUDENT VALUATION OF FAIR VALUED POSITIONS":

As such, the Financial Risk Management team checks the source of prices, verifies market prices and oversees the input of valuations used in Fermat IFRS.

These checks apply to all fair-valued positions, whether or not they are in the trading portfolio. The instruments concerned are as follows:
- Bonds in the trading portfolio and hedging instruments;
- Bonds in the investment portfolio and hedging instruments;
- Structured products issued by the Bank and hedging instruments;
- Warrants;
- Derivatives used in other trading portfolios;
- Derivatives used for macro-hedging purposes.

Valuation of trading portfolio positions

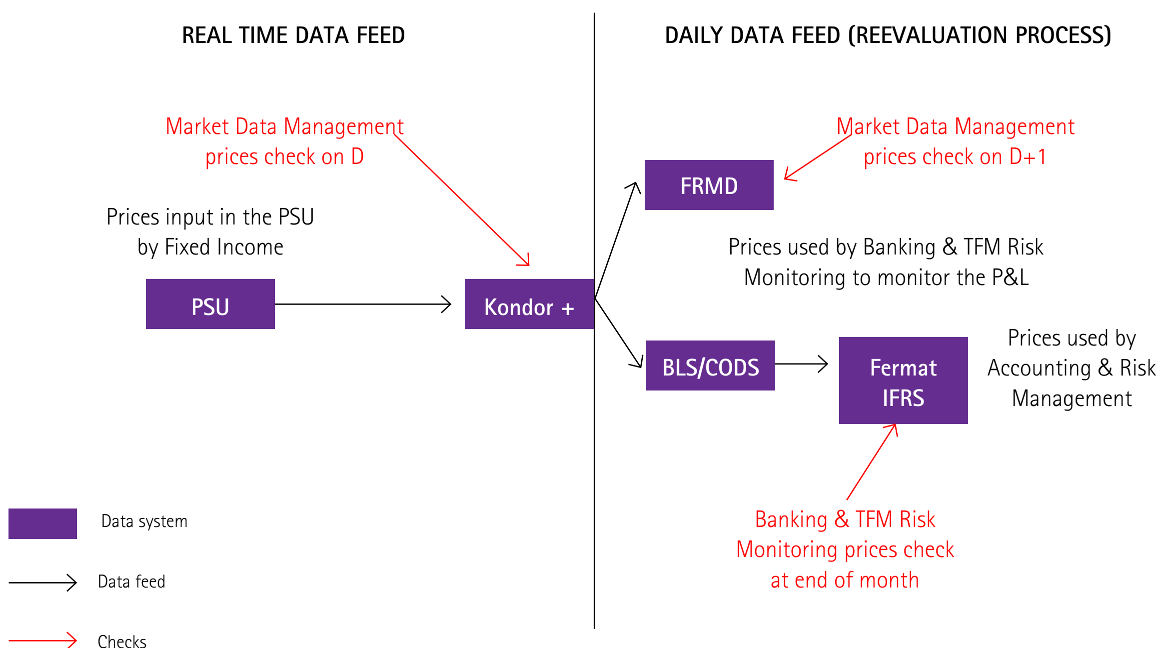
The trading portfolio comprises the following positions:
- Bonds;
- Bond futures;
- IRS.

Valuation of bonds

Bonds are traded over the counter. There is no single, directly observable market price for a given security. Bond price adjustments entered in the systems are therefore subject to specific checks by the FRM.

Price input

Prices are input in the following manner each day:



Real-time price checks by Market Data Management

The Market Data Management team carries out a series of real-time checks on the prices shown in the PSU:

- The PSU price comparison at 2pm using the previous evening's marked to market prices is intended to foresee potential technical problems and resolve them before 5pm. Changes of more than 1% (for bid and ask prices) must be justified using information available in Bloomberg. The Fixed Income team is notified of unexplained changes by email.
- The comparison of prices entered in the PSU at 2pm against prices from the BGN generic contributor is intended to monitor the Bid/Ask spread. The list of securities for which differences exceed 1% is emailed to the Fixed Income team for verification.
- The comparison of PSU prices at 5pm with PSU prices at 2pm follows the same rationale as the comparison of prices at 2pm with the previous evening's marked to market prices.
- Marked to market prices are validated at the end of the day, based on the PSU prices at 5pm. If necessary, the Market Data Management team has the possibility of correcting the source of a price in Kondor+.

Marked to market price checks by Market Data Management

Daily changes in marked to market prices are checked on D+1, based on the marked to market prices from the previous day and the day before that, as shown in FRMD. The Market Data Management team must justify changes of more than 1% using information available in Bloomberg. If a price is wrong, the Market Data Management team asks for the price source to be corrected in the PSU.

Monthly price checks by Banking & TFM Risk Monitoring

The second level of controls involves the Banking & TFM Risk Monitoring team checking the positions held in the trading portfolio at the end of each month.

For each position, the Banking & TFM Risk Monitoring team ensures that the marked to market price shown in Fermat IFRS matches the price used in the Fixed Income desk's daily monitoring of P&L (source: FRMD). The Banking & TFM Risk Monitoring team has the possibility of changing the marked to market price in Fermat IFRS if it is wrong.

Where a security is present in both the trading portfolio and investment portfolio on the cut-off date, the price entered for the position in the investment portfolio shall take precedence.

Valuation of bond futures and IRS

The valuations of bond futures and IRS are not checked by the Banking & TFM Risk Monitoring team:

- Bond futures are contracts whose market-to-market prices are observable directly as they are established on regulated markets. These prices are automatically transferred to Eikon and Bloomberg, and entered in the Bank's systems.
- Plain vanilla IRS are valued daily in Kondor+ by discounting cash flows from the contract according to the revaluation curves provided by Reuters. More specifically, the valuation of a fair-valued IRS is calculated as follows:

$$\text{PV} = \sum_{i=0}^{m} CFRi * e^{-r*t} + \sum_{j=0}^{n} CFPj * e^{-r*t}$$

Where: CFRi corresponds to the cash flow from the receiving leg in period i
CFPj corresponds to the cash flow from the paying leg in period j
r is the zero coupon rate on the cash flow due date (source: Reuters)
t is the time between the due date and valuation date expressed on an annual basis

IRS valuations are transferred to the Bank's various systems.

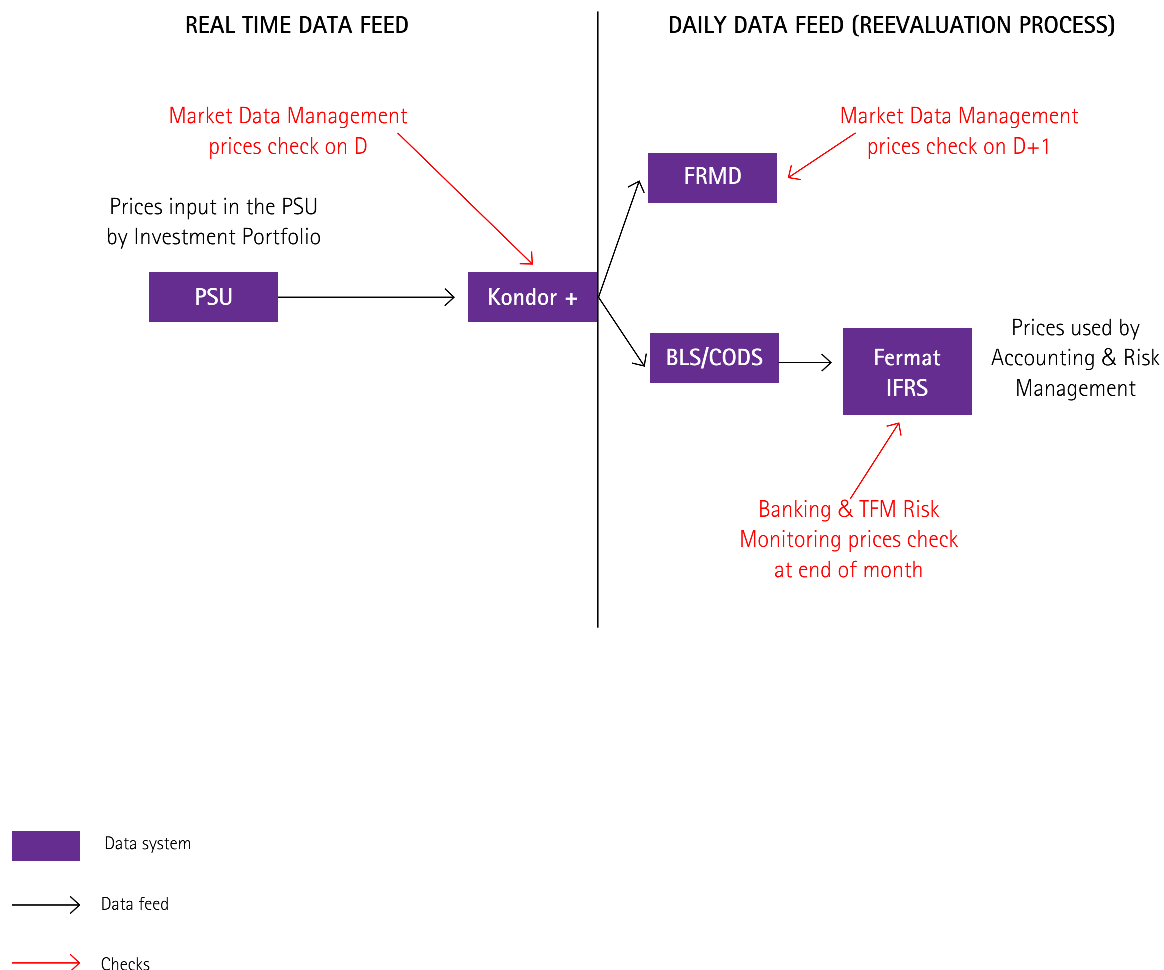
Valuation of investment portfolio positions

The investment portfolio comprises the following positions:
- Financial securities:
  - Bonds;
  - Commercial Pape;
  - ABS & MBS.
- IRS intended to hedge the interest rate risk on certain fixed rate bonds; this means that an IRS is required to pay the fixed rate received on the security to the counterparty (the rate of the fixed paying leg must match the security's coupon rate) and receive a floating rate plus a margin. The link between one or more positions on a security with an IRS is the hedging strategy.

Valuation of financial securities

Price input

The entry of investment portfolio security prices in the Bank's various systems follows the exact same procedure as for the price of trading portfolio securities.



Daily price checks by Market Data Management

The checks carried out by the Market Data Management team are the same as those described in paragraphs 3.1.b and 3.1.c for the trading portfolio..

Monthly price checks by Banking & TFM Risk Monitoring

Two types of checks are made for positions held in the investment portfolio at the end of each month.

The Banking & TFM Risk Monitoring team first compares the prices entered in Fermat IFRS with the bid prices from the BGN generic contributor. Several situations may arise:

- If the price difference is less than 50 bps in absolute value terms, the Fermat IFRS price is validated and no action is taken.
- If the price difference is 50 bps or more in absolute value terms, the price is corrected in Fermat IFRS using the BGN value; an email is then sent to the Investment Portfolio team requesting it to prioritise BGN as a source for the PSU.
- If no BGN price is available, a comparison with another contributor may be made. Where the contributor's price differs from that entered in Fermat IFRS (+/-50 bps), the Investment Portfolio team must be informed of this and must explain the price entered.
- A secondary analysis of the monthly change in prices is then carried out on like-for-like positions. Absolute changes expressed as an absolute value of more than 75 bps, and whose PSU price source is not Bloomberg, must be explained by the Investment Portfolio team.
- For each position, the Banking & TFM Risk Monitoring team has the possibility of adding or correcting the price entered in Fermat IFRS using the Fermat-Prod application (reporting of a file that includes references to the corresponding positions and valuations).

Valuation of IRS hedges

As with IRS in the trading portfolio, IRS in the investment portfolio are valued daily in Kondor+ by discounting cash flows from the contract according to the revaluation curves provided by Reuters.

The valuations are ultimately used in Fermat IFRS.

Valuation of structured products issued by the Bank

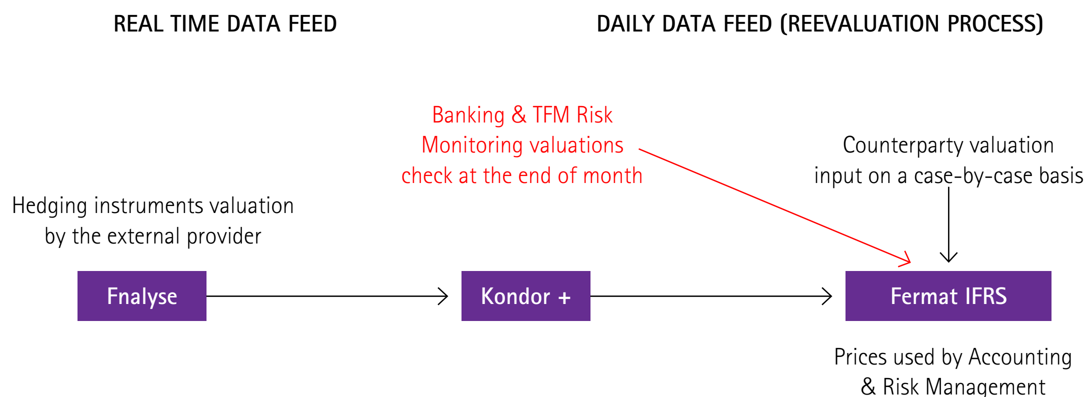
Valuation of swapped structured issues

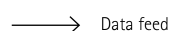
BIL issues structured products under its own brand, aimed at:
- Meeting the investment needs of Private Banking and institutional clients (managed by the Structured Products & Equities team);
- Raising long-term funds to finance the Bank's assets (managed by the Long-Term Funding team).

BIL structured issues are hedged by structured IRS agreed with external counterparties. A structured IRS has two legs:
- The structured leg, which copies the features of the issue (receiving leg);
- The floating leg, generally linked to the 3-month Euribor, plus a margin which BIL pays to the counterparty (paying leg).

Given the hedging with a derivative, the option to value the two components of the hedging relationship at their fair value is taken.

IRS hedge valuations are entered according to the following procedure:





Valuation of warrants

There are currently four types of warrant.

VLTW

VLTW are used on the Belgian market, with a maturity of 50 years. They are hedged with futures rather than with a counterparty; there is therefore no price resulting from collateral management.

At each monthly cut-off, the Banking & TFM Risk Monitoring team reports the prices quoted by the Structured Products & Equities team in Fermat IFRS using the Fermat-Prod application. These prices are those quoted to the Bank's clients.

Luxembourg warrants

In this scenario, the only possible source is Finalyse; the price entered in Fermat IFRS is therefore unchanged (automatic input each day).

Belgian warrants

These are opti warrants for the Belgian market. An opti warrant plan includes two warrants:
- The first warrant, with a maturity of between 10 and 15 years, offers a minimum repayment and therefore has two parts:
  - A deposit corresponding to the minimum repayment amount and hedged through ALM;
  - An option hedged with an external counterparty;
- The second warrant, having a duration of around 1 year, is used to hedge the first warrant. It is fully hedged with an external counterparty.

As they are hedged with an external counterparty, for each warrant there is a comparison price arising from collateral management.

The Banking & TFM Risk Monitoring team compares this price with that quoted by the Structured Products & Equities team (price quoted to clients).

The Banking & TFM Risk Monitoring team carries out the necessary investigations if a difference arises and reports the prices from counterparties in Fermat IFRS using the Fermat-Prod application.

Investment warrants

These warrants are fully hedged with an external counterparty. There is therefore a comparison price arising from collateral management.

The Banking & TFM Risk Monitoring team compares this price with that produced by the AVA module in BLS.

The same team carries out the necessary investigations if a difference arises and reports the AVA prices in Fermat IFRS using the Fermat-Prod application.

Valuation of other derivatives

Some derivatives have no hedging relationship with an asset or liability position on the balance sheet. Some are used for macro-hedging or trading.

In both cases, the valuation of derivatives is calculated daily in Kondor+ and reported to Fermat IFRS. The products in question are the following:
- Macro-hedging IRS, the valuation of which follows the methodology described in point 3.3.2.;
- FX Swaps used for cash flow management.

Foreign exchange instruments used by the FX trading desk, including FX Swaps, FX Forwards and FX Options. These are valued according to the Garman-Kohlhagen model in Kondor+.

TABLE 6: EU CRB-A – ADDITIONAL DISCLOSURE RELATED TO THE CREDIT QUALITY OF ASSETS

Regulation	Pillar 3 disclore requirement	Disclosure
Article 442(a)	The scope and definitions of 'past due' and 'impaired' exposures used for accounting purposes and any differences with respect to 'past due' and 'defaulted' for regulatory purposes	- Section "3.3 Forbearance, impairment, past due and provisions" with "3.3.1.3 Past due" for the definition of 'Past due', "3.3.1.1 Financial assets measured at amortised cost" including the "impaired exposures definition" and "3.3.1.4 Default definition" - Section "3.6.7 Foreseen material model changes" - New Definition of Default - Annual Report 2019: * Note "12.2 Credit risk exposures" (definitions of "credit-impaired status" and "default") and "12.2.D Past due but not impaired financial assets".
Article 442(a)	The extent of past due exposures (more than 90 days) that are not considered to be impaired and the reasons for this	- Section "3.3.1 Definitions" with "3.3.1.3 Past due"" - Annual Report 2019: *Notes on risk exposures "12.2.D Past due but not impaired financial assets"
Article 442(b)	Description of methods used for determining general and specific credit risk adjustments	- Section "3.2.5 Credit quality of exposures" - Section "3.3.4 Changes in the stock of specific credit risk adjustments" - Annual Report 2019: *Notes on risk exposures "12.2.D Past due but not impaired financial assets"
Article 442(a)	Definition of a restructured exposure	*The Bank fulfils the conditions of application of Article 178 (3) (d) and does not dispose of its own definition* - Section "3.3.3 Information on forborne exposure and non-performing loans" - Annual Report 2019: * Note "12.2.I Information on forborne exposures"

TABLE 7: EU CRC – QUALITATIVE DISCLOSURE REQUIREMENTS RELATED TO CRM TECHNIQUES

Regulation	Pillar 3 disclore requirement	Disclosure
Article 453(a)	CRM policies and processes concerning on-balance-sheet and off-balance-sheet netting (their use, importance, techniques, controls)	- Section "3.1.5 Credit Risk measurement" - Section "3.4 Credit risk mitigation" - Section "3.7.1 Management of counterparty risk" - Annual Report 2019: *" Note 10: Notes on the consolidated off-balance sheet items"
Article 453(b)	Policies and processes for collateral valuation and management (market value, other values)	- Section "3.4 Credit risk mitigation" - Section "3.7.1 Management of counterparty risk"
Article 453(c)	Main types of collateral accepted to mitigate credit risk (type of credit operations collateralised, rating and residual maturity of collaterals)	*In terms of collateral management (e.g. CSA, GMRA), the only collateral accepted is cash.* *- Section "3.7.1 Management of counterparty risk"*
Article 453(d)	Main types of guarantors and counterparties in credit derivatives and their creditworthiness to be disclosed should cover credit derivatives used for the purposes of reducing capital requirements, excluding those used as part of synthetic securitisation structures	*In terms of FRM, there is no guarantees* *Section "3.7.1 Management of counterparty risk"*
Article 453(e)	Analysis of any concentration that arises due to CRM measures and may prevent CRM instruments from being effective. Concentrations in the scope of those disclosures could include concentrations by type of instrument used as collateral, entity (concentration by guarantor type and credit derivative providers), sector, geographical area, currency, rating or other factors that potentially impact the value of the protection and thereby reduce this protection	- Annual Report 2019: * Note "12.2.A Analysis of BIL exposures", "12.2.B Credit risk exposures by class of financial instruments" * Note "12.3 Encumbered assets"

TABLE 8: EU CRD – QUALITATIVE DISCLOSURE REQUIREMENTS ON INSTITUTIONS' USE OF EXTERNAL CREDIT RATINGS UNDER THE STANDARDISED APPROACH FOR CREDIT RISK

Regulation	Pillar 3 disclore requirement	Disclosure
Article 444(a)	External Credit Assessment Institutions	- Section "3.5.2 External credit assessment institutions" - Table EU CR4
(ECAIs) Article 444(b)	Exposure classes for which each ECAI is used	
Article 444(c)	Process used to transfer the issuer and issue credit ratings onto comparable assets in the banking book	
Article 444(d)	The alignment of the alphanumerical scale of each agency used with the credit quality steps	

TABLE 9: EU CRE – QUALITATIVE DISCLOSURE REQUIREMENTS RELATED TO IRB MODELS

Regulation	Pillar 3 disclore requirement	Disclosure
Article 452(b)(iv)	Control mechanisms for rating systems	- Section "3.6.2 Model management and Global governance"
Article 452(b)(iv)	Role of the functions	- Section "1.2 Risk organisation and governance" - Section "3.1 Credit risk governance"
Article 452(b)(iv)	Credit risk models	- *"Introduction: Global view on the different regulatory frameworks impacting the Bank" with the A-IRB framework & TRIM*
Article 452(a)	Supervisor's acceptance of approach	- *As requested by the regulator, more than 85% of the exposures are treated under the A-IRB approach.* - *Section "3.6.1 Competent authority's acceptance of the approach"*
Article 452(a)	Part of EAD within the group covered by the standardised, FIRB and AIRB approaches and the part of the exposure classes that are involved in a roll-out plan	- Section "3.6.2 Model management and global governance" - Section "3.7.6 IRB approach - CCR exposures by exposure class and risk weight": Table EU CCR4 - IRB approach – CCR exposures by portfolio and PD scale
Article 452(c)	Internal rating processes	Section "3.6 Advanced Internal Ratings Based approach (A-IRB)", with amongst other: * Section "3.6.2 Model management and global governance" (parameters, segmentation and principles), and Tables in Section "3.6.2.2 Segmentation and principles used for estimating the PD, LGD and CCF" * Section "3.6.3 Credit risk models performance"

TABLE 10: EU MRB – QUALITATIVE DISCLOSURE REQUIREMENTS FOR INSTITUTIONS USING THE IMA

N/A BIL is under standardized approach

ue Internationale à Luxembourg SA
ute d'Esch
3 Luxembourg
uxembourg B-6307
52) 4590 -1
52) 4590-2010

bil.com