RISK REPORT

2019

PILLAR 3 2018

SOCIETE GENERALE

CONTENTS

RISK REPORT

2019

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ABBREVIATIONS USED

Millions of euros: EUR m / **Billions of euros:** EUR bn / **FTE :** Headcount in Full-Time Equivalents
Rankings: the source for all references to rankings is given explicitly. Where it is not, rankings are based on internal sources.

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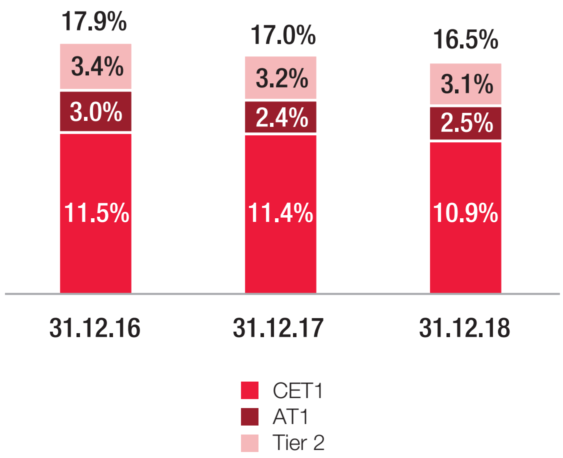
KEY FIGURES

IN BRIEF

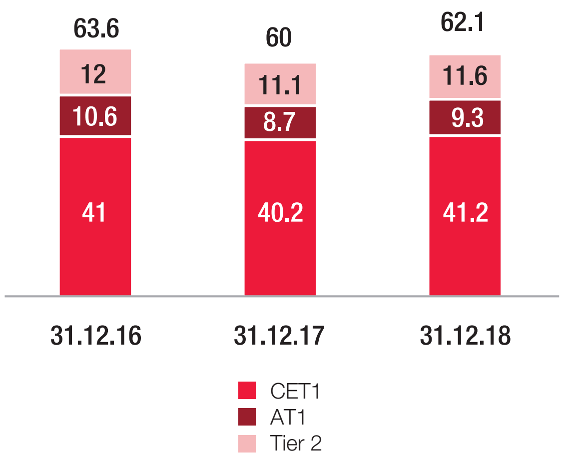
The Risk Report provides in-depth information on Societe Generale's approach and strategy for managing its equity capital and risks.

The report also aims to meet the requirements of various stakeholders, including supervisors (in compliance with Part 8 of the CCR), investors and analysts.

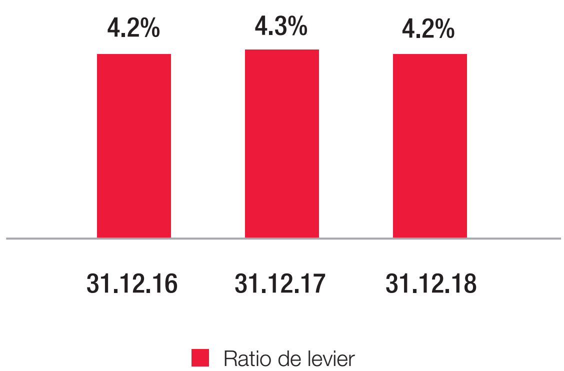
Fully loaded solvency ratios(1)



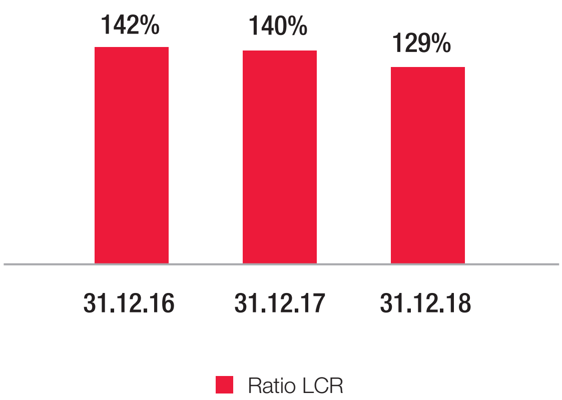
Regulatory capital(1)
(In EUR BN)



Leverage ratio(1)(2)
(In EUR BN)

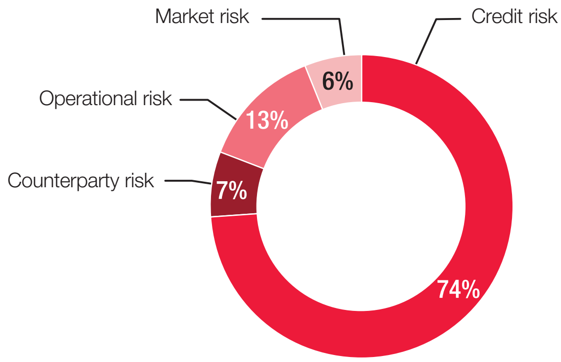


Ratio LCR(1)

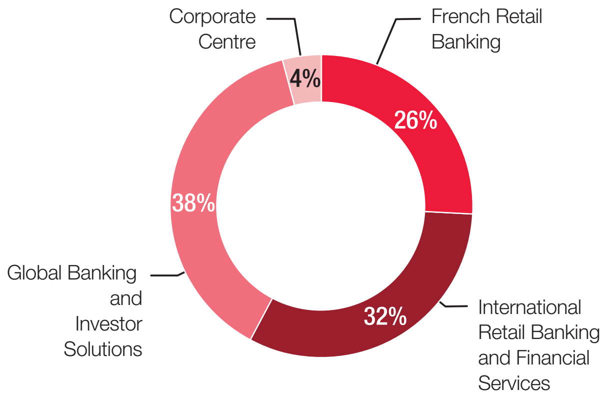


(1) Disclosed ratios are fully loaded, calculated according to CRR/CRD4 rules published on 26th June 2013, including the Danish compromise for Insurance.
(2) Fully loaded ratio calculated according to CRR rules published in October 2014 (Delegated Act).

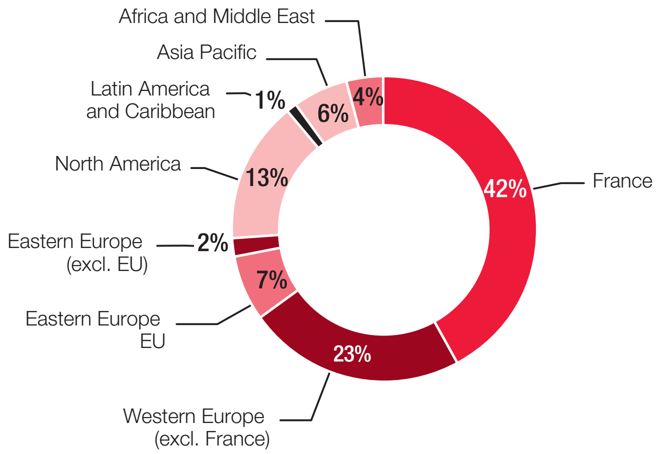
Distribution of RWA by risk type
(RWA at end 2018: EUR 376 bn
RWA at end 2017: EUR 353 bn)



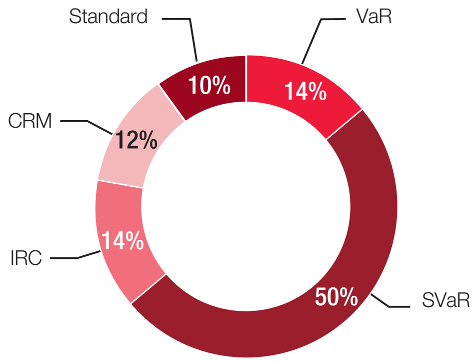
Distribution of RWA by Pillar
(RWA at end 2018: EUR 376 bn
RWA at end 2017: EUR 353 bn)



CREDIT RISK EAD
Credit risk exposure (EAD) at end-2018: EUR 920 bn
(EUR 872 bn at end-2017)



Distribution of market risks (RWA) by risk
Market risk RWA at end-2018: EUR 23,7 bn
(EUR 14,8 bn at end-2017)



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TYPES OF RISKS AND RISK FACTORS

IN BRIEF

This section describes the various types of risk and the risks to which Societe Generale is exposed.

2.1 TYPES OF RISKS

The Group's risk management framework involves the following main categories:

- **Credit and counterparty risk:** risk of losses arising from the inability of the Group's customers, issuers or other counterparties to meet their financial commitments. Credit risk includes the counterparty risk linked to market transactions and securitisation activities. In addition, credit risk may be further amplified by individual, country and sector concentration risk.
- **Market risk:** risk of a loss of value on financial instruments arising from changes in market parameters, the volatility of these parameters and correlations between them. These parameters include but are not limited to exchange rates, interest rates, the price of securities (equity, bonds), commodities, derivatives and other assets.
- **Operational risk:** risk of losses resulting from inadequacies or failures in processes, personnel or information systems, or from external events. They include:
  - **Non-compliance risk (including legal and tax risks):** risk of court-ordered, administrative or disciplinary sanctions, material financial loss or reputational harm, due to failure to comply with the provisions governing the banking and financial activities, whether these are of a legislative or regulatory nature, national or European, directly applicable, or are professional and ethical standards, or instructions of the effective leaders, in particular pursuant to the guidelines of the supervisory organ,
  - **Reputational risk:** risk arising from a negative perception on the part of customers, counterparties, shareholders, investors or regulators that could negatively impact the Group's ability to maintain or engage in business relationships and to sustain access to sources of financing;
  - **Misconduct risk:** risk resulting from actions (or inactions), or behaviour of the Bank or its employees, which is inconsistent with the Group's Code of Conduct, which may lead to adverse consequences for our stakeholders, or place the Bank's sustainability or reputation at risk;
  - **IT and Information Systems Security risk** (cybercrime, service failure, etc.)
- **Model risk:** the risk of losses due to decisions reached based on results of internal modelling due to errors in development, implementation or use of these models.
- **Structural risk:** risk of losses in interest margin or banking book value if interest rates, exchange rates. This risk is related to the commercial and own activities of the bank, it includes the distortion of the structural difference between assets and liabilities related to pension obligations, as well as the risk related to longer terms of future payments.
- **Liquidity and funding risk:** liquidity risk is defined as the inability of the Group to meet its financial obligations at a reasonable cost. Funding risk is defined as the risk of the Group being unable to finance the development of its activities in line with its commercial objectives and at a competitive cost.
- **Strategic/business risk:** risk resulting from the Group's inability to execute its strategy and to implement its business plan for reasons that are not attributable to the other risks in this list; for instance, the non-occurrence of the macroeconomic scenarios that were used to construct the business plan, or a sales performance below expectations.
- **Risk of reduction in the value of equity holdings in certain companies:** reduction in the value of our equity investments.
- **Risk related to insurance activities:** through its insurance subsidiaries, the Group is also exposed to a variety of risks linked to this business. In addition to balance sheet management risks (interest rate, valuation, counterparty and exchange rate risk), these risks include premium pricing risk, mortality risk and the risk of an increase in claims.
- **Risk related to specialised finance activities:** through its specialised financial services activities, mainly in its operational vehicle leasing subsidiary, the Group is exposed to residual value risk (when the net resale value of an asset at the end of the lease is less than estimated).

In addition, **risks associated with climate change**, both physical (increased frequency of extreme weather events) and transition-related (new carbon regulations), have been identified as factors that could aggravate the Group's existing risks.

2.2 RISK RELATED TO THE MACROECONOMIC, MARKET AND REGULATORY ENVIRONMENTS

1. The global economy and financial markets continue to display high levels of uncertainty, which may materially and adversely affect the Group's business, financial position and results of operations.

As part of a global financial institution, the Group's businesses are sensitive to changes in financial markets and economic conditions generally in Europe, the United States and elsewhere around the world. The Group could face a significant deterioration in market and economic conditions resulting from, in particular, crises affecting capital or credit markets, liquidity constraints, regional or global recessions, sharp fluctuations in commodity prices (notably oil), currency exchange rates or interest rates, inflation or deflation, sovereign or private debt rating downgrades, restructuring or defaults, or adverse geopolitical events (including acts of terrorism and military conflicts). Such events, which may develop quickly and thus potentially may not be anticipated and hedged, could affect the operating environment for financial institutions for short or extended periods and have a material adverse effect on the Group's financial position, cost of risk and results of operations.

Consequently, financial markets have in recent years experienced significant disruptions as a result of concerns regarding the sovereign debt of various Eurozone countries and uncertainty relating to the pace of US monetary policy tightening, as well as fears related to a slowdown of the economy in China. The level of interest rates observed in recent years, particularly in the Eurozone, has affected and could continue to affect the net interest margin and therefore the results of operations of the Group's retail banking activities.

A long period of low interest rates in the Eurozone and the United States, driven by accommodating monetary policies, has led to an increased risk appetite of some participants in the banking and financial system. This could result in excessive risk-taking, with a loosening of credit approval requirements, lower risk premiums compared to their historical average and high valuation levels of certain assets. This situation increases the risk of financial disruption related to the conduct of monetary policy, in the event that an unexpected rise in inflation and the tightening of monetary policy in the United States and the Eurozone lead to a poorly-controlled rise in interest rates. Furthermore, the environment of abundant liquidity that has been at the origin of the upturn in credit growth in the Eurozone and particularly in France could lead to additional regulatory measures from the supervisory authorities in order to limit the granting of credit or to further protect banks against a financial cycle downturn. In this scenario, the Group could be affected by a sudden revaluation of risks on the capital and credit markets and the decline in value and liquidity in certain asset markets. In addition, in a context of sharply rising public and private indebtedness in recent years in certain developed and emerging countries, a rapid rise in interest rates could affect exchange rates, the ability of some borrowers to meet their financial obligations and, more generally, adversely impact the prospects for economic growth.

Furthermore, the increase or accumulation of geopolitical or political risks is another source of uncertainty which could impact economic activity and credit demand, while increasing the volatility of financial markets. The implementation of strong protectionist measures (or threats thereof), notably under the influence of US policy, could affect the strength of international trade in goods and services and have repercussions on the economic environment in which the Group operates, which could have a material adverse effect on the Group's businesses, financial position and results of operations.

2. The Group's results may be adversely affected by regional market exposures.

The Group's results are significantly exposed to economic, financial and political conditions in the principal markets in which it operates (namely France, Europe and the United States). In France, the Group's principal market, recovery in growth and low interest rates have fostered an upturn in the housing market, but a relapse of activity in this area could have a material adverse impact on the Group's business, resulting in decreased demand for loans, higher rates of non-performing loans and decreased asset values.

Given its geographical diversification, the Group operates in emerging markets, in particular in Russia and other Central and Eastern European countries, as well as in Africa. A significant adverse change in the political, macroeconomic or financial environment of these countries could have a material adverse effect on the Group's results and financial position. It is likely that uncertainties, and thus the related risks, will persist in relation to these markets. These uncertainties may arise from the evolution of oil prices, which may affect the financial health of producing countries, the evolution of the sanctions regime towards Russia, and the twin deficits in Romania whose correction could be imposed by the markets with an impact on growth and on the exchange rate. Capital markets and securities trading activities in emerging markets may be more volatile than those in developed markets and may also be vulnerable to certain specific risks, such as political instability and currency volatility.

As a result of geopolitical and political tensions, the United States, the European Union and other countries and international organisations imposed several rounds of sanctions on Russian individuals and corporates in March 2014, and which were strengthened in 2018. The sanctions have adversely impacted the value of the rouble, as well as financing conditions and economic activity in Russia. There is a risk of further adverse developments in the event of increased geopolitical tensions and/or additional sanctions from Western countries and/or Russia, as well as in the event of a further drop in oil prices.

In the Eurozone, the economic and financial situation could be affected by adverse economic developments in one or more Member States. In particular, in Italy, the combination of a high level of public debt, low growth and a banking sector still affected by a significant proportion of outstanding non-performing loans, increases the risk of tightening of financing conditions. Excessive tensions could then cause contagion in the peripheral countries of the Eurozone and adversely impact the regional economy and, ultimately, the stability of the monetary zone. This could lead the ECB to further loosen monetary conditions through unconventional policies in order to avoid a systemic crisis, which could have an adverse effect on the results of some of the Group's activities.

3. **Brexit and its impact on financial markets and the economic environment could have an adverse impact on the Group's activities and results of operations.**

The terms of the United Kingdom's withdrawal agreement from the European Union have yet to be approved by the British Parliament and negotiations are ongoing, increasing the probability of a "no-deal" Brexit. This in turn will have an impact on the possibility of a transition period up to 31 December 2020, and the nature of future relations between the United Kingdom and the European Union remains unclear.

In anticipation of Brexit, the Group has established a central scenario of a hard Brexit and has taken steps to adapt its activities, governance and operating structure in the United Kingdom in order to reduce as much as possible the negative impact on its activities and customers. Nevertheless, according to the scenarios that have been considered, the withdrawal of the United Kingdom from the European Union is likely to cause considerable disruption to the economy and the European and global financial markets. These disruptions could have repercussions on the Group's business and results, as well as on the regulatory framework governing some of its activities.

4. **Increased competition, by both banking and non-banking actors, is likely to have an adverse effect on the Group's businesses and results, both in its domestic French market and internationally.**

All of the Group's activities are subject to intense competition on the global and local markets in which it operates, whether from banking or non-banking actors. As such, the Group is exposed to the risk of not being able to maintain or develop its market share in its various activities. This competition may also lead to pressure on margins, which is detrimental to the profitability of the Group's activities.

In France and in the other main markets in which the Group operates, the presence of major domestic banking and financial actors, as well as new market participants (such as online banking and financial services providers), has increased competition for virtually all products and services proposed by the Group. Driven by new market participants such as "fintechs", new services that are automated, scalable and based on new technologies are developing rapidly and are fundamentally changing the relationship between consumers and financial service providers, as well as the function of traditional retail bank networks. The Group's strategy for addressing these challenges, particularly in terms of developing digital technologies, could, if it proves ineffective or poorly executed, lead to a weakened competitive position.

Consolidation in the financial services industry could result in the Group's remaining competitors benefiting from greater capital, resources and the ability to offer a broader range of products and services. In addition, competition is increasing with the emergence of non-banking actors that, in some cases, may benefit from a regulatory framework that is more flexible and, in particular, less demanding in terms of equity capital requirements.

5. **The Group is subject to an extensive supervisory and regulatory framework in each of the countries in which it operates. Changes in this regulatory framework could have a significant effect on the Group's businesses, position and costs, as well as on the financial and economic environment in which it operates.**

General regulatory framework

The Group is subject to extensive regulation and supervision in all jurisdictions in which it operates. The rules applicable to banks seek principally to limit their risk exposure, preserve their stability and financial solidity and protect clients, depositors, creditors and investors. Compliance with these regulations requires significant resources. Non-compliance could lead to fines, damage to the Group's reputation, forced suspension of its operations or the withdrawal of operating licences.

This regulatory framework is characterised by its evolving nature and increasing complexity, which increases uncertainty about the future impacts on the Group's business and profitability. Since the onset of the financial crisis, a variety of measures have been proposed, discussed and adopted by numerous national and international legislative and regulatory bodies, as well as other entities. Some of these measures have already been implemented, while others are still under discussion. It therefore remains difficult to accurately estimate the future effects or, in some cases, the likely consequences of these measures for the Group.

The Basel 3 regulations adopted by the Basel Committee in 2010 constitute the international regulatory framework for strengthening capital and liquidity requirements with the goal of promoting a more resilient banking sector. In 2017, the Group of Central Bank Governors and Heads of Supervision (GHOS), which monitors the Basel Committee on Banking Supervision, adopted the current Basel 3 regulatory reforms undertaken in 2009. These new regulations increase the regulatory capital requirements to which banks in general, and the Group in particular, are subject, including constraints on internal models for Internal Ratings-Based (IRB) credit risk, the redesign of the Fundamental Review of the Trading Book (FRTB) models and the disappearance of the internal model for operational risk, replaced by a Standard approach. These new regulations should apply from 2022 together with a global output floor: the banking Risk-Weighted Assets (RWA) will be subject to a floor corresponding to a percentage of the Standardised Approach method (credit, market and operational). The output floor level will increase progressively from 50% in 2022 to 72.5% in 2027. Nonetheless, these regulations will not apply to the Group before their implementation into European Union law (CRR3/CRD6).

The timetable for effective applicability of these regulations to the Group is likely to change depending on the final transposition of the Basel Committee's regulations into European law. Despite the measures taken by the Group to adapt its activities to new regulations and thus reduce their adverse impact, the completion of the Basel 3 regulatory framework is likely to increase the capital requirements applicable to some of the Group's activities and thus reduce return on equity.

Furthermore, the European Union adopted a rule requiring banks to make a prudential deduction on Non-Performing Loans (NPLs) after a certain period of time on the balance sheet, once these loans have been provisioned at a level below the level set by the legislator.

French and European laws and regulations

The Group applies the Basel 3 regulations implemented in the European Union through the Capital Requirements Regulation (CRR) and Capital Requirements Directive (CRD). These European regulations are and will continue to be amended to reflect the changes in the Basel 3 regulatory framework.

The MREL ratio ("Minimum Requirement for own funds and Eligible Liabilities") is defined in the European Directive 2014/59/EU of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms (Bank Recovery and Resolution Directive "BRDD") and has been transposed into French law (ordinance No. 2015-1024 dated 20 August 2015, ratified by Act No. 2016-1691 dated 9 December 2017 (the "Ordinance")) and entered into force in January 2016. The MREL ratio is a minimum requirement for own funds and eligible liabilities that are available to absorb losses and recapitalise the bank according to the conditions stated in the BRRD. This requirement is calculated as the minimal amount of own funds and eligible liabilities expressed as a percentage of the institution's total liabilities and own funds.

The Ordinance amended the provisions of the French Monetary and Financial Code (*Code monétaire et financier*) and requires credit institutions that are subject to direct supervision by the ECB (which is the case of Societe Generale) to prepare and communicate a preventive recovery plan to the ECB describing the recovery measures to address a material deterioration in their financial situation.

These reforms on recovery and resolution could have a significant impact on the way in which the Group operates its activities.

The TLAC ("Total Loss Absorbing Capacity") ratio was developed by the FSB at the request of the G20 and finalised in November 2015. The new international standard applies to G-SIB systemic institutions. TLAC-eligible instruments must notably be subordinated (structurally, contractually or statutorily) to senior non-preferred debt. However, EU banks will be allowed to include a limited amount of senior preferred debt (2.5% of RWA in 2019, 3.5% of RWA in 2022), subject to regulatory approval. In order to reduce the risk of contagion, G-SIBs will be required to deduct exposures to eligible TLAC instruments and liabilities issued by other G-SIBs from the numerator of their own TLAC position. The rules introduce two types of denominator (risk-weighted assets (RWA) or leverage exposure) and impose a minimum ratio in both scenarios. The BRRD, which defines the MREL, is being revised in order to converge this ratio with the TLAC.

The MREL and TLAC requirements involve similar risks. They constrain the structure of liabilities and require the use of subordinated debt markets, which have an impact on cost and potentially on financing capacity.

Furthermore, negotiations within the European Union on the CRR2/CRD5 regulatory package are progressing, with a political agreement signed on 4 December 2018 and an expected publication of the regulations in the first half of 2019.

The new proposals address the following:

- Net Stable Funding Ratio (NSFR): new Basel provisions;
- Leverage ratio: the minimal requirement of 3% will be inserted in the CRR;
- Standardised Approach Counterparty Credit Risk (SA-CCR): SA-CCR is the Basel method that replaces the current "CEM" method to determine the prudential exposure on derivatives under a Standardised Approach;
- Large exposures: the main change pertains to the calculation of the regulatory limit (25%) on the Tier 1 (instead of the total of own funds), as well as the introduction of a specific limit for exposures between systemic institutions (15%);
- TLAC/MREL;
- market risks – Fundamental Review of the Trading Book (FRTB): the Basel Committee published in January 2019 its final BCBS 457 text on FRTB, which confirms in particular its implementation timetable and recommends application as of 1 January 2022. The CRR2 regulation draft introduces a publication requirement (2021 for the Standard Approach and 2023 for the Internal Model Approach (IMA)), which will only become a capital requirement in the context of the future CRR3 regulation, which is expected around 2023.

This new regulatory framework will potentially have an impact on capital requirements, cost of funding and other activities that will have to adapt to these new constraints. Nevertheless, the extent of this impact remains uncertain at this stage.

The EMIR (European Market Infrastructure Regulation) and the Dodd Frank Act aim, among other things, to promote the widespread use of clearing through clearing houses for so-called "standard" market transactions, and for non-standard transactions, to subject them to obligatory bilateral variation margin exchange in order to cover current exposure, and beyond certain OTC derivative position thresholds, to obligatory bilateral initial margin exchange in order to cover future exposure.

In 2017, the European Commission published two regulation proposals amending EMIR, which, once implemented, could have an impact on the Group's activities and results of operations:

- the first proposed change (commonly known as "EMIR 2.2") concerns the strengthening of the European Union authorities' supervisory power over central counterparties of a third country. Negotiations at the European Union level are currently in the tripartite phase between the Commission, Parliament and the Council. In the event of significant risks to the financial stability of European Union Member States posed by a central counterparty of a third country, European Union authorities could ultimately require such central counterparties to become established and authorised in the European Union within a maximum period of two years ("Localisation Policy"). While the complete ramifications of the Localisation Policy remain uncertain, particularly in the Brexit context, it could, if implemented, generate operational risks and result in additional costs, negatively impacting the results of the Group;
- the second proposal, commonly known as "EMIR Refit", aims in particular to reduce the clearing obligation for certain categories of counterparties and to reduce reporting requirements. The final version was adopted at the end of February 2019, and should be published in the Official Journal by June 2019. In particular, it includes an exemption from the clearing obligation for small financial counterparties and from the variable margin obligation for physically settled forward foreign exchange contracts and foreign exchange swaps.

The implementation of transparency and accountability regulations is still ongoing, notably within the framework of the Dodd Frank Act in the United States (described in further detail below) and EMIR in Europe.

In addition to changes in regulatory provisions, the ECB has undertaken important initiatives to strengthen internal models for calculating capital requirements and their comparability. This concerns the strategy for deploying internal models on entities currently using a standard approach, harmonizing the internal definition of default, the launch in 2017 of a three-year program to review internal models (TRIM or Targeted Review of Internal Models), and the valuation of illiquid assets on the balance sheet. The impact of these measures is still uncertain. In particular, the TRIM program launched in 2017, to which the Group is subject along with other banks under the ECB's supervision, has not yet been completed and could result in increases in capital requirements as well as in the costs associated with adapting internal systems and processes.

The entry into force in 2018 of the European General Data Protection Regulation (GDPR) increases non-compliance risk due to the large volume of personal data that the Group processes in the normal course of its businesses, particularly in retail banking.

In addition, the Group is subject to complex tax rules in the countries in which it operates. Changes in applicable tax rules, uncertainty regarding the interpretation of such changes or their impact on the Group may have a material adverse effect on the Group's business, results and financial position.

US laws and regulations

The US Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 ("Dodd-Frank Act") provides a general framework of important financial regulation reforms in order to enhance banking supervision and regulation and contribute to financial stability. The Dodd-Frank Act contains new measures enhancing systemic risk oversight, prudential norms for banks, provisions regarding the orderly resolution of systemically-important financial institutions, regulation of over-the-counter derivatives and consumer and investor protection, as well as regulating the ability of banking organisations and their affiliates in relation to proprietary trading activities and certain transactions involving hedge funds and private equity funds.

The Dodd-Frank Act and other similar post-financial-crisis regulations implemented in the US have increased compliance costs, restricted activities and resulted in greater prudential supervision as well as an increased risk of the introduction of additional measures that may negatively affect banks. The Dodd-Frank Act has also provided the US market regulators, mainly the CFTC and the SEC, with enhanced regulatory and jurisdictional authority over Societe Generale, and subjected the Group to additional control and monitoring measures.

The new US Presidential administration has expressed different policy goals, which could alter these provisions but without substantially amending the Dodd-Frank Act.

Although certain rules and regulations are still in draft form, or yet to be proposed, the majority of the rules relevant to the Group have already been finalised and have resulted or will result in additional costs as well as the imposition of restrictions on certain activities of the Group. The new policies and any proposed new regulations or legislation, once adopted, could affect the activities of the Group and the value and liquidity of securities issued by Societe Generale.

As an international bank, handling transactions with "US persons", denominated in US dollars, or involving US financial institutions, the Group is subject to US laws and regulations relating in particular to compliance with economic sanctions, the fight against corruption, and market abuses. In 2018, the Group entered into several agreements with US authorities notably in order to suspend for three years the criminal proceedings initiated for violating the above-mentioned US laws and regulations. Under these agreements, the Group has undertaken to implement, through a dedicated programme and organisation, corrective actions to address identified deficiencies, the cost of which may be significant. In the event of a new failure to comply with relevant US laws and regulations, or a breach of the Group's commitments under these agreements, the Group could be exposed to the risk of (i) administrative sanctions, including fines, suspension of access to US markets, or even withdrawals of banking licences, (ii) reactivation of the criminal proceedings risk, and (iii) damage to its reputation.

6. **The Group may generate lower revenues from brokerage and other commission- and fee-based businesses during market downturns.**

During the market downturn since 2018, the Group experienced a decline in the volume of transactions executed for its clients, resulting in lower revenues from this activity. There is no guarantee that the Group will not experience a similar trend in future market downturns, which may occur periodically and unexpectedly. Furthermore, changes in applicable regulations could also impact the volume of transactions that the Group executes for its clients, resulting in lower revenues from these activities. In addition, because the fees that the Group charges for managing its clients' portfolios are in many cases based on the value or performance of the portfolios in question, a market downturn reducing the value of its clients' portfolios or increasing the amount of withdrawals could reduce the revenues the Group generates from its Asset Management, custodial and Private Banking businesses, which would have a material adverse effect on the Group's financial position and results of operations.

2.3 CREDIT RISKS

7. The Group is exposed to counterparty and concentration risks, which may have a material adverse effect on the Group's business, results of operations and financial position.

The Group is exposed to credit risk with respect to numerous counterparties in the ordinary course of its trading, lending, issuing and deposit-taking, clearing, settlement and other activities. These counterparties include, among others, institutional clients, brokers and dealers, commercial and investment banks, corporates, clearing houses, hedge funds, and sovereign states. The Group may realise losses if a counterparty defaults on its obligations, if the Group encounters legal or other difficulties in enforcing its collateral or/and if the value of the collateral is not sufficient to fully recover the exposure.

Many of the Group's hedging and other risk management strategies also involve transactions with financial services counterparties. Any default or insolvency on the part of these counterparties may impair the effectiveness of the Group's hedging and other risk management strategies.

Following the financial crisis, regulators have encouraged or imposed the mandatory netting of certain financial instruments formerly traded over-the-counter, which has increased the exposure of the Group and other financial market participants to the clearing houses: the default of any one of them or of one of their members could affect the financial markets and could have negative consequences for the Group.

Consequently, the default of one or more significant counterparties of the Group could have a material adverse effect on the Group's cost of risk, results of operations and financial position.

This risk is increased if exposures are concentrated on a particular counterparty, borrower or issuer (including sovereign issuers), or on a particular country or industry. The devices and methods the Group uses to ensure the diversification of its credit and counterparty risks may prove insufficient or defective in preventing the concentration of credit risk. Such a concentration of risk could result in losses for the Group, even when economic and market conditions are generally favourable for its competitors, and may have a material adverse impact on the Group's business, results of operations and financial position.

8. The financial soundness and conduct of other financial institutions and market participants could adversely affect the Group.

The Group's ability to engage in funding, investment and derivative transactions could be adversely affected by the soundness of other financial institutions or market participants. Financial services institutions are interrelated as a result of trading, clearing, counterparty, funding and other relationships. As a result, defaults by, or even rumours or questions about, one or more financial services institutions, or a loss of confidence in the financial services industry generally, may result in market-wide liquidity scarcity and could lead to further losses or defaults. The Group has exposure to many counterparties in the financial industry, directly and indirectly, including brokers and dealers, commercial banks, investment banks, mutual and hedge funds, and other institutional clients with which it regularly executes transactions. It should be noted that the number of cleared transactions is increasing and will continue to do so, thereby increasing our exposure to clearing houses while reducing our bilateral positions. Many of these transactions expose the Group to credit risk in the event of default by counterparties or clients and may have a material adverse impact on the Group's business, results of operations and financial position.

9. The Group's results of operations and financial position could be adversely affected by a late or insufficient provisioning of credit exposures.

The Group regularly records provisions for loan losses in connection with its lending activities in order to anticipate the occurrence of losses and moderate the volatility of its results. The amount of loan loss provisions is based on the most accurate assessment to date of the recoverability of the debts in question. This assessment relies on an analysis of the current and prospective situation of the borrower as well as an analysis of the value and recoverability of the debt, taking into account any security interests. In some cases (loans to individual customers), the provisioning method may call for the use of statistical models based on the analysis of loss and recovery historical data.

The Group could be required to substantially increase its provisions for loan losses, following an increase in defaults or a re-evaluation of recovery prospects. A significant increase in loan loss provisions, or the occurrence of loan losses in excess of its provisions, could have a material adverse effect on Group's cost of risk, results of operations and financial position.

Since 1st January 2018, the Group has been recording provisions on performing loans under the IFRS9 accounting standard. This assessment is based on statistical models for assessing probabilities of default and potential losses in the event of default, which take into account a prospective analysis based on macroeconomic scenarios. The Group's cost of risk could be negatively impacted by a proven or anticipated deterioration in the quality of the outstanding loan portfolios or macroeconomic prospects. In addition, IFRS 9 accounting standard principles and provisioning models could be pro-cyclical in the event of a sharp and sudden deterioration in the environment or result in enhanced volatility in the event of fluctuations in the economic prospects. This could lead to a significant and/or not fully anticipated change in the cost of risk and therefore in the Group's results.

2.4 MARKET AND STRUCTURAL RISKS

10. The volatility of the financial markets may cause the Group to suffer significant losses on its trading and investment activities.

The volatility of the financial markets could adversely affect the Group's trading and investment positions in the debt, currency, commodity and equity markets, as well as its positions in private equity, property and other investments. In particular:

- significant volatility over a long period of time could lead to corrections on risky assets and generate losses for the Group;
- a sudden change in the volatility regime could make it difficult or more costly to hedge certain structured products and thus increase the risk of loss for the Group.

Severe market disruptions and high market volatility have occurred in recent years and may occur again in the future, which could result in significant losses for the Group's capital markets activities. Such losses may extend to a broad range of trading and hedging products, including swaps, forward and future contracts, options and structured products.

In the event that a low-volatility environment emerges, reflecting a generally optimistic sentiment in the markets and/or the presence of systematic volatility sellers, increased risks of correction may also develop, particularly if the main market participants have similar positions on certain products. Such corrections could result in significant losses for the Group's market activities.

The volatility of the financial markets makes it difficult to predict trends and implement effective trading strategies; it also increases risk of losses from net long positions when prices decline and, conversely, from net short positions when prices rise. Such losses could have a material adverse effect on the Group's results of operations and financial position.

11. Changes in interest rates may adversely affect the Group's Banking and Asset Management businesses.

The Group generates a significant part of its income through net interest margin and as such remains highly exposed to interest rate fluctuations as well as to changes in the yield curve, particularly in retail banking activities. The Group's results are influenced by changes in interest rates in Europe and in the other markets in which it operates. In Europe in particular, a protracted environment of low or even negative interest rates has affected and could continue to significantly affect retail banking income, notably in France.

12. Fluctuations in exchange rates could adversely affect the Group's results.

The Group's main operating currency is the euro. However, a significant portion of the Group's business is carried out in currencies other than the euro, such as the US dollar, the British pound sterling, the Japanese yen, the Czech koruna, the Romanian leu and the Russian rouble. The Group is exposed to exchange rate movements to the extent that its revenues and expenses, as well as its assets and liabilities, are recorded in different currencies. Because the Group publishes its consolidated financial statements in euros, which is the currency of most of its liabilities, it is also subject to conversion risk in the preparation of its financial statements. Exchange rate fluctuations of these currencies against the euro may also adversely affect the Group's consolidated results, financial position and cash flows. Exchange rate fluctuations may also affect the value (denominated in euros) of the Group's investments in its subsidiaries outside the Eurozone.

13. The protracted decline of financial markets or reduced liquidity in such markets may make it harder to sell assets or manoeuvre trade positions and could lead to material losses for certain activities of the Group.

In many of the Group's businesses, and in particular market activities, refinancing and asset management, a protracted financial market decline (due to tightened financing conditions, a global economic slowdown, a trade war, etc.), particularly in asset prices, could reduce the level of activity in the markets involved or reduce their liquidity. These developments could lead to material losses if the Group is not able to close out deteriorating positions in a timely way or adjust the hedge of its positions. This is especially true for the assets the Group holds for which the markets are relatively illiquid by nature, particularly those where a majority of participants have market positions in the same direction. Assets that are not traded on regulated markets or other public trading platforms, such as derivatives contracts between banks, are valued based on the Group's internal models rather than on their market value. Monitoring or anticipating the deterioration of prices of assets like these is difficult, and could lead to losses that the Group did not anticipate which could have a material adverse effect on the Group's results of operations and financial position.

Furthermore, a long-term environment of low interest rates and accommodative monetary policy could change the behaviour of certain participants in the financial markets and lead them to take on additional risk, resulting in lengthened maturities, greater product complexity, the emergence of new market practices, etc. Such a context could reduce the liquidity of the financial markets in stress periods and increase the risk of dislocation or a flash crash, which could lead to losses or the impairment of assets owned by the Group.

14. The Group's hedging strategies may not prevent all risk of losses.

The Group is exposed to a risk of loss in the event of the ineffectiveness of a hedging strategy used, particularly on market activities. These hedging strategies use models that include assumptions about the evolution of market parameters and their correlation, partly inferred from historical data.

These models could be inappropriate in certain market environments, leading to an ineffective hedging strategy and causing potential loss.

2.5 OPERATIONAL RISK

15. Operational failure, termination or capacity constraints affecting institutions the Group does business with, or failure or breach of the Group's information technology systems, could result in losses and damages to the reputation of the Group.

The Group relies heavily on communication and information systems to conduct its business. Any failure, dysfunction, interruption or breach in security of these systems, even if only brief and temporary, could result in significant disruptions to the Group's business. Despite the Group's backup solutions, such incidents could result in significant costs related to information retrieval and verification, loss of revenue, loss of customers, litigations with counterparties or customers and ultimately damage to the Group's reputation. This could also have a material adverse effect on the Group's businesses, results of operations and financial position, and could result in litigation.

An increasing number of companies, including financial institutions, has experienced intrusion attempts or even breaches of their information technology security, some of which have involved sophisticated and targeted attacks on their computer networks and resulted in loss, theft or disclosure of confidential data. Because the techniques used to obtain unauthorised access, disable or degrade service or sabotage information systems change frequently, and often are not recognised until launched against a target, the Group may be unable to anticipate these techniques or to implement effective countermeasures in a timely manner. Similarly, technical internal and external fraud is fluid and protean, and closely follows the technological evolution of financial activities and customer behaviour, leading fraudsters to regularly develop new attack techniques. Such actions could result in operational losses and could have a material adverse effect on the Group's business, results of operations and financial position.

Furthermore, the Group is exposed to the risk of operational failure, termination or capacity constraints of third parties, including clients, financial intermediaries that it uses to facilitate cash settlement or securities transactions (such as clearing agents and houses and exchanges), and other market participants. An increasing number of derivative transactions are now required to be cleared on exchanges, or will be in the near future, which has increased the Group's exposure to these risks, and could affect its ability to find adequate and cost-effective alternatives.

The interconnectivity of multiple financial institutions with clearing agents and houses and exchanges, and the increased concentration of these entities, increases the risk that an operational failure at one institution or entity may cause an industry-wide operational failure that could materially impact the Group's ability to conduct business and could therefore result in losses. Industry concentration, whether among market participants or financial intermediaries, can exacerbate these risks, as disparate complex systems need to be integrated, often on an accelerated basis.

As the Group becomes more interconnected with its clients, it also faces the risk of operational failure with respect to its clients' information technology and communication systems. Any failure, termination or operating incident could adversely affect its ability to effect transactions, provide customer service, manage its exposure to risk or expand its businesses, or could result in financial losses, liability towards its clients, impairment of its liquidity, disruption of its businesses, regulatory intervention or reputational damage.

16. The Group may incur losses as a result of unforeseen or catastrophic events, including terrorist attacks or natural disasters.

The occurrence of unforeseen or catastrophic events, including terrorist attacks, natural disasters or a widespread health crisis (or concerns over the possibility of such crisis) or major social movements, could create economic and financial disruptions or lead to operational difficulties (including travel limitations or relocation of affected employees) that could impair the Group's ability to manage its businesses and also expose its insurance activities to significant losses and increased costs (such as re-insurance premiums), which could have a material adverse effect on the Group's business, results of operations and financial position.

17. The Group is exposed to legal risks that could negatively affect its financial position or results of operations.

The Group and some of its former and current representatives may be involved in various types of litigation, including civil, administrative, fiscal, criminal and arbitration proceedings. The large majority of such proceedings arise from transactions or events that occur in the Group's ordinary course of business. There has been an increase in client, depositor, creditor and investor litigation and regulatory proceedings against intermediaries such as banks and investment advisors in recent years, in part due to the challenging market environment. This has increased the risk, for the Group, of losses or reputational harm deriving from litigation and other proceedings. Such proceedings or regulatory enforcement actions could also lead to civil, administrative, tax or criminal penalties that could adversely affect the Group's business, financial position and results of operations.

In preparing the Group's financial statements, the Group makes estimates regarding the outcome of civil, administrative, fiscal, criminal and arbitration proceedings in which it is involved, and records a provision when losses with respect to such matters are probable and can be reasonably estimated. It is inherently difficult to predict the outcome of litigation and proceedings involving the Group's businesses, particularly those cases in which the matters are brought on behalf of various classes of claimants, cases where claims for damages are of unspecified or indeterminate amounts, or cases involving unprecedented legal claims. Should such estimates prove inaccurate or should the provisions set aside by the Group to cover such risks prove inadequate, the Group's financial position or results of operations could be adversely affected.

For a description of the most significant ongoing proceedings, see section "Compliance risk, litigation".

18. Reputational damage could harm the Group's competitive position.

The Group's reputation for financial strength and integrity is critical to its ability to foster loyalty and develop its relationships with customers and other counterparties. Its reputation could be harmed by events attributable to it, flaws in its control measures, non-compliance with its commitments (notably environmental or social) or strategic decisions (business activities, risk appetite, etc.), as well as by events and actions of others outside its control. Negative comments concerning the Group, whether legitimate or not, could have adverse effects on its business, its competitive position, the value of its issued securities or its access to financing.

In particular, the Group's reputation could be adversely affected by a weakness in its internal control measures (operational risk, regulatory risk, credit risk, market risk, etc.) or following misconduct by employees such as with respect to clients (non-compliance with consumer protection rules) or by issues affecting market integrity (market abuse and conflicts of interest). The Group's reputation could also be affected by external fraud or information leaks, by the financing of an industry that is subject to media exposure, or by an transaction that is considered not to comply with an environmental or social commitment. Similarly, reputational issues could also result from a lack of transparency, communication errors or a restatement of, or corrections to, its financial results. The impact of such events, which could potentially result in litigation, can vary depending on the context and whether they become the focus of extensive media reports. Reputational damage could translate into a loss of business or investor confidence or a loss of the Group's clients (and prospects) which could have a material adverse effect on the Group's results of operations and financial position or on its ability to attract and retain employees.

2.6 MODEL RISKS

19. The Group's risk management system, based notably on models, may not be effective and may expose the Group to unidentified or unanticipated risks, which could lead to significant losses.

The Group deploys significant resources to identify, measure and control its risks and implements various techniques to manage its risk profile.

Nevertheless, these risk management techniques, which are often based on models, may not be appropriate for certain risks that would not be properly integrated into the historical data and hypothetical scenarios used to set up these models.

2.7 FUNDING RISKS

20. A number of exceptional measures taken by governments, central banks and regulators could have a material adverse effect on the Group's business, results of operations and financial position.

For several years now, central banks have taken measures to facilitate financial institutions' access to liquidity, in particular by lowering interest rates to historic lows. Various central banks have substantially increased the amount and duration of liquidity provided to banks. They have relaxed collateral requirements and, in some cases, have implemented "non-conventional" measures to inject substantial liquidity into the financial system, including direct market purchases of government bonds, corporate bonds, and mortgage-backed securities.

In the United States, the Fed has been raising its key interest rate since December 2015, along with implementing a policy of reducing its balance sheet (quantitative tightening). The market is now focusing on the pace of these rate increases and the potential monetary policy in response to the chosen budgetary policy of the US Presidential administration of Donald Trump that could lead the economy to stagflation. New tariffs and/or sanctions remain the main risks today.

Such changes in monetary policy, and concerns about their potential impact, could increase volatility in the financial markets and push US interest rates significantly higher. Given the uncertainty of the strength of global and US economic growth, such changes could have a significant adverse effect on the Group's business, financial position and results of operations.

In the Eurozone, the ECB ended its net asset-buying programme in December 2018 but has made it clear that it plans to maintain its balance sheet at constant size "for a prolonged period" after completion of the net asset purchases (by reinvesting the amounts received as the securities it holds reach maturity). The ECB now appears to have less leeway in the event of a resurgence of financial tension in certain Eurozone member states. In the extreme case of a restructuring of a Eurozone Member State's sovereign debt, cross-border capital flows restrictions could be implemented.

The fragmentation of the European financial markets is now partly "hidden" by the ECB's policy. The lack of significant progress on the Banking Union and the Capital Markets Union leaves the Eurozone in a situation of potential vulnerability.

A more politically fragmented world and the risks of exceptional counterproductive measures could have a material adverse effect on the Group's business, financial position and results of operations.

21. The Group's dependence on its access to financing and its liquidity constraints may have a material adverse effect on the Group's business, financial position and results of operations.

For the proper conduct of its activities, the Group depends on access to financing and other sources of liquidity. If the Group is unable to access secured or unsecured debt markets on terms it considers acceptable or if it experiences unforeseen outflows of cash or collateral, including material decreases in customer deposits, its liquidity could be impaired. In addition, if the Group is unable to maintain a satisfactory level of customer deposits collection, it may be forced to turn to more expensive funding sources, which would reduce the Group's net interest margin and results.

The Group is exposed to the risk of an increase in credit spreads. The Group's medium- and long-term financing cost is directly linked to the level of credit spreads which can fluctuate depending on the general market conditions. These spreads can also be affected by an adverse change in France's sovereign debt rating or the Group's external ratings by rating agencies.

The Group's ratings by rating agencies are based in particular on their review of factors such as the Group's governance, strategy, quality and diversity of earnings sources, capital adequacy, quality of the balance sheet structure, risk management and risk appetite. Therefore, a deterioration in any of the above factors may lead to a ratings downgrade for the Group. The Group's credit ratings can have a significant impact on the Group's access to funding, increase its financing costs and reduce its ability to carry out certain types of transactions or activities with customers. This could also require the Group to provide additional collateral to certain counterparties, which would have a negative impact on liquidity.

Lenders have the right to accelerate debt repayment for some of the Group's debts upon the occurrence of certain events, including the Group's failure to obtain the necessary collateral following a downgrade of its credit rating below a certain threshold, and other events of default set out in the terms of such indebtedness. If the relevant lenders declare all amounts outstanding due and payable as a result of a default, the Group may be unable to find sufficient alternative financing on acceptable terms, and the Group's assets might not be sufficient to repay its outstanding indebtedness in full.

Consequently, access to financing and liquidity constraints may have a material adverse effect on the Group's business, financial position, results of operations and ability to meet its obligations to its counterparties.

2.8 STRATEGIC AND BUSINESS RISKS

22. Risks related to the implementation of the Group's strategic plan.

The Group's new strategic and financial plan for 2017-2020 includes a number of strategic objectives, in particular a plan to accelerate the digital transformation of its model,the streamlining of its French Retail Banking network, the strengthening of its internal control function and the embedding of a culture of corporate responsibility. It also includes a certain number of financial objectives related to net income, costs, return on equity and regulatory ratios.

This strategic plan is based on a number of assumptions, in particular relating to the macroeconomic environment and the development of activities. Failure to achieve these objectives or the occurrence of unexpected events could compromise the achievement of the strategic plan and have a material adverse effect on the Group's business, results of operations and financial position.

23. To prepare its consolidated financial statements in accordance with IFRS as adopted by the European Union, the Group relies on assumptions and estimates which, if incorrect, could have a significant adverse impact on its financial statements.

When applying the IFRS accounting principles disclosed in the Financial Information (Chapter 6 of this Registration Document) and for the purpose of preparing the Group's consolidated financial statements, Group Management makes assumptions and estimates that may have an impact on figures recorded in the income statement or within the profits and losses recorded directly in equity, on the valuation of assets and liabilities in the balance sheet, and on information disclosed in the notes to the consolidated financial statements.

In order to make these assumptions and estimates, Group Management exercises its judgement and uses information available at the date of preparation of the consolidated financial statements. By nature, valuations based on estimates involve risks and uncertainties relating to their occurrence in the future. Actual future results may therefore differ from these estimates, which could have a material adverse effect on the Group's financial statements.

The use of estimates concerns mainly the following valuations:

- fair value on the balance sheet of financial instruments that are not listed on an active market, as well as fair value of financial instruments as presented in the notes to the financial statements;
- the amount of impairment of financial assets, tangible or intangible fixed assets and goodwill;
- evaluation of the accounting treatment of derivative hedging instruments and measuring the efficiency of the related hedging relationships;
- provisions recognised under liabilities (including provisions for litigation in a complex legal context and provisions for employee benefits), technical provisions of insurance companies, and deferred profit-sharing;

- the amount of deferred tax assets recognised in the balance sheet;
- the evaluation of control for determining the scope of consolidated entities, in particular for structured entities;
- initial value of goodwill determined for each business combination;
- in the event of the loss of control over a consolidated subsidiary, the fair value of the stake potentially retained by the Group in such entity, where applicable.

24. If the Group makes an acquisition, it may be unable to manage the integration process in a cost-effective manner or achieve the expected benefits.

The Group conducts in-depth analyses of the companies or activities it plans to acquire, but the due diligence procedures prior to the acquisition may not be fully exhaustive. As a result, certain acquired businesses may include undesirable assets or expose the Group to increased or unanticipated risks.

The analysis of acquisition value is based on a series of assumptions related to the earnings prospects of the acquired companies or activities, the economic environment in which they operate or the expected revenue or costs synergies to be achieved with the rest of the Group. These assumptions may not be realised. In some cases, integration initiatives in matters of commercial activities, IT or human resources may prove more difficult to implement than anticipated or require more management time and resources than expected. Similarly, the Group may experience higher integration costs and lower savings or earn lower revenues than expected. The pace and degree of synergy building is also uncertain and could have a material adverse effect on the Group's business, results of operations and financial position.

As part of its business portfolio strategy, the Group may sell activities or subsidiaries to deploy its resources in the Group's other activities that have a better prospect of profitability or synergy. When concluded, these sales may result in the recording of capital losses or other losses and may therefore have an adverse impact on the Group's results of operations.

25. The Group's inability to attract and retain qualified employees, as well as significant changes in the regulatory framework related to human resources management processes and compensation, may adversely affect its performance.

The inability to attract and retain highly-qualified employees, a high rate of turnover or the departure of strategic employees could expose the Group to a loss in its know-how as well as a deterioration in the quality of services provided (particularly in regions where labour markets are highly competitive for qualified personnel). In order to attract and retain highly-qualified employees, endowed with the skills - sometimes new - necessary for the successful development of its activities, the Group must therefore offer career paths, training and development opportunities, and compensation levels in line with market practices. The Group's inability to achieve its human resources objectives, including due to external factors, could negatively affect its commercial and operational performance and therefore its results of operations.

Furthermore, the European financial industry is subject to stringent regulation of employee compensation, including rules for certain types of compensation (fixed, variable, incentive-based, deferred payments, etc.), which may constrain the Group in its ability to attract and retain qualified employees. In particular, this is the case with the CRD4 Directive, which has applied since 2014 to banks in the European Economic Area and establishes a ceiling on the variable component of compensation in relation to the fixed component for the regulated population.

Other regulatory changes, particularly the General Data Protection Regulation and regulations related to customer protection (European Directives (i) on Markets in Financial Instruments and (ii) on Insurance Distribution and their associated texts, known as “MIF II” and “IDD” respectively), which entered into force in 2018, include requirements on operational processes for human resources management and on employee compensation, imposing compliance obligations on the Group and costs related to the adaptation of its operational model.

3

RISK MANAGEMENT ORGANISATION

IN BRIEF

This section describes Societe Generale's risk management approaches and strategies. It describes how the functions in charge of risk management are organised, how these functions guarantee their independence and how they broadcast the risk culture within the Group.

3.1 SUITABILITY OF RISK MANAGEMENT SYSTEMS

The Pillar 3 report, published under the responsibility of Societe Generale Group's Senior Management, sets out, in accordance with the CRR regulation, the quantitative and qualitative information on Societe Generale's capital, liquidity and risk management to ensure transparency in respect of the various market players. This information has been prepared in compliance with the internal control procedures approved by the Board of Directors in the course of the validation of the Group Risk Appetite Framework and Group Risk Appetite Statement.

3.2 SUMMARY OF THE GROUP'S RISK PROFILE IN 2018

In establishing its risk appetite, Societe Generale aims to achieve sustainable growth founded on a diversified and balanced bank model with a strong European foothold and a global presence via a few key areas of business expertise. It also aims to maintain long-term relationships with its customers founded on trust, and to meet the expectations of all stakeholders.

CREDIT AND COUNTERPARTY RISKS

Credit and counterparty risks are the main risks facing the Group, with related RWA of €303 billion at 31st December 2018, representing 81% of total RWA. These risk-weighted assets are estimated mainly based on the internal approach (61% of credit and counterparty RWA), and have increased by 4.6% in relation to 31st December 2017.

In the context of high liquidity and low interest rates, the Group's appetite for credit risk is based on maintaining prudent origination criteria and close supervision of sectors that are most exposed to macroeconomic cycles, notably by setting portfolio limits.

The credit portfolio has a diversified profile. At 31 December 2018, exposure to credit risk and counterparty risk represented EAD of EUR 920 billion, an increase of 5% in relation to the end of 2017. The breakdown of the main client categories in the portfolio is balanced: corporate clients (EUR 331 billion), sovereigns (EUR 206 billion), retail clients (EUR 189 billion), institutions (EUR115 billion). In geographical terms, the portfolio's exposure to emerging countries is limited: the Group's exposure stands at 69% the European Union (of which 42% France) and 14% the United States. By sector, one single sector (financial activities) accounts for more than 10% of the Group's corporate client exposures (EAD). Its global exposure to LBO financing remains limited (around 3% of corporate client credit outstandings) and is closely monitored.

In 2018, due to a positive economic environment and controlled risk appetite, the Group kept its net cost of risk for the year at a historically low level of EUR 1,005 million, i.e. 21bp, in line with the guidance of 20-25bp communicated in the second quarter of 2018. As indicated during the presentation of the strategic and financial plan in November 2017, the Group anticipates a gradual rise in the net cost of risk to 35-40bp by 2020 given the outlook for a gradual slowing of economic growth.

The sharp, steady decrease in the Group's rate of non-performing loans to 3.6% at 31st December 2018 from 4.4% at end-2017 reflects an improvement in the quality of its assets. In the fourth quarter of 2018, the coverage ratio of non-performing loans by provisions was 54%.

OPERATIONAL RISKS

At 31st December 2018, operational risks accounted for RWA of €50 billion, representing 13% of the Group's total RWA, stable in relation to the end of 2017. These RWA are calculated mainly using the internal approach (94% of the total).

The Group has zero appetite for operational risk but is prepared to assume a potential loss level in the region of 1% of its recurring revenue. It has resolved the main risks to which it was exposed in 2018, which has led to a significant reduction in the level of financial uncertainty around potential losses on material disputes.

MARKET RISKS

RWA in respect of market risks (excluding securitisation) are estimated mainly using internal models (90% of the total at end-2018). They stood at EUR 24 billion at the end of 2018, representing 6% of the Group's total RWA.

In the context of its risk appetite, the Group caps the proportion of RWA linked to market activities (market risks and counterparty risks) at 20% of total Group RWA and applies strict management of market risk through indicator-based limits, such as Value at Risk (VaR), and a set of standardised, hypothetical or historical stress tests.

The VaR remained at a low level (EUR 18 million on average) in 2018, compared with EUR 25 million in 2017. The SVaR (stressed VaR) was EUR 40 million in 2018 compared with EUR 27 million in 2017. It should be noted, however, that the VaR and SVaR amounts increased significantly in the fourth quarter of 2018 under the impact of higher aversion to risk observed on the markets, reflecting a revival of volatility, a decrease in the value of risky assets and an increase in safe haven securities. The EUR 8.9 billion increase in RWA pertaining to market risk between the end of 2017 and the end of 2018 is mainly attributable to an increase in the stressed VaR for the financial year.

Note that there has been a significant decrease in extreme risks since 2016, thanks to the implementation of asset hedging programmes to systematically hedge extreme deviations in exposure levels.

FINANCIAL SOLIDITY PROFILE

The Group aims to maintain a solid financial position, consistent with its target credit rating. It manages its financial ratios with a view to ensuring it has a sufficient security margin above the regulatory ratio requirements. At 31st December 2018, the Group's fully-loaded CET1 ratio was 10.9% (11.5% on a pro forma basis taking into account the impact of the share-based dividend[1] and previously-announced disposals). The fully-loaded leverage ratio was 4.2% at 31 December 2018 versus 4.3% at the end of 2017.

One of the Group's priorities is to strengthen its capital ratio, and to obtain a target CET1 ratio of 12% by 2020. During the publication of its 2018 results, the Group announced it was speeding up its plan to refocus its geographical locations and business lines, and that it was planning disposals to achieve a positive impact of 80-90 basis points on the CET1 ratio by 2020. Moreover, by adapting its market activity framework, it aims to reduce the risk-weighted assets of these activities by EUR 8 billion by 2020.

In terms of liquidity, the LCR stood at 129% and liquidity reserves at EUR 172 billion at 31 December 2018. The NSFR is within the minimum regulatory threshold of 100%.

SIGNIFICANT TRANSACTIONS IN 2018

The Group aims to concentrate activity on those markets in which it holds leading positions and critical mass. In accordance with this refocusing strategy and the reallocation of its RWA, it has streamlined its set-up and signed sale agreements for the disposal of subsidiaries in Bulgaria, Albania, Serbia, Moldavia, Macedonia and Poland.

3.3 RISK APPETITE

Risk appetite is defined as the level of risk that the Group is prepared to accept to achieve its strategic goals.

Principles governing risk appetite

Societe Generale seeks sustainable development based on a diversified and balanced banking model with a strong European anchor and a targeted global presence in selected areas of strong business expertise; the Group also strives to maintain long-term relationships with its clients built on the confidence it has earned and to meet the expectations of all of its stakeholders.

This results in:

- an organisation with 17 Business Units offering various products and services to clients in different locations;
- a balanced capital allocation between activities;
- a geographically balanced model: about 75% of revenues are generated in developed countries and 25% in developing countries. In Retail Banking, the Group focuses its development on Europe and Africa, where it enjoys a historic presence, extensive knowledge of the markets and prominent positions. As regards Global Banking and Investor Solutions, outside the Europe and Africa zones, the Group targets those activities in which it can rely on international expertise;

(1) Assumption of 50% takeup for 2018 dividend to be paid in shares in 2019.

- a targeted growth policy, promoting areas of existing expertise, high-quality client franchise, and the search for synergy gains within the Group's diversified banking model;
- the incorporation of social responsibility issues and environmental concerns at the heart of its strategy and its relationships with stakeholders, specifically with a non-financial target rating;
- vigilance as regards its reputation, which it considers a high-value asset which must be protected.

A strong financial profile

Societe Generale seeks to achieve sustainable profitability, relying on a robust financial profile consistent with its diversified banking model, by:

- targeting profitable and resilient business development;
- maintaining a target rating allowing access to financial resources at a cost consistent with the development of the Group's businesses and its competitive positioning;
- calibrating its capital and hybrid debt targets to ensure:
  - satisfaction of minimum regulatory requirements on CET1 ratio in the baseline scenario, with a security buffer,
  - coverage of one year of "internal capital requirement" using available CET capital,
  - a sufficient level of creditor protection consistent with the Group's goals with respect to rating and regulatory ratios such as TLAC ("Total Loss Absorbing Capacity"), MREL ("Minimum Required Eligible Liabilities"), and the leverage ratio;
- ensuring resilience in its liabilities, calibrated by taking into account a survival horizon in a liquidity stress ratio, compliance with LCR (Liquidity Coverage Ratio) and NSFR (Net Stable Funding Ratio) regulatory ratios and the level of dependence on short-term fundings;
- controlling financial leverage.

The Group's goal with respect to its shareholders is to generate adequate profitability relative to the risks incurred. Therefore, the risk/reward ratio is taken into consideration in measuring and managing profitability, as well as in product and service pricing.

Credit and counterparty risks (including concentration effects)

When it assumes credit risk, the Group focuses on medium- and long-term client relationships, targeting both clients with which the Bank has an established relationship of trust and prospects representing profitable business development potential over the mid-term.

In a credit transaction, risk acceptability is based, first and foremost, on the borrower's ability to meet its commitments. Security interests are sought to reduce the risk of loss in the event of a counterparty defaulting on its obligations, but may not, except in exceptional cases, constitute the sole justification for taking the risk.

The Group seeks to diversify risk by controlling concentration risk and maintaining a policy of spreading risk by sharing it with other financial partners.

Counterparty ratings are a key criterion of the credit policy and serve as the basis for the credit approval authority grid used in both the commercial and risk functions. The rating framework relies on internal models. Special attention is paid to timely updating of ratings (which, in any event, are subject to annual review).

To closely monitor portfolio quality, the Group has established thresholds using a series of credit portfolio quality indicators which are monitored quarterly by the CORISQ (Risk Committee) and by the Risk Committee of the Board of Directors.

The Group seeks to maintain exposure to country risks which reflect its strategic selections in terms of its foreign operations and limit the most risky country concentrations.

The Group sets up specific credit policies for sectors or types of credit transactions which have a specific or intrinsically higher concentration risk or risk profile. This system is complemented by a framework through portfolio limits.

Market risks

The Group's market activities are carried out in the context of a business development strategy primarily focused on meeting client requirements with a full range of products and solutions.

The market risk is strictly managed through a set of limits for several indicators (such as stress tests, Value at Risk (VaR) and stressed Value at Risk (SVaR), "sensitivity" and "nominal" indicators).

Regular reviewing of these limits ensures that they closely reflect any changes in market conditions.

Within these limits, the Global Stress Test of market activities and the Market Stress Test limits play a pivotal role in determining the Group's market risk appetite ; in fact, these indicators cover all operations and the main market risk factors as well as risks associated with a severe market crisis which helps limit the total amount of risk and takes account of any diversification effects.

Proprietary trading transactions are segregated within a dedicated subsidiary (Descartes Trading) and are subject to a limited risk appetite.

Operational risks (including reputation and compliance risk)

The Group has no appetite for operational risk but is prepared to assume a potential loss of approximately 1% of recurring revenue.

The Group is required to strictly comply with all laws and regulations which govern its activities in all countries in which it operates, and has a policy of implementing international best practices in order to achieve this. The Group entities must also comply with local regulatory requirements when imposing obligations that are additional to those set out in Group policies. In the event that these requirements are contradictory, these entities must comply with the most restrictive obligations, unless this is contradictory to local legal or regulatory requirements. The Group strives, in particular, to:

- gather intelligence about its customers by implementing appropriate KYC measures;
- work with clients and partners whose practices comply with international rules and standards on anti-money laundering and terrorism financing;
- work with clients and complete transactions in accordance with rules related to international embargos and financial penalties;

- offer products and advisory services and work with partners in accordance with regulations governing, in particular, client protection;
- implement the necessary measures and conduct transactions showing respect for the integrity of the markets;
- implement an anti-corruption policy and deploy an anti-corruption mechanism, prevent and manage conflicts of interest, and ensure its employees behave responsibly in compliance with the Code of Conduct;
- uphold its commitments regarding fiscal transparency;
- protect the data of its clients and employees;
- foster compliance values among its employees. It guarantees their right to whistleblow.

The Group has defined values and principles of conduct which apply to all of its employees:

- it emphasises employee loyalty towards clients and the integrity of their practices;
- it develops a strong culture that guides employee behaviour in such a manner as to conduct business ethically and responsibly. This culture is spread through values (team spirit, innovation, responsibility, commitment), a Code of Conduct and a leadership model which defines the conduct and skills expected of employees in respect of each Group value;
- it ensures that they are implemented and complied with through, in particular, alignment of the HR processes (recruitment, performance evaluations, promotion, compensation, disciplinary procedures, etc.) with these values and principles of conduct.

Controlling reputation risk is based first on prevention. With respect to its reputation, Société Générale is extremely careful. The prevention and detection of reputation risk are integrated into all of the Group's operational practices. This vigilance is part of the Group's sustainable and responsible development strategy.

Misconduct risk results from actions (or inactions) of the bank or its employees inconsistent with the Group's Code of Conduct, which may lead to adverse consequences for our stakeholders, or place the bank's sustainability or reputation at risk.

In addition to the risks cited above, the Group is exposed to other operational risks inherent in its business: execution errors, internal and external fraud, IT system failures, malicious acts against IT systems, loss of operational resources, commercial disputes, failure to comply with tax obligations, etc. The Group has established a goal to control these risks using:

- environmental analysis of operational risk and a "weak signals" detection system;
- the deployment of secure procedures for processing data, special prevention mechanisms and an internal control system. In addition, a framework has been designed to ensure business continuity in crisis situations;
- implementation of key risk monitoring and control indicators (KRI);
- promotion of a solid "risk culture" with respect to operational risks throughout the Group;
- the expectation that its critical service providers will provide a level of resiliency and information security equivalent to its own.

Structural interest rate and exchange risks, risks on pension/long-service obligations

The Group measures and strictly controls structural risks. The mechanism to control interest rate risk, foreign exchange risk and the risk on pension/long-service obligations is based on sensitivity or stress limits which are broken down within the various businesses (entities and business lines).

Liquidity Risk and Funding Risk

The Group assesses the solidity of its liquidity profile based on three complementary elements:

- controlling liquidity risk. The Group assesses the liquidity risk over various time horizons, including intraday, taking into account market access restriction risk;
- controlling funding risk. The capacity to raise funding is assessed over a three-year horizon;
- complying with regulatory obligations (LCR and NSFR).

The solidity of the liquidity profile is assessed within the Group's prudential scope, taking into account the liquidity situation in major foreign currencies.

The Group's larger entities, in particular those which are subject to local regulatory obligations governing liquidity, also assess and specifically monitor their liquidity profile in conjunction with the Group.

The liquidity and funding risks framework is determined within the Group's ILAAP (Internal Liquidity Adequacy Assessment Process).

3.4 RISK APPETITE – GENERAL FRAMEWORK

The risk appetite is determined at Group level and is allocated operationally to the businesses and subsidiaries; it is monitored as described in the "Risk Appetite Framework", which is summarised below.

Governance

The Board of Directors approves, every year, the Group Risk Appetite proposed by General Management (the Group Risk Appetite Statement) and the Group Risk Appetite Framework. The Risk Division and the Finance and Development Division define the Group's risk appetite and provide monitoring and second-level control of its implementation, together with the Group Compliance Division. The Internal Audit Division annually reviews the effectiveness of the Risk Appetite Framework.

Determination and allocation of the risk appetite

Risk appetite is developed and allocated based on:

- regular identification and assessment of all material risks to which the Group is exposed; this exercise relies on prospective measurement tools (stress tests);
- a previsional assessment of the Group's profitability and solvency under a baseline scenario and a stressed scenario, over a horizon of at least three years, selected to construct the strategic and financial plan;
- an allocation of the risk appetite within the Group, down to the appropriate level, taking into account the risk/profitability profile of the business lines and their growth prospects.

The Group's risk appetite is formalised in a document ("Risk Appetite Statement") that determines the general guidelines, policies, targets, limits and thresholds governing the Group's risk appetite. This document is reviewed annually.

Every year, upstream from the budget process, the Finance Division, together with the Risk Division, submits Group-level targets to General Management. Such targets are subsequently submitted for the approval of the Board of Directors.

These targets are designed to ensure:

- compliance, with a sufficient safety margin, with the regulatory obligations to which the Group is subject (in particular, minimum regulatory solvency, leverage and liquidity ratios), pre-empting the implementation of new regulations where possible;
- sufficient resistance to stress scenarios by means of a safety margin (stress normalised by regulators or defined through an internal Group process).

Risk appetite in relation to the major risks to which the Group is exposed is regulated by limits and thresholds. These metrics support the Group in achieving its financial targets and guide the Group's profitability profile.

Allocation of risk appetite within the organisation

The allocation of risk appetite within the organisation is based on the strategic and financial plan and risk management frameworks.

Based on the Finance Division's proposal, the financial targets defined at the Group level are broken down into budget allocation targets at the business level as part of the budget and the strategic and financial plan.

Once the budget process has been completed and after validation by General Management, the Group submits the budgetary trajectories in the baseline scenario and in the stressed scenario to the Board of Directors, verifying that the financial targets initially proposed have been met; if not, the Board of Directors may either approve new targets or request that the trajectories be changed.

Likewise, over and above the financial targets, and based on the proposal from the Finance and Risk Divisions, the limits and thresholds defined at Group level are allocated operationally between the business units and businesses, which are then responsible for allocating them downstream and monitoring within their scope.

The Group's main subsidiaries define their risk appetite, allocate metrics within their organisation and implement an appropriate risk appetite framework. The Corporate Divisions and their functions ensure consistency with the Group risk appetite. Subsidiaries' risk appetites are validated by their Board of Directors.

3.5 RISK MANAGEMENT

Implementing a high-performance and efficient risk management structure is a critical undertaking for Societe Generale in all businesses, markets and regions in which it operates, as is maintaining a balance between strong awareness of risks and promoting innovation. The Group's risk management, supervised at the highest level, is compliant with the regulations in force, in particular the Order of 3rd November 2014 relating to the internal control of companies in the banking sector, payment services and investment services subject to the control of the French Prudential Supervisory and Resolution Authority (*Autorité de contrôle prudentiel et de résolution* – ACPR) and European regulations CRR/CRD4. (See Board's Expertise, p. 82 of the Registration Document).

BOARDS OF DIRECTORS

- **AUDIT AND INTERNAL CONTROL COMITTEE**
- **RISK COMITTEE**
- **COMPENSATION COMITTEE**
- **NOMINATION AND CORPORATE GOVERNANCE COMITTEE**

GENERAL MANAGEMENT

STRATEGIC SUPERVISION COMITTEES

- **GROUP STRATEGY COMITTEE** – Implements the Group's strategy
- **SUPERVISION COMITTEE**
- **STRATEGY OVERSIGHT COMITTEE** – Reviews markets and clients activities, transformation and innovation projects, HR and mid-term financial projections and targets

OPERATIONAL SUPERVISION COMITTEES

- **GROUP RISKS COMITTEE (CORISQ)** – Supervises guidelines governing risks, in particular the management of different risks credit, country, market and operational risks
- **FINANCE COMITTEE (COFI)** – Defines the Group's financial strategy and ensures the monitoring of scare resources, their allocation and the review of structural risks at Group level and for significant entities
- **GROUP INTERNAL CONTROL COORDINATION COMITTEE (CCCIG)** – Responsible for the design, consistancy and effectiveness of the Group's overal internal control
- **COMPLIANCE COMITTEE (COM-CO)** – Defines compliance principles at Group level
- **CORPORATE STRATEGIC ARCHITECTURE COMITTEE (CSAE)** – Defines the company's architecture in term of data and reference data bases, operational processes and IT systems. Ensures the consistency of Group projectswith the target architecture

The main objectives of the Group's risk management strategy are:

- to contribute to the development of the Group's businesses and profitability by defining the Group's risk appetite in conjunction with the Finance Division and the business divisions;
- to contribute to the Group's sustainability by establishing a risk management and monitoring system;
- to reconcile the independence of the risk management system (with respect to the businesses) with close collaboration with the core businesses, which have primary responsibility for the transactions they initiate.

Governance of risk management

Two main high-level bodies govern Group risk management: the Board of Directors and General Management.

General Management presents the main aspects of, and notable changes to, the Group's risk management strategy to the Board of Directors at least once a year (more often if circumstances so require).

Within the Board of Directors, the Risk Committee (see Art. 11 of the Internal rules of the Board of Directors, p. 551) advises the Board of Directors on overall strategy and the appetite regarding all kinds of risks, both current and future, and assists the Board when it verifies the implementation of this strategy.

The Board of Directors' Audit and Internal Control Committee (see Art. 10 of the Internal Rules of the Board of Directors, p. 550) ensures that the risk control systems operate effectively.

Chaired by General Management, the specialised committees responsible for central oversight of internal control and risk management are as follows:

- **the Risk Committee** (CORISQ), which met 19 times in 2018, defines the Group's key priorities in terms of risk, within the framework of the risk appetite and financial targets set by the Group Strategy Committee, and monitors compliance in this respect. Subject to the powers attributed to the Board of Directors, the CORISQ, based on proposals from the Risk Division, takes the main decisions relating to the management of various risks (credit risks, country risks, market and operational risks). The Group also has a Large Exposures Committee, which is responsible for approving the sales and marketing strategy and risk-taking with regard to major client groups;
- **the Finance Committee** (COFI) is responsible for setting out the Group's financial strategy and for managing scarce resources (capital, liquidity, balance sheet, tax capacity) in the context of the Group's risk appetite. It validates the Group's management and structural risk monitoring mechanism and reviews changes in those risks and in significant entities (limits and consumption). It periodically assesses the consumption of scarce resources. It examines ILAAP and ICAAP documents, the budget, the Preventive Recovery Plan, and the Corporate Centre and re-invoicing budget. Lastly, it covers issues of the Group's taxation (managed jointly by the Group Finance Division and the Corporate Secretary);
- **the Compliance Committee** (COMCO) meets quarterly in order to define the Group's main guidelines and principles in terms of compliance. The Head of Compliance presents the main events having occurred over the period, an update on the compliance system, the main regulatory developments and the state of progress on projects;
- **the Corporate Strategic Architecture Committee** (CSAE) defines the Company's architecture from the standpoint of data and reference systems, operational processes and information systems, and ensures the consistency of the Group's projects with the architecture set out;
- **the Group Internal Control Coordination Committee** (CCCIG) is responsible for the overall architecture of the Group's internal control system: for evaluating its efficiency, consistency and coprehensiveness, for taking corrective actions and for monitoring their implementation.

Divisions in charge of risk monitoring

The Group's Corporate Divisions, which are independent from the core businesses, contribute to the management and internal control of risks.

The Corporate Divisions provide the Group's General Management with all the information needed to assume its role of managing Group strategy under the authority of the Chief Executive Officer. The Corporate Divisions report directly to General Management.

- The main responsibilities of **the Risk Division** are to contribute to the development of the Group's businesses and profitability by defining the Group's risk appetite (broken down by business) under the aegis of General Management and in collaboration with the Finance Division and the business divisions, and to establish a risk management and monitoring system as a second line of defence.

  In performing its work, the Risk Division reconciles independence from the businesses with a close working relationship with the core businesses, which are responsible in the first instance for the transactions they initiate.

  Accordingly, the Risk Division:

  - provides hierarchical and functional supervision for the Group's Risk function;
  - is jointly responsible, with the Finance Division, for setting the Group's risk appetite as recommended to General Management;
  - identifies all Group risks;
  - implements a governance and monitoring system for these risks, including cross-business risks, and regularly reports on their nature and extent to General Management, the Board of Directors and the banking supervisory authorities;
  - contributes to the definition of risk policies, taking into account the aims of the businesses and the relevant risk issues;
  - defines or validates the methods and procedures used to analyse, measure, approve and monitor risks;
  - implements a second-level control to ensure the correct application of these methods and procedures;
  - conducts and validates transactions and limits proposed by business managers;
  - defines or validates the architecture of the risk information system and ensures its suitability to business requirements.
- **The Finance Division** is aligned across the new organisation of the Group, divided into 17 Business Units (BU) and 10 Service Units (SU). It is organised according to three levels of supervision, each attached to a Chief Financial Officer:
  - French Retail Banking, and International Retail Banking and Financial Services,
  - Global Banking and Investor Solutions,
  - Cross-business functions, bringing together all the areas of expertise that are key to the operations of the Finance Division.

It also carries out extensive accounting and finance controls. As such:

- **The Group Accounting Department** is responsible for coordinating the mechanism used to draw up the Group's consolidated financial statements,
- **The Experts on Metrics and Reporting Department** is responsible for producing the regulatory reports of the Group,
- **The Mutualised Accounting and Regulatory Activities Department** within the **Pooled Operations Division** is responsible for accounting, regulatory and tax production and coordinating the continuous improvement and management of processes for entities within its scope (o.w. Societe Generale SA),
- **The Finance Control Department** is responsible for the second-level permanent control system over all of the Finance Processes
- The missions of the **Group Asset and Liability Management Department**, the **Balance Sheet and Global Treasury Department**, and the **Group Strategic Financial Management Department** are detailed in the "Structural and liquidity risks" section on page 188.

The other cross-business functions provide various tasks for the Finance Division, in particular with the Finance Division of the Group Service Units, Group Investor Relations and Financial Communication , Human Resources and the Corporate Secretary.

- **The Finance Departments of the Business Units and Service Units**, which report hierarchically to the Group Finance Division, ensure that the financial statements are prepared correctly at the local level and control the quality of the information in the financial reports (accounting, management control, regulations, etc.).
- **The Group Compliance Division**, which has been reporting to General Management since 1st June 2017, ensures that the Group's banking and investment activities are compliant with all laws, regulations and ethical principles applicable to them. It also ensures the prevention of reputational risk.
- **The Corporate Secretary** includes the **Group Legal Department**, which notably monitors the security and legal compliance of the Group's activities, relying where applicable on the legal departments of subsidiaries and branches, the **Group Tax Department**, which ensures compliance with tax laws in France and abroad, the **Group Corporate Social Responsibility Department**, which is responsible for defining and proposing a CSR (Corporate Social Responsibility) policy for the Group and the **Group Security Department**, which manages the security of the Group in cooperation with the Corporate Resources and Digital Transformation Service Unit with regard to information systems security, and the **Group's central administration services**, and, when necessary, supports the Secretary of the Board of Directors.
- **The Human Resources and Communication Division** monitors the implementation of compensation policies, amongst other things.
- **The Corporate Resources and Innovation Division** is specifically responsible for defining information system security policies.
- **The Group Internal Audit Division** is in charge of internal audits, under the authority of the Head of Group Internal Audit.

In performing their missions, the Risk Division, Compliance Division and Information System Security Department rely on functions in the core businesses and Corporate Divisions, formed by representatives who report to them directly or functionally.

According to the latest voluntary census (31st December 2018) with respect to full-time equivalent (FTE) employees:

- the Group Risk function had 6,089 FTE employees (including 1,773 FTE employees within the Group Risk Division);
- the Compliance function had approximately 3,164 FTE employees;
- the Information System Security function had approximately 474 FTE employees.

Characteristics by risk

STRUCTURAL INTEREST RATE, EXCHANGE RATE AND LIQUIDITY RISKS

Structural interest rate and exchange rate risk are managed by the Asset and Liability Management Department of the Group Finance Division. This department defines the normative principles and modelling methods (validated by an ad hoc committee chaired by the Risk Division) applicable to all entities. It also develops monitoring indicators and global stress test scenarios for the different types of structural risk. Lastly, the ALM Department checks that the Group's business lines and entities comply with the framework applicable to them.

The second line of defence tasks, focused on the validation of the Group's ALM models and the resulting risk monitoring, are carried out by the Market Risk Department of the Group Risk Division, within a dedicated ALM Risk Monitoring Department. This Department validates ALM modelling principles as well as model calibrations and backtesting. It also analyses the proposals of the Finance Division pertaining to the definition of ALM risk indicators, stress test scenarios and the associated risk framework. As the second line of defence, the ALM Risk Department also ensures that the risk limits and thresholds of entities, Business Units / Service Units, the Group are respected and conducts a periodical review of the ALM risk framework in coordination with the first-level control teams.

Each entity, each Business Unit/Service Unit, carries out first-level controls on structural risks and is responsible for regularly assessing risks incurred, producing the risk report, and developing and implementing hedging options. Each entity, each Business Unit / Service Unit, is required to comply with Group standards and to adhere to the limits assigned to it.

Given that liquidity is a scarce resource, the Group's objective is:

- to finance its activities at the best possible rates under normal conditions, while maintaining adequate buffers to cover outflows in periods of liquidity stress;
- to ensure the stability of the financing for its activities by managing its dependency on market funding and financing stability in line with the timing of its financing needs;
- to maintain its short-term and long-term ratings near the Group's targets.

The scope of the Group's short- and long-term financing plan, which supplements customer deposits, is conservative, with reduced concentration in the short-term while ensuring diversification in terms of products and regions.

The Finance Division's Strategic Financial Management Department is responsible for managing scarce resources in accordance with regulatory requirements and the Group's risk appetite and budgetary targets.

The Finance Division's Balance Sheet and Global Treasury Management Department is responsible for managing the Group's balance sheet and liquidity, in particular by implementing financing plans and contingency funding plans in the event of a liquidity crisis.

CREDIT RISKS

The risk approval process is based on three core principles:

- for each customer or customer group, the analysis and validation of credit agreements is primarily the responsibility of a designated business line within the Group (customer care area) and then a unit of the risk management function. In order to ensure a consistent approach to the Group's risk taking, this business line and this unit of risk examine all requests for authorisation relating to a particular customer or group of customers. This business line and this unit of risk must be independent of each other;
- the use of the internal ratings of the counterparties. These ratings are proposed by the business lines and validated by the Risk function. The process of granting and monitoring credit risk is different depending on the nature of the counterparties. For private and professional clients (called "retail"), credit decisions are subject to the fulfillment of award criteria defined in the credit policies and verified using scoring tools used under the control of the Risk Department. In particular, credit risk policies specify the conditions under which limits are set, as well as the processes applicable in the event of exceeding these limits. The approval process for corporate counterparties, financial institutions and sovereigns relies on in-depth knowledge of the client and a good understanding of the purpose of the operations;
- the system of delegation of authority, which relies heavily on the internal rating of counterparties and gives the business lines responsibility for all credit decisions, for which they assume, where applicable, the expense of provisions and losses.

In terms of governance, the Risk Division submits recommendations to the Group Risk Committee (CORISQ) on limits which it deems appropriate for certain countries, geographic regions, sectors, products or types of customers in order to reduce risks with strong correlations. The allocation of limits is also subject to final approval by CORISQ. Major concentration risks are analysed on a regular basis for the entire Group.

Together with the core businesses, the Risk Division has defined a control and monitoring system based on the credit risk policy. This policy is reviewed on a regular basis by the Board of Directors' Risk Committee.

Within the Risk Division, credit risk supervision is organised by business division. The Market Risk Department defines the methods for evaluation of counterparty risk and is in charge of the credit risk supervision on hedge fund counterparts.

Each of these departments is responsible for:

- setting or proposing global and individual credit limits by client, client group or transaction type;
- authorising transactions submitted by the sales departments in line with the delegation system in place;
- validating credit scores or internal client rating criteria;
- monitoring large exposures, specific credit portfolios and compromised counterparties;
- approving specific and general provisioning policies.

In addition, a specific department performs comprehensive portfolio analyses and provides the associated reports, including those for the supervisory authorities. A monthly report on the Risk Division's activity is presented to the Risk Committee and the Board of Directors' Risk Committee, and specific analyses are submitted to General Management.

MARKET RISKS

Although primary responsibility for managing risk exposure lies with the front office managers, the supervision system comes under the Market Risk Department of the Risk Division, which is independent from the businesses.

This department:

- checks the existence of an effective market risks monitoring system based on suitable limits;
- assesses the limit requests submitted by the different businesses within the framework of the overall limits authorised by the Board of Directors and General Management, and based on the use of these limits;
- proposes appropriate market risk limits by Group activity to the Group Risk Committee;
- defines methods for evaluating market risk;
- approves the valuation models used to calculate risk and results;
- defines methodologies for calculating provisions for market risk (reserves and adjustments to earnings) and additional valuation adjustments (AVA);
- computes and certifies on a daily basis, market risk indicators and P&L resulting from market activities, based on formal and secure procedures, then reports and analyses these indicators;
- monitors on a daily basis the limits set for each activity;
- defines the methods for determining the parameters used for the calculation of risks and results, validates sources to be used for these parameters.

In order to perform its tasks, this department also defines the architecture and the functionalities of the information system used to produce the risk and P&L indicators for market transactions, and ensures it meets the needs of the different businesses and of the Market Risk Department.

In addition, this department also contributes to the detection of possible rogue trading operations through a monitoring mechanism based on alert levels (on gross nominal value of positions for example) applied to all instruments and desks.

In terms of governance, market risk oversight is provided by various committees at different levels of the Group:

- the risks related to market activities are reviewed during the Market Risk Committee (MRC) led by the Market Risk Department and chaired by the Risk Division and by the Global Markets Division. This committee provides information on risk levels for the main risk indicators as well as for some specific activities pointed out depending on market or business driven events. It also provides an opinion on the market risk framework changes falling under the remit of the Risk Division and Global Markets Division;
- the Risk Committee (CORISQ) is regularly informed of Group-level market risks. Moreover, upon a proposal from the Market Risk Division, it validates the main choices with regard to market risk measurement, as well as the key developments on the architecture and implementation of the market risk framework at Group level;

- the Risk Committee of the Board of Directors is informed of the Group's major market risks; in addition, it issues a recommendation on the most substantial proposed changes in terms of market risk measurement and framework (after prior approval by the CORISQ); this recommendation is then referred to the Board of Directors for a decision.
- accounting valuation matters are addressed in two valuation committees, both attended by representatives of the Global Markets Division, the Market Risk department and the Finance Division: the Global Valuation Committee which discusses and approves financial instrument valuation methodologies (model refinements, reserve methodologies, parameter marking methods, etc.) and the Global Valuation Review Committee, which reviews changes in reserves, valuation adjustment figures, and related accounting impacts.
- the topics related to Prudent Valuation are dealt with during methodological committees and validation committees, organised quarterly, and both attended by representatives of the Global Markets Division, the Market Risk department and the Finance Division.

In addition to these Committees, detailed and summary market risk reports, produced on a daily, weekly, monthly or quarterly basis, either related to various Group levels or geographic areas, are sent to the relevant business line and risk function managers.

RISK QUANTIFICATION PROCEDURES AND METHODOLOGIES

The Group has been authorised by its supervisory authorities:

- for credit risk, to use the internal ratings-based approach (IRB method) for most of its exposures to credit risk.

  Currently, the standard approach is used for certain selected activities and exposures. They have a limited impact on the Group's regulatory capital. The system for monitoring rating models is operational, in accordance with applicable regulations. This system is described in detail further on in this Registration Document; for these exposures covered by the standard approach, Societe Generale mainly uses the external ratings assigned by Standard & Poor's, Moody's and Fitch Ratings.
- for market risk, to use internal models (VaR – Value at Risk, Stressed VaR, IRC – Incremental Risk Charge, and CRM – Comprehensive Risk Measure).

  These models cover almost all of the transactions involved. Only some transactions are still calculated using the standard method.
- for counterparty risk on market transactions, to use the internal model since 2013 to calculate the EEPE (Effective Expected Positive Exposure) indicator.

  Exposure at Default (EAD) counterparty risk has been calculated on the basis of this indicator since June 2012 for "simple" products and since December 2013 for more complex derivative products. For Group entities where the internal model has been approved, the internal model covers 98% of derivative and repo transactions. The Group uses the marked-to-market valuation method for the rest of these transactions.
- for operational risks, to use the Advanced Measurement Approach (AMA).

Lastly, its information systems are regularly upgraded to accommodate changes in the products processed and the associated risk management techniques, both locally (within the banking entities) and centrally (Risk Division).

OPERATIONAL RISKS

The Operational Risk Department within the Group's Risk Division provides the second line of defence relating to the Group's operational risks.

In particular, the Operational Risk Department :

- conducts a critical examination of the management of operational risks (including fraud risk, risks related to information systems and information security, and risks related to business continuity and crisis management) of the BU/SUs;
- sets regulations and procedures for operational risk systems and production of cross Group analyses ;
- produces risk and oversight indicators for operational risk frameworks

To cover the whole Group, the Operational Risk Department has a central team supported by regional hubs. The regional hubs report back to the central team, providing all elements necessary for a consolidated overview of the Bank's risk profile that is holistic, prospective and valid for both internal oversight purposes and regulatory reporting.

The regional hubs are responsible for implementing Operational Risk Division's missions in accordance with the demands of their local regulators.

The Operational Risk Department communicates with the first line of defence through a network of operational risk correspondents in each core business/activity of the BU/SUs. BU/SUs are responsible as first line of defence for applying the framework and putting in place controls that ensure risks are identified, analysed, measured, monitored, managed, reported and contained with the limits set by the Group-defined risk appetite.

Regarding specifically those risks that are related to information systems and Group information security, and risks related to business continuity and crisis management, the Operational Risk Department defines the norms jointly and respectively with the Head of Group Information Systems Security and the Head of Group Business Continuity Management.

Risk related to security of property and people

In May 2018, the Group Security Department was created to bring global security, with the aim of placing Societe Generale at the height of security standards.

This Department is in charge of defining a global and prospective vision of security to protect people, property, the tangible and intangible assets of the Group, coordinating the planning of actions allowing, in all circumstances, the maintenance of the bank's vital activities, and contributing, as appropriate, to crisis management.

To this end, the main missions of this Division are as follows:

- define a global vision of security at Group level;
- identify the security threats and risks facing the Group (current and prospective vision) as well as the Group's weaknesses in the face of these threats;
- develop and disseminate Group policies and mechanisms to deal with security crises;
- organise and implement the Group's security management and crisis management system;
- coordinate relations with national, European and international public security authorities in the field of security;
- develop and coordinate business intelligence;
- contribute to the fight against fraud;
- strengthen the security culture in the Group (training, communication, etc.).

The Group Security Department acts as the first line of defense on security matters.

Risks related to information security and information systems

Information is a strategic asset for Société Générale. Whether on paper, digital or exchanged orally, the use and access to information must be in compliance with regulations and laws. It must be manipulated by the only people who need to know, in order to avoid any leakage of information or illegitimate access that could expose the bank, its customers and employees to undesirable consequences.

The Group Security Department, housed at the General Secretariat level, defines the Group's information security policy and is responsible for coordinating the management, watch and communication mechanisms relating to the security of the Group's information. This framework can be grouped into five broad categories: identify, protect, detect, respond, recover.

These systems are implemented within each BU/SU to reduce the residual risks related to information security, in coordination with the General Secretariat.

With regard to IT systems, the Head of IT Security and IT Operational Risk is housed at the Corporate Resources and Digital Transformation Division. Under the functional authority of the Director of Group Security, he proposes the strategy to protect digital information and animates the community of the security of the information systems.

The information systems security framework is aligned with the market standards (NIST, ISO 27002), and implemented in each BU/SU.

At the operational level, the Group relies on a CERT (Computer Emergency Response Team) unit in charge of incident management, security watch and the fight against cybercrime. This team uses multiple sources of information and monitoring, both internal and external.

Given the increasing number and sophistication of digital attacks, the risk of cybercrime is becoming increasingly significant for players in the banking industry. Société Générale places it at the heart of its concerns in order to protect its customers, data and information systems. It is addressed in a cooperative way by the information systems security and operational risks teams and is monitored by the General Management within the framework of an information systems security master plan.

Thus, to support the “Transform to grow” Group strategic plan, an information systems security master plan is structured around five major axes guiding the 2020 actions:

- security for the bank's customers: enhancing the secure digital experience and strengthening our customers' cyber security culture;
- the protection of key assets: continue security actions closer to the data and securing the most sensitive applications;
- continued reinforcement of the Group's detection and reaction capabilities;
- developing the agility and trust zones of our IT systems and processes to facilitate internal and partner exchanges;
- developing the expertise of the SSI sector by creating a Cyber Institute, raising awareness and supporting employees.

A central team at the Resources and Digital Transformation department is responsible for managing and monitoring IT operational risks. The main missions of the team are:

- identifying and evaluating the major IT risks for the Group, including extreme risk scenarios (eg. cyber-attack, failure of a provider), to enable the bank to improve its knowledge of its risks, be better prepared for extreme risk scenarios and better align their investments with their IT risks;
- providing elements enabling the bank's management to steer risks, in particular via Key Risk Indicators (KRIs). These are communicated to Société Générale's Risk Committee and to the Risk Committee of the Board of Directors. They are reviewed regularly to stay aligned with the IT and security strategy and their objectives;
- more generally, ensuring the quality and reliability of all devices addressing IT operational risks. Particular attention is paid to the permanent control system for its IT risks, which is based on the definition of normative IT and security controls and the support of the Group in the deployment of managerial supervision on this subject. In 2018 a new version of the SI / SSI normative controls was developed to reinforce alignment with international standards (ISO 27002 and COBIT V5).

The management of all these risks is based on operational risk systems and the second line of defense is provided by the Risk Department.

MODEL RISKS

A "Model Risk Management" (MRM) Department was created within the Risk Division in 2017 to strengthen the second line of defence and the supervision of risk modelling. This department is responsible for supervising the model risk function and validating certain models that were previously validated in other departments. The Department is mainly responsible for:

- governing model risk management at Group level: this includes maintaining the standards and procedures required to ensure models are well managed and comply with regulations, as well as producing reports on the model risks incurred by the Group for General Management, the Board of Directors and the banking supervisory authorities;
- managing the Model Risk Management programme, including the improvement of model risk management via three lines of defence;
- supervising entities in charge of validating Group models in an independent manner, including valuation models for market positions and ALM models;
- validating internal models within its scope in an independent manner, in particular regulatory internal models, decision-making models and IFRS 9 accounting models. The MRM Department may perform any due diligence required by regulations in order to prepare independent reviews of all aspects of the models (design strength, implementation, usage, historical data, monitoring of models including backtesting). The scope of the models to be independently reviewed may be gradually expanded in line with the trajectory defined by the MRM programme.

NON-COMPLIANCE RISKS

The non-compliance risk prevention setup is based on shared responsibility between the operational entities and the Group Compliance function:

- The functional entities (BU/SU) must incorporate in their daily activities, compliance with laws and regulations, rules of professional best practice and with the internal rules of the Group;
- The Compliance function ensures several missions:
  - defining and implementing the overall normative framework, including the drafting, in collaboration with the Legal Department, of the procedures aimed at ensuring compliance with the laws and regulations applying to the banking and financial activities plus the conduct norms set by top management
  - adapting and implementing this normative framework in its scope of hierarchical authority or controlling its implementation on the scope under functional supervision (Group subsidiaries);
  - ensuring awareness of group staff on non-compliance risks and reinforcing the compliance culture within the Group;
  - ensuring the efficiency of the resources put in place, whether in terms of human resources or tools;
  - advising and assisting operational entities (first line of defence) on the different challenges linked to compliance;
  - undertaking the supervision and the level 2 control of the setup including the independent assessment of the non-compliance risk management on entities/activities having a major impact on the Group's risk profile and on the individual level concerning regulated staff, in line with regulations, notably CRD 4;
  - consolidating and following the significant events in all entities, notably via Group steering tools, and informing General Management and the Board of Directors, and, in coordination with the Legal Department, ensuring the follow-up of relations with the banking and regulatory supervisors.

The Compliance function was reorganised on 1st January 2018, directly reporting to General Management, thus becoming an independent managerial function in its own right. It ensures management of non-compliance and reputational risk follow-up. It keeps an eye on the consistency of the Group's non-compliance risk prevention setup, its efficiency and the development of appropriate relationships with bank supervisors and regulators.

The Head of Compliance participates in top management meetings. The funnelling of information is ensured via presentations to top management and during committees focused on compliance.

The Compliance function has implemented a clear organisation based on:

- teams focused on each business line;
- central teams focused on the oversight of risks and controls plus key transverse activities such as training and digital transformation.

It is organised around eight main non-compliance risks grouped in two broad categories, financial security, on the one hand, and regulatory risks, on the other, as detailed in chapter 4.9.

Risk and remuneration policy

Since the end of 2010, in accordance with the regulatory framework as defined by European directive CRD3, Societe Generale has implemented a specific governance for the determination of variable remuneration. Beyond financial markets professionals, the rules introduced by this directive apply to all persons whose activity is likely to have a substantial impact on the risk profile of the establishment which employs them, including those exercising control functions.

According to the principles approved by the Board of Directors as proposed by the Remuneration Committee, the remuneration mechanisms and processes for the identified population not only factor in the financial results of the undertaken operations, but also the way in which this result is generated: control and management of all risks and respect of compliance rules. For their part, control function employees are remunerated independently of the results of the operations that they control and as a function of criteria specific to their activity.

The variable remuneration harbours a non-deferred portion and a portion deferred over three years prorata temporis and under conditions of presence, performance and malus. At least 50% of this remuneration is paid in the form of shares or share equivalents. These payment modalities are aimed at aligning the remuneration on performances and the company risks horizon. The Risk division and the Compliance division participate in the definition and implementation of this policy.

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The regulatory framework defined in European directive CRD4 applies since 1st January 2014 and does not modify the rules on the determination of the variable remuneration of persons whose activity is likely to have an impact on the group's risk profile and control function employees. Hence the principles and the governance mentioned above continue to apply within the group.

Moreover, Societe Generale has implemented a setup and specific governance aimed at the population of trading mandate holders, to ensure that the remuneration policy factors in the demands of the Law on the separation and regulation of banking activities of 26th July 2013 and the Volcker Rule.

Reputational risk

Each quarter, the Compliance division, and based on information from the Business Units and Service / Central management units (notably the Head of HR and communication, the Legal department, the CSR division and Data protection division) drafts an overview of the reputational risk communicated quarterly to the Risks committee and the Board of Directors.

Moreover, chief compliance officers dedicated to Business Units take part in the various organisations (new product committees, ad hoc committees, etc.) organised to validate the new types of operations, products, projects or customers and formulate a written opinion as to their assessment of the level of risk of the targeted initiative and notably the reputational risk.

3.6 RISK MAPPING FRAMEWORK AND STRESS TESTS

Group risk mapping framework

The risk map is an annual overview of the Group's risk identification process. Risk identification contributes to the overall assessment of the Group's risk profile, and is used in various tasks such as the Internal Capital Adequacy Assessment Process (ICAAP). Prepared by the Risk Division under the authority of General Management, the risk map is presented annually to the Board of Directors' Risk Committee.

The aim of this approach is to estimate potential material losses for the main types of risk to which the Group is exposed, including credit, market, operational and structural risks. The risk map matches potential losses to hypothetical scenarios within defined scopes. The assessment combines expert analysis and various estimated statistical approaches using historical data.

Stress tests

Stress tests or crisis simulations are used to assess the potential impact of a downturn in activity on the behaviour of a portfolio, activity or entity.

At Societe Generale, stress stests are used to help identify, assess and manage risk, and to evaluate the Group's capital adequacy with regard to risks. Accordingly, they are an important indicator of the Group's resilience and that of its activities and portfolios, and a core component in the definition of its risk appetite.

Stress tests are based on extreme but plausible hypothetical or historical economic scenarios. These scenarios are translated into impacts on the Group's activities, taking into account potential countermeasures and systematically combining quantitative methods with an expert assessment (risk, finance or business lines).

Stress tests may also rely on sensitivity analyses (single-factor or multi-factor risk).

As such, the stress test framework in place includes:

- an annual global stress test exercise, incorporated into the budget process (Strategic and Financial Plan) to ensure that the Group's profile is in line with its risk exposure tolerance in the event of an adverse scenario and to quantify the extent of deterioration in the profitability of the BUs under such a scenario. It is also incorporated into the ICAAP (Internal Capital Adequacy Assessment Process).;
- specific stress tests by risk or portfolio type:
  - Credit risk stress tests complement the comprehensive analysis with a more granular approach, thereby helping to clarify the establishment of risk appetite for an array of portfolios, an activity, etc. They are also used to refine the identification, measurement and operational oversight of this risk;
  - Stress tests of capital market activities are based on historical and hypothetical scenarios and apply to the whole Group. They are supplemented by special risk exposure stress tests based on a number of risk factors (interest rate, equities, etc.) or activities (emerging markets, etc.). A stress test limit is defined for these different risk measurements;
  - Stress tests give a picture of exposure of the value and the interest margin of the banking portfolio to structural interest rate risk. The Group sets limits on these exposures in scenarios of yield curve changes and shifts (steepening and flattening);
  - A stress test of employee benefits involves simulating the impacts of variations in market risk factors (inflation, interest rates, etc.) on the Group's net position (dedicated investments less the corresponding employee benefits). A stress test indicator is established on that indicator;
  - Liquidity stress tests; the survival horizon of one of these stresses is identified as a financial target;
  - The operational risk assessment under stress uses scenario analyses and loss modelling to calibrate the Group's capital need for operational risk purposes and allows a better understanding of the exposure to operational losses, including the exposure to unusual and severe losses which are not present historically;
  - Insurance stress tests support the process of defining risk appetite for the ASSU Business Unit, which relies on minimum profitability objectives and an SCR coverage ratio under the benchmark scenario and under a stress scenario. Furthermore, ASSU also uses the results of its stress tests to develop its hedging policy, the allocation of its assets and its dividend distribution policy.

- reverse stress tests, for both Risk Appetite and the Recovery Plan. The impact of these stress tests is defined in principle, typically using a solvency ratio or liquidity indicator disruption point (reflecting a serious threat to the bank). The hypothetical scenarios leading to this disruption point are then recreated to determine whether new vulnerabilities appear.

Along with the internal stress test exercises, the Group is part of a selection of European banks that participate in the large-scale international stress tests supervised by the European Banking Authority and European Central Bank.

DEFINITION OF “CORE” AND “STRESSED” ECONOMIC SCENARIOS

Core scenario

It is developed on the basis of a series of observed factors, including the recent economic situation and trends in economic policy (budgetary, monetary, exchange rate policy). Based on these observed factors, economists determine the most likely trajectory for the economic and financial variables over a given time frame.

Stressed scenario

The stress scenario is intended to simulate a loss of business (based on real GDP figures) deviating from the core scenario, on a scale similar to that observed during a past “baseline” recession chosen for its severity. It is a systematic stress scenario, meaning it is constant in scale from one period to the next, whatever the trajectory forecast by the core scenario, as long as the baseline recession remains constant. The stress scenario is also generic, in that its triggering event is not specified. The impact of the stress scenario on the other economic and financial variables is determined by measuring its deviation from the core scenario.

4

INTERNAL CONTROL FRAMEWORK

IN BRIEF

This section describes the framework and application of the internal control at Societe Generale.

4.1 INTERNAL CONTROL

Internal control is part of a strict regulatory framework applicable to all banking institutions.

In France, the conditions for conducting internal controls in banking institutions are defined in the Order of 3rd November 2014. This Order, which applies to all credit institutions and investment companies, defines the concept of internal control, together with a number of specific requirements relating to the assessment and management of the various risks inherent in the activities of the companies in question, and the procedures under which the supervisory body must assess and evaluate how the internal control is carried out.

The Basel Committee has defined four principles – independence, universality, impartiality, and sufficient resources – which must form the basis of internal control carried out by credit institutions.

The Board of Directors ensures that Societe Generale has a solid governance system and a clear organisation ensuring:

- a well-defined, transparent and coherent sharing of responsibilities;
- effective procedures for the detection, management, monitoring and reporting of risks to which the Company could be exposed.

The Audit and Internal Control Committee (CACI) is a CA Committee that is specifically responsible for preparing the decisions of the CA in in the area of internal control supervision.

As such, General Management reports to it on the internal control of the Group. It monitors the implementation of remediation plans when it considers the risk level to be justified.

Within the Societe Generale Group, these principles are applied primarily through directives, one of which establishes the general framework for the Group's internal control, and another of which constitutes the Group Audit Charter, while the others relate to the management of credit risks, market risks, operational risks, structural interest rate, exchange rate and liquidity risks, compliance control and reputational risk control.

Control is based on a **body of standards and procedures**.

All Societe Generale Group activities are governed by rules and procedures covered by a set of documents referred to collectively as the "Normative Documentation". This documentation includes all documents:

- setting forth rules for action and behaviour applicable to Group staff;
- defining the structures of the businesses and the sharing of roles and responsibilities;
- describing the management rules and internal procedures specific to each business and activity.

The Normative Documentation primarily includes:

- directives, which define the governance of the Societe Generale Group, the structures and duties of its core businesses and Corporate Divisions, as well as the operating principles of the cross-business systems and processes (Codes of Conduct, Charters, etc.);
- guidelines, which set out the operating framework of an activity and the management principles and rules applicable to products and services rendered, and also define internal procedures.

The Normative Documentation has force of law within the Group. It falls under the responsibility of the Group Corporate Secretary.

In addition to the Normative Documentation, operating procedures specific to each Group activity are applied. The rules and procedures in force are designed to follow basic rules of internal control, such as:

- segregation of functions;
- immediate, irrevocable recording of all transactions;
- reconciliation of information from various sources.

Multiple and evolving by nature, risks are present in all business processes. Risk management and control systems are therefore key to the Bank's ability to meet its targets.

The internal control system is represented by all methods which ensure that the operations carried out and the organisation and procedures implemented comply with:

- legal and regulatory provisions;
- professional and ethical practices;
- the internal rules and guidelines defined by the company's executive body.

In particular, internal control aims to:

- prevent malfunctions;
- assess the risks involved, and exercise sufficient control to ensure they are managed;
- ensure the adequacy and effectiveness of internal processes, particularly those which help safeguard assets;
- detect irregularities;
- guarantee the reliability, integrity and availability of financial and management information;
- check the quality of information and communication systems.

The internal control system is based on **five basic principles**:

- the comprehensive scope of the controls, which cover all risk types and apply to all the Group's entities;
- the individual responsibility of each employee and each manager in managing the risks they take or supervise, and in overseeing the operations they handle or for which they are responsible;
- the responsibility of functions, in line with their expertise and independence, in defining normative controls and, for three of them, exercising second-level permanent control;
- the proportionality of the controls to the magnitude of the risks involved;
- the independence of internal auditing.

The internal control system is organised according to the "**three lines of defence**" model in accordance with the texts of the Basel Committee:

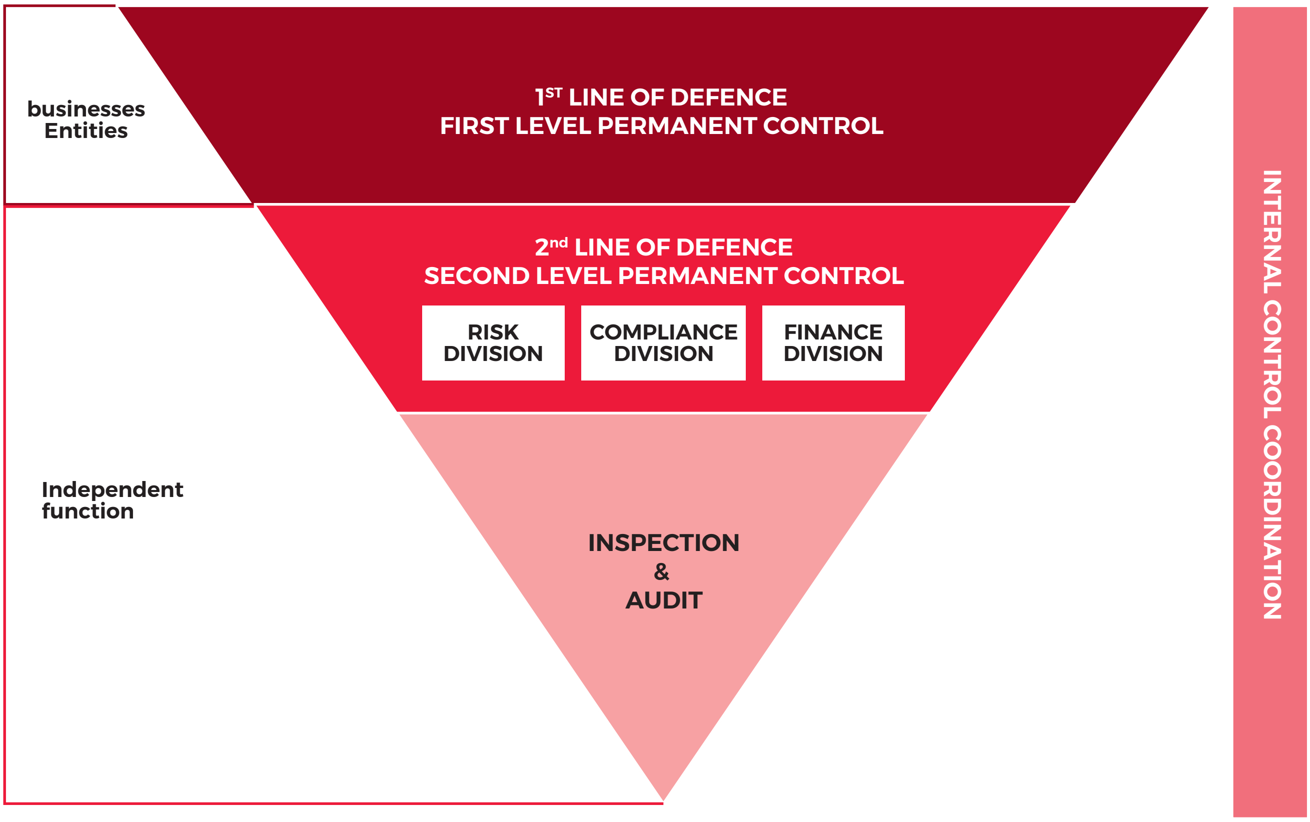
- the **first line of defence** comprises all Group employees and operational management, both within the businesses and in corporate divisions (in the latter case, with respect to their own operations).

  Operational management is responsible for risks, their prevention and their management – by putting in place first-level permanent control measures, among other things – as well as for implementing corrective or remedial actions in response to any failures identified by controls and/or process steering.

- the **second line of defence** is provided by the compliance, finance and risk functions.

  Within the internal control framework, these functions are tasked with continuously verifying that the security and management of risks affecting operations are ensured, under the responsibility of operational management, through the effective application of established standards, defined procedures, methods and controls as instructed.

  Accordingly, these functions must provide the necessary expertise to define, within their respective fields, the controls and other means of risk management to be implemented by the first line of defence, and to ensure that they are effectively implemented; they conduct second-level permanent control over all of the Group's risks, employing the controls they have established, where appropriate with other expert functions (e.g. sourcing, legal, tax, human resources, information system security, etc.) and by the businesses.
- the **third line of defence** is provided by the Internal Audit Division, which encompasses the Internal Audit and General Inspection functions. This division carries out internal audits that are strictly independent of the business lines and the permanent control function.
- **internal control coordination**, under the responsibility of a Deputy Chief Executive Officer, is also provided at Group level and is rolled out in each core business and Corporate Division.



A Deputy Chief Executive Officer is responsible for ensuring the overall consistency and effectiveness of the internal control system. This Deputy Chief Executive Officer also chairs the Group Internal Control Coordination Committee (Group ICCC), which comprises the Chief Risk Officer, the Chief Financial Officer, the Group Chief Compliance Officer, the Group Chief Information Officer, the Head of Group Internal Audit, and the Head of Internal Control Coordination.

The Group Internal Control Coordination Committee met eight times in 2018. It addressed the following issues:

- Group Compliance Division review;
- Review of the implementation and the effectiveness of the first level control for the three core businesses (French Retail Banking, International Retail Banking and Financial Services, and Global Banking and Investor Solutions);
- Finance Division (DFIN) review;
- Risk Division review;
- Review of the implementation and the effectiveness of the first level control for Corporate Secretariat and Human Resources and Communication Service Unit (HRCO-COMM).
- Cybercrime
- Transversal review of the internal control framework roll-out

The structure implemented at Group level to coordinate the actions of participants in internal control is rolled out in all business divisions and Corporate Divisions. All of the Group's business divisions and Corporate Divisions have an Internal Control Coordination Committee. Chaired by the Head of the business division or Corporate Division, these Committees bring together the competent Heads of Internal Audit and Permanent Control for the business division or Corporate Division in question, as well as the Head of Group Internal Control Coordination and the Heads of the Group-level control functions.

Permanent control system

The Group's permanent control system comprises:

- **first-level permanent control**, under the responsibility of the businesses, which aims to ensure, at the operational level, the security, quality, regularity and validity of transactions completed;
- **second-level permanent control**, independent from the businesses, comes under three Corporate Divisions (Compliance, Risk and Finance Division).

General management initiated in 2018 a program of transformation of the permanent control of the Group, which is under its direct supervision. Through a set of actions affecting the standards, the methods, the tools and the procedures, the training, etc., this program aims at strengthening the culture of control and at optimizing the risk control, so contributing to improve the quality and the reliability of services provided to our customers and partners. It is planned to end at the end of 2020.

FIRST-LEVEL PERMANENT CONTROL

First-level permanent control consists of:

- **risk prevention systems:** controls performed on a regular and continuous basis by the businesses or via automated systems when transactions are processed. They comprise a risk prevention framework: security rules and controls – automated or not – forming part of the processing of transactions, or controls included in operational procedures;
- **controls performed by managers:** line managers check the correct functioning of all systems under their responsibility. In this respect, they are required to regularly apply formalised procedures to ensure the employees comply with rules and procedures and that the first-level controls are carried out effectively.

  The line managers may rely on controls carried out by dedicated teams, for example (i) on the most sensitive processes requiring stricter or industrialised controls, or to avoid self-controlling practices (e.g. the establishment of customer relations in retail banking), and/or (ii) where the pooling of control tasks improves productivity.

  Whatever the choice of organisation, managers retain oversight of the processes carried out by the teams that report to them; they are responsible for their production quality and for correcting identified anomalies.

  A "first-level permanent control coordination" function is set up in each business line. It is responsible for the design and reporting of controls, as well as awareness-raising and training of employees with respect to control issues.

SECOND-LEVEL PERMANENT CONTROL

Second-level permanent control is one of the missions of the second line of defence. It involves ensuring the security and risk management of operations at all times, under the responsibility of operational management, through the effective application of established standards, defined procedures, methods and controls, as instructed.

Second-level control has two parts:

- assessment of the architecture of the first-level control framework by process/risk, comprising verification of the definition and efficient conduct of first-level controls, particularly examining the results of first-level controls in terms of quantitative and qualitative aspects, notably as regards the rates of realisation, level of anomaly, etc. This review also makes it possible to check the effectiveness and relevance of control implementation based on key controls and risk type, remedial action plans ;
- review of the control execution quality and anomaly corrections. The purpose of this work is to verify:
  - the quality of control execution in terms of time, compliance with procedures, operating methods and the appropriateness of samples (representativeness, selection method), frequency of execution and formal documentation;
  - the quality of follow-up of anomalies identified: appropriateness of the solution provided, efficiency of operational implementation, reaction time proportionate to the risk identified, etc.

These reviews and checks form the basis for an opinion on (i) the effectiveness of first-level controls, (ii) the quality of their implementation, (iii) their appropriateness, notably in risk-prevention and response to control objectives defined in the library of normative controls, (iv) the definition of their implementation in practice, (v) the appropriateness of remedial plans to correct anomalies and the quality of follow-up, so arriving at a conclusion as to the effectiveness of first-level controls.

These controls are performed centrally by the RISQ/CTL, CPLE/CTL and DFIN/CTL teams and locally by the second-level control teams within the BU/SUs or entities.

Internal audit

Reporting to the Group Head of Inspection and Audit, the Inspection and Audit Service Unit (IGAD) is the Group's third line of defence.

The IGAD Service Unit comprises General Inspection (IGAD/INS), Internal Audit departments (IGAD/AUD) and a support function (IGAD/COO). To fulfil its mandate, the Group's IGAD Service Unit has adequate resources from a qualitative and quantitative point of view. The Group's Inspection and Audit Service Unit has about 1,200 employees.

The General Inspection works with the Group Chief Executive Officer, with whom it has regular meetings. The Group Head of Inspection and Audit meets regularly with the Chairman of the Board of Directors. The Audit and Internal Control Committee and the Risk Committee refer to the Group Head of Inspection and Audit on their initiative or at his request on any subject. The Group Head of Inspection and Audit participates in the Internal Control Committee and the Risk Committee meetings. Moreover, there are regular bilateral meetings between the Group Head of Inspection and Audit and the chairmen of these Committees.

The Inspection and Audit Service Unit, exercising its internal audit role, forms the third line of defence, strictly independent of the businesses and permanent control.

This is defined in line with IAA (Institute of Internal Auditors) standards as an independent and objective activity that reassures the Group on the level of control over operations, offers advice to improve such operations and helps create added value. Via this mandate, the Inspection and Audit Service Unit helps the Group meet its objectives by systematically and methodologically assessing its risk management, control and corporate governance processes by making proposals to underpin their efficiency.

The Inspection and Audit Service Unit exercises a key role in the Group's risk management set-up and can evaluate all the component parts.

As part of this mandate, the Inspection and Audit Service Unit assesses the quality of risk management within the audited scope, the appropriateness and efficacy of the permanent control set-up and management's sensitivity to risks and respect of expected rules of conduct and professional practice.

Beyond its internal audit role, General Inspection has an overall mandate such that it may undertake any type of analysis or research mission, be involved in the evaluation of strategic projects or intervene on specific subjects as requested by General Management. The General Inspection also supervises the roll-out of data-analysis initiatives within the scope of Inspection and Audit activities. This mission is ensured via a dedicated data-lab (INS/DAT), under the responsibility of an Inspection Managing Director ('*Inspecteur principal*'). The General Inspection also supervises and coordinates the Service Unit's relationship with regulators as third line of defence.

To fulfil IGAD's mandate, Inspection and Audit teams work together on annual risk assessment to define the intervention plan for the upcoming year. IGAD teams regularly work together on joint assignments. They issue recommendations to correct flaws identified in risk management and generally improve operations and risk management within the Group. IGAD teams are subsequently in charge of monitoring the effective implementation of these recommendations.

IGAD has six distinct audit departments aligned with the Group organisation. The Audit departments, placed under the supervision of a head of internal Audit each have the responsibility for a scope of activity. A matrix organisation allows coverage of the main cross-business issues at the Group level. In France, the internal Audit teams are hierarchically linked to the Inspection unit. Abroad, the internal Audit teams have a strong functional link (control over hiring, audit plans, missions and their follow-up) with IGAD top management. The six Audit departments are:

- French Retail Banking Audit handles the audit of Retail Banking activities in France (BDDF Business Unit), the audit of the Boursorama and GTPS Business Units as well as the audit of the Group's activities in French Overseas territories;
- Crédit du Nord inspection is in charge of the internal audit of Crédit du Nord and its subsidiaries (CDN Business Unit);
- Audit for Europe, Russia, Africa - International Retail Banking and Financial Services is responsible for auditing the EURO, AFMO, RUSS, ALDA, SGEF and ASSU Business Units and the IRBS Service Unit;
- Global Banking and Investor Solutions Audit is responsible, on a worldwide basis, for auditing the MARK, GLFI, SGSS, WAAM, CORI, AMER and ASIA Business Units and the GBS Service Unit. This department also audits the Group's Shared Service Centres (SG EBS and SG GSC);
- Group Information Systems Audit is responsible for auditing all IT functions within the RESG, GBS and IRBS Service Units and for auditing the ITM Service Unit;
- The IT audit teams are organised as a global function with strong expertise on IT security and the ability to interact with all teams within IGAD;
- Group functions audit is responsible for auditing the RISQ, DFIN, CPLE, SEGL and DRHG/COMM Service Units, as well as the Purchasing (ACHA) and Real estate (IMM) functions of the RESG Service Unit. Model audit teams are based within that department and may work in close cooperation with other Audit and Inspection teams.

Besides being responsible for the internal audit of the divisions falling within their scope, these teams also provide expertise and coordination in support of the work performed by other audit teams in the areas applicable to them, in particular on issues related to Risk, Compliance and Finance.

4.2 CONTROL OF THE PRODUCTION AND PUBLICATION OF FINANCIAL MANAGMENT INFORMATION

The players involved

There are many participants in the production of financial data:

- the **Board of Directors**, and more specifically its Audit and Internal Control Committee, has the task of examining the draft financial statements which are to be submitted to the Board, as well as verifying the conditions under which they were prepared and ensuring not only the relevance but also the consistency of the accounting principles and methods applied. There has been a strengthening of the Audit and Internal Control Committee's role in the follow-up of the process of elaboration of the financial information in accordance with the audit reform. It also approves the Group's financial communication. The Statutory Auditors meet with the Audit and Internal Control Committee during the course of their assignment;
- the **Group Finance Division** gathers all accounting and management data compiled by the subsidiaries and the Business Units/Services Units in a series of standardised reports. It consolidates and verifies this information so that it can be used in the overall management of the Group and disclosed to third parties (supervisory bodies, investors, etc.).

The **Group Finance Division** also has a team in charge of the preparation of the Group regulatory reports.

- the **Finance Divisions of subsidiaries and Business Units/Services Units** carry out certification of the accounting data and entries booked by the back offices and of the management data submitted by the front offices. They are accountable for the financial statements and regulatory information required at the local level and submit reports (accounting data, finance control, regulatory reports, etc.) to the Group Finance Division. They can perform these activities on their own or else delegate their tasks to Shared Service Centres operating in finance and placed under Group Finance Division governance.
- the **Risk Division** consolidates the risk monitoring data from the Group's Business Units/Services Units and subsidiaries in order to control credit, market and operational risks. This information is used in Group communications to the Group's governing bodies and to third parties. Furthermore, in collaboration with the Group Finance Division, the responsibility of certain closing processes, notably the production of solvency ratios;
- the **back offices** are responsible for all support functions to front offices and ensure contractual settlements and deliveries. Among other responsibilities, they check that financial transactions are economically justified, book transactions and manage means of payment.

Beyond consolidating accounting and financial information as described above, the Group Finance Division is charged with significant control responsibilities:

- monitoring the financial aspects of the Group's capital transactions and its financial structure;
- managing its assets and liabilities, and consequently defining, managing and controlling the Group's financial position and structural risks;
- ensuring that the regulatory financial ratios are respected;
- defining accounting standards, frameworks, principles and procedures for the Group, and ensuring that they are observed;
- verifying the accuracy of all financial and accounting data published by the Group.

Accounting and regulatory standards

Local financial statements are drawn up in accordance with local accounting standards, and the consolidated Group financial statements are prepared in accordance with the standards defined by the Group Finance Division, which are based on IFRS as adopted by the European Union.

The applicable standards on solvency and liquidity, promulgated by the Basel Committee, were translated into European law by a directive (CRD 4) and a regulation (CRR) were enforced on January 1st, 2014. Since January 1st, 2014, several delegated acts and acts of execution specified the CRD4 / CRR. The Societe Generale group identified as the " financial conglomerate " is subjected to an additional supervision.

The Group Finance Division has dedicated teams that monitor the applicable normative regulations and draft new internal standards to comply with any changes in the accounting and regulatory framework.

Procedures for producing financial and accounting data

Each entity within the Group prepares its own accounting and management statements on a monthly basis. This information is then consolidated each month at the Group level and published for the markets on a quarterly basis. Data reported are subject to analytical reviews and consistency checks performed by Finance Divisions or, by delegation under their responsibility, by Shared Service Centres operating in finance, and sent to the Group Finance Division. The Group Finance Division transmits the consolidated financial statements, management reports and regulatory statements to General Management and any interested third parties.

In practice, procedures have been tailored to the growing complexity of products and regulations. Moreover, specific action plans for adaptation can be implemented where necessary.

Internal control procedures governing the production of financial and accounting data

Accounting data are compiled independently of the front offices and the sales teams.

The quality and objectivity of the accounting and management data are insured by the separation of sales functions and all the functions of operational processing and follow-up of the operations: back offices and middle offices integrated into Resources Division and team in charge of result production integrated into Finance Division. These teams carry out a series of controls defined by Group procedures on financial and accounting data, in particular:

- daily verification of the economic justification of all information reported;
- reconciliation, within the specified deadlines, of accounting and management data, using specific procedures;
- on market activities, reconciliation between the accounting result (produced by Finance Division) and the economic result (produced by an expert' department dedicated within the Resource Division).

Given the increasing complexity of the Group's financial activities and organisation, staff training and IT tools are regularly upgraded to ensure that the production and verification of accounting and management data are effective and reliable.

SCOPE OF CONTROL

In practice, the internal control procedures implemented in the Group's businesses are designed to guarantee the quality of financial and accounting information, and notably to:

- ensure that the transactions entered in the Group's accounts are exhaustive and accurate;
- validate the valuation methods used for certain transactions;
- ensure that transactions are correctly assigned to the corresponding fiscal period and recorded in the accounts in accordance with the applicable accounting regulations, and that the accounting aggregates used to prepare the Group financial statements are compliant with the regulations in force;
- ensure the inclusion of all entities that must be consolidated in accordance with Group regulations;
- check that the operational risks associated with the production and transmission of accounting data through the IT system are correctly controlled, that the necessary adjustments are accurately performed, that the reconciliation of accounting and management data is satisfactory, and that the flows of cash payments and other items generated by transactions are exhaustive and adequate.

CONTROL BY THE FINANCE DEPARTMENTS

The Finance Department of each subsidiary verifies the accuracy and consistency of the financial statements with respect to the relevant accounting frameworks (local standards and IFRS for subsidiaries, as well as French standards for branches). It performs checks to guarantee the accuracy of the information disclosed.

The data received for consolidation from each subsidiary are drawn from corporate accounting data by the subsidiaries, after they have been locally brought into compliance with Group accounting principles.

Each subsidiary must be able to explain the transition from the company financial statements to the financial statements reported through the consolidation tool.

The Finance Departments of Business Units/Services Units have a dedicated department to management and financial monitoring.

CONTROL BY THE SHARED SERVICE CENTRES OPERATING IN FINANCE

Shared Service Centres operating in finance perform first-level controls, as necessary to ensure the reliability of the accounting, tax and regulatory information, on the financial statements they produce in accordance with French and IFRS standards:

- data quality and consistency checks (equity, securities, foreign exchange, financial aggregates from the balance sheet and income statement, deviations from standards);
- justification and certification of the financial statements under their responsibility;
- intercompany reconciliation of the financial statements;
- regulatory statement checks;
- verification of evidence of tax charges and balances (current, deferred and duties).

These controls are declared within the managerial supervision and Group accounting certification processes.

The Shared Services Centres have also implemented a process monitoring approach, which consists in:

- monitoring the teams' work and progress according to the various milestones in order to ensure smooth operations, anticipate any delays and prioritise tasks;
- communication of incidents affecting the preparation of the financial statements, in order to warn, coordinate and monitor the corrective action plans;
- key indicators: monitoring deadlines and the quality of accounting, regulatory and tax reports; manual entries; internal/intercompany/cash gaps;
- follow-up of action plans.

These controls allow the Shared Services Centres to provide all necessary information to the Finance Departments of Business Units/Services Units and the Group Finance and Accounting Division.

SUPERVISION BY THE GROUP FINANCE DIVISION

Once the financial statements produced by the entities have been restated according to Group standards, they are entered into a central database and processed to produce the consolidated statements.

The department in charge of consolidation checks that the consolidation scope is compliant with the applicable accounting standards and performs multiple verifications on data received for consolidation. These verifications include:

- confirmation that the data collected are properly aggregated;
- verification of recurring and non-recurring consolidation entries;
- exhaustive treatment of critical points in the consolidation process;
- treatment of any residual differences in reciprocal or intercompany statements.

Ultimately, this department ensures that the overall consolidation process has been conducted properly by performing analytical reviews of the summary data and verifying the consistency of the main aggregates of the financial statements. Changes in shareholders' equity, goodwill, provisions and any deferred taxes consolidated in the fiscal year are also analysed.

This department is also in charge of managing and coordinating the system in order to certify first-level key controls on a quarterly basis.

The Group Finance Division has also a dedicated team responsible for second-level permanent control with respect to all Finance processes, independent of the production teams. Its mission consists to ensure effectiveness, quality and relevance of the first-level control system; by an evaluation of this system with processes or activities reviews, testings of controls and the follow-up of quarterly certification.

Accounting audit system

CONTROLS BY ALL OPERATIONAL STAFF INVOLVED IN THE PRODUCTION OF ACCOUNTING, FINANCIAL AND MANAGEMENT DATA

The operational staff monitor their activity via a permanent supervision process, under the direct responsibility of their management teams, repeatedly verifying the quality of the controls carried out on accounting data and the associated accounting treatment.

CONTROLS THROUGH AUDITS AND SPECIALISED AUDIT TEAMS OF THE INTERNAL AUDIT DIVISION

As part of their assignments, audit teams verify the quality of the control environment contributing to the quality of the accounting and management data produced by the audited entities. They check a certain number of accounts and assess the reconciliations between accounting and management data, as well as the quality of the permanent supervision procedures for the production and control of accounting data. They also assess the performance of IT tools and the accuracy of manual processing.

The team in charge of auditing the Corporate Divisions is also responsible for auditing the Group Finance Division. Placed under the responsibility of a dedicated business correspondent, the team coordinates and monitors all audits related to accounting and financial matters on a Group-wide basis. The team provides expertise in identifying the Group’s main accounting risks and carries out audits to verify the adequate application of accounting standards in areas deemed to be the most significant for the accuracy of the Group’s accounting information. The team also organises training sessions and develops methodologies to help share expertise in the auditing of accounting risks.

Based on their audit findings, these teams issue recommendations to the parties involved in the production and control of accounting, financial and management data in order to improve this process through more specific initiatives targeted towards particular entities or activities.

CONTROLS CARRIED OUT BY THE GENERAL INSPECTION DEPARTMENT

The Group’s General Inspection teams typically perform accounting audits as part of their assignments, and thus check the quality of the controls carried out by the persons involved in producing accounting, financial and management data.

PRESENTATIVE RECOVERY PLAN AND DATA COLLECTION FOR RESOLUTION

The recovery plan and data collection for resolution plan arise from a European regulatory requirement adopted in 2014 (Bank Recovery and Resolution Directive).

Prepared by the Bank, the Group’s recovery plan strengthens its resilience by describing as a preventative measure the provisions that would allow it to face a major crisis independently. The plan includes all the elements necessary for the effective management of a severe financial crisis: vigilance and warning system, crisis management plan, crisis communication, and a list of recovery options which, depending on the case, would restore a healthy financial situation. Societe Generale’s recovery plan is assessed by the European Central Bank.

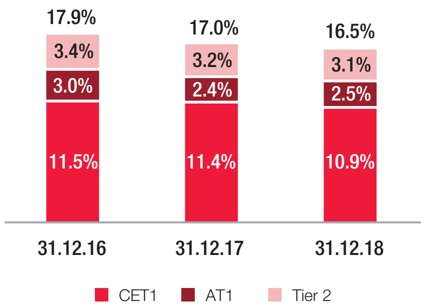
The data collection prepared by Societe Generale for the development of the resolution plan includes the information required by the resolution authority (the Single Resolution Board for Societe Generale) to enable it to maintain the resolution plan. It must include strategies and actions that could be undertaken should the Bank default, in order to protect critical functions (essential to the economy), starting for example with deposits and means of payment, while also safeguarding the value of the Group’s various components as far as possible, and limiting the final losses borne by investors and shareholders.

Strictly confidential, the recovery plan, the data collection and the resolution plan are regularly supplemented to reflect changes in applicable regulations and new recommandations of authorities.

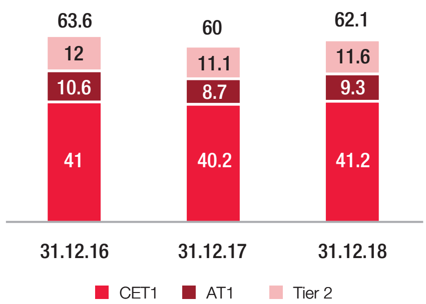
5

CAPITAL MANAGEMENT AND ADEQUACY

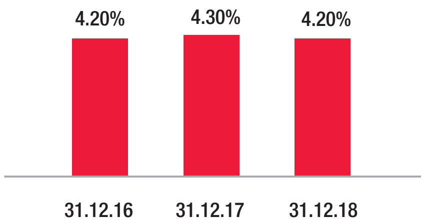
Fully loaded solvency ratios[1]



Regulatory CAPITAL[1]
(in EUR bn)



Leverage ratio[1][2] **(Tier 1)**
(in EUR bn)



IN BRIEF

This section provides details on capital resources, regulatory requirements and the composition of leverage ratio.

Evolution of CET1 capital:

+ 1 bn EUR

(between 2017 and 2018)

Evolution of total regulatory capital:

+ 2.1 bn EUR

Fully-loaded CET1 ratio at end 2018:

10.9%

(1) Disclosed ratios are fully loaded, calculated according to CRR/CRD4 rules published on 26th June 2013, including the Danish compromise for Insurance.
(2) Fully loaded ratio calculated according to CRR rules published in October 2014 (Delegated Act).

5.1 THE REGULATORY FRAMEWORK

Since January 2014, Societe Generale has been applying the new Basel 3 Regulation implemented in the European Union *via* a directive (CRD4) and a regulation (CRR). Some of the provisions will become effective over a period continuing until at least 2019.

The general framework defined by Basel 3 is structured around three pillars:

- Pillar 1 sets the minimum solvency requirements and defines the rules that banks must use to measure risks and calculate the related capital requirements, according to standard or more advanced methods;
- Pillar 2 concerns the discretionary supervision implemented by the competent authority, which allows them – based on a constant dialogue with supervised credit institutions – to assess the adequacy of capital requirements as calculated under Pillar 1, and to calibrate additional capital requirements taking into account all the risks to which these institutions are exposed;
- Pillar 3 encourages market discipline by developing a set of qualitative or quantitative disclosure requirements which will allow market participants to better assess a given institution's capital, risk exposure, risk assessment processes and, accordingly, capital adequacy.

In terms of capital, the main new measures introduced to strengthen banks' solvency were as follows:

- the complete revision and harmonisation of the definition of capital, in particular with the amendment of the deduction rules, the definition of a standardised Common Equity Tier 1 (or CET1) ratio, and new Tier 1 capital eligibility criteria for hybrid securities;
- new capital requirements for the counterparty risk of market transactions, to factor in the risk of a change in CVA (Credit Value Adjustment) and to hedge exposures on the central counterparties (CCP);
- the set-up of capital buffers that can be mobilised to absorb losses in case of difficulties. The new rules require banks to create a conservation buffer and a countercyclical buffer to preserve their solvency in the event of adverse conditions. Moreover, an additional buffer is required for systemically important banks. As such, the Societe Generale Group, as a global systemically important bank (G-SIB), has had its Common Equity Tier 1 ratio requirement increased by an additional 1%. Requirements related to capital buffers gradually entered into force as from 1st January 2016, for full application by January 2019;
- the set-up of restrictions on distributions, relating to dividends, AT1 instruments and variable remuneration;
- in addition to these measures, there will be measures to contain the size and, consequently, the use of excessive leverage. To this end, the Basel Committee has defined a leverage ratio, for which the definitive regulations were published in January 2014, and included in the Commission's Delegated Regulation (EU) 2015/62. The leverage ratio compares the bank's Tier 1 capital to the balance sheet and off-balance sheet items, with restatements for derivatives and pensions. Banks have been required to publish this ratio since 2015.

In December 2017, the Basel Committee's oversight body, the Group of Central Bank Governors and Heads of Supervision (GHOS), endorsed the ongoing Basel 3 regulatory reforms, implemented in 2009. These new rules will take effect from 2022 with an overall output floor: the RWA of the bank will be floored to a percentage of the standard method (credit, market and operational). The output floor level will increase gradually, from 50% in 2022 to 72.5% in 2027. Nevertheless, these rules will have to be transposed into European law (CRR3/CRD6) to be applicable to the Group.

Furthermore, on 23rd November 2016 the Commission published its draft CRR2/CRD5 text. Most of the provisions will enter into force two years after the CRR2 becomes effective. Depending on the Trilogue, this may not happen before 2021 at the earliest. The final provisions will only be known following the European legislative procedure.

The new provisions concern the following:

- NSFR: new Basel provisions on the stable funding ratio;
- Leverage ratio: the 3% minimum requirement will be included in the CRR;
- Counterparty derivatives risk (SA-CCR): the SA-CCR method is the Basel method replacing the current "CEM" method to calculate the prudential exposure to derivatives using the standardised approach;
- Large exposures: the main change concerns the calculation of the Tier 1 regulatory limit (25%, instead of total capital), as well as the introduction of a cross-specific limit on systemic institutions (15%).

With regards to the implementation of market risk reform (FRTB), after the publication in January 2016 of the first revised standard and of Consultation in March 2018 on this subject, the Basel Committee published in January 2019 its final text: BCBS457. According to its previous publications, the Basel Committee confirms its implementation schedule (which does not challenge the European Union calendar below, with an entry into force no later than 1 January 2022).

As a reminder, in Europe, the CRR 2 calendar will apply as follows:

- First, the FRTB reform will come into force as a disclosure requirement (2021 for the Standard approach and 2023 for the IMA),

- FRTB's own funds requirements will then become mandatory in the CRR3 package (not before 2023).

At the end of 2017, the European Central Bank has confirmed the level of additional capital requirements in respect of Pillar 2 (P2R or "Pillar 2 Requirement"), effective as from 1st January 2018. This level was set at 1.50% for Societe Generale.

At the beginning of 2019, the ECB has increased the Pillar 2 requirement by +25pb bringing it to 1.75% effective as from 1st March 2019.

Detailed information on the G-SIB requirements and other prudential information is available on the Group's website, *www.societe generale.com*, under "Registration Document and Pillar".

Throughout 2018, the Societe Generale Group complied with the minimum ratio requirements applicable to its activities.

5.2 SCOPE OF APPLICATION – PRUDENTIAL SCOPE

The Group's prudential reporting scope includes all fully consolidated entities, with the exception of insurance entities, which are subject to separate capital supervision.

All of the Group's regulated entities comply with their prudential commitments on an individual basis.

Non-regulated entities outside of the scope of consolidation are subject to periodic reviews, at least annually.

The following table provides the main differences between the accounting scope (consolidated Group) and the prudential scope (Banking Regulation requirements).

TABLE 1: DIFFERENCE BETWEEN ACCOUNTING SCOPE AND PRUDENTIAL REPORTING SCOPE

Type of entity	Accounting treatment	Prudential treatment under CRR/CRD4
Entities with a finance activity	Full consolidation	Capital requirement based on the subsidiary's activities
Entities with an Insurance activity	Full consolidation	Weighted equity value
Holdings, joint ventures with a finance activity by nature	Equity method	Weighted equity value

The following table provides a reconciliation of the consolidated balance sheet and the accounting balance sheet within the prudential scope. The amounts presented are accounting data and not a measure of risk-weighted assets, EAD or prudential capital. Prudential filters related to entities and holdings not associated with an insurance activity are grouped together on account of their non-material weight (< 0.2%).

Return on assets (i.e. net income divided by the balance sheet total as per the consolidated financial statements) for Societe Generale stood at 0.30% in 2018 and 0.22% in 2017. On a prudential basis (fully-loaded), this ratio was 0.33% in 2018 and 0.23% in 2017, calculated by dividing the Group net income by the balance sheet total for prudential purposes (datas in tables below).

TABLE 2: RECONCILIATION OF THE CONSOLIDATED BALANCE SHEET AND THE PRUDENTIAL CONSOLIDATED BALANCE SHEET

ASSETS at 31.12.2018 *(In EUR m)*	**Consolidated balance sheet**	**Prudential restatements linked to insurance[(1)]**	**Prudential restatements linked to consolidation methods**	**Consolidated balance sheet within the prudential scope**	**Cross-Ref.Table 7a p.58**
Cash, due from banks	96,585	0	0	96,585	
Financial assets at fair value through profit or loss	365,550	9,736	0	375,286	
Hedging derivatives	11,899	32	0	11,931	
Financial assets at fair value through other comprehensive income	50,026	0	0	50,026	
Securities at amortised cost	12,026	0	0	12,026	
Due from banks at amortised cost	60,588	0	150	60,738	1
of which subordinated loans to credit institutions	*91*	*0*	*0*	*91*	
Customer loans at amortised cost	447,229	1,539	213	448,981	
Revaluation differences on portfilios hedged against interest rate risk	338	0	0	338	
Investment of insurance activities	146,768	(146,768)	0	0	
Tax assets	5,819	(143)	0	5,676	
of which deferred tax assets that rely on future profitability excluding those arising from temporary differences	*2,895*	*0*	*(816)*	*2,079*	*2*
of which deferred tax assets arising from temporary differences	*1,858*	*0*	*762*	*2,620*	*3*
Other assets	67,446	(2,396)	56	65,106	
of which defined-benefit pension fund assets	*76*	*0*	*0*	*76*	*4*
Non-current assets held for sale	13,502	3	0	13,505	
Investments accounted for using the equity method	249	3,569	(68)	3,750	
Tangible and intangible assets	26,751	(152)	0	26,599	
of which intangible assets exclusive of leasing rights	*2,198*	*0*	*(132)*	*2,066*	*5*
Goodwill	4,652	(325)	0	4,327	5
TOTAL ASSETS	**1,309,428**	**(134,905)**	**351**	**1,174,874**	

(1) Restatement of entities excluded from the prudential scope and reconsolidation of intra-group transactions related to its entities.

LIABILITIES at 31.12.2018 *(In EUR m)*	**Consolidated balance sheet**	**Prudential restatements linked to insurance[(1)]**	**Prudential restatements linked to consolidation methods**	**Consolidated balance sheet within the prudential scope**	**Cross-Ref.Table 7a p.58**
Due to central bank	5,721	0	0	5,721	
Financial liabilities at fair value through profit or loss	363,083	2,472	0	365,555	
Hedging derivatives	5,993	8	0	6,001	
Debt securities issued	116,339	1,757	0	118,096	
Due to banks	94,706	(2,966)	(30)	91,710	
Customer deposits	416,818	1,529	40	418,387	
Revaluation differences on portfolios hedged against interest rate risk	5,257	0	0	5,257	
Tax liabilities	1,157	(333)	0	824	
Other Liabilities	76,629	(6,996)	341	69,974	
Non-current liabilities held for sale	10,454	58	0	10,512	
Liabilities related to insurance activities contracts	129,543	(129,543)	0	0	
Provisions	4,605	(12)	0	4,593	
Subordinated debts	13,314	139	0	13,453	6
of which redeemable subordinated notes including revaluation differences on hedging items	*12,730*	*139*	*0*	*12,869*	
TOTAL DEBTS	**1,243,619**	**(133,887)**	**351**	**1,110,083**	
Equity, Group share	61,026	(203)	0	60,823	
of which capital and related reserves	*19,995*	*0*	*0*	*19,995*	*7*
of which other capital instruments	*9,109*	*0*	*0*	*9,109*	*8*
of which retained earnings	*3,448*	*0*	*0*	*3,448*	*9*
of which accumulated other comprehensive income (including gains and losses accounted directly in equity)	*24,610*	*(203)*	*0*	*24,407*	*10*
of which net income	*3,864*	*0*	*0*	*3,864*	*11*
Minority interests	4,783	(815)	0	3,968	12
TOTAL EQUITY	**65,809**	**(1,018)**	**0**	**64,791**	
TOTAL LIABILITIES	**1,309,428**	**(134,905)**	**351**	**1,174,874**	

(1) Restatement of entities excluded from the prudential scope and reconsolidation of intra-group transactions related to its entities.

ASSETS at 01.01.2018 [2] *(In EUR m)*	**Consolidated balance sheet**	**Prudential restatements linked to insurance**[1]	**Prudential restatements linked to consolidation methods**	**Consolidated balance sheet within the prudential scope**	**Cross-Ref.Table 7a p.58**
Cash, due from banks	114,404	0	0	114,404	
Financial assets at fair value through profit or loss	369,112	7,733	0	376,845	
Hedging derivatives	12,718	21	0	12,739	
Financial assets at fair value through other comprehensive income	50,468	0	0	50,468	
Securities at amortised cost	11,592	0	0	11,592	
Due from banks at amortised cost	*53,656*	*0*	*209*	*53,865*	*1*
of which subordinated loans to credit institutions	133	0	0	133	
Customer loans at amortised cost	417,391	1,277	15	418,683	
Revaluation differences on portfilios hedged against interest rate risk	663	0	0	663	
Investment of insurance activities	147,611	(147,611)	0	-	
Tax assets	6,292	(112)	0	6,180	
of which deferred tax assets that rely on future profitability excluding those arising from temporary differences	*2,970*	*0*	*(780)*	*2,190*	*2*
of which deferred tax assets arising from temporary differences	*2,086*	*0*	*673*	*2,759*	*3*
Other assets	60,449	(2,466)	80	58,063	
of which defined-benefit pension fund assets	84	0	0	84	4
Non-current assets held for sale	13	0	0	13	
Investments accounted for using the equity method	659	3,952	(64)	4,547	
Tangible and intangible assets	24,200	(149)	0	24,051	
of which intangible assets exclusive of leasing rights	*1,940*	*0*	*(129)*	*1,811*	*5*
Goodwill	4,988	(325)	0	4,663	5
TOTAL ASSETS	**1,274,216**	**(137,680)**	**240**	**1,136,776**	

(1) Restatement of entities outside the prudential reporting scope and reconsolidation of intra-group transactions related to its entities.
(2) The amounts have been restated following the first time application of IFRS 9.

LIABILITIES at 01.01.2018 [2] *(In EUR m)*	**Consolidated balance sheet**	**Prudential restatements linked to insurance**[1]	**Prudential restatements linked to consolidation methods**	**Consolidated balance sheet within the prudential scope**	**Cross-Ref.Table 7a p.58**
Due to central bank	5,604	0	0	5,604	
Financial liabilities at fair value through profit or loss	368,550	2,198	0	370,748	
Hedging derivatives	6,146	17	0	6,163	
Debt securities issued	103,235	1,608	0	104,843	
Due to banks	88,621	(3,916)	(14)	84,691	
Customer deposits	410,633	1,807	120	412,560	
Revaluation differences on portfolios hedged against interest rate risk	6,020	0	0	6,020	
Tax liabilities	1,608	(373)	0	1,235	
Other Liabilities	69,139	(6,445)	134	62,828	
Non-current liabilities held for sale	0	0	0	-	
Liabilities related to insurance activities contracts	131,717	(131,717)	0	-	
Provisions	6,345	(16)	0	6,329	
Subordinated debts	13,647	208	0	13,855	
of which redeemable subordinated notes including revaluation differences on hedging items	13,095	204	0	13,299	6
TOTAL DEBTS	**1,211,265**	**(136,629)**	**240**	**1,074,876**	
Equity, Group share	58,428	(203)	0	58,225	
of which capital and related reserves	*19,996*	*0*	*0*	*19,996*	*7*
of which other capital instruments	*8,565*	*0*	*0*	*8,565*	*8*
of which retained earnings	*5,280*	*0*	*0*	*5,280*	*9*
of which accumulated other comprehensive income (including gains and losses accounted directly in equity)	*21,781*	*0*	*0*	*21,781*	*10*
of which net income	*2,806*	*(203)*	*0*	*2,603*	*11*
Minority interests	4,523	(848)	0	3,675	12
TOTAL EQUITY	**62,951**	**(1,051)**	**0**	**61,900**	
TOTAL LIABILITIES	**1,274,216**	**(137,680)**	**240**	**1,136,776**	

(1) Restatement of entities outside the prudential reporting scope and reconsolidation of intra-group transactions related to its entities.
(2) The amounts have been restated following the first time application of IFRS 9.

The main Group companies outside the prudential reporting scope are as follows:

TABLE 3: ENTITIES OUTSIDE THE PRUDENTIAL REPORTING SCOPE

Company	Activity	Country
Antarius	Insurance	France
ALD RE Designated Activity Company	Insurance	Ireland
Catalyst RE International LTD	Insurance	Bermuda
Societe Generale Strakhovanie Zhizni LLC	Insurance	Russia
Sogelife	Insurance	Luxembourg
Genecar - Societe Generale de Courtage d'Assurance et de Réassurance	Insurance	France
Inora Life LTD	Insurance	Ireland
SG Strakhovanie LLC	Insurance	Russia
Sogecap	Insurance	France
Komercni Pojstovna A.S.	Insurance	Czech Republic
La Marocaine Vie	Insurance	Morocco
Oradea Vie	Insurance	France
Societe Generale RE SA	Insurance	Luxembourg
Sogessur	Insurance	France
Societe Generale Life Insurance Broker SA	Insurance	Luxembourg
SG Reinsurance Intermediary Brokerage, LLC	Insurance	USA
La Banque Postale Financement	Bank	France
SG Banque au Liban	Bank	Lebanon
Banque Pouyanne	Bank	France

Regulated financial entities and affiliates outside of Societe Generale’s prudential consolidation scope are all in compliance with their respective solvency requirements. More generally, all regulated Group undertakings are subject to solvency requirements set by their respective regulators.

The supervising authority accepted that some Group entities may be exempt from the application of prudential requirements on an individual basis or, where applicable, on a sub-consolidated basis. Accordingly, Societe Generale SA is not subject to prudential requirements on an individual basis.

Any transfer of equity or repayment of liabilities between the parent company and its entities shall be carried out in compliance with capital and liquidity requirements applicable locally.

Outline of the differences in the scopes of consolidation (entity by entity) is available on the website *www.societegenerale.com*,section "Registration Documents & pillar III". This information corresponds to Table LI3 of EBA Guidelines (document EBA/GL/2016/11).

5.3 REGULATORY CAPITAL

Reported according to international financial reporting standards (IFRS), Societe Generale's regulatory capital consists of the following components.

Common Equity Tier 1 capital

According to CRR/CRD4 Regulations, Common Equity Tier 1 capital is made up primarily of the following:

- ordinary shares (net of repurchased shares and treasury shares) and related share premium accounts;
- retained earnings;
- components of other comprehensive income;
- other reserves;
- minority interests limited by CRR/CRD4.

Deductions from Common Equity Tier 1 capital essentially involve the following:

- estimated dividend payments;
- goodwill and intangible assets, net of associated deferred tax liabilities;
- unrealised capital gains and losses on cash flow hedging;
- income on own credit risk;
- deferred tax assets on tax loss carryforwards;
- deferred tax assets resulting from temporary differences beyond a threshold;
- assets from defined benefit pension funds, net of deferred taxes;
- any positive difference between expected losses on customer loans and receivables, risk-weighted using the internal ratings-based (IRB) approach, and the sum of related value adjustments and collective impairment losses;
- expected losses on equity portfolio exposures;
- value adjustments resulting from the requirements of prudent valuation;
- securitisation exposures weighted at 1,250%, where these positions are not included in the calculation of total risk-weighted exposures.

Additional Tier 1 capital

According to CRR/CRD4 Regulations, Additional Tier 1 capital is made up of deeply subordinated notes that are issued directly by the Bank, and have the following features:

- these instruments are perpetual and constitute unsecured, deeply subordinated obligations. They rank junior to all other obligations of the Bank, including undated and dated subordinated debt, and senior only to common stock shareholders;
- in addition, Societe Generale may elect, on a discretionary basis, not to pay the interest and coupons linked to these instruments. This compensation is paid out of distributable items;
- they include neither a step-up in compensation nor any other incentive to redeem;
- they must have a loss-absorbing capacity;
- subject to the prior approval of the European Central Bank, Societe Generale has the option to redeem these instruments at certain dates, but no earlier than five years after their issuance date.

Deductions of Additional Tier 1 capital essentially apply to the following:

- AT1 hybrid treasury shares;
- holding of AT1 hybrid shares issued by financial sector entities;
- minority interests beyond the minimum T1 requirement in the entities concerned.

Tier 2 capital

Tier 2 capital includes:

- undated deeply subordinated notes[1];
- dated subordinated notes;
- any positive difference between (i) the sum of value adjustments and impairment losses on customer loans and receivables exposures, risk-weighted using the IRB approach and (ii) expected losses, up to 0.6% of the total credit risk-weighted assets using the IRB approach;
- value adjustments for credit risk related to collective impairment losses on customer loans and receivables exposures, risk-weighted using the standard approach, up to 1.25% of the total credit risk-weighted assets.

Deductions of Tier 2 capital essentially apply to the following:

- Tier 2 hybrid treasury shares;
- holding of Tier 2 hybrid shares issued by financial sector entities;
- minority interests beyond the minimum capital requirement in the entities concerned.

All capital instruments and their features are detailed online (*www.societegenerale.com*/Investors/Registration Document and Pillar 3).

(1) The undated deeply subordinated notes's remuneration will be paid from the distribuable profits for the purposes of the consolidated prudential regulation.

TABLE 4: : TOTAL AMOUNT OF DEBT INSTRUMENTS ELIGIBLE FOR TIER 1 EQUITY

Issuance Date	Currency	Issue amount (in currency m)	First call date	Yield before the call date and frequency	Yield after the call date and frequency	Book value at 31.12.2018	Book value at 31.12.2017
16 Jun. 2008	GBP	700 M	16 Jun. 2018	8.875 % annually	Libor 3 months + 3.40% annually	0	570
7-juil.-08	EUR	100 M	7-juil.-18	7.715 % annually	Euribor 3 months + 3.70% annually	0	100
4-sept.-09	EUR	1 000 M	4-sept.-19	9.375 % annually	Euribor 3 months + 8.901% annually	1,000	1,000
6-sept.-13	USD	1 250 M	29-nov.-18	8.250 % annually	Mid Swap Rate USD 5 years + 6.394%	0	1,042
18-déc.-13	USD	1 750 M	18-déc.-23	7.875 % annually	Mid Swap Rate USD 5 years + 4.979%	1,528	1,459
7-avr.-14	EUR	1 000 M	7-avr.-21	6.75 0% annually	Mid Swap Rate USD 5 years + 5.538%	1,000	1,000
25 Jun. 2014	USD	1 500 M	27-janv.-20	6.000% annually	Mid Swap Rate USD 5 years + 4.067%	1,310	1,251
29 Sep. 2015	USD	1 250 M	29-sep.-25	8.000% annually	Mid Swap Rate USD 5 years + 5.873%	1,092	1,042
13 Sep. 2016	USD	1 500 M	13-sep.-21	7.375% annually	Mid Swap Rate USD 5 years + 6.238%	1,310	1,251
06 Apr. 2018	USD	1250M	06 Apr. 2028	6.750% annually	Mid Swap Rate USD 5 years + 3,929%	1,092	0
04 Oct. 2018	USD	1250M	04 Oct. 2023	7.375% annually	Mid Swap Rate USD 5 years + 4,302%	1,092	0
TOTAL						**9,424**	**8,715**

TABLE 5: CHANGES IN DEBT INSTRUMENTS ELIGIBLE FOR THE SOLVENCY CAPITAL REQUIREMENTS

(In EUR m)	31.12.2017	Issues	Redemptions	Prudential supervision valuation haircut	Others	31.12.2018
Debt instruments eligible for Tier 1	8,715	2,184	(1,712)	0	237	9,424
Debt instruments eligible for Tier 2	12,388	1,254	(54)	(455)	256	13,389
TOTAL ELIGIBLE DEBT INSTRUMENTS	**21,103**	**3,439**	**(1,766)**	**(455)**	**493**	**22,813**

Solvency ratio

The solvency ratio is set by comparing the Group's equity with the sum of risk-weighted assets for credit risk and the capital requirement multiplied by 12.5 for market risks and operational risks. They are expressed as a percentage of the risk weighted assets and according to the split of own funds i.e.; Core Equity Tiers 1 (CET1), Tiers 1 (T1) or Total Capital (TC).

Every quarter, each ratio is calculated following the accounting closing and then compared to the supervisory requirements.

The regulatory minimum requirement is set at 4.5% for the CET1, 6% fot the T1 and 8% for the TC. This minimum remains stable over the time.

The minimum P2R requirement is set by the supervisor following the Supervisory regulatory evaluation process. It stands for 1.5% during 2018. The European Central Bank notified the level of additional requirement in respect of Pillar 2 for Societe Generale, which will apply from 1 March 2019. This level will stand at 1.75%.

The countercyclical buffer – just like the conservation and systemic buffers – plays a role in determining the overall buffer requirement.

- The countercyclical buffer rate is set by country. Each establishment calculates its countercyclical buffer requirement based on the average countercyclical buffer rate for each country, adjusted to take into account the relevant credit risk exposures in these countries. The countercyclical buffer rate, in force as of 1st January 2019 is equal to 0.13%.
- The conservation buffer in force as of 1st January 2006 lies between 0% and 2.50% with a transitional period (phase-in) ending in 2019. It increased from 1.875% in 2018 to 2.50% at the 1st of January 2019.
- The G-SIB buffer imposed by the Financial Stability Board (FSB) is equal to 1% because increasing and will be increased by 0.25% per annum, ultimately reaching 1% in 2019. The fully loaded rate is equal to 1% and is unchanged compared to 2018.

Taking into account the combined regulatory buffers, the phased-in CET1 ratio level that would trigger the Maximum Distributable Amount mechanism would be 9.88% as of 1st March 2019.

TABLE 6: BREAKDOWN OF PRUDENTIAL CAPITAL REQUIREMENT FOR SOCIETE GENERALE – PHASED-IN RATIO

	01.03.2019	01.01.2019	01.01.2018
Minimum requirement for Pillar 1	4.50%	4.50%	4.50%
Minimum requirement for Pillar 2 (P2R)	1.75%	1.50%	1.50%
Minimum requirement for countercyclical buffer	0.13%	0.13%	0.05%
Minimum requirement for conservation buffer	2.50%	2.50%	1.88%
Minimum requirement for systemic buffer	1.00%	1.00%	0.75%
Minimum requirement for CET1 ratio	**9.88%**	**9.63%**	**8.68%**

TABLE 7: REGULATORY CAPITAL AND CRR/CRD4 SOLVENCY RATIOS – FULLY LOADED

(In EUR m)	31.12.2018	31.12.2017
Shareholders' equity (IFRS), Group share	**61,026**	**59,373**
Deeply subordinated notes	(9,329)	(8,521)
Perpetual subordinated notes	(278)	(269)
Group consolidated shareholders' equity net of deeply subordinated and perpetual subordinated notes	**51,419**	**50,583**
Non-controlling interests	3,600	3,529
Intangible assets	(2,095)	(1,795)
Goodwill	(4,643)	(4,829)
Dividends proposed (to the General Meeting) and interest expenses on deeply subordinated and perpetual subordinated notes	(1,871)	(1,880)
Deductions and regulatory adjustments	(5,256)	(5,381)
COMMON EQUITY TIER 1 CAPITAL	**41,154**	**40,227**
Deeply subordinated notes and preferred shares	9,424	8,715
Other additional Tier 1 capital	71	101
Additional Tier 1 deductions	(138)	(136)
TOTAL TIER 1 CAPITAL	**50,511**	**48,907**
Tier 2 instruments	13,389	12,388
Other Tier 2 capital	(63)	425
Tier 2 deductions	(1,781)	(1,686)
Total regulatory capital	**62,056**	**60,034**
TOTAL RISK-WEIGHTED ASSETS	**376,049**	**353,306**
Credit risk-weighted assets	302,727	289,511
Market risk-weighted assets	23,701	14,800
Operational risk-weighted assets	49,621	48,995
Solvency ratios		
Common Equity Tier 1 ratio	10.9%	11.4%
Tier 1 ratio	13.4%	13.8%
Total capital ratio	16.5%	17.0%

The phased-in CRR/CRD4 solvency ratio at 31st December 2018 stood at 11% in Common Equity Tier 1 (11.6% at 31st December 2017), and 13.5% in Tier 1 (14% at 31st December 2017) for a total ratio of 16.6% (17.2% at 31st December 2017).

The 10.9% fully loaded ratio would stand for 11.2% *pro forma* of the scrip dividend subject to the General Meeting of Shareholder's approval and assuming 50% take-up.

Group shareholders' equity at 31st December 2018 totalled EUR 61.0 billion (compared to EUR 59.4 billion at 31st December 2017).

After taking into account non-controlling interests and regulatory adjustments, phased-in CET1 regulatory capital was EUR 41.4 billion at 31st December 2018, vs. EUR 40.9 billion at 31st December 2017.

The Additional Tier One deductions mainly concern authorisations to buy back own Additional Tier 1 capital instruments as well as subordinated bank and insurance loans.

The table below shows the key factors in this change.

TABLE 8: CET1 REGULATORY DEDUCTIONS AND ADJUSTMENTS UNDER CRR/CRD4

(In EUR m)	31.12.2018	31.12.2017
Unrecognised minority interests	(1,917)	(1,957)
Deferred tax assets	(2,079)	(2,102)
Prudent Valuation Adjustment	(844)	(785)
Adjustments related to changes in the value of own liabilities	107	531
Other	(523)	(1,068)
TOTAL CET1 REGULATORY DEDUCTIONS AND ADJUSTMENTS	**(5,256)**	**(5,381)**

CRR/CRD4 prudential deductions and restatements included in "Other" essentially involve the following:

- any positive difference between expected losses on customer loans and receivables, measured according to the internal ratings-based (IRB) approach, and the sum of related value adjustments and impairment losses;
- expected losses on equity portfolio exposures;
- unrealised gains and losses on cash flow hedges;
- assets from defined benefit pension funds, net of deferred taxes;
- securitisation exposures weighted at 1,250%, where these positions are not included in the calculation of total risk-weighted exposures.

5.4 CAPITAL REQUIREMENTS

The Basel 3 Accord established the new rules for calculating minimum capital requirements in order to more accurately assess the risks to which banks are exposed. The calculation of credit risk-weighted assets takes into account the transaction risk profile based on two approaches for determining risk-weighted assets: (i) a standard method, and (ii) advanced methods based on internal models for rating counterparties.

TABLE 9: GROUP CAPITAL REQUIREMENTS AND RISK-WEIGHTED ASSETS

	RWA		Minimum capital requirements	
(In EUR m)	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Credit risk (excluding counterparty credit risk)	**264,787**	**250,774**	**21,183**	**20,062**
o.w. standardised approach	102,225	97,408	8,178	7,793
o.w. Foundation IRB (F-IRB) approach	4,588	4,483	367	359
o.w. Advanced IRB (A-IRB) approach	142,795	131,373	11,424	10,510
o.w. equity IRB under the simple risk-weighted approach or IMA	15,178	17,511	1,214	1,401
Counterparty credit risk	**26,834**	**28,479**	**2,147**	**2,278**
o.w. risk exposure for contributions to the default fund of a CCP	1,103	1,163	88	93
o.w. CVA	4,904	3,760	392	301
Settlement risk	**6**	**2**	**0**	**0**
Securitisation exposures in the banking book (after cap)	**2,199**	**1,779**	**176**	**142**
o.w. IRB approach	95	114	8	9
o.w. IRB supervisory formula approach (SFA)	78	4	6	0
o.w. internal assessment approach (IAA)	1,842	1,461	147	117
o.w. standardised approach	184	200	15	16
Market risk	**23,701**	**14,800**	**1,896**	**1,184**
o.w. standardised approach	2,444	1,384	196	111
o.w. IMA	21,257	13,416	1,701	1,073
Large exposures				
Operational risk	**49,621**	**48,995**	**3,970**	**3,920**
o.w. basic indicator approach	0	0	0	0
o.w. standardised approach	2,872	3,020	230	242
o.w. advanced measurement approach	46,749	45,975	3,740	3,678
Amounts below the thresholds for deduction (subject to 250% risk-weighting)	8,902	8,477	712	678
Floor adjustment	0	0	0	0
TOTAL	**376,049**	**353,306**	**30,084**	**28,264**

Change in risk-weighted assets and capital requirements

TABLE 10: RWA BY PILLAR AND RISK TYPE (FULLY LOADED)

(In EUR bn)	Credit	Market	Operational	Total 2018	Total 2017
French Retail Banking	92.0	0.1	5.5	97.6	100.5
International Retail Banking and Financial Services	111.9	0.1	7.7	119.7	116.8
Global Banking and Investor Solutions	87.4	21.8	33.1	142.3	124.0
Corporate Centre	11.5	1.6	3.4	16.5	12.0
Group	**302.7**	**23.7**	**49.6**	**376.0**	**353.3**

At 31st December 2018, RWA (EUR 376 billion) broke down as follows:

- credit risk accounted for 81% of RWA (of which 37% for International Retail Banking and Financial Services);
- market risk accounted for 6% of RWA (of which 92% for Global Banking and Investor Solutions);
- operational risk accounted for 13% of RWA (of which 67% for Global Banking and Investor Solutions).

TABLE 11 : KEY SUBSIDIARIES' CONTRIBUTION TO THE GROUP'S RISK-WEIGHTED ASSETS (RWA)

	Crédit du Nord		Rosbank		Komerčni Banka	
(In EUR m)	**IRB**	**Standard**	**IRB**	**Standard**	**IRB**	**Standard**
Credit and counterparty risk	**16,851**	**3,232**	**748**	**5,816**	**11,389**	**1,680**
Sovereign	0	591	690	4	471	14
Financial institutions	50	15	0	179	478	44
Corporate	9,902	760	0	4,172	6,907	1,151
Retail	5,894	746	0	1,087	3,420	14
Equity investments	1,005	283	58	0	112	3
Other non-credit obligation assets	0	837	0	374	0	453
Market risk	**119**		**13**		**62**	
Operational risk	**1,369**		**959**		**625**	
Total 2018	**21,572**		**7,537**		**13,756**	
TOTAL 2017	**20,729**		**8,698**		**12,758**	

5.5 CAPITAL MANAGEMENT

As part of its capital management, the Group (under the supervision of the Finance Division) ensures that its solvency level is always compatible with the following objectives:

- maintaining its financial solidity and respecting the Risk Appetite targets;
- preserving its financial flexibility to finance organic growth and growth through acquisitions;
- allocating adequate capital to the various businesses, according to the Group's strategic objectives;
- maintaining the Group's resilience in the event of stress scenarios;
- meeting the expectations of its various stakeholders: supervisors, debt and equity investors, rating agencies, and shareholders.

The Group determines its internal solvency targets in accordance with these objectives and regulatory thresholds.

The Group has an internal process for assessing the adequacy of its capital that measures the adequacy of the Group's capital ratios in light of regulatory constraints.

In 2018, the Group's capital generation and the developments in the Group's operations portfolio (specifically the year's disposals and acquisitions) funded the extraordinary items of the 2017 financial year and helped to maintain a sufficient margin to ensure dividend and hybrid coupon payments, while keeping the Common Equity Tier 1 ratio stable overall.

In addition, the Group maintains a balanced capital allocation among its three strategic pillars:

- French Retail Banking;
- International Retail Banking and Financial Services;
- Global Banking and Investor Solutions.

Each of the Group's three pillars accounts for around a third of all risk-weighted assets (RWA), with French and International Retail Banking (more than 58% of total business loans and receivables) and credit risks (representing 81% of the Group's risk-weighted assets) accounting for the largest share.

At 31st December 2018, the Group's risk-weighted assets were up 6.4% to EUR 376 billion, compared to EUR 353.3 billion at end-December 2017.

5.6 LEVERAGE RATIO MANAGEMENT

The Group manages its leverage effect according to the CRR leverage ratio rules, as amended by the delegated act of 10th October 2014.

Managing the leverage ratio means both calibrating the amount of Tier 1 capital (the ratio's numerator) and controlling the Group's leverage exposure (the ratio's denominator) to achieve the target ratio levels that the Group sets for itself. To this end, the "leverage" exposure of the different businesses is under the Finance Division's control.

The Group aims to maintain a consolidated leverage ratio that is significantly higher than the 3.5% minimum in the Basel Committee's recommendations. Theses recommandations is currently being transposed in the CRR2 and including a fraction of the systemic buffer which is applicable to the Groupe.

At the end of 2018, Societe Generale's leverage ratio was 4.2%. .

TABLE 12: LEVERAGE RATIO SUMMARY AND RECONCILIATION OF PRUDENTIAL BALANCE SHEET AND LEVERAGE EXPOSURE

(In EUR m)	31.12.2018	31.12.2017
Tier 1 capital[1]	**50,511**	**48,907**
Total assets in prudential balance sheet[2]	1,174,873	1,137,688
Adjustments for fiduciary assets recognised on the balance sheet but excluded from the leverage ratio exposure	0	0
Adjustments for derivative financial instruments	(45,520)	(61,148)
Adjustments for securities financing transactions[3]	(11,146)	(9,035)
Off-balance sheet exposure (loan and guarantee commitments)	99,777	93,055
Technical and prudential adjustments (Tier 1 capital prudential deductions)	(10,320)	(10,716)
Leverage ratio exposure	**1,207,664**	**1,149,844**
CRR FULLY LOADED LEVERAGE RATIO[4]	**4.2%**	**4.3%**

(1) Capital overview is available in Table 6: Regulatory capital and CRR/CRD4 solvency ratios – fully loaded.
(2) Reconciliation of the consolidated balance sheet and the accounting balance sheet within the prudential scope is available in Table 2.
(3) Securities financing transactions: repurchase transactions, securities lending or borrowing transactions and other similar transactions.
(4) Fully loaded based on CRR rules adopted in October 2014 by the European Commission (delegated act).

5.7 RATIO OF LARGE EXPOSURES

The CRR (European Capital Requirements Regulation) incorporates the provisions regulating large exposures. As such, the Societe Generale Group must not have any exposure where the total amount of net risks incurred on a single beneficiary exceeds 25% of the Group's capital.

The eligible capital used to calculate the large exposure ratio is the total regulatory capital, with a limit on the amount of Tier 2 capital. Tier 2 capital cannot exceed one-third of Tier 1 capital.

The final rules of the Basel Committee on large exposures will be transposed in Europe *via* CRR2. The main change compared with the current CRR is the calculation of the regulatory limit (25%), henceforth expressed as a proportion of Tier 1 (instead of total capital), as well as the introduction of a cross-specific limit on systemic institutions (15%).

5.8 FINANCIAL CONGLOMERATE RATIO

The Societe Generale Group, also identified as a "Financial conglomerate", is subject to additional supervision by the French Prudential Supervisory and Resolution Authority (*Autorité de contrôle prudentiel et de résolution* – ACPR).

At 31st December 2018, the Societe Generale Group's financial conglomerate equity covered the solvency requirements for both banking activities and insurance activities. At 30 June 2018, the financial conglomerate ratio was 138%, consisting of a numerator ("Own funds of the Financial Conglomerate") of EUR 63.5 billion, and a denominator ("Regulatory requirement of the Financial Conglomerate") of EUR 46.2 billion.

5.9 APPENDIX: DETAIL OF CAPITAL AND CAPITAL ADEQUACY

OWN FUNDS DETAILS

TABLE 7A: REGULATORY OWN FUNDS AND CRR/CRD4 SOLVENCY RATIOS (DETAILS OF TABLE 7)

	2017	2018		Cross ref. Table 2, p. 46-47	Cross Ref. Table 7b p. 60	Cross Ref. notes
(In EUR m)	**Fully Loaded**	**Fully Loaded**	**Phased-In**			
Common Equity Tier 1 capital (CET1): Instruments and reserves	**51,755**	**51,898**	**51 898**		**6**	
of which capital instruments and the related share premium accounts	*19,995*	*19,995*	*19 995*	*7*	*1*	
of which retained earnings	*5,280*	*3,448*	*3 448*	*9*	*2*	
of which accumulated other comprehensive income (and other reserve, to include unrealised gains and losses under the applicable accounting standards)	*23,982*	*24,778*	*24 778*	*10*	*3*	*1*
of which minority interests (amounts allowed in consolidated CET1)	*1,572*	*1,683*	*1 683*	*12*	*5*	*2*
of which independtly reviewed interim profits net of any forseeable charge or dividend	*926*	*1,994*	*1 994*	*11*	*5a*	
Common Equity Tier 1 capital (CET1): Regulatory adjustments	**(11,528)**	**(10,744)**	**(10 442)**		**28**	
of which additional value adjustments (negative amount)	*(785)*	*(844)*	*(844)*		*7*	
of which intangible assests (net of related tax liabilities)	*(6,625)*	*(6,737)*	*(6 737)*	*5*	*8*	*3*
of which deferred tax assets that rely on future profitability excluding those arising from temporary differences	*(2,102)*	*(2,079)*	*(1 777)*	*2*	*10*	*4*
of which fair value reserves related to gains or losses on cash flow hedges	*1*	*105*	*105*		*11*	*5*
of which negative amounts resulting from the calculation of expected loss amounts	*(868)*	*(540)*	*(540)*		*12*	
of which gains or losses on liabilities valued at fair value resulting from changes in own credit standing	*531*	*107*	*107*		*14*	*6*
of which defined-benefit pension fund assets (negative amount)	*(60)*	*(107)*	*(107)*	*4*	*15*	*7*
of which direct and indirect holdings by an institution of own CET1 instruments (negative amount)	*(1,362)*	*(57)*	*(57)*		*16*	
of which exposure amount of the items which qualify for a risk weight of 1250% where the institution opts for the deduction alternative	*(24)*	*(15)*	*(15)*		*20a*	
of which deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the condition in 38, paragraph 3 are met) (negative amount)	*0*	*0*	*0*			
of which regulatory adjustments relating to unrealised gains and losses pursuant to Articles 467 and 468	*0*	*0*	*0*		*26a*	
of which other elements of Common Equity Tier 1 capital or deductions - others	*(234)*	*(577)*	*(577)*		*26b*	
Common Equity Tier 1 capital (CET1)	**40,227**	**41,154**	**41 456**		**29**	
Additionnal Tier 1 (AT1) capital: Instruments	**8,816**	**9,495**	**9 495**		**36**	
of which capital instruments and the related share premium accounts	*7,045*	*8,424*	*8 424*	*8*	*30*	*8*
of which amounts of qualifying amounts referred to in Article 484, paragraph 4 and the related share premium accounts subject to phase out from AT1	*1,670*	*1,000*	*1 000*	*8*	*33*	*8*
of which qualifying Tier 1 capital included in consolidated AT1 (including minority interests not included in row 5) issued by subsidiaries and held by third parties	*101*	*71*	*71*	*12*	*34*	*9*

	2017	2018		Cross ref. Table 2, p. 46-47	Cross Ref. Table 7b p. 60	Cross Ref. notes
(In EUR m)	**Fully Loaded**	**Fully Loaded**	**Phased-In**			
Additionnal Tier 1 (AT1) capital: Regulatory adjustments	**(136)**	**(138)**	**(138)**		**43**	
of which direct and indirect holdings by an institution of own AT1 instruments (negative amount)	*(125)*	*(125)*	*(125)*		*37*	
of which direct and indirect and synthetic holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)	*(11)*	*(13)*	*(13)*	*1*	*40*	*10*
Additionnal Tier 1 (AT1) capital	**8,680**	**9,357**	**9,357**		**44**	
Tier 1 capital (T1 = CET1 + AT1)	**48,907**	**50,511**	**50,813**		**45**	
Tier 2 capital (T2): Instruments and provisions	**11,127**	**11,545**	**11,545**		**58**	
of which capital instruments and the related share premium accounts	*12,119*	*13,111*	*13,111*	*6*	*46*	*11*
of which amounts of qualifying amounts referred to in Article 484, paragraph 5) and the related share premium accounts subject to phase out from T2	*269*	*278*	*278*	*8*	*47*	
of which qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	*139*	*87*	*87*	*12*	*48*	*12*
of which credit risk adjustments	*436*	*0*	*0*		*50*	
of which direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	*(150)*	*(150)*	*(150)*		*52*	
of which direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)	*(1,686)*	*(11,781)*	*(1,781)*	*1*	*55*	
Tier 2 capital (T2)	**11,127**	**11,545**	**11,545**		**58**	
Total capital (TC= T1 + T2)	**60,034**	**62,056**	**62,358**		**59**	
Total risk weighted assets	**353,306**	**376,049**	**376,049**		**60**	
Ratio Common Equity Tier 1	**11.4%**	**10.9%**	**11.0%**		**61**	
Ratio Tier 1	**13.8%**	**13.4%**	**13.5%**		**62**	
Ratio Total capital	**17.0%**	**16.5%**	**16.6%**		**63**	

Phased in amounts refer to transitional provisions resulting from the application of CRR Articles 465-491.

The regulatory own funds items are used as a starting point to describe differences between balance sheet items used to calculate own funds and regulatory own funds.

Notes

I Common Equity Tier 1 (CET1): Instruments and reserves:

1. Difference due to deduction for holdings of own CET1 instruments;

2. Difference linked to a limited recognition of minority interests.

II Common Equity Tier 1: Regulatory adjustments

3. Other comprehensive income from changes in the fair value through equity of financial assets are not deducted from regulatory own funds, except gains and losses on derivatives held as cash flow hedges;

4. The differences between the amounts of the balance sheet under the prudential scope and under regulatory capital are related to taxes deferred on OCA and DVA;

5. Goodwill and other intangible assets net of related deferred tax liabilities are fully deducted from regulatory own funds;

6. Gains or losses on liabilities valued at fair value and recognised in the income statement resulting from changes in own credit spread (OCA) as well as gains or losses resulting from changes in credit spread on own liability derivatives (DVA) are deducted from Common Equity Tier 1 instruments.

III Additional Tier 1 (AT1) capital: Instruments

7. Differences between balance sheet items used to calculate own funds and regulatory own funds are referring to the translation differences associated with these instruments.

8. Minority interests recognised in Additional Tier 1 instruments receive the same accounting treatment as described in Note 2.

IV Additional Tier 1 (AT1) capital: Regulatory adjustments

9. Discrepancy due to the exclusion of insurance subordinated loans in the consolidated balance sheet.

V Tier 2 (T2) capital: Instruments and provisions

10. Difference due to instruments ineligible to a classification as regulatory own funds;

11. Minority interests recognised in Tier 2 instruments receive the same accounting treatment as described in Note 2.

TABLE 7B: TRANSITIONAL OWN FUNDS DISCLOSURE TEMPLATE

(In EUR m)

Ref.		Amount at disclosure date	Transitional provisions
COMMON EQUITY TIER 1 (CET1) CAPITAL: INSTRUMENTS AND RESERVES			
1	Capital instruments and the related share premium accounts	19,995	
2	Retained earnings	3,448	
3	Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	24,778	
3a	Funds for general banking risk	0	
4	Amount of qualifying items referred to in Article 484, paragraph 3 and the related share premium accounts subject to phase out from CET1	0	
	Public sector capital injections grandfathered until 1st January 2018	0	
5	Minority interests (amount allowed in consolidated CET1)	1,683	
5a	Independently reviewed interim profits net of any foreseeable charge or dividend	1,994	
6	**COMMON EQUITY TIER 1 (CET1) CAPITAL BEFORE REGULATORY ADJUSTMENTS**	**51,898**	
COMMON EQUITY TIER 1 (CET1) CAPITAL: REGULATORY ADJUSTMENTS			
7	Additional value adjustments (negative amount)	(844)	
8	Intangible assets (net of related tax liability) (negative amount)	(6,737)	
9	Empty set in the EU	0	
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, paragraph 3 are met) (negative amount)	(2,079)	302
11	Fair value reserves related to gains or losses on cash flow hedges	105	
12	Negative amounts resulting from the calculation of expected loss amounts	(540)	
13	Any increase in equity that results from securitised assets (negative amount)	0	
14	Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	107	
15	Defined-benefit pension fund assets (negative amount)	(107)	
16	Direct and indirect holdings by an institution of own CET1 instruments (negative amount)	(57)	
17	Holdings of the CET1 instruments of financial sector entities where+ those entities have reciprocal cross holdings with the institutions designed to inflate artificially the own funds of the institution (negative amount)	0	
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)	0	
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)	0	
20	Empty set in the EU	0	
20a	Exposure amount of the following items which qualify for a RW of 1,250%, where the institution opts for the deduction alternative	(15)	
20b	*of which: qualifying holdings outside the financial sector (negative amount)*	*0*	
20c	*of which: securitisation positions (negative amount)*	*(15)*	
20d	*of which: free deliveries (negative amount)*	*0*	
21	Deferred tax assets arising from temporary differences (amount above 10% threshold, net of related tax liability where the conditions in 38, paragraph 3 are met) (negative amount)	0	
22	Amount exceeding the 15% threshold (negative amount)	0	
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*	*943*	
24	Empty set in the EU	0	
25	*of which: deferred tax assets arsing from temporary differences*	*2,620*	
25a	Losses for the current financial year (negative amount)	0	
25b	Foreseeable tax charges relating to CET1 items (negative amount)	0	
26	Regulatory adjustments applied to Common Equity Tier 1 in respect of amounts subject to pre-CRR treatment	(577)	
26a	Regulatory adjustments relating to unrealised gains and losses pursuant to Articles 467 and 468	0	
	of which: … filter for unrealised loss 1	*0*	
	of which: … filter for unrealised loss 2	*0*	
	of which: … filter for unrealised gain 1	*0*	
	of which: … filter for unrealised gain 2	*0*	
26b	Amount to be deducted from or added to Common Equity Tier 1 capital with regard to additional filters and deductions required pre CRR	(577)	
27	Qualifying AT1 deductions that exceed the AT1 capital of the institution	0	
28	**Total regulatory adjustment to Common Equity Tier 1 (CET1)**	**(10,744)**	**302**
29	**COMMON EQUITY TIER 1 (CET1) CAPITAL**	**41,154**	**302**

(In EUR m)

Ref.		Amount at disclosure date	Transitional provisions
ADDITIONAL TIER 1 (AT1) CAPITAL: INSTRUMENTS			
30	Capital instruments and the related share premium accounts	8,424	
31	*of which: classified as equity under applicable accounting standards*	*8,424*	
32	*of which: classified as liabilities under applicable accounting standards*	*0*	
33	Amount of qualifying items referred to in Article 484 (4) and the related share premium accounts subject to phase out from AT1 Public sector capital injections grandfathered until 1st January 2018	1,000	
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	71	
35	*of which: instruments issued by subsidiaries subject to phase out*	*0*	
36	Additional Tier 1 (AT1) capital before regulatory adjustments	9,495	
ADDITIONAL TIER 1 (AT1) CAPITAL: REGULATORY ADJUSTMENTS			
37	Direct and indirect holdings by an institution of own AT1 instruments (negative amount)	(125)	
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)	0	
39	Direct and indirect holdings of the AT1 instruments of financial sector entities where the institution does not have a significant investment in those entities (amount above the 10% threshold and net of eligible short positions) (negative amount)	0	
40	Direct and indirect holdings by the institution of the AT1 instruments of financial sector entities where the institution has a significant in those entities (amount above the 10% threshold net of eligible short positions) (negative amount)	(13)	
41	Regulatory adjustments applied to AT1 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)	0	
41a	Residual amounts deducted from AT1 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 Of which items to be detailed line by line, *e.g.* Material net interim losses, intangibles, shortfall of provisions to expected losses, etc.	0	
41b	Residual amounts deducted from AT1 capital with regard to deduction from Tier 2 capital during the transitional period pursuant to article 475 of Regulation (EU) No 575/2013 Of which items to be detailed line by line, *e.g.* Reciprocal cross holdings in Tier 2 instruments, direct holdings of non-significant investments in the capital of other financial sector entities, etc.	0	
41c	Amount to be deducted from or added to AT1 capital with regard to additional filters and deductions required pre-CRR	0	
	of which: … filter for unrealised losses	*0*	
	of which: … filter for unrealised gains	*0*	
42	Qualifying T2 deductions that exceed the T2 capital of the institution (negative amount)	0	
43	**Total regulatory adjustments to Additional Tier 1 (AT1) capital**	**(138)**	
44	**Additional Tier 1 (AT1) capital**	**9,357**	
45	**TIER 1 CAPITAL (T1= CET1+AT1)**	**50,511**	**302**
TIER 2 (T2) CAPITAL: INSTRUMENTS AND PROVISIONS			
46	Capital instruments and the related share premium accounts	13,111	
47	Amount of qualifying items referred to in Article 484, paragraph 5 and the related share premium account subject to phase out from T2 Public sector capital injections grandfathered until 1st January 2018	278	
48	Qualifying own funds instruments included in consolidated T2 capital (including minority interests and AT1 instruments not included in rows 5 or 34) issued by subsidiaries and held by third parties	87	
49	*of which: instruments issued by subsidiaries subject to phase out*	*0*	
50	Credit risk adjustments	0	
51	**TIER 2 (T2) CAPITAL BEFORE REGULATORY ADJUSTMENTS**	**13,476**	
TIER 2 (T2) CAPITAL: REGULATORY ADJUSTMENTS			
52	Direct and indirect holdings by an institution of own T2 instruments and subordinated loans (negative amount)	(150)	
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)	0	
54	Direct and indirect holdings of the T2 instruments and subordinated loans of financial sector entities where the institution does not have a significant investment in those entities (amount above 10% threshold and net of eligible short positions) (negative amount)	0	
54a	*of which new holdings not subject to transitional arrangements*	*0*	
54b	*of which holdings existing before 1st January 2013 and subject to transitional arrangements*	*0*	
55	Direct and indirect 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)	(1,781)	
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)	0	
56a	Residual amounts deducted from Tier 2 capital with regard to deduction form Common Equity Tier 1 capital during the transitional period pursuant to article 472 of Regulation (EU) No 575/2013 Of which items to be detailed line by line, *e.g.* Material net interim losses, intangibles, shortfall of provisions to expected losses, etc.	0	

(In EUR m)

Ref.		Amount at disclosure date	Transitional provisions
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 Of which items to be detailed line by line, *e.g.* Reciprocal cross holdings in Tier 2 instruments, direct holdings of non-significant investments in the capital of other financial sector entities, etc.	0	
56c	Amount to be deducted from or added to Tier 2 capital with regard to additional filters and deductions required pre-CRR	0	
	of which: filter for unrealised losses	*0*	
	of which: filter for unrealised gains	*0*	
57	**Total regulatory adjustments to Tier 2 (T2) capital**	**(1,931)**	
58	**Tier 2 (T2) capital**	**11,545**	
59	**TOTAL CAPITAL (TC=T1+T2)**	**62,056**	**302**
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)	0	
	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.)	*0*	
	of which: items not deducted from AT1 (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.)	*0*	
	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, etc.)	0	
60	**TOTAL RISK WEIGHTED ASSETS**	**376,049**	
CAPITAL RATIOS AND BUFFERS			
61	Common Equity Tier 1 (as a percentage of risk exposure amount)	10.9%	11.0%
62	Tier 1 (as a percentage of risk exposure amount)	13.4%	13.5%
63	Total capital (as a percentage of risk exposure amount)	16.5%	16.6%
64	Institution specific buffer requirement (CET1 requirement in accordance with article 92, paragraph 1 point a plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)	10,290	
65	*of which: capital conservation buffer requirement*	*7,051*	
66	*of which: countercyclical buffer requirement*	*419*	
67	*of which: systemic risk buffer requirement*	*0*	
67a	*of which: Global Systemically Important Institution (G-SII) or Other Systemically Important Institution (O-SII) buffer*	*2,820*	
68	Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)		
69	[non relevant in the EU regulation]		
70	[non relevant in the EU regulation]		
71	[non relevant in the EU regulation]		
CAPITAL RATIOS AND BUFFERS			
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)	3,117	
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)	943	
74	Empty set in the EU		
75	Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38, paragraph 3 are met)	2,620	
APPLICABLE CAPS ON THE INCLUSION OF PROVISIONS IN TIER 2			
76	Credit risk adjustments included in T2 in respect of exposures subject to standardised approach (prior to the application of the cap)	0	
77	Cap on inclusion of credit risk adjustments in T2 under standardised approach	114,879	
78	Credit risk adjustments included in T2 in respect of exposures subject to internal ratings-based approach (prior to the application of the gap)	0	
79	Cap for inclusion of credit risk adjustments in T2 under internal rating-based approach	179,614	
CAPITAL INSTRUMENTS SUBJECT TO PHASE-OUT ARRANGEMENTS (ONLY APPLICABLE BETWEEN 1ST JANUARY 2014 AND 1ST JANUARY 2022)			
80	Current cap on CET1 instruments subject to phase out arrangements	0	
81	Amount excluded from CET1 due to cap (excess over cap after redemptions and maturities)	0	
82	Current cap on AT1 instruments subject to phase out arrangements	2,356	
83	Amount excluded from AT1 due to cap (excess over cap after redemptions and maturities)	0	
84	Current cap on T2 instruments subject to phase out arrangements	298	
85	Amount excluded from T2 due to cap (excess over cap after redemptions and maturities)	0	

LEVERAGE RATIO DETAILS

TABLE 12A: SUMMARY RECONCILIATION OF ACCOUNTING ASSETS AND LEVERAGE RATIO EXPOSURES (LRSUM)

(In EUR m)		31.12.2018	31.12.2017
1	Total assets as per published financial statements	1,309,428	1,275,128
2	Adjustment for entities which are consolidated for accounting purposes but are outside the scope of regulatory consolidation	(134,555)	(137,440)
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”)	0	0
4	Adjustments for derivative financial instruments	(45,520)	(61,148)
5	Adjustments for securities financing transactions “SFTs”	(11,146)	(9,035)
6	Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	99,777	93,055
EU-6a	(Adjustment for intragroup exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (7) of Regulation (EU) No 575/2013)	0	0
EU-6b	(Adjustment for exposures excluded from the leverage ratio exposure measure in accordance with Article 429 (14) of Regulation (EU) No 575/2013)	0	0
7	Other adjustments	(10,320)	(10,716)
8	**Total leverage ratio exposure**	**1,207,664**	**1,149,844**

TABLE 12B: LEVERAGE RATIO COMMON DISCLOSURE (LRCOM)

(In EUR m)		31.12.2018	31.12.2017
ON-BALANCE SHEET EXPOSURES (EXCLUDING DERIVATIVES AND SFTS)			
1	On-balance sheet items (excluding derivatives, SFTs and fiduciary assets, but including collateral)	834,158	816,358
2	(Asset amounts deducted in determining Tier 1 capital)	(10,320)	(10,716)
3	Total on-balance sheet exposures (excluding derivatives, SFTs and fiduciary assets) (sum of lines 1 and 2)	823,837	805,642
DERIVATIVE EXPOSURES			
4	Replacement cost associated with all derivatives transactions (ie net of eligible cash variation margin)	16,481	15,059
5	Add-on amounts for PFE associated with all derivatives transactions (mark-to-market method)	95,861	85,306
EU-5a	Exposure determined under Original Exposure Method	0	0
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the applicable accounting framework	0	0
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	(18,178)	(16,649)
8	(Exempted CCP leg of client-cleared trade exposures)	(14,693)	(9,624)
9	Adjusted effective notional amount of written credit derivatives	147,885	155,540
10	(Adjusted effective notional offsets and add-on deductions for written credit derivatives)	(128,961)	(136,497)
11	Total derivative exposures (sum of lines 4 to 10)	98,395	93,135
SECURITIES FINANCING TRANSACTION EXPOSURES			
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	294,742	237,706
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	(120,791)	(91,936)
14	Counterparty credit risk exposure for SFT assets	11,703	12,242
EU-14a	Derogation for SFTs: Counterparty credit risk exposure in accordance with Article 429b (4) and 222 of Regulation (EU) No 575/2013	0	0
15	Agent transaction exposures	0	0
EU-15a	(Exempted CCP leg of client-cleared SFT exposure)	0	0
16	Total securities financing transaction exposures (sum of lines 12 to 15a)	185,654	158,012
OTHER OFF-BALANCE SHEET EXPOSURES			
17	Off-balance sheet exposures at gross notional amount	206,418	194,061
18	(Adjustments for conversion to credit equivalent amounts)	(106,641)	(101,006)
19	Other off-balance sheet exposures (sum of lines 17 to 18)	99,777	93,055
EXEMPTED EXPOSURES IN ACCORDANCE WITH CRR ARTICLE 429 (7) AND (14) (ON AND OFF BALANCE SHEET)			
EU-19a	(Exemption of intragroup exposures (solo basis) in accordance with Article 429(7) of Regulation (EU) No 575/2013 (on and off balance sheet))	0	0
EU-19b	(Exposures exempted in accordance with Article 429 (14) of Regulation (EU) No 575/2013 (on and off balance sheet))	0	0
CAPITAL AND TOTAL EXPOSURES			
20	Tier 1 capital	50,511	48,907
21	Total leverage ratio exposures (sum of lines 3, 11, 16, 19, EU-19a and EU-19b)	1,207,664	1,149,844
LEVERAGE RATIO			
22	Leverage ratio	4.2%	4.3%
CHOICE ON TRANSITIONAL ARRANGEMENTS AND AMOUNT OF DERECOGNISED FIDUCIARY ITEMS			
EU-23	Choice on transitional arrangements for the definition of the capital measure	Fully phased in	Fully phased in
EU-24	Amount of derecognised fiduciary items in accordance with Article 429(11) of Regulation (EU) NO 575/2013	0	0

TABLE 12C: LEVERAGE RATIO – SPLIT-UP OF ON BALANCE SHEET EXPOSURES (EXCLUDING DERIVATIVES, SFTS AND EXEMPTED EXPOSURES) (LRSPL)

(In EUR m)		31.12.2018	31.12.2017
EU-1	**Total on-balance sheet exposures (excluding derivatives, SFTs, and exempted exposures), of which:**	**834,158**	**816,358**
EU-2	Trading book exposures	64,379	80,904
EU-3	Banking book exposures, of which:	769,779	735,454
EU-4	*Covered bonds*	*0*	*0*
EU-5	*Exposures treated as sovereigns*	*190,920*	*205,086*
EU-6	*Exposures to regional governments, MDB, international organisations and PSE not treated as sovereigns*	*13,652*	*13,499*
EU-7	*Institutions*	*44,586*	*43,322*
EU-8	*Secured by mortgages of immovable properties*	*17,216*	*13,773*
EU-9	*Retail exposures*	*180,047*	*174,577*
EU-10	*Corporate*	*225,833*	*191,121*
EU-11	*Exposures in default*	*18,418*	*19,939*
EU-12	Other exposures (eg equity, securitisations, and other non-credit obligation assets)	*79,107*	74,139

TABLE 13 : NON-DEDUCTED EQUITIES IN INSURANCE UNDERTAKINGS (INS1)

(En M EUR)	31.12.2018
Exposure	3,633
RWA	13,442

TABLE 14: FULLY LOADED REGULATORY CAPITAL FLOWS

(In EUR m)	
End-2017 Common Equity Tier One Capital	**40 227**
Change in share capital resulting from the capital increase	(0)
Net income, Group share	1 058
Change in the provision for 2017 dividends	(2)
Change linked to translation differences	110
Change in value of financial instruments	(769)
Change in non-controlling interests	71
Change in goodwill and intangible assets	(113)
Change in deductions	126
Other	446
End-2018 Common Equity Tier 1 capital	**41 154**
End-2017 Additional Tier 1 capital	**8 680**
Change in debt instruments eligible for additional Tier 1	709
Change in other additional Tier 1 capital	(30)
Change in deductions Tier 1	(1)
End-2017 Additional Tier 1 capital	**9 358**
End-2016 Common Equity Tier 1 capital	**11 127**
Variation des instruments Tier 2	1 001
Change in other additional Tier 2 capital	(490)
Change in deductions Tier 2	(94)
End-2017 Tier 2 capital	**11 544**

COUNTERCYCLICAL BUFFER DETAILS

The rate of countercyclical capital buffer (or CWB) is defined by country. The countercyclical capital buffer requirement is calculated by averaging the countercyclical rates of each country, weighted by the exposures relevant to credit risk in those countries. The rate of countercyclical capital buffer, which came into effect on 1 January 2016, is generally between 0% and 2.5% per country, with a transitional period in which the rate is capped (0.625% in 2016, 1.25% in 2017 and 1.875% in 2018). In France, the authority in charge of defining the countercyclical rate applicable to exposures in France and in charge of recognising any rates applicable in other countries is the High Council for Financial Stability (HCSF). The HCSF publishes quarterly the CCB rate for France and the rates recognized for third countries. The rate applicable to the Group is recalculated once a country is subject to a rate change. As a result, there is no an annual rate for this cushion, but a rate applicable on a given date.

TABLE 15: GEOGRAPHICAL DISTRIBUTION OF CREDIT EXPOSURES RELEVANT FOR THE CALCULATION OF THE COUNTERCYCLICAL CAPITAL BUFFER (CCYB1)

	31.12.2018											
	General credit exposures		Trading book exposures		Securitisation exposures		Own funds requirements					
(In EUR m)	Standard	IRB	Sum of long and short positions of trading book exposures for SA	Value of book exposures for internal models	Standard	IRB	of which: General credit exposures	of which: Trading book exposures	of which: Securiti-sation exposures	Total	Own funds require-ments weights	Counter-cyclical capital buffer rate
Czech Republic	2,974	25,106		26			995	0		995	4.50	1%
Norway	746	3,248		(28)			193	1		194	0.88	1.875%
Slovakia	897	196		0			82	0		82	0.37	1.25%
Sweden	482	1,622		72			93	16		109	0,49	2%
Hong Kong	140	1,706		55			44	3		48	0.22	1.875%
Iceland	0	4					0			0	0.00	1.25%
Lithuania	6	10					1			1	0.01	0.5%
United Kingdom	4,230	15,913		2,658		1,370	614	72	9	694	3.14	1%
TOTAL	**9,476**	**47,805**	**-**	**2,782**	**-**	**1,370**	**2,022**	**92**	**9**	**2,124**		**0.11%**

TABLE 16: COUNTERCYCLICAL BUFFER CAPITAL REQUIREMENTS – SYNTHESIS (CCYB2)

	31.12.2018	31.12.2017
Total risk exposure amount	376,049	353,306
Institution specific countercyclical capital buffer rate	0.111%	0.049%
Institution specific countercyclical capital buffer requirement	419	174

LINK BETWEEN PRUDENTIAL BALANCE SHEET AND TYPE OF RISK

TABLE 17 : DIFFERENCES BETWEEN ACCOUNTING AND REGULATORY SCOPES OF CONSOLIDATION AND THE MAPPING OF FINANCIAL STATEMENT CATEGORIES WITH REGULATORY RISK CATEGORIES (LI1)

ASSETS at 31.12.2018 *(in EUR m)*	**Consolidated balance sheet**	**Consolidated balance sheet within the prudential scope**	**Subject to credit risk**	**Subject to counterparty risk**	**Subject to market risk**	**Subject to the securitisation framework**	**Deducted from own funds**
Cash, due from banks	96,585	96,585	95,382				
Financial assets at fair value through profit or loss	365,550	375,286	32,383	262,073	342,484		
Hedging derivatives	11,899	11,931		11,931	37		
Financial assets at fair value through other comprehensive income	50,026	50,026	51,455		34		
Securities at amortised cost	12,026	12,026	12,060				
Due from banks at amortised cost	60,588	60,738	42,870	18,000	9,847		
of which subordinated loans to credit institutions	*91*	*91*					
Customer loans at amortised cost	447,229	448,981	431,726	26,298	25,853	909	
Revaluation differences on portfilios hedged against interest rate risk	338	338					
Investment of insurance activities	146,768	0					
Tax assets	5,819	5,676	5,736				
of which deferred tax assets that rely on future profitability excluding those arising from temporary differences	*2,895*	*2,079*					1,777
of which deferred tax assets arising from temporary differences	*1,858*	*2,620*					
Other assets	67,446	65,106	44,163		5,741		
of which defined-benefit pension fund assets	*76*	*76*					107
Non-current assets held for sale	13,502	13,505					
Investments accounted for using the equity method	249	3,750	3,902				
Tangible and intangible assets	26,751	26,599	24,596				
of which intangible assets exclusive of leasing rights	*2,199*	*2,066*					2,095
Goodwill	4,652	4,327					4,642
TOTAL ASSETS	**1,309,428**	**1,174,874**	**744,273**	**318,302**	**383,996**	**909**	**8,621**

The amounts "Subject to market risk" are representative of 98% of the Risk-Weighted Assets for market risk

LIABILITIES at 31.12.2018 *(in EUR m)*	**Consolidated balance sheet**	**Consolidated balance sheet within the prudential scope**	**Subject to credit risk**	**Subject to counterparty risk**	**Subject to market risk**	**Subject to the securitisation framework**	**Deducted from own funds**
Due to central bank	5,721	5,721					
Financial liabilities at fair value through profit or loss	363,083	365,555		227,204	303,877		
Hedging derivatives	5,993	6,001		6,002	138		
Debt securities issued	116,339	118,096			28,266		
Due to banks	94,706	91,710		2,604	2,603		
Customer deposits	416,818	418,387		17,408	16,678		
Revaluation differences on portfolios hedged against interest rate risk	5,257	5,257					
Tax liabilities	1,157	824					
Other Liabilities	76,629	69,974			9,174		
Non-current liabilities held for sale	10,454	10,512					
Liabilities related to insurance activities contracts	129,543	0					
Provisions	4,605	4,593			19		
Subordinated debts	13,314	13,453					1,793
of which redeemable subordinated notes including revaluation differences on hedging items	12,730	12,869					
TOTAL DEBTS	**1,243,619**	**1,110,083**					
Equity, Group share	61,026	60,823					
of which capital and related reserves	19,995	19,995					
of which other capital instruments	9,109	9,109					
of which retained earnings	3,448	3,448					
of which accumulated other comprehensive income (including gains and losses accounted directly in equity)	24,610	24,407					
of which net income	3,864	3,864					
Minority interests	4,783	3,968					
TOTAL EQUITY	**65,809**	**64,791**					
TOTAL LIABILITIES	**1,309,428**	**1,174,874**		**253,218**	**360,755**		**1,793**

The amounts "Subject to market risk" are representative of 98% of the Risk-Weighted Assets for market risk

ASSETS at 01.01.2018 *(in EUR m)*	**Consolidated balance sheet**	**Consolidated balance sheet within the prudential scope**	**Subject to credit risk**	**Subject to counterparty risk**	**Subject to market risk**	**Subject to the securitisation framework**	**Deducted from own funds**
Cash, due from banks	114,404	114,404	111,702				
Financial assets at fair value through profit or loss	369,112	376,845	25,653	242,564	362,540	78	
Hedging derivatives	12,718	12,739	419	12,320			
Financial assets at fair value through other comprehensive income	50,468	50,468	50,468		280	4	
Securities at amortised cost	11,592	11,592	11,572			222	
Due from banks at amortised cost	53,656	53,865	36,941	16,501	15,661		
of which subordinated loans to credit institutions	133	133					
Customer loans at amortised cost	417,391	418,683	397,364	21,004	20,783	171	
Revaluation differences on portfilios hedged against interest rate risk	663	663					
Investment of insurance activities	147,611	-					
Tax assets	6,292	6,180	6,074				
of which deferred tax assets that rely on future profitability excluding those arising from temporary differences	2,970	2,190					1,599
of which deferred tax assets arising from temporary differences	2,086	2,759					
Other assets	60,449	58,063	40,004		14,637		
of which defined-benefit pension fund assets	84	84					60
Non-current assets held for sale	13	13					
Investments accounted for using the equity method	659	4,547	4,547				
Tangible and intangible assets	24,200	24,051	22,347				
of which intangible assets exclusive of leasing rights	1,940	1,811					1,795
Goodwill	4,988	4,663					4,829
TOTAL ASSETS	**1,274,216**	**1,136,776**	**707,091**	**92,388**	**413,901**	**475**	**8,283**

The amounts "Subject to market risk" are representative of 98% of the Risk-Weighted Assets for market risk

LIABILITIES at 01.01.2018 *(in EUR m)*	**Consolidated balance sheet**	**Consolidated balance sheet within the prudential scope**	**Subject to credit risk**	**Subject to counterparty risk**	**Subject to market risk**	**Subject to the securitisation framework**	**Deducted from own funds**
Due to central bank	5,604	5,604					
Financial liabilities at fair value through profit or loss	368,550	370,748		248,183	320,158		
Hedging derivatives	6,146	6,163		6,163			
Debt securities issued	103,235	104,843			412		
Due to banks	88,621	84,691		2,689	2,038		
Customer deposits	410,633	412,560		16,406	15,556		
Revaluation differences on portfolios hedged against interest rate risk	6,020	6,020					
Tax liabilities	1,608	1,235					
Other Liabilities	69,139	62,828			3,782		
Non-current liabilities held for sale	0	0					
Liabilities related to insurance activities contracts	131,717	0					
Provisions	6,345	6,329					
Subordinated debts	13,647	13,855					1,958
of which redeemable subordinated notes including revaluation differences on hedging items	13,095	13,299					
TOTAL DEBTS	**1,211,265**	**1,074,876**					
Equity, Group share	58,428	58,225					
of which capital and related reserves	19,996	19,996					
of which other capital instruments	8,565	8,565					
of which retained earnings	5,280	5,280					
of which accumulated other comprehensive income (including gains and losses accounted directly in equity)	21,781	21,781					
of which net income	2,806	2,603					
Minority interests	4,523	3,675					
TOTAL EQUITY	**62,951**	**61,900**					
TOTAL LIABILITIES	**1,274,216**	**1,136,776**		**273,441**	**341,947**		**1,958**

The amounts "Subject to market risk" are representative of 98% of the Risk-Weighted Assets for market risk

6

CREDIT RISKS

IN BRIEF

Credit risk corresponds to risk of losses arising from the inability of the Group's customers, issuers or other counterparties to meet their financial commitments. Credit risk includes the counterparty risk linked to market transactions and securitisation activities and may be further amplified by individual, country and sector concentration risk.

This section describes the Group's risk profile. It focuses on regulatory indicators, including Exposure at Default (EAD) and Risk Weighted Assets (RWA).

The risk profile is analysed according to several approaches (countries, sectors, probabilty of default, residual maturities, etc.).

Credit risk RWA at end-2018:

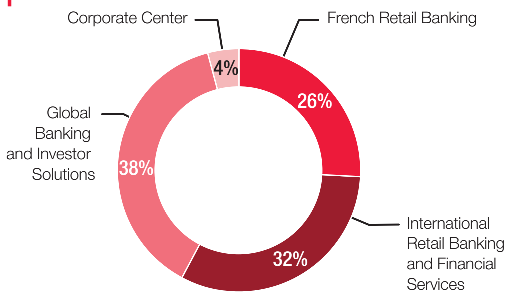
302.7 **bn EUR**

(Credit risk RWA at end-2017: 289,5 bn EUR)

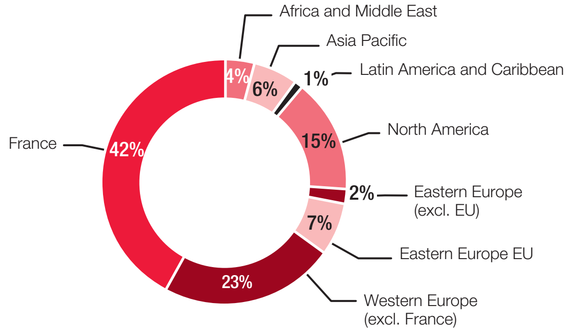
EAD calculated in IRB (% of total credit risk):

79 **%**

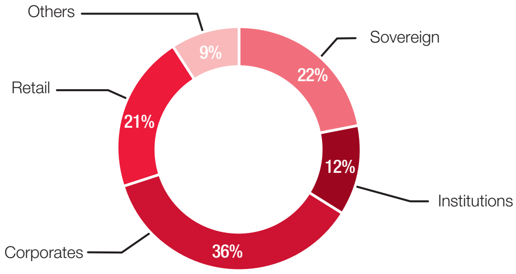
Distribution of credit risks RWA by Pillar
At end-2018: EUR 376 bn (EUR 353 bn at end-2017)



Credit risk EAD
At end-2018: EUR 920 bn (EUR 872 bn at end-2017)



Distribution of credit risk EAD by portfolio
Credit risk exposure (EAD) at end-2018:
EUR 920 bn (EUR 872 bn at end-2017)



Credit risk corresponds to risk of losses arising from the inability of the Group's customers, issuers or other counterparties to meet their financial commitments. Credit risk includes the counterparty risk linked to market transactions and securitisation activities and may be further amplified by individual, country and sector concentration risk.

6.1 RISK SUPERVISION AND MONITORING SYSTEM

General principles governing risk-taking

All transactions involving credit risk must be pre-authorised.

The risk approval process is based on three fundamental principles:

- for each client or client group, the analysis and validation of credit agreements is first and foremost the responsibility of a designated business line within the Group (client monitoring sector), and then a unit in the risk management function. The business and risk unit examine all authorisation requests relating to a specific client or client group, to ensure a consistent approach to risk management. The business line and risk unit must be independent of each other;
- use of internal ratings for counterparties. These ratings are proposed by the businesses and validated by the Risk function. The credit approval and risk monitoring process differs according to the nature of the counterparty. For individual and professional clients (retail clients), credit decisions are subject to compliance with approval criteria set out in the credit policies and verified with the help of score tools used under the supervision of the Risk Division. Credit risk policies specify in particular the conditions in which limits are set, as well as the processes applicable in the event these limits are breached. The approval process for corporate counterparties, financial institutions and sovereigns is based on in-depth knowledge of the client and a proper understanding of the purpose of transactions;
- the system of delegating powers is based largely on the internal rating of counterparties and confers responsibility on the businesses for all credit decisions, for which they assume the burden, where applicable, of provisions and losses.

Monitoring individual concentration

Individual large exposures are reviewed by the Large Exposures Committee chaired by General Management. Societe Generale complies with regulations governing large exposures[(1)]. Moreover, the Group has set a stricter internal rule with a limit of 10% of the Group's consolidated shareholders' equity applying to any concentrated exposure on a client group.

The largest concentrations are monitored by rating level. The Group uses credit derivatives to reduce certain exposures considered to be too large.

Concentration levels on connected clients are established in the Business Units for the largest counterparties during Concentration Committee meetings.

Monitoring country risks

Country risk arises when an exposure (loan, security, guarantee or derivative) becomes susceptible to negative impact from changing regulatory, political, economic, social and financial conditions.

Country risk breaks down into two major categories:

- political and non-transfer risk covers the risk of non-payment resulting from either actions or measures taken by local government authorities (decision to prohibit the debtor from meeting its commitments, nationalisation, expropriation, non-convertibility, etc.), domestic events (riots, civil war, etc.) or external events (war, terrorism, etc.);
- commercial risk occurs when the credit quality of all counterparties in a given country deteriorates due to a national economic or financial crisis, independently of each counterparty's individual financial situation. This could be a macroeconomic shock (sharp slowdown in activity, systemic banking crisis, etc.), currency depreciation, or sovereign default on external debt potentially entailing other defaults.

Overall limits and strengthened monitoring of exposures have been established for countries based on their internal ratings and governance indicators. Supervision is not limited to emerging countries.

Country limits are approved annually by General Management. They can be revised downward at any time if the country's situation deteriorates or is expected to deteriorate.

All Group exposures (securities, derivatives, loans and guarantees) are taken into account by this monitoring. The Country Risk methodology determines an initial risk country and a final risk country (after any guarantee-related effects), which is supervised using country limits.

The procedure for placing a country on a watch list is triggered when there is a deterioration in country risk, or such a deterioration can be anticipated. During 2018, a number of countries were placed on a watch list, due to difficulties encountered.

(1) Ratio of large exposures, p 57.

Sector monitoring

The Group conducts routine reviews of its loan portfolio using analyses based on business sector. In addition to industry research and analyses of recurring sector-related concentration, more detailed sector-based research and business portfolio analyses may be requested by General Management, the Risk Division or bank divisions.

Certain scopes are subject to specific monitoring.

Specific attention is paid to hedge fund exposure. The Group incurs risk on hedge funds through derivative transactions and its financing activity guaranteed by shares in funds. Risks related to hedge funds are governed by individual limits and global limits on market risks and wrong way risk.

Portfolios have also been subject to enhanced approval criteria, in credit policies.

In leveraged finance, the Group applies the ECB definition in the “Guidance on Leveraged Transactions”. The Group has also enhanced its process for analysing these third parties’ capacity to repay their commitments at the time of approval, reinforced the monitoring carried out on this scope and reviewed its escalation process.

In the case of the oil and gas scope, the Group has established a credit policy adapted to the different types of activity of sector players. This policy distinguishes in particular financing guaranteed by oil reserves, project financing, short-term trade finance transactions, and takes account of specific regional characteristics.

Credit stress tests

With the aim of identifying, monitoring and managing credit risk, the Risk Division works with the businesses to conduct a set of specific stress tests relating to a country, subsidiary or activity. These specific stress tests combine both recurring stress tests, conducted on those portfolios identified as structurally carrying risk, and ad hoc stress tests, designed to recognise emerging risks. Some of these stress tests are presented to the Risk Committee and used to determine how to govern the activities concerned.

Like global stress tests, specific stress tests draw on a stressed scenario, which is defined by the Group’s sector experts and economists. The stressed scenario describes triggering events and assumptions regarding the development of a crisis, in both quantitative terms (changes in a country’s GDP, the unemployment rate, deterioration in a sector) and qualitative terms. The credit stress system also includes sensitivity analyses relating to the deterioration in credit quality of certain portfolios (expert rating transition matrix) or to exposure volatility at the time of default.

Structured around the portfolio analysis function, the Risk Division teams translate these economic scenarios or analyses into impacts on risk parameters (default exposure, default rate, provisioning rate at entry into default, etc.). Where relevant, the leading methods are based on the historical relationship between economic conditions and risk parameters. The stress tests take into account the possible effect of the default of counterparties in which the Group is most highly concentrated in a stressed environment.

Impairment

Impairment includes impairments of performing loans (stages 1 and 2) and impairments of non-performing loans.

The applicable accounting principles are specified in Note 3.8 of the consolidated financial statements included in Chapter 6 of the Registration Document, p. 373.

IMPAIRMENT OF PERFORMING LOANS (STAGES 1 AND 2)

Impairment is recorded on performing loans based on estimates of 12-month expected credit losses (general case) or lifetime expected credit losses (contracts on which the credit risk has deteriorated since the loan was granted).

This impairment is calculated using assumptions on default rates and losses on default. It takes into account macro-economic forecasts or forecasts specific to the business sector or country. The assumptions are calibrated by homogenous groups of assets based on each group’s specific characteristics, its sensitivity to the economic environment and historical data. The assumptions are reviewed periodically by the Risk Division.

IMPAIRMENT OF NON-PERFORMING LOANS (STAGE 3)

Impairment is recorded on the counterparties concerned when there is objective evidence of default. The amount of impairment depends on the probability of recovering the amounts due. The expected cash flows are based on the financial position of the counterparty, its economic prospects and the guarantees called up or which may be called up.

A counterparty is considered to be in default when one of the following occurrences is noted:

- a significant deterioration in the counterparty’s financial position leading to a high probability that it will not be able to honour its commitments in full, thereby generating a risk of loss for the Group;
- concessions to the loan terms which would not have been granted in other circumstances are granted in view of the borrower’s financial difficulties;
- one or more repayments is past due for at least 90 days (with the exception of restructured loans, which, during a probationary period, are deemed to be impaired as of the first missed payment), whether or not a recovery procedure has begun;
- or, regardless of whether or not payments are past due, there is a known credit risk or legal procedures are in progress (bankruptcy, legal settlement or compulsory liquidation).

The Group applies the default contagion principle to all of a counterparty’s outstandings. When a debtor belongs to a group, all of the group’s outstandings are generally defaulted as well.

6.2 REPLACEMENT RISK

Replacement risk, *i.e.* counterparty risk associated with market transactions, is a type of credit risk (potential loss in the event that the counterparty defaults). It represents the current cost to the Group of replacing transactions with a positive market value should the counterparty default. Transactions giving rise to a replacement risk include, among others, security repurchase agreements, securities lending and borrowing, purchase/sale transactions or foreign exchange transactions performed on Delivery Versus Payment (DVP) terms, and derivative contracts, stemming either from standard market activities (OTC transactions such as swaps, options and futures) or from prime brokerage services[1].

Setting individual counterparty limits

The granting of replacement risk limits is part of the credit granting mechanism. The limits are set according to the nature and duration of the instruments concerned, as well as the strength of the associated legal documentation.).

Regarding central counterparties (CCP), specific limits in terms of margin and deposit amounts are defined to control and monitor the exposure resulting from the clearing of derivative contracts and of repurchase agreements, stemming either from standard market activities or from prime brokerage services.

Information technology systems allow both traders and the Risk Division to ensure that counterparty limits are not exceeded.

Any significant weakening in any of the Bank's counterparties triggers an urgent internal rating review. A specific supervision and approval process is put in place for more sensitive counterparties or more complex financial instruments.

In order to quantify the potential replacement cost, Societe Generale uses an internal model: the future fair value of market transactions with each counterparty is modelled taking into account any netting and correlation effects. The forecasts are derived from Monte Carlo models developed by the Risk Division, based on a historical analysis of market risk factors, and take into account guarantees and collateral.

This internal model is used to compute the Effective Expected Positive Exposure (EEPE), a metric which is used to determine the counterparty risk regulatory capital requirements.

From an economic standpoint, Societe Generale monitors positions using two indicators to represent the distribution resulting from the Monte Carlo simulations:

- Credit-Value-at-Risk (or CVaR): the largest loss that could be incurred after eliminating the top 1% of the most adverse occurrences, used to set the risk limits for individual counterparties;
- current average risk, particularly suitable for analysing the risk exposure for a portfolio of customers.

Societe Generale has also developed a set of stress test scenarios used to calculate the exposure linked to changes in the fair value of transactions with all its counterparties in the event of an extreme shock on market parameters.

Calculation of Exposure at Default[2] within the regulatory framework

As part of the calculation of capital in respect of counterparty risk, the French Prudential Supervisory and Resolution Authority (*Autorité de contrôle prudentiel et de résolution* – ACPR) has approved the use of the internal model described previously to determine the Effective Expected Positive Exposure (EEPE).

For the entities where this internal model is approved, it covers 98% of the transactions on OTC derivatives or security financing transactions.

For other transactions or entities, the Group uses the marked-to-market valuation method. In this method, the EAD relative to the Bank's counterparty risk is determined by aggregating the positive market values of all the transactions (replacement cost), and increasing the sum with an add-on. This add-on, which is calculated in line with the CRD (Capital Requirements Directive), is a fixed percentage – based on the type of transaction and the residual maturity – which is applied to the transaction's nominal value.

In both cases, the effects of netting agreements and collateral are factored in, either by their simulation in the internal model, or by applying the netting rules as defined under the marked-to-market method and by subtracting guarantees or collateral. Regulatory capital requirements also depend on the internal rating of the debtor counterparty.

Credit valuation adjustment for counterparty risk

Derivatives and security financing transactions are subject to a Credit Valuation Adjustment (CVA) to take into account counterparty risk. The Group includes in this adjustment all clients that are not subject to a daily margin call or for which the collateral only partially covers the exposure. This adjustment also reflects the netting agreements existing for each counterparty. CVA is determined on the basis of the Group entity's positive expected exposure to the counterparty, the counterparty's probability of default (conditional on the entity not defaulting), and the loss in the event of default.

Furthermore, since 1st January 2014, financial institutions have had to determine capital requirements related to CVA, covering its variation over ten days. The scope of counterparties is limited to financial counterparties as defined in the EMIR (European Market Infrastructure Regulation) or certain corporates that may use derivatives beyond certain thresholds and for purposes other than hedging. Societe Generale has implemented an internal model to compute these capital requirements, covering more than 80% of the scope. The method used is similar to the one used for the market VaR computation (see the "Market Risk" chapter of the Registration Document): it consists of carrying out a historical simulation of the change in CVA due to the variations observed in the credit spreads of the counterparties, with a 99% confidence interval. The computation is done on the credit spreads variation observed, on the one hand, over a one-year rolling period (VaR on CVA), and, on the other hand, over a fixed one-year historical window corresponding to the period of greatest tension in terms of credit spreads (stressed VaR on CVA). The associated capital requirements are equal to the sum of these two computations multiplied by a factor set by the regulator, specific to each bank. For the remaining part determined according to the standard method, Societe Generale applies the rules defined by the Capital Requirements

(1) Prime brokerage services, mainly on listed derivatives, where the bank acts as agent between a client and a clearing house.

(2) Exposure at default (EAD) of a loan is equal to its nominal amount. The potential loss amount of a derivative is its marked-to-market valuation when the counterparty defaults, which can be only statistically approximated. Therefore, two methods for the calculation of the EAD of derivatives are allowed, one using the marked-to-market valuation and one using the internal model approach (see above).

Regulation: weighting by a normative factor of the EAD multiplied by a recomputed maturity.

The management of this exposure and regulatory capital charge led the Bank to buy protection (such as Credit Default Swaps) from major financial institutions. In addition to reducing the credit risk, it decreases their variability deriving from changes in the credit spreads of counterparties.

Wrong-way risk adjustment

Wrong-way risk is the risk of the Group's exposure to a counterparty increasing significantly, combined with a simultaneous increase in the probability of the counterparty defaulting.

There are two types of wrong-way risk:

- general wrong-way risk, where there is a significant correlation between certain market factors and the creditworthiness of the counterparty;
- specific wrong-way risk, where the amount of exposure is directly related to the credit quality of the counterparty.

The specific wrong-way risk is subject to dedicated regulatory capital requirements, through an add-on applied when calculating the capital requirements. The EEPE indicator for transactions identified as facing a specific wrong-way risk is reassessed based on the hypothesis of a default from the counterparty (more specifically, a conservative reassessment based on (i) a value of nil for the counterparty's shares and (ii) a value equal to the recovery rate for the bonds issued by the counterparty). This process leads to stricter capital requirements regarding counterparty risks on such transactions. The economic counterparty risk (replacement risk) calculated in these specific risk situations is also increased, thereby limiting the exposure on such transactions, as there is no change in the risk limit framework.

The general wrong-way risk is monitored through stress tests (stress tests based on mono- or multi-risk factors covering all transactions with a given counterparty, relying on the same scenarios as used in the market risk stress tests) based on:

- a quarterly analysis of the stress tests regarding all counterparties, making it possible to identify the most adverse scenarios linked to a joint deterioration in the quality of the counterparties and the associated positions;
- regarding Systemically Important Financial Institutions (SIFI), monthly monitoring of dedicated multi-risk factor stress test scenarios, subject to limits;
- regarding hedge funds and proprietary trading groups, weekly monitoring of dedicated mono-risk factor stress test scenarios, subject to limits.

6.3 HEDGING OF CREDIT RISK

Guarantees and collateral

the Group uses credit risk mitigation techniques for both market and commercial banking activities. These techniques provide partial or full protection against the risk of debtor insolvency.

There are two main categories:

- personal guarantees are commitments made by a third party to replace the primary debtor in the event of the latter's default. These guarantees encompass the protection commitments and mechanisms provided by banks and similar credit institutions, specialised institutions such as mortgage guarantors (*e.g.* Crédit Logement in France), monoline or multiline insurers, export credit agencies, etc. By extension, credit insurance and credit derivatives (purchase of protection) also belong to this category;
- collateral can consist of physical assets in the form of property, commodities or precious metals, as well as financial instruments such as cash, high-quality investments and securities, and also insurance policies.

Appropriate haircuts are applied to the value of collateral, reflecting its quality and liquidity.

In order to reduce its risk-taking, the Group is pursuing active management of its securities, in particular by diversifying them: physical collateral, personal guarantees and others (including CDS).

During the credit approval process, an assessment is performed on the value of guarantees and collateral, their legal enforceability and the guarantor's ability to meet its obligations. This process also ensures that the collateral or guarantee successfully meets the criteria set forth in the Capital Requirements Directive (CRD).

Guarantor ratings are reviewed internally at least once a year and collateral is subject to revaluation at least once a year. The Risk function is responsible for approving the operating procedures established by the core businesses for the regular valuation of guarantees and collateral, either automatically or based on an expert opinion, whether during the approval phase for a new loan or upon the annual renewal of the credit application.

The amount of guarantees and collateral is capped at the amount of outstanding loans less provisions, *i.e.* EUR 290.17 billion at 31st December 2018 (compared with EUR 272.44 billion at 31st December 2017), of which EUR 140.37 billion for retail customers and EUR 149.80 billion for other types of counterparty (compared with EUR 137.46 billion and EUR 134.98 billion at 31st December 2017, respectively).

The oustanding loans covered by these guarantees and collateral correspond mainly to loans and receivables amounted to EUR 237.18 billion at 31st December 2018, and to off-balance sheet commitments amounted to EUR 50.46 billion (compared with EUR 225.61 billion and EUR 43.70 billion at 31st December 2017 respectively).

The amounts of guarantees and collateral received for performing outstanding loans (Stage 1) and under-performing loans (Stage 2) with payments past due amounted to EUR 2.07 billion at 31st December 2018 (EUR 3.12 billion at 31st December 2017), including EUR 1.05 billion on retail customers and EUR 1.01 billion on other types of counterparties (versus EUR 1.28 billion and EUR 1.84 billion at 31st December 2017 respectively).

The amount of guarantees and collateral received for non performing outstanding loans at 31st December 2018 amounted to EUR 4.77 billion (compared to EUR 6.61 billion at 31st December 2017), of which EUR 2.21 billion on retail customers and EUR 2.57 billion on other types of counterparties (compared to EUR 2.92 billion and EUR 3.68 billion respectively at 31st December 2017). These amounts are capped at the amount of outstanding individually impaired loans.

Use of credit derivatives to manage Corporate concentration risk

Within Corporate and Investment Banking, the Credit Portfolio Management (CPM) team is responsible for working in close cooperation with the Risk Division and the businesses to reduce excessive portfolio concentrations and react quickly to any deterioration in the creditworthiness of a particular counterparty. CPM forms part of the department responsible for managing scarce resources for the credit and loan portfolio.

The Group uses credit derivatives in the management of its Corporate credit portfolio, primarily to reduce individual, sector and geographic concentrations and to implement a proactive risk and capital management approach.

Total outstanding purchases of protection through Corporate credit derivatives decreased to EUR 0.4 billion at end-December 2018 (compared to EUR 0.5 billion at end-December 2017).

The amounts recognised as assets (EUR 2.2 billion at 31st December 2018 versus EUR 2.2 billion at 31st December 2017) and liabilities (EUR 2.7 billion at 31st December 2018 versus EUR 2.6 billion at 31st December 2017) correspond to the fair value of credit derivatives mainly held under a transaction activity but also under the aforementioned protection purchases.

In 2018, the Credit Default Swap (CDS) spreads from European investment-grade issuances (iTraxx index) have been quite volatile with peaks in June/July and an upward trend in the last quarter. The overall sensitivity of the portfolio to spread widening increased, since the average maturity of protection is now longer.

All protection purchases were made from clearing houses (100% of the outstanding amounts as of 31st December 2018).

Mitigation of counterparty risk linked to market transactions

Societe Generale uses various techniques to reduce this risk. With regard to counterparties dealing with market transactions, it seeks to implement master agreements with a termination-clearing clause wherever it can. In the event of default, such agreements provide for netting of all due and payable amounts. These agreements usually call for the revaluation of the collateral required at regular intervals (generally on a daily basis) and for the payment of the corresponding margin calls. Collateral is largely composed of cash and high-quality liquid assets, such as government bonds with a good rating. Other tradable assets are also accepted, provided that the appropriate haircuts are made to reflect the lower quality and/or liquidity of the asset.

Accordingly, at 31st December 2018, most over-the-counter (OTC) transactions were secured: by amount(1), 73% of transactions with positive mark-to-market (collateral received by Societe Generale) and 65% of transactions with negative mark-to-market (collateral posted by Societe Generale).

Management of OTC collateral is monitored on an ongoing basis in order to minimise operational risk:

- the exposure value of each collateralised transaction is certified on a daily basis;
- specific controls are conducted to make sure the process goes smoothly (settlement of collateral, cash or securities; monitoring of suspended transactions, etc.);
- all outstanding secured transactions are reconciled with those of the counterparty according to a frequency set by the regulator (mainly on a daily basis) in order to prevent and/or resolve any disputes on margin calls;
- any legal disputes are monitored daily and reviewed by a committee.

Moreover, regulations stipulate that a greater number of OTC derivative instruments must be cleared through clearing houses certified by competent authorities and subject to prudential regulations. The implementation of the European Market Infrastructure Regulation (EMIR) and the Dodd Frank Act – Title VII in the United States is an ongoing process in such respect. Among other things, these regulations aim to improve the stability and transparency of the derivatives market, by means of wider collateralisation of transactions, either through the use of clearing houses, for eligible products, or through bilateral and mandatory margin calls to cover actual exposure (variation margin) and future exposure (initial margins). Since 2017, the exchange of variation margins became mandatory for all financial counterparties. Since September 2018, the exchange of initial margins has become mandatory for "category 2" counterparties (financial institutions dealing beyond a certain amount in nominal). This measure will be gradually extended to all other types of counterparty by 2020.

Accordingly, at end-December 2018, 19% of the OTC transactions(2) (amounting to 53% of the nominal) were cleared through central counterparties (CCP).

Transactions stemming from prime brokerage activities are subject to systematic margin calls in order to mitigate the counterparty risk (customers post variation margins and initial margins for Societe Generale on a daily basis, to cover actual and future exposure). Exposures facing clearing houses do in this framework is the subject of daily reporting.

Credit insurance

In addition to using export credit agencies (for example Coface and Exim) and multilateral organisations (for example the European Bank for Reconstruction and Development – EBRD), the Group has been developing relationships with private insurers over the last several years in order to hedge some of its loans against commercial and political non-payment risks.

This activity is performed within a risk framework and monitoring system approved by the Group's General Management. The system is based on an overall limit for the activity, along with sub-limits by maturity, and individual limits for each insurance counterparty, the latter being furthermore required to meet strict eligibility criteria.

The implementation of such a policy contributes to sound overall risk reduction.

(1) Excluding OTC deals cleared in clearing houses.
(2) Excluding agency transactions.

TABLE 18: CREDIT RISK MITIGATION TECHNIQUES – OVERVIEW

	31.12.2018			
(In EUR m)	Exposures unsecured - Carrying amount	Exposures secured - Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees
Total loans	387,962	239,880	115,925	123,954
Total debt securities	63,044	147	0	147
TOTAL EXPOSURES	**451,006**	**240,027**	**115,925**	**124,101**

	31.12.2017			
(In EUR m)	Exposures unsecured - Carrying amount	Exposures secured - Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees
Total loans	385,143	228,675	108,943	119,731
Total debt securities	57,727	323	0	323
TOTAL EXPOSURES	**442,869**	**228,998**	**108,943**	**120,054**

6.4 RISK MEASUREMENT AND INTERNAL RATINGS

In 2007, Societe Generale obtained authorisation from its supervisory authorities to apply the internal ratings-based (IRB) approach to most of its exposures in order to calculate the capital requirements in respect of credit risk.

Since the initial authorisation was given, the transition from the standard approach to the IRB approach for some of its activities and exposures has been selective and is subject to discussion with the supervisory authority.

Exposures treated under the Standardised approach for Credit Risk correspond to 21 % of SG Group credit risk exposures. These exposures are mostly composed of central counterparties, as well as retail and corporate exposures in International Banking and Financial Services entities.

Should an external rating be available, the corresponding exposure is assigned a risk weight according to the mapping tables provided in CRR (Articles 120-121-122) or more precisely to the tables published by the French regulator ACPR (see appendix, p.227).

In the internal process for the calculation of RWA, the availability of a rating potentially issued by the major rating agencies (S&P,Moody's, Fitch) is checked and a rating by the local central bank may also be tested. Beyond such obligor rating mapping tables, on this perimeter, the possibility of using external ratings granted to specific issuing programmes or facilities is almost inexistant.

Cases where the issuer's rating can be used are insignificant (< 0,1%) and used mainly on securities whose counterparty is not in the European Union or equivalent countries.

TABLE 19: CREDIT AGENCIES USED IN STANDARD APPROACH

	MOODY'S	FITCH	S&P
Sovereigns	✓	✓	✓
Institutions	✓	✓	✓
Corporates	✓	✓	✓

General framework of the internal approach

To calculate its capital requirements under the IRB method, Societe Generale estimates its Risk-Weighted Assets (RWA) and the Expected Loss (EL) that may be incurred in light of the nature of the transaction, the quality of the counterparty and all measures taken to mitigate risk.

To calculate its RWA, Societe Generale uses its own Basel parameters, which are estimated using its internal risk measurement system:

- the Exposure at Default (EAD) value is defined as the Group's exposure in the event that the counterparty should default. The EAD includes exposures recorded on the balance sheet (loans, receivables, accrued income, market transactions, etc.), and a proportion of off-balance sheet exposures calculated using internal or regulatory Credit Conversion Factors (CCF);
- the Probability of Default (PD): the probability that a counterparty of the Bank will default within one year;
- the Loss Given Default (LGD): the ratio between the loss incurred on an exposure in the event a counterparty defaults and the amount of the exposure at the time of the default.

The Societe Generale Group also takes into account:

- the impact of guarantees and credit derivatives, by substituting the PD, the LGD and the risk-weighting calculation of the guarantor for that of the obligor (the exposure is considered to be a direct exposure to the guarantor) in the event that the guarantor's risk weighting is more favourable than that of the obligor;
- collateral used as guarantees (physical or financial). This impact is factored in either at the level of the LGD models for the pools concerned or on a line-by-line basis.

To a very limited extent, Societe Generale also applies an IRB Foundation approach (where only the probability of default is estimated by the Bank, while the LGD and CCF parameters are determined directly by the supervisory authority) to a portfolio of specialised lending exposures granted to the French subsidiary Franfinance Entreprises.

Moreover, the Group has received authorisation from the regulator to use the IAA (internal assessment approach) method to calculate the regulatory capital requirement for ABCP (Asset-Backed Commercial Paper) securitisation. In addition to the capital requirement calculation objectives under the IRBA method, the Group's credit risk measurement models contribute to the management of the Group's operational activities. They also constitute tools to structure, price and approve transactions and participate in the setting of approval limits granted to business lines and the Risk function.

TABLE 20: BREAKDOWN OF EAD BY THE BASEL METHOD

	31.12.2018	31.12.2017
IRB	79%	78%
Standard	21%	22%
TOTAL	**100%**	**100%**

TABLE 21: SCOPE OF APPLICATION OF THE IRB AND STANDARD APPROACHES FOR THE GROUP

	IRB approach	Standard approach
French Retail Banking	Majority of portfolios	Some retail customer portfolios, including those of the Sogelease subsidiary
International Retail Banking and Financial Services	The subsidiaries KB (Czech Republic), CGI, Fiditalia, GEFA and SG Finans, SG Leasing SPA and Fraer Leasing SPA, SGEF Italy	The other subsidiaries
Global Banking and Investor Solutions	Majority of Corporate and Investment Banking portfolios As for Private Banking, Securities Services and Brokerage, mainly the retail portfolios of the following subsidiaries: SG Hambros, SGBT Luxembourg, SGBT Monaco, SG Private Banking Suisse	For Private Banking, Securities Services and Brokerage, exposures granted to banks and companies
Corporate Centre	Majority of portfolios	-

Credit risk measurement for wholesale clients

The Group's credit risk measurement system, which estimates internal Basel parameters, uses a quantitative evaluation mechanism coupled with an expert opinion.

For Corporate, Banking and Sovereign portfolios, the measurement system is based on three key components:

- a counterparty rating system;
- a system that automatically assigns Loss Given Default (LGD) and Credit Conversion Factor (CCF) parameters according to the characteristics of each transaction;
- a collection of procedures setting out the rules relating to ratings (scope, revision frequency, rating approval procedure, etc.), as well as to the supervision, backtesting and validation of models. Among other things, these procedures help to support the human judgement that provides the critical scrutiny that is an essential complement to the models for these portfolios.

RATING SYSTEM

The rating system consists in assigning a rating to each counterparty according to an internal scale, for which each grade corresponds to a probability of default determined using historical series observed by Standard & Poor's over more than 20 years.

The following table presents Societe Generale's internal rating scale and the corresponding scales of the main external credit assessment institutions, as well as the corresponding mean probability of default.

The rating assigned to a counterparty is generally proposed by a model and then adjusted and approved by experts in the Risk function further to the individual analysis of each counterparty.

The counterparty rating models are structured in particular according to the type of counterparty (companies, financial institutions, public entities, etc.), the country, geographic region and size of the company (usually assessed through its annual revenue).

The company rating models are underpinned by statistical models (regression methods) of client default. They combine quantitative parameters derived from financial data that evaluate the sustainability and solvency of companies and qualitative parameters that evaluate economic and strategic dimensions.

TABLE 22: SOCIETE GENERALE'S INTERNAL RATING SCALE AND CORRESPONDING SCALES OF RATING AGENCIES

Counterparty internal rating	DBRS	FitchRatings	Moody's	S&P	1 year probability
1	AAA	AAA	Aaa	AAA	0.01%
2	AA high to AA low	AA+ to AA-	Aa1 to Aa3	AA+ to AA-	0.02%
3	A high to A low	A+ to A-	A1 to A3	A+ to A-	0.04%
4	BBB high to BBB low	BBB+ to BBB-	Baa1 to Baa3	BBB+ to BBB-	0.30%
5	BB high to BB low	BB+ to BB-	Ba1 to Ba3	BB+ to BB-	2.16%
6	B high to B low	B+ to B-	B1 to B3	B+ to B-	7.93%
7	CCC high to CCC low	CCC+ to CCC-	Caa1 to Caa3	CCC+ to CCC-	20.67%
8, 9 and 10	CC and below	CC and below	Ca and below	CC and below	100.00%

LGD MODELS

The Loss Given Default (LGD) is an economic loss that is measured by taking into account all parameters pertaining to the transaction, as well as the fees incurred for recovering the receivable in the event of a counterparty default.

The models used to estimate the Loss Given Default (LGD) excluding retail clients are applied by regulatory sub-portfolios, type of asset, size and location of the transaction or of the counterparty, depending on whether or not collateral has been posted, and the nature thereof if applicable. This makes it possible to define homogeneous risk pools, particularly in terms of recovery, procedures and the legal environment.

These estimates are founded on statistics when the number of loans in default is sufficient. In such circumstances, they are based on recovery data observed over a long period.

When the number of defaults is insufficient, the estimate is revised or determined by an expert.

CCF MODELS

For its off-balance sheet exposures, the Group is authorised to use the internal approach for “Term loan with drawing period” products and revolving credit lines.

TABLE 23: PRINCIPAL CHARACTERISTICS OF MODELS AND METHODS – WHOLESALE CLIENTS

Parameter modelled	Portfolio/Category of Basel assets	Number of methods, models	Methodology Number of years default/loss
WHOLESALE CLIENTS			
Probability of Default (PD)	Sovereigns	Expert rating.	Expert method, use of the external ratings of agencies. Low default portfolio.
	Public sector entities	4 models according to geographic region.	Statistical (regression)/expert methods for the rating process, based on the combination of financial ratios and a qualitative questionnaire. Low default portfolio.
	Financial institutions	12 models according to type of counterparty: banks, insurance, funds, financial intermediaries, funds of funds.	Expert models based on a qualitative questionnaire. Low default portfolio.
	Specialised financing	3 models according to type of transaction.	Expert models based on a qualitative questionnaire. Low default portfolio.
	Large corporates	10 models according to geographic region.	Mainly statistical models (regression) for the rating process, based on the combination of financial ratios and a qualitative questionnaire. Defaults observed over a period of 8 to 10 years.
	Small- and medium-sized companies	17 models according to the size of the company and the geographic region.	Mainly statistical models (regression) for the rating process, based on the combination of financial ratios and a qualitative questionnaire. Defaults observed over a period of 8 to 10 years.
Loss Given Default (LGD)	Public sector entities – Sovereigns	6 models according to type of counterparty.	Calibration based on historical data and expert judgements. Losses observed over a period of more than 10 years.
	Large corporates – Flat-rate Approach	> 20 models Flat-rate approach according to type of collateral.	Calibration based on historical data adjusted by expert judgements. Losses observed over a period of more than 10 years.
	Large corporates – Discount Approach	16 models Discount approach according to type of recoverable collateral.	Statistical calibration based on historical market data adjusted by expert judgements. Losses observed over a period of more than 10 years.
	Small- and medium-sized companies	15 models Flat-rate approach according to type of collateral or unsecured.	Statistical calibration based on historical data adjusted by expert judgements. Losses observed over a period of more than 10 years.
	Project financing	8 models Flat-rate approach according to project type.	Statistical calibration based on historical data adjusted by expert judgements. Losses observed over a period of more than 10 years.
	Financial institutions	6 models Flat-rate approach according to type of counterparty: banks, insurance, funds, etc. and the nature of the collateral.	Statistical calibration based on historical data adjusted by expert judgements. Losses observed over a period of more than 10 years.
	Other specific portfolios	6 models: factoring, leasing with option to purchase and other specific cases.	Statistical calibration based on historical data adjusted by expert judgements. Losses observed over a period of more than 10 years.
Credit Conversion Factor (CCF)	Large corporates	5 models: term loans with drawing period, revolving credits, Czech Corporates.	Models calibrated by segment. Defaults observed over a period of more than 10 years.
Expected Loss (EL)	Real estate transactions	2 models by slotting.	Statistical model based on expert judgements and a qualitative questionnaire. Low default portfolio.

BACKTESTS

The performance level of the entire wholesale client credit system is measured by regular backtests that compare PD, LGD and CCF estimates with actual results by portfolio.

The compliance of this system is based on the consistency between the parameters used and the long-term trends analysed, with safety margins that take into account areas of uncertainty (cyclicality, volatility, quality of data, etc.).

The safety margins applied are regularly estimated, checked and revised if necessary.

The results of backtests can justify the implementation of remedial plans if the system is deemed to be insufficiently prudent. The results of backtests and remedial plans are presented to the Expert Committee for discussion and approval (see Governance of the modelling of risks, p. 86).

TABLE 24: COMPARISON OF RISK PARAMETERS: ESTIMATED AND ACTUAL LGD AND EAD VALUES – WHOLESALE CLIENTS

	31.12.2018		
Basel portfolio	**Estimated LGD***	**Actual LGD excluding safety margin**	**Actual EAD**/estimated EAD**
Large corporates	34%	26%	85%
Small- and medium-sized enterprises	40%	29%	

* *Senior unsecured LGD.*
** *Modelled CCF (revolving, term loans), only for defaults.*

	31.12.2017		
Basel portfolio	**Estimated LGD***	**Actual LGD excluding safety margin**	**Actual EAD**/estimated EAD**
Large corporates	35%	26%	92%
Small- and medium-sized enterprises	39%	27%	

* *Senior unsecured LGD.*
** *Modelled CCF (revolving, term loans), only for defaults.*

TABLE 25: COMPARISON OF RISK PARAMETERS: ESTIMATED AND ACTUAL PD VALUES – WHOLESALE CLIENTS(1) (CR9)

		31.12.2018						
				Number of obligors				
Basel Portfolio		**Weighted average PD**	**Arithmetic average PD(2)**	**End of previous year**	**End of the year**	**Defaulted obligors over the year**	**o.w. new defaulted obligors over the year**	**Average historical annual default rate(3)**
SOVEREIGNS	**TOTAL**	**0.1%**	**0.8%**	**678**	**645**	**1**	**0**	**0.2%**
	0.00 to <0.15	0.0%	0.0%	548	542	0	0	0.1%
	0.15 to <0.25	0.0%	0.0%	0	0	0	0	0.0%
	0.25 to <0.50	0.3%	0.3%	17	20	0	0	0.0%
	0.50 to <0.75	0.5%	0.5%	33	16	0	0	0.0%
	0.75 to <2.50	1.8%	1.6%	15	21	0	0	0.3%
	2.50 to <10.00	6.3%	5.8%	44	31	0	0	0.5%
	10.00 to <100.00	11.9%	16.9%	21	15	1	0	3.9%
INSTITUTIONS	**Total**	**0.3%**	**0.9%**	**4,378**	**4,230**	**3**	**0**	**0.3%**
	0.00 to <0.15	0.0%	0.1%	3,071	2,999	1	0	0.2%
	0.15 to <0.25	0.0%	0.0%	0	0	0	0	0.0%
	0.25 to <0.50	0.3%	0.3%	292	300	0	0	0.1%
	0.50 to <0.75	0.5%	0.5%	177	146	0	0	0.2%
	0.75 to <2.50	1.4%	1.6%	237	196	1	0	0.4%
	2.50 to <10.00	4.1%	3.9%	509	507	1	0	0.8%
	10.00 to <100.00	15.9%	16.6%	93	82	0	0	4.0%

Basel Portfolio		31.12.2018 Weighted average PD	Arithmetic average PD(2)	Number of obligors End of previous year	End of the year	Defaulted obligors over the year	o.w. new defaulted obligors over the year	Average historical annual default rate(3)
SPECIALISED FINANCING (4)	**Total**	**1.4%**	**2.4%**	**1,785**	**2,234**	**17**	**0**	**2.3%**
	0.00 to <0.15	0.1%	0.1%	137	228	0	0	0.3%
	0.15 to <0.25	0.0%	0.0%	0	0	0	0	0.0%
	0.25 to <0.50	0.3%	0.3%	92	159	0	0	0.1%
	0.50 to <0.75	0.5%	0.5%	237	304	1	0	0.5%
	0.75 to <2.50	1.5%	1.6%	621	827	0	0	1.2%
	2.50 to <10.00	4.1%	4.4%	578	647	6	0	3.5%
	10.00 to <100.00	14.0%	15.3%	120	69	10	0	13.1%
LARGE CORPORATES	**Total**	**1.0%**	**3.1%**	**36,960**	**36,637**	**395**	**54**	**1.6%**
	0.00 to <0.15	0.1%	0.1%	7,669	8,069	1	0	0.1%
	0.15 to <0.25	0.0%	0.0%	0		0	0	0.0%
	0.25 to <0.50	0.3%	0.3%	2,354	2,489	3	0	0.2%
	0.50 to <0.75	0.5%	0.5%	3,615	3,293	10	1	0.4%
	0.75 to <2.50	1.5%	1.6%	8,733	8,373	40	7	1.1%
	2.50 to <10.00	4.3%	4.4%	11,834	11,798	156	26	3.2%
	10.00 to <100.00	15.2%	17.3%	2,761	2,615	185	20	11.2%
Small- and medium-sized enterprises	**Total**	**3.7%**	**5.4%**	**88,117**	**96,820**	**2,536**	**382**	**3.6%**
	0.00 to <0.15	0.1%	0.1%	3,053	3,410	3	1	0.3%
	0.15 to <0.25	0.0%	0.0%	0	0	0	0	0.0%
	0.25 to <0.50	0.3%	0.3%	3,351	3,560	2	0	0.4%
	0.50 to <0.75	0.5%	0.5%	6,962	7,683	19	1	0.7%
	0.75 to <2.50	1.6%	1.7%	25,007	27,756	182	18	1.7%
	2.50 to <10.00	4.5%	4.5%	35,099	38,716	727	119	4.3%
	10.00 to <100.00	16.7%	18.5%	14,645	15,695	1,603	243	15.5%

(1) Based on the latest available figures as of 30th September 2018.

(2) The performance of the rating system is measured by way of regular backtests, in accordance with regulations. Backtests compare the estimated probability ofdefault (arithmetic average weighted by receivables) with the observed results (the historical annual default rate), which confirms the overall prudence of the ratingsystem.

(3) The historical annual default rate was calculated based on a long period from 3rd quarter 2007 to 3rd quarter 2017.

(4) The Aircraft et Shipping deals are in the specialized lending portfolio in 2018..

Credit risk measurements of retail clients

PROBABILITY OF DEFAULT MODELS

The modelling of the probability of default of retail client counterparties is carried out specifically by each of the Group's business lines recording its assets using the IRBA method. The models incorporate data on the payment behaviour of counterparties. They are segmented by type of customer and distinguish between retail customers, professional customers, very small businesses and real-estate investment companies (*sociétés civiles immobilières*).

The counterparties of each segment are classified automatically, using statistical models, into homogeneous risk pools, each of which is assigned a probability of default.

Once the counterparties have been classified into statistically distinct homogeneous risk pools, the probability of default parameters are estimated by observing the average long-term default rates for each product. These estimates are adjusted by a safety margin to estimate as best as possible a complete default cycle, using a through-the-cycle (TTC) approach.

LGD MODELS

The models for estimating the Loss Given Default (LGD) of retail customers are specifically applied by business line portfolio. LGD values are estimated by product, according to the existence or not of collateral.

Consistent with operational recovery processes, estimate methods are generally based on a two-step modelling process that initially estimates the proportion of defaulted loans in loan termination, followed by the loss incurred in case of loan termination.

The expected losses are estimated using internal long-term historical recovery data for exposures that have defaulted. These estimates are adjusted by safety margins in order to reflect the possible impact of a downturn.

CCF MODELS

For its off-balance sheet exposures, Societe Generale applies its estimates for revolving loans and overdrafts on current accounts held by retail and professional customers.

TABLE 26: PRINCIPAL CHARACTERISTICS OF MODELS AND METHODS USED – RETAIL CLIENTS

Parameter modelled	Portfolio/ Category of Basel assets	Number of models	Methodology Number of years of default/loss
RETAIL CLIENTS			
Probability of Default (PD)	Residential real estate	8 models according to entity, type of guarantee (security, mortgage), type of counterparty: individuals or professionals/VSB, real-estate investment company (SCI).	Statistical model (regression), behavioural score. Defaults observed over a period of more than 5 years.
	Other loans to individual customers	15 models according to entity and to the nature and object of the loan: personal loan, consumer loan, car loan, etc.	Statistical model (regression), behavioural score. Defaults observed over a period of more than 5 years.
	Renewable exposures	5 models according to entity and nature of the loan: overdraft on current account, revolving credit or consumer loan.	Statistical model (regression), behavioural score. Defaults observed over a period of more than 5 years.
	Professionals and very small businesses	10 models according to entity, nature of the loan (medium- and long-term investment credits, short-term credit, car loans), and type of counterparty (individual or real-estate investment company (SCI)).	Statistical model (regression or segmentation), behavioural score. Defaults observed over a period of more than 5 years.
Loss Given Default (LGD)	Residential real estate	8 models according to entity, type of guarantee (security, mortgage), and type of counterparty: individuals or professionals/VSB, real-estate investment company (SCI).	Statistical model of expected recoverable flows based on the current flows. Model adjusted by expert opinions if necessary. Losses and recoverable flows observed over a period of more than 10 years.
	Other loans to individual customers	17 models according to entity and to the nature and object of the loan: personal loan, consumer loan, car loan, etc.	Statistical model of expected recoverable flows based on the current flows. Model adjusted by expert opinions if necessary. Losses and recoverable flows observed over a period of more than 10 years.
	Renewable exposures	7 models according to entity and nature of the loan: overdraft on current account, revolving credit or consumer loan.	Statistical model of expected recoverable flows based on the current flows. Model adjusted by expert opinions if necessary. Losses and recoverable flows observed over a period of more than 10 years.
	Professionals and very small businesses	12 models according to entity, nature of the loan (medium- and long-term investment credits, short-term credit, car loans), and type of counterparty (individual or real- estate investment company (SCI)).	Statistical model of expected recoverable flows based on the current flows. Model adjusted by expert opinions if necessary. Losses and recoverable flows observed over a period of more than 10 years.
Credit Conversion Factor (CCF)	Renewable exposures	12 calibrations by entity for revolving products and personal overdrafts.	Models calibrated by segment over a period of observation of defaults of more than 5 years.
Expected Loss (EL)	Private Banking exposures	PD and LGD derived from loss observations.	Models restructured into a PD/LGD-based approach. Implementation under way following authorisation for use from the supervisory authorities.

BACKTESTS

The performance level of the entire retail client credit system is measured by regular backtests, which check the performance of PD, LGD and CCF models and compare estimated figures with actual figures.

Each year, the average long-term default rate observed for each homogeneous risk pool is compared with the PD. If necessary, the calibrations of PD are adjusted to preserve a satisfactory safety margin. The discrimination level of the models and changes in the portfolio's composition are also measured.

Regarding the LGD, the backtest consists in comparing the last estimation of the LGD obtained by computing the average level of payments observed and the value used to calculate regulatory capital.

The difference should in this case reflect a sufficient safety margin to take into account a potential economic slowdown, uncertainties as to the estimation, and changes in the performance of recovery processes.

The adequacy of this safety margin is assessed at an Expert Committee meeting.

Likewise, for the CCF, the level of conservatism of estimates is assessed annually by comparing estimated drawdowns to observed drawdowns on the undrawn part.

The results presented below for the PD cover all the portfolios of the Group entities with the exception of Private Banking, for which a new model is currently being implemented.

The exposures to retail customers of subsidiaries specialised in Equipment Financing are integrated into the retail customer portfolio under the "VSB and professionals" sub-portfolio (exposures of GEFA, SGEF Italy, SG Finans).

The figures below aggregate French, Czech, German, Scandinavian and Italian exposures. For all the Basel portfolios of retail clients, the actual default rate is lower than the estimated probability of default (arithmetic average), which confirms the overall conservatism of the rating system.

TABLE 27: COMPARISON OF RISK PARAMETERS: ESTIMATED AND ACTUAL LGD AND EAD VALUES – RETAIL CLIENTS

	31.12.2018		
Basel portfolio	**Estimated LGD (1)**	**Actual LGD excluding safety margin**	**Actual EAD (2)/ estimated EAD**
Real estate loans (excl. guaranteed exposures)	18%	12%	-
Revolving credits	45%	39%	73%
Other loans to individual customers	28%	22%	-
VSB and professionals	26%	21%	77%
TOTAL GROUP RETAIL CLIENTS (1)	**25%**	**19%**	**74%**

The estimated and actual LGD correspond to the latest values validated by the internal governance.
(1) Excluding guaranteed exposures.
(2) Revolving credits and current accounts of individual and professional customers.

	31.12.2017		
Basel portfolio	**Estimated LGD (1)**	**Actual LGD excluding safety margin**	**Actual EAD (2)/ estimated EAD**
Real estate loans (excl. guaranteed exposures)	18%	13%	-
Revolving credits	45%	39%	73%
Other loans to individual customers	27%	22%	_
VSB and professionals	26%	22%	77%
TOTAL GROUP RETAIL CLIENTS (1)	**25%**	**20%**	**74%**

The estimated and actual LGD correspond to the latest values validated by the internal governance.
(1) Excluding guaranteed exposures.
(2) Revolving credits and current accounts of individual and professional customers.

TABLE 28 : COMPARISON OF ESTIMATED RISK PARAMETERS: ESTIMATED AND ACTUAL PD VALUES – RETAIL CLIENTS (1) (CR9)

		31.12.2018					
				Number of obligors(3)			
Basel Portfolio		**Weighted average PD**	**Arithmetic average PD (2)**	**End of previous year**	**End of the year**	**Defaulted obligors over the year**	**o.w. new defaulted obligors over the year (4)**
Other loans to individual customers	**TOTAL**	**3.1%**	**4.0%**	**2,065,487**	**2,244,707**	**66,736**	**3.8%**
	0.00 to <0.15	0.1%	0.1%	38,894	41,955	51	0.1%
	0.15 to <0.25	0.2%	0.2%	41,860	51,238	98	0.2%
	0.25 to <0.50	0.4%	0.4%	250,300	312,158	702	0.3%
	0.50 to <0.75	0.6%	0.6%	209,942	248,455	1,013	0.5%
	0.75 to <2.50	1.3%	1.3%	674,274	733,060	6,290	1.1%
	2.50 to <10.00	4.3%	4.5%	638,865	640,966	21,713	3.5%
	10.00 to <100.00	25.9%	22.7%	211,353	216,874	36,869	21.4%
Real estate loans (5)	**TOTAL**	**1.3%**	**1.2%**	**817,872**	**850,310**	**7,086**	**1.1%**
	0.00 to <0.15	0.1%	0.1%	205,309	208,977	270	0.1%
	0.15 to <0.25	0.2%	0.2%	134,676	136,741	280	0.2%
	0.25 to <0.50	0.4%	0.4%	69,567	87,362	220	0.2%
	0.50 to <0.75	0.6%	0.7%	116,974	118,878	449	0.4%
	0.75 to <2.50	1.5%	1.3%	192,019	201,299	1,397	0.8%
	2.50 to <10.00	4.9%	4.2%	82,624	81,024	2,516	2.9%
	10.00 to <100.00	18.0%	17.9%	16,703	16,029	1,954	15.3%

Basel Portfolio		31.12.2018					
		Number of obligors(3)					
		Weighted average PD	Arithmetic average PD (2)	End of previous year	End of the year	Defaulted obligors over the year	o.w. new defaulted obligors over the year (4)
Revolving credits	**TOTAL**	**5.1%**	**2.6%**	**7,794,888**	**7,552,793**	**157,700**	**2.1%**
	0.00 to <0.15	0.1%	0.1%	2,017,647	1,974,448	1,608	0.1%
	0.15 to <0.25	0.2%	0.2%	96,970	90,086	121	0.1%
	0.25 to <0.50	0.4%	0.4%	1,476,290	1,431,264	6,031	0.4%
	0.50 to <0.75	0.6%	0.6%	177,125	165,886	593	0.5%
	0.75 to <2.50	1.5%	1.4%	1,942,170	1,873,003	21,648	1.0%
	2.50 to <10.00	4.8%	4.3%	1,523,435	1,475,286	47,321	3.6%
	10.00 to <100.00	22.3%	17.5%	561,252	542,820	80,378	16.1%
VSB and professionals	**TOTAL**	**4.1%**	**4.2%**	**823,911**	**828,042**	**30,551**	**3.8%**
	0.00 to <0.15	0.0%	0.0%	108	134	8	0.1%
	0.15 to <0.25	0.2%	0.2%	34,276	29,914	81	0.2%
	0.25 to <0.50	0.4%	0.3%	145,636	146,461	722	0.2%
	0.50 to <0.75	0.6%	0.6%	47,685	44,084	298	0.6%
	0.75 to <2.50	1.4%	1.4%	272,600	282,728	3,914	1.1%
	2.50 to <10.00	5.0%	5.4%	235,087	239,705	11,433	4.5%
	10.00 to <100.00	19.5%	19.9%	88,520	85,015	14,095	16.1%

(1) Based on the latest available figures as of 30th September 2018. Exposures relating to Private Banking and factoring (SG Factoring) are excluded.

(2) The performance of the rating system is measured by way of regular backtests, in accordance with regulations. Backtests compare the estimated probability ofdefault (arithmetic average weighted by receivables) with the observed results (the historical annual default rate), which confirms the overall prudence of the ratingsystem.

(3) The historical annual default rate was calculated based on a long period from 2010 to 2017.

(4) Creditor current in accordance with the revised guidelines of the EBA publication of 14th December 2016 (EBA/GL/2016/11).

(5) Guaranteed and non-guaranteed exposures.

Governance of the modelling of risks

The independent review of the model corresponds to all the processes aimed at verifying the conformity of the models and their use with the objectives for which they were designed, as well as with the applicable regulations.

Independent model review teams are part of the Risk Division and are the second line of defence for model risk management; they rely, for the conduct of their missions, on principles of control of the theoretical robustness (evaluation of the quality of the design and development) of the models, the conformity of the implementation and the use, the continuous follow-up the relevance of the model over time. They issue an independent review report, which describes the scope of the review, the tests performed, the results of the review the conclusions or the recommendations made.

The need to review a model is assessed according to the level of risk of the model, its model family and the applicable regulatory requirements. Independent review by the second line of defense is triggered in particular for new models, periodic model reviews, model change proposals and cross-sectional reviews in response to a recommendation.

The approval of the models relies on a Model Committee then an Expert Committee:

- Model Committee: for subjects with a statistical component, an instruction whose objective is to gather all the statistical and banking elements to assess the quality of the models is conducted by the second line of defense, whose conclusions are formally presented Modeling entities as part of a Model Committee (Independent Review Authority for Internal Models for Calculating Capital Requirements);
- Expert Committee: a validation phase organized around the Approval Authority (Expert Committee) for internal models for calculating capital requirements which has the power to approve (with or without reservations) or to reject the use of a model, changes to the existing model, or monitoring of the timeliness of the model proposed by the first line of defence, based on the independent review report and minutes of the 'Review Authority.

In accordance with the Delegated Regulation (EU) No. 529/2014 of 20th May 2014 regarding the monitoring of internal models used to calculate capital requirements, changes to the Group's credit risk measurement system are subject to one of three types of notification to the competent supervisory authority, depending on the significance of the change, evaluated according to this rule:

- significant changes are subject to a request for authorisation prior to their implementation;
- the supervisory authority is notified of changes which are not significant according to the criteria defined by the regulation. Barring a negative response within a two-month period, such changes may be implemented;
- the competent authorities are notified of all other changes after their implementation, at least once annually in a specific report.

6.5 QUANTITATIVE INFORMATION

The measurement used for credit exposures in this section is EAD – Exposure At Default (on- and off-balance sheet). Under the Standard Approach, EAD is calculated net of collateral and provisions. EAD is broken down according to the guarantor's characteristics, after taking into account the substitution effect (unless otherwise indicated).

The presentation of the data, applied since last year, is in line with the guidelines on prudential disclosure requirements published by the European Banking Authority (EBA) in December 2016 (document EBA/GL/2016/11).

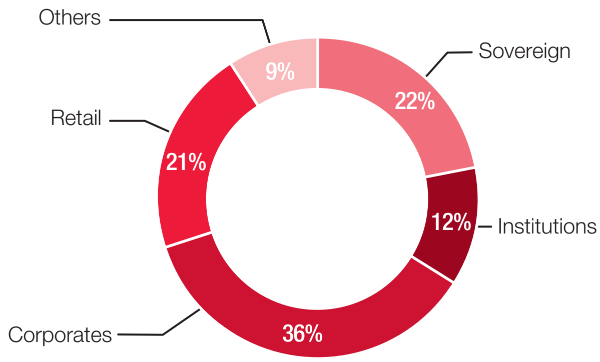
This presentation highlights the exposure categories as defined in the portfolios of the COREP regulatory financial statements, in relation to EBA requirements on Pillar 3.

Credit risk exposure

At 31st December 2018, the Group's Exposure at Default (EAD) amounted to EUR 920 billion.

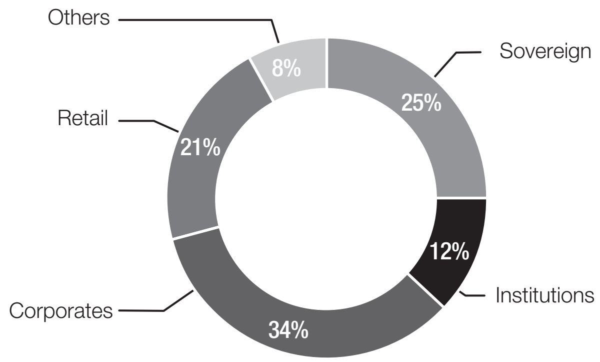
CREDIT RISK EXPOSURE BY EXPOSURE CLASS (EAD) AT 31ST DECEMBER 2018

On- and off-balance sheet exposures (EUR 920 billion in EAD)



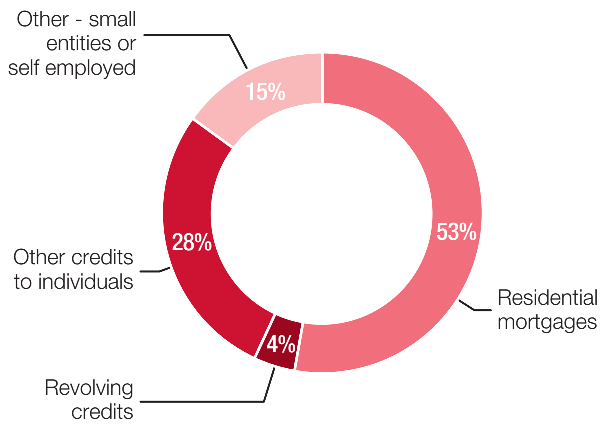
CREDIT RISK EXPOSURE BY EXPOSURE CLASS (EAD) AT 31ST DECEMBER 2017

On and off-balance sheet exposures (EUR 872 billion in EAD).



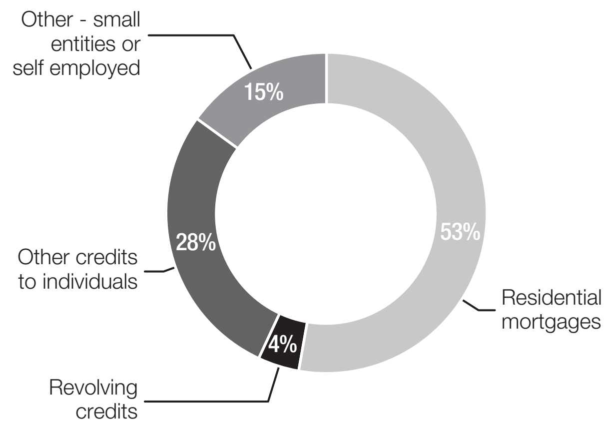
RETAIL CREDIT RISK EXPOSURE BY EXPOSURE CLASS (EAD) AT 31ST DECEMBER 2018

On- and off-balance sheet exposures (EUR 189 billion in EAD)



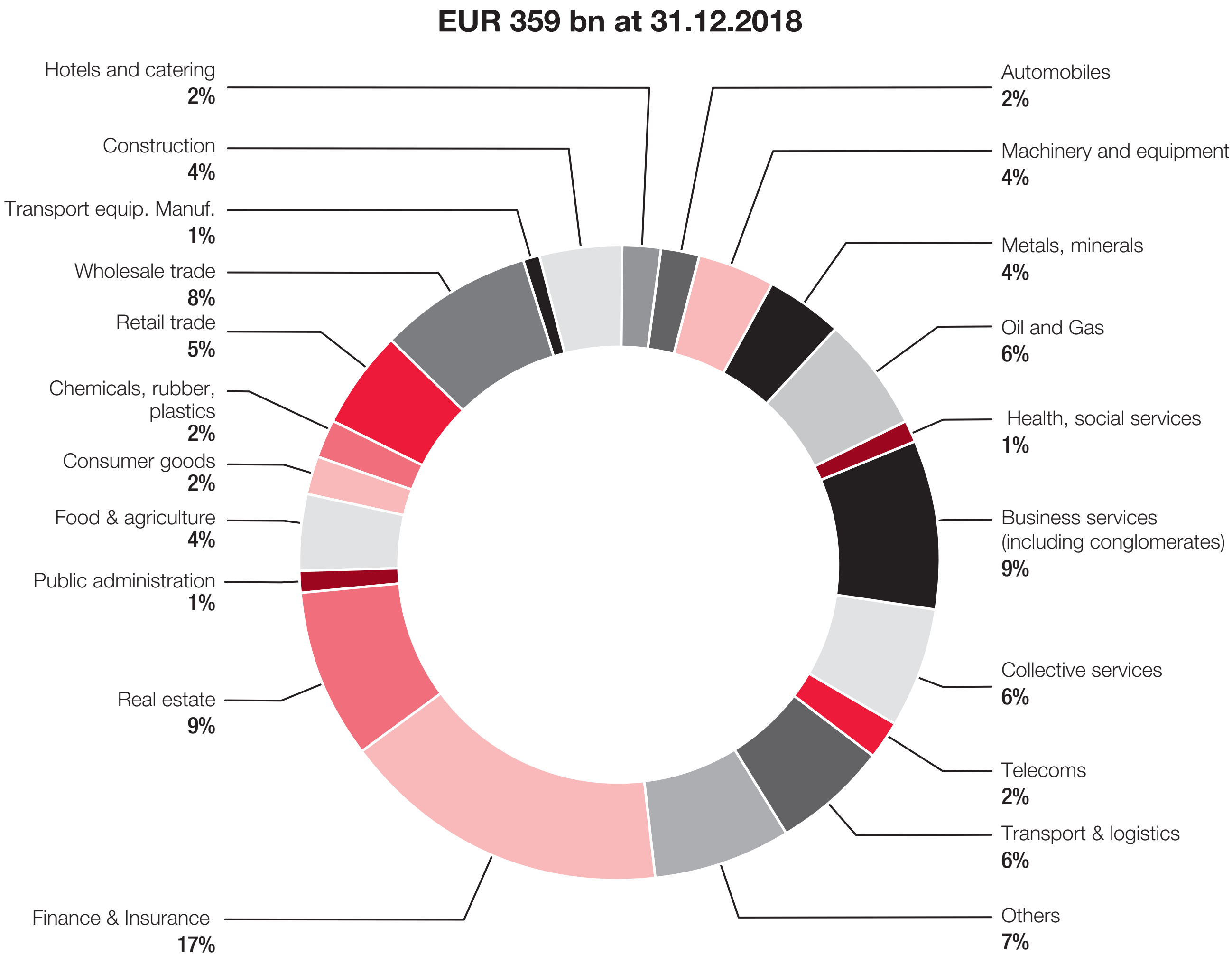
RETAIL CREDIT RISK EXPOSURE BY EXPOSURE CLASS (EAD) AT 31ST DECEMBER 2017

On- and off-balance sheet exposures (EUR 184 billion in EAD)



** Institutions: Basel classification bank and public sector portfolios.*

SECTOR BREAKDOWN OF GROUP CORPORATE EXPOSURE (BASEL PORTFOLIO)

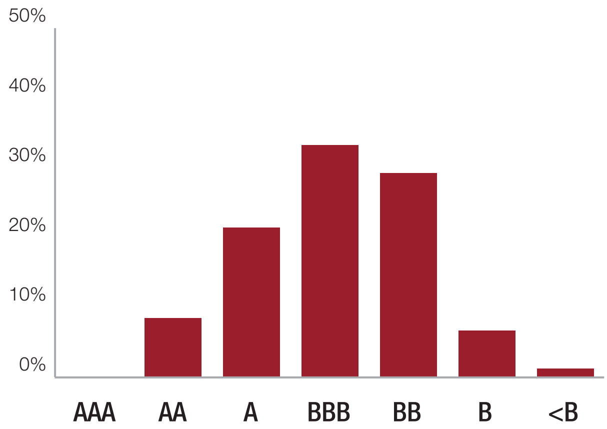


EAD of the Corporate portfolio is presented in accordance with the Basel rules (large corporates, including insurance companies, funds and hedge funds, SMEs, specialist financing, factoring businesses), based on the obligor's characteristics, before taking into account the substitution effect (credit risk scope: debtor, issuer and replacement risk).

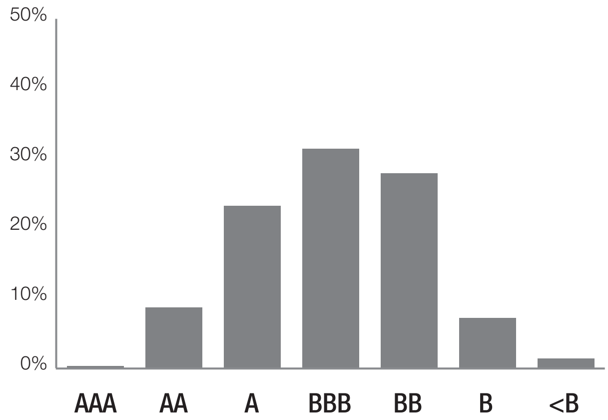
At 31st December 2018, the Corporate portfolio amounted to EUR 359 billion (on- and off-balance sheet exposures measured in EAD). Only the Finance and Insurance sector accounts for more than 10% of the portfolio. The Group's exposure to its ten largest Corporate counterparties accounts for 5% of this portfolio.

Corporate and bank counterparty exposure

BREAKDOWN OF RISK BY INTERNAL RATING FOR CORPORATE CLIENTS AT 31ST DECEMBER 2018 (AS % OF EAD)



BREAKDOWN OF RISK BY INTERNAL RATING FOR CORPORATE CLIENTS AT 31ST DECEMBER 2017 (AS % OF EAD)

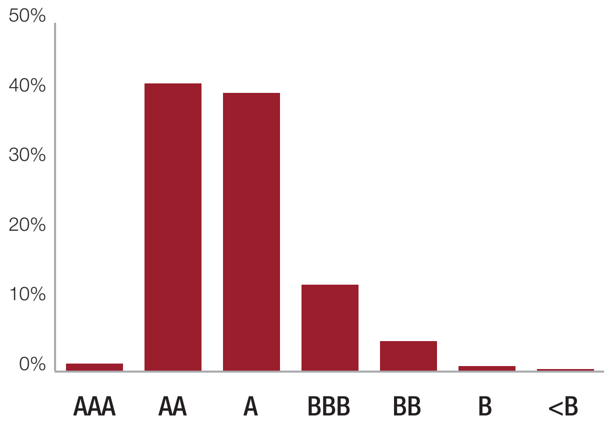


The scope includes performing loans recorded under the IRB method (excluding prudential classification criteria, by weight, of specialised financing) for the entire Corporate client portfolio, all divisions combined, and represents EAD of EUR 273 billion (out of total EAD for the Basel Corporate client portfolio of EUR 323 billion, standard method included).

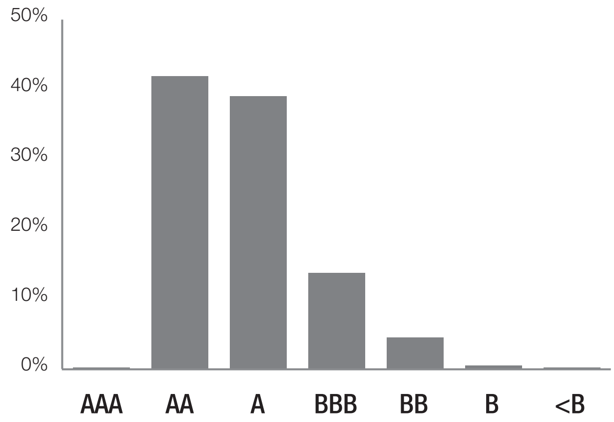
The breakdown by rating of the Group's Corporate exposure demonstrates the sound quality of the portfolio. It is based on an internal counterparty rating system, presented above as its Standard & Poor's equivalent.

At 31st December 2018, the majority of the portfolio (63% of Corporate clients) had an investment grade rating, *i.e.* counterparties with an S&P-equivalent internal rating higher than BBB-. Transactions with non-investment grade counterparties were very often backed by guarantees and collateral in order to mitigate the risk incurred.

BREAKDOWN OF RISK BY INTERNAL RATING FOR BANKING CLIENTS AT 31ST DECEMBER 2018 (AS % OF EAD)



BREAKDOWN OF RISK BY INTERNAL RATING FOR BANKING CLIENTS AT 31ST DECEMBER 2017 (AS % OF EAD)



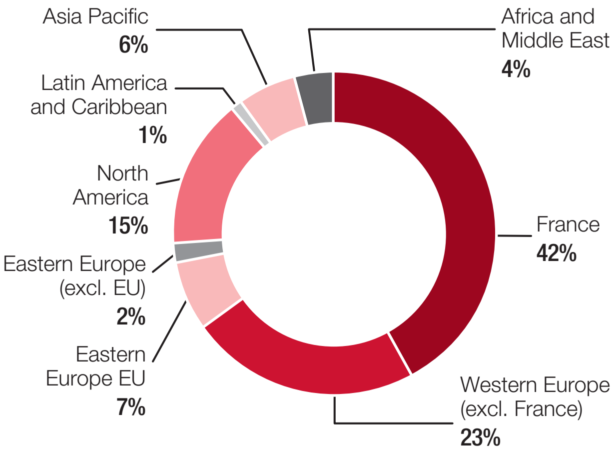
The scope includes performing loans recorded under the IRB method for the entire bank client portfolio, all divisions combined, and represents EAD of EUR 60 billion (out of total EAD for the Basel bank client portfolio of EUR 115 billion, standard method included). The breakdown by rating of the Societe Generale Group's bank counterparty exposure demonstrates the sound quality of the portfolio.

It is based on an internal counterparty rating system, presented above as its Standard & Poor's equivalent.

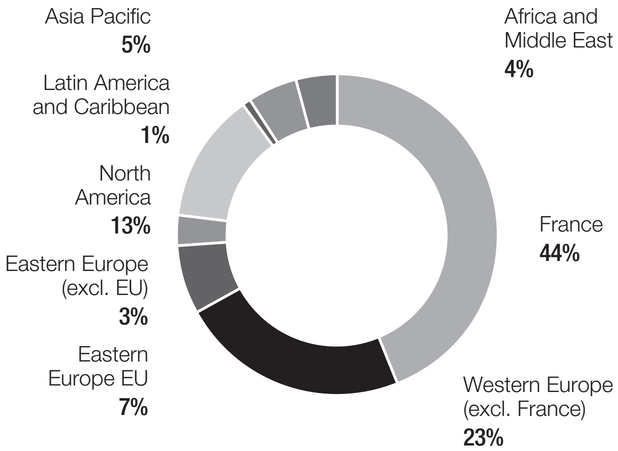
At 31st December 2018, exposure on banking clients was concentrated in investment grade counterparties (95% of exposure), as well as in developed countries (89%).

Geographic breakdown of Group credit risk exposure

GEOGRAPHIC BREAKDOWN OF GROUP CREDIT RISK EXPOSURE AT 31ST DECEMBER 2018 (ALL CLIENT TYPES INCLUDED): EUR 920 BN

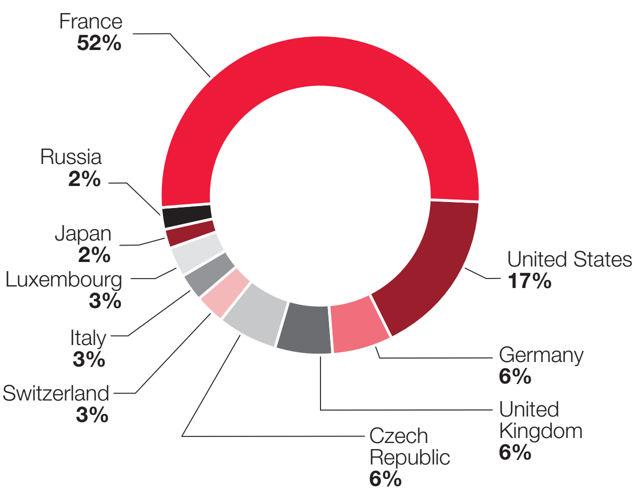


GEOGRAPHIC BREAKDOWN OF GROUP CREDIT RISK EXPOSURE AT 31ST DECEMBER 2017 (ALL CLIENT TYPES INCLUDED): EUR 872 BN

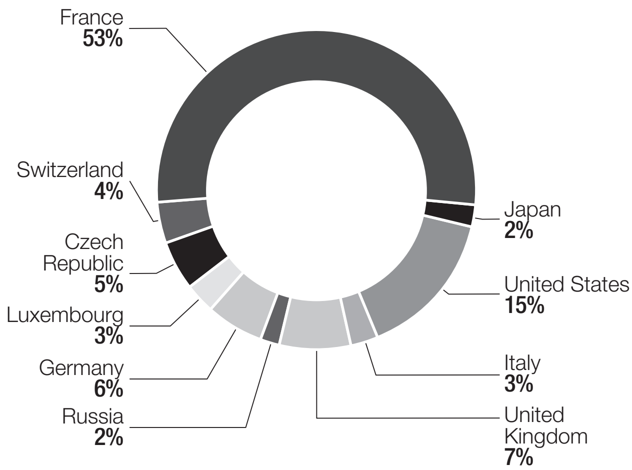


At 31st December 2018, 89% of the Group's on- and off-balance sheet exposure was concentrated in the major industrialised countries(1). Almost half of the overall amount of outstanding loans was to French customers (26% exposure to non-retail portfolio and 16% to retail portfolio).

GEOGRAPHIC BREAKDOWN OF GROUP CREDIT EXPOSURE ON TOP TEN COUNTRIES AT 31ST DECEMBER 2018: EUR 748 BN



GEOGRAPHIC BREAKDOWN OF GROUP CREDIT EXPOSURE ON TOP TEN COUNTRIES AT 31ST DECEMBER 2017: EUR 716 BN



The Group's exposure on its top ten countries represented 81% of total exposure (*i.e.* EUR 748 billion of EAD) at 31st December 2018 (versus 82% and EUR 716 billion of EAD at 31st December 2017).

(1) *As defined by the IMF in its World Economic Outlook document of October 2017.*

TABLE 29: GEOGRAPHIC BREAKDOWN OF GROUP CREDIT EXPOSURE ON TOP FIVE COUNTRIES BY EXPOSURE CLASS

	France		United States		United Kingdom		Germany		Czech Republic	
(In %)	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Sovereign	18%	21%	33%	37%	10%	11%	15%	22%	30%	22%
Institutions	8%	8%	18%	19%	29%	33%	21%	22%	3%	4%
Corporates	31%	29%	38%	34%	45%	39%	31%	26%	32%	36%
Retail	36%	36%	0%	0%	6%	6%	21%	23%	33%	35%
Other	7%	6%	11%	10%	10%	11%	12%	7%	2%	3%

Change in risk-weighted assets (RWA) and capital requirements for credit and counterparty risks

TABLE 30: CHANGE IN RISK-WEIGHTED ASSETS (RWA) BY METHOD AND EXPOSURE CLASS ON OVERALL CREDIT RISK (CREDIT AND COUNTERPARTY)

(In EUR m)	RWA - IRB	RWA - Standard	RWA - Total	Capital requirements - IRB	Capital requirements - Standard	Capital requirements - total
RWA as at end of previous reporting period (31.12.2017)	**171,679**	**114,070**	**285,749**	**13,734**	**9,126**	**22,860**
Asset size	10,516	2,246	12,762	841	180	1,021
Asset quality	(3,699)	236	(3,464)	(296)	19	(277)
Model updates	1,158	0	1,158	93	0	93
Methodology and policy	197	0	197	16	0	16
Acquisitions and disposals	0	717	717	0	57	57
Foreign exchange movements	1,028	(653)	374	82	(52)	30
Other	773	(448)	325	62	(36)	26
RWA AS AT END OF REPORTING PERIOD (31.12.2018)	**181,651**	**116,167**	**297,818**	**14,532**	**9,293**	**23,825**

The table above presents the data without the CVA (Credit Value Adjustment).

The main effects explaining the EUR 12.1 billion increase in weighted assets (excluding CVA) in 2018 are as follows:

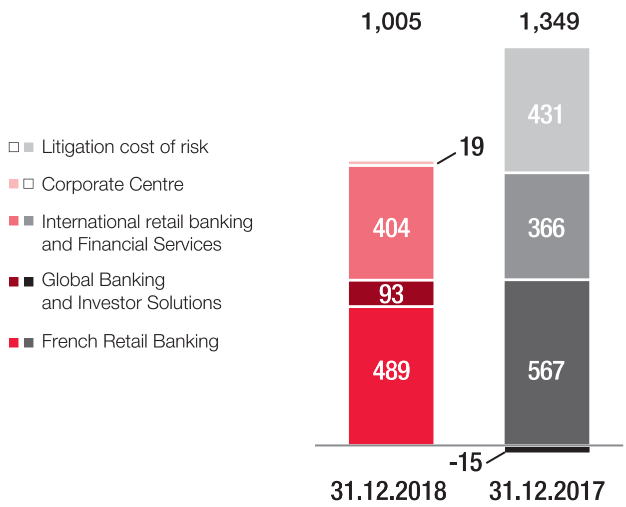
- an increase of EUR + 12.8 billion related to activity: growth in Global finance activity (EUR +7 billion), with an increase of (EUR +3.4 billion) on the French network, an increase partially offset by the extinction of the stock observed for the global banking & investor solutions (EUR -2.3 billion);
- a change in the prudential scope of (EUR +0.7 billion) related to the acquisitions of the ALD entity;
- a foreign exchange effect (EUR +0.4 billion), mainly related to the appreciation of the American dollar against the euro (EUR +1.7 billion) and partially offset by the depreciation of the Russian ruble against the euro (EUR -0.9 billion).

The effects are defined as follows:

- asset size: organic changes in book size and composition (including the creation of new business lines and maturing loans) but excluding changes due to acquisitions and disposals of entities;
- asset quality: changes in the quality of the Bank’s assets due to changes in borrower risk, such as rating grade migration or similar effects;
- model updates: changes due to model implementation, changes in model scope, or any changes intended to address model weaknesses;
- methodology and policy: changes due to methodological changes in calculations driven by regulatory changes, including both revisions to existing regulations and new regulations;
- acquisitions and disposals: changes in book size due to acquisitions and disposals of entities;
- foreign exchange movements: changes arising from market fluctuations, such as foreign currency translation movements;
- other: this category is used to capture changes that cannot be attributed to any other category.

Net cost of risk

CHANGE IN GROUP NET COST OF RISK (IN EUR M)



The **Group's net cost of risk** in 2018 amounted to EUR -1,005 million, down -25.5% vs. 2017, but up 9,5% excluding the provision for litigation which is not booked in cost of risk since the implementation of IFRS 9. This low level reflects the improvement year after year in the Group's risk profile.

The commercial cost of risk (excluding litigation issues, in basis points for the average assets at the beginning of the calendar year preceding the closing date, including operating leases) remains low. It totalled 21 basis points for 2018 (vs. 19 basis points in 2017).

- In **French Retail Banking**, the commercial cost of risk was down, at 26 basis points for 2018 vs. 30 basis points for 2017, reflecting the quality of the loan approval policy.
- At 30 basis points for 2018 (vs. 29 basis points for 2017), **International Retail Banking and Financial Services**' cost of risk remains low, testifying to the effectiveness of the portfolio.

  More specifically, the cost of risk in Czech Republic and Romania is a net release (respectively -9 and -74 basis points for 2018).
- **Global Banking and Investor Solutions'** cost of risk was at 6 basis points for the year (vs. -1 basis point for 2017).

ANALYSIS OF GROSS OUTSTANDINGS AND PROVISIONS FOR CREDIT RISK

The following tables detail the provisionable outstandings (balance sheet and off-balance sheet) subject to impairment and provisions in accordance with the new model for estimating expected credit losses introduced by IFRS 9 and the impairments and provisions by stage.

The scope of these tables includes :

- securities (excluding securities received under repurchased agreements) and loans to customers and credit institutions and similar measured at amortized cost or at fair value through equity;
- lease and finance lease;
- financing and guarantee commitments;

The provisionable outstanding represented EUR 816 billions on December 31st 2018. It should be noted that outstanding of ex-Newedge brokerage outside France are excluded from the outstandings presented in the tables 24, 25 and 26. There is no scope exclusion in the tables 27 and 28.

Provisions decreased by EUR 2 billion, mainly on defaults (stage 3) of the corporate and retail portfolios. Healthy exposures (stage 1 and stage 2) increased by EUR 16 billion, mainly on the corporate portfolio, partially offset by a decrease in exposures of sovereign counterparties, while the provisions are stable.

TABLE 31: BASEL PORTFOLIO BREAKDOWN OF PROVISIONED OUTSTANDINGS

	31.12.2018				01.01.2018			
(In EUR m)	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Sovereign	145,759	733	218	146,710	160,645	968	374	161,987
Institutions	55,034	361	82	55,477	58,799	250	94	59,143
Corporates	357,221	13,949	9,410	380,580	326,850	15,238	11,220	353,308
Retail	184,958	16,017	9,289	210,264	183,299	16,350	10,660	210,309
Others	23,111	67	54	23,232	18,927	0	46	18,973
TOTAL	**766,083**	**31,127**	**19,053**	**816,263**	**748,520**	**32,806**	**22,394**	**803,720**

TABLE 32: GEOGRAPHICAL BREAKDOWN OF PROVISIONED OUTSTANDINGS

	31.12.2018				01.01.2018			
(In EUR m)	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
France	339,663	19,298	10,806	369,767	338,741	20,623	11,608	370,972
Western European countries (excluding France)	162,517	3,609	2,026	168,152	161,309	3,101	2,541	166,951
Eastern European countries EU	49,423	3,612	1,279	54,314	54,739	3,324	2,092	60,155
Eastern Europe excluding EU	22,423	905	844	24,172	27,348	936	1,369	29,653
North America	106,219	361	601	107,181	87,798	1,092	1,050	89,940
Latin America and Caribbean	5,477	978	212	6,667	5,295	1,158	321	6,774
Asia-Pacific	39,343	165	225	39,733	38,336	229	326	38,891
Africa and Middle East	41,018	2,199	3,060	46,277	34,954	2,343	3,087	40,384
TOTAL	**766,083**	**31,127**	**19,053**	**816,263**	**748,520**	**32,806**	**22,394**	**803,720**

TABLE 33: PROVISIONED OUTSTANDINGS BY RATING OF COUNTERPARTY

	31.12.2018				01.01.2018
(In EUR m)	Stage 1	Stage 2	Stage 3	Total	Total
1	65,767	0	0	65,767	72,764
2	97,899	0	0	97,899	103,295
3	74,741	2	0	74,743	74,105
4	127,159	647	0	127,806	116,079
5	99,575	2,976	0	102,551	90,039
6	25,459	5,668	0	31,127	29,476
7	2,472	2,780	0	5,252	4,697
Default (8, 9, 10)	0	0	8,589	8,589	10,706
Other method	273,011	19,054	10,464	302,529	302,559
TOTAL	**766,083**	**31,127**	**19,053**	**816,263**	**803,720**

TABLE 34: BASEL PORTFOLIO BREAKDOWN OF PROVISIONS AND IMPAIRMENT FOR CREDIT RISK

	31.12.2018				01.01.2018			
(In EUR m)	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Sovereign	10	1	69	80	11	1	69	81
Institutions	9	6	16	31	10	5	25	40
Corporates	589	648	5,098	6,335	647	748	5,851	7,246
Retail	427	570	4,870	5,867	498	658	5,815	6,971
Others	0	0	9	9	0	0	9	9
TOTAL	**1,035**	**1,225**	**10,062**	**12,322**	**1,166**	**1,412**	**11,769**	**14,347**

TABLE 35: GEOGRAPHICAL BREAKDOWN OF IMPAIRMENT AND PROVISIONS FOR CREDIT RISK

	31.12.2018				01.01.2018			
(In EUR m)	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
France	**427**	**735**	**5,292**	**6,454**	**437**	**774**	**5,609**	**6,820**
Western European countries (excluding France)	179	119	912	1,210	174	154	1,305	1,633
Eastern European countries EU	118	170	842	1,130	184	224	1,414	1,822
Eastern Europe excluding EU	76	18	655	749	133	42	1,062	1,237
North America	32	27	51	110	42	32	186	260
Latin America and Caribbean	5	6	69	80	8	5	100	113
Asia-Pacific	14	2	153	169	14	2	153	169
Africa and Middle East	184	148	2,088	2,420	174	179	1,940	2,293
TOTAL	**1,035**	**1,225**	**10,062**	**12,322**	**1,166**	**1,412**	**11,769**	**14,347**

Impairment on groups of homogeneous assets

TABLE 36: PROVISIONING OF DOUBTFUL LOANS

(In EUR bn)	**31.12.2018**	**31.12.2017**
Gross book outstandings	501.2	478.7
Doubtful loans	18.0	20.9
Gross doubtful loans ratio	3.6%	4.4%
Specific provisions	9.7	11.3
Provisions on groups of homogeneous assets (1)	1.9	1.3
GROSS DOUBTFUL LOANS COVERAGE RATIO (OVERALL PROVISIONS/DOUBTFUL LOANS)	**64%**	**61%**
Stage 1 provisions (1)	0.9	
Stage 2 provisions (1)	1.0	
Stage 3 provisions	9.7	
GROUP GROSS DOUBTFUL LOANS COVERAGE RATIO* (STAGE 3PROVISIONS / DOUBTFUL LOANS)	**54%**	

Scope: customer loans, amounts due from banks, operating leases, lease financing and similar agreements.

Detail regarding guarantees and collateral is available on page 75

Restructured debt

For the Societe Generale Group, "restructured" debt refers to loans whose amount, term or financial conditions have been contractually modified due to the borrower's insolvency (whether insolvency has already occurred or will definitely occur unless the debt is restructured). Societe Generale aligns its definition of restructured loans with the EBA definition.

Restructured debt does not include commercial renegotiations involving customers for which the Bank has agreed to renegotiate the debt in order to maintain or develop a business relationship, in accordance with credit approval rules in force and without relinquishing any of the principal or accrued interest.

Any situation leading to debt restructuring entails placing the customer in question in the Basel default category and classifying the loans themselves as impaired.

The customers whose loans have been restructured are kept in the default category for as long as the Bank remains uncertain of their ability to meet their future commitments and for at least one year.

Restructured debt totalled EUR 5.11 billion at 31st December 2018.

TABLE 37: RESTRUCTURED DEBT

(In EUR m)	**31.12.2018**	**31.12.2017**
Non-performing restructured debt	4,187	5,161
Performing restructured debt	919	1,021
TOTAL	**5,106**	**6,182**

(1) As of December 31st 2018 portfolio-based provisions are the sum of stage 1 and stage 2 provisions.

6.6 ADDITIONAL QUANTITATIVE INFORMATION ON GLOBAL CREDIT RISK (CREDIT AND COUNTERPARTY RISK)

INTRODUCTION

- The additional quantitative disclosures related to credit risk in the following tables enhance the information of the previous section under Pillar 3 (Credit risk: quantitative information).
- The presentation of disclosures implemented since 2017 is in line with the Guidelines on prudential disclosures issued by the European Banking Authority (EBA) in December 2016 (EBA/GL/2016/11).
- These disclosures present exposure classes as they are defined in the COREP regulatory financial statements, so as to link in with the EBA Pillar 3 requirements.
- References in parentheses in the table titles are in line with the formats required by the EBA for revised Pillar 3 (EBA/GL/2016/11).
- In this section, the amounts indicated correspond to global credit risk which is composed of credit and counterparty risk.

DEFINITION OF REGULATORY METRICS

The main metrics used in the following tables are:

- Exposure: defined as all assets (*e.g.* loans, receivables, accruals, etc.) associated with market or customer transactions, recorded on and off-balance sheet;
- Net exposure: corresponds to initial exposure on a net basis, net of specific and general provisions under the internal approach and specific provisions under the standardised approach.
- EAD (Exposure at default) is defined as the bank's exposure (on- and off-balance sheet) in the event of a counterparty default. Unless otherwise specifically indicated to the contrary, the EAD is reported post-CRM (Credit Risk Mitigation), after factoring in guarantees and collateral. Under the standardised method, exposures at default are presented net of specific provisions and financial collateral.
- Risk Weighted-Assets (RWA): are computed from the exposures and the associated level of risk, which depends on the debtors' credit quality.
- Expected Loss (EL): potential loss incurred, given the quality of the structuring of a transaction and any risk mitigation measures such as collateral. Under the AIRB method, the following equation summarises the relation between these variables: EL = EAD x PD x LGD (except for defaulted exposures);

A simplified view of credit risk exposures by exposure class is presented below. Further details are available in the appendix (p. 229).

TABLE 38: EXPOSURE CLASSES

Sovereign	Claims or contingent claims on sovereign governments, regional authorities, local authorities or public sector entities as well as on multilateral development banks and international organizations
Institutions	Claims or contingent claims on regulated credit institutions, as well as on governments, local authorities, multilateral development banks, or other public sector entities that do not qualify as sovereign counterparties.
Corporates	Claims or contingent claims on corporates, which include all exposures not covered in the portfolios defined above. In addition, small/medium-sized enterprises are included in this category as a sub-portfolio, and are defined as entities with total annual sales below EUR 50 m.
Retail	Claims or contingent claims on an individual or individuals, or on a small or medium-sized entity, provided in the latter case that the total amount owed to the credit institution does not exceed EUR 1 m. Retail exposure is further broken down into residential mortgages, revolving credit and other forms of credit to individuals, the remainder relating to exposures to very small entities and self-employed
Others	Claims relating to securitisation transactions, equity, fixed assets, accruals,, contributions to the default fund of a CCP, as well as exposures secured by mortgages on immovable property under the standardised approach, and exposures in default under the standardised approach.

BREAKDOWN OF GLOBAL CREDIT RISK – OVERVIEW

The Group's exposure at default (EAD) increases by EUR 48 billion between 31st December 2017 and 2018 (EUR 920 billion in 2018 against EUR 872 billion, namely+ 5%).

By class of exposure, the variation is explained as follows:

- Sovereigns: a decrease of EUR 9 billion, mostly related to exposures to central banks;
- Institutions: increase of EUR 7 billion, linked to an increase in outstandings on Global Banking and Investor Solutions;
- Corporates: increase of EUR 36 billion, mainly related to the increase in outstandings on Global Banking and Investor Solutions;
- Retail: increase of EUR 5 billion, of which EUR 2 billions on mortgage loans in France and in the international market.

TABLE 39: CREDIT RISK EXPOSURE. EXPOSURE AT DEFAULT (EAD) AND RISK-WEIGHTED ASSETS (RWA) BY APPROACH AND EXPOSURE CLASS

	31.12.2018										
	Global portfolio										
(In EUR m)	IRB approach			Standard approach			Total			Average(1)	
Exposure Class	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**RWA**
Sovereign	183,790	195,661	6,482	10,004	10,013	8,426	193,794	205,674	14,908	191,400	14,807
Institutions	65,757	60,090	8,001	50,089	55,400	5,128	115,846	115,490	13,128	120,349	13,664
Corporates	374,826	280,366	116,523	68,302	50,402	47,256	443,128	330,769	163,780	426,044	158,484
Retail	159,822	159,144	33,430	41,722	29,964	20,634	201,544	189,108	54,064	200,113	54,535
Others	27,425	27,408	17,215	56,391	51,409	34,723	83,816	78,817	51,937	78,697	50,974
TOTAL	**811,619**	**722,670**	**181,651**	**226,509**	**197,188**	**116,167**	**1,038,128**	**919,858**	**297,818**	**1,016,603**	**292,465**

(1) The average exposure and RWA are determined by aggregating the total gross exposure and RWA at the end of the last four quarters and dividing the result by 4.

	31.12.2017										
	Global portfolio										
(In EUR m)	IRB approach			Standard approach			Total			Average(1)	
Exposure Class	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**RWA**
Sovereign	193,491	203,491	5,706	10,003	10,953	8,298	203,494	214,444	14,003	197,586	14,455
Institutions	58,100	53,954	7,907	55,675	55,035	6,005	113,775	108,989	13,911	127,033	14,486
Corporates	338,542	245,220	107,480	64,035	49,615	46,281	402,577	294,836	153,761	418,998	153,101
Retail	155,096	153,793	31,479	41,261	30,412	21,525	196,357	184,206	53,003	193,424	52,465
Others	23,918	23,798	19,108	51,192	46,124	31,962	75,110	69,922	51,069	75,963	50,672
TOTAL	**769,147**	**680,256**	**171,679**	**222,167**	**192,140**	**114,070**	**991,314**	**872,396**	**285,749**	**1,013,003**	**285,179**

(1) The average exposure and RWA are determined by aggregating the total gross exposure and RWA at the end of the last four quarters and dividing the result by 4.

These two years present the data without the CVA (Credit Value Adjustment), which represents EUR 4.9 billion as at 31st December 2018 (vs. EUR 3.8 billion as at 31st December 2017).

TABLE 40: RETAIL CREDIT RISK EXPOSURE, EXPOSURE AT DEFAULT (EAD) AND RISK-WEIGHTED ASSETS (RWA) BY APPROACH AND EXPOSURE CLASS

	31.12.2018										
	Retail portfolio										
(In EUR m)	IRB approach			Standard approach			Total			Average[1]	
Exposure Class	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**RWA**
Residential mortgages	100,760	100,170	15,358	7,178	10	10	107,938	100,179	15,368	106,607	15,046
Revolving credits	5,517	4,906	2,206	4,956	2,531	1,901	10,473	7,438	4,106	10,313	4,103
Other credits to individuals	34,145	34,404	9,913	20,806	19,260	14,096	54,952	53,664	24,009	54,575	24,425
Other – small entities or self employed	19,400	19,664	5,953	8,782	8,163	4,628	28,182	27,827	10,581	28,618	10,961
TOTAL	**159,822**	**159,144**	**33,430**	**41,722**	**29,964**	**20,634**	**201,544**	**189,108**	**54,064**	**200,113**	**54,535**

(1) *The average exposure and RWA are determined by aggregating the total gross exposure and RWA at the end of the last four quarters and dividing the result by 4.*

	31.12.2017										
	Retail portfolio										
(In EUR m)	IRB approach			Standard approach			Total			Average[1]	
Exposure Class	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**RWA**
Residential mortgages	98,268	97,805	14,131	6,778	31	17	105,046	97,836	14,148	102,771	13,881
Revolving credits	5,861	5,216	2,309	4,578	2,437	1,828	10,439	7,653	4,137	10,378	4,110
Other credits to individuals	32,479	32,391	9,341	20,769	19,393	14,536	53,248	51,785	23,877	52,610	23,493
Other – small entities or self employed	18,488	18,381	5,698	9,136	8,552	5,143	27,624	26,932	10,841	27,664	10,980
TOTAL	**155,096**	**153,793**	**31,479**	**41,261**	**30,412**	**21,525**	**196,357**	**184,206**	**53,003**	**193,424**	**52,465**

(1) *The average exposure and RWA are determined by aggregating the total gross exposure and RWA at the end of the last four quarters and dividing the result by 4.*

BREAKDOWN OF GLOBAL CREDIT RISK – DETAIL

TABLE 41: PD AND LGD BY GEOGRAPHIC BREAKDOWN

The following table presents the average PD and LGD calculated on performing exposures (EAD) using the internal rating approach.Advanced (IRBA) on corporates and institutions exposure. The geographical areas are grouped according to their significance.

	31.12.2018					
	Corporates			Institutions		
(In EUR m)	EAD	Average PD(%)	Average LGD (%)	EAD	Average PD (%)	Average LGD (%)
France	96,481	1.64%	30%	20,551	0.09%	8%
Western Europe (excl.France)	77,807	1.34%	25%	16,314	0.22%	18%
Eastern Europe	14,027	1.50%	30%	1,540	0.42%	23%
Eastern Europe (excl. UE)	3,290	2.15%	22%	592	2.95%	37%
North America	47,910	0.74%	26%	10,720	0.06%	20%
Row	28,239	1.10%	28%	10,340	0.70%	30%
TOTAL	**267,754**	**1.33%**	**28%**	**60,056**	**0.26%**	**14%**

TABLE 42: CORPORATE CREDIT EXPOSURE AT DEFAULT (EAD) BY INDUSTRY SECTOR

	31.12.2018	
(In EUR m)	EAD	Breakdown in %
Finance & Insurance	64,373	19%
Real estate	30,148	9%
Public administration	3,719	1%
Food & agriculture	13,724	4%
Consumer goods	5,601	2%
Chemicals, rubber, plastics	6,239	2%
Retail trade	17,468	5%
Wholesale trade	25,688	8%
Construction	11,778	4%
Transport equip. Manuf.	3,300	1%
Hotels and catering	4,854	1%
Automobiles	7,577	2%
Machinery and equipment	12,076	4%
Metals, minerals	11,095	3%
Media	3,196	1%
Oil and Gas	17,042	5%
Health Care and Social Assistance	3,698	1%
Business services (including conglomerates)	32,540	10%
Collective services	18,771	6%
Telecoms	7,326	2%
Transport & logistics	18,744	6%
Others	11,811	4%
TOTAL	**330,769**	**100.0%**

EAD of the Corporate portfolio amounted to EUR 331 billion and is broken down based on the guarantor's characteristics after the substitution effect (compared to EAD of EUR 359 billion broken down by obligor before taking into account the substitution effect).

	31.12.2017	
(In EUR m)	**EAD**	**Breakdown in %**
Finance & Insurance	54,124	18%
Real estate	24,102	8%
Public Administration	2,943	1%
Food & agriculture	12,209	4%
Consumer goods	5,841	2%
Chemicals, rubber, plastics	5,428	2%
Retail trade	15,956	5%
Wholesale trade	22,692	8%
Construction	11,520	4%
Transport equip. Manuf.	2,989	1%
Hotels and catering	4,193	1%
Automobiles	5,476	2%
Machinery and equipment	10,136	3%
Metals, minerals	10,144	3%
Oil and Gas	16,127	5%
Health Care and Social Assistance	3,051	1%
Business services (including conglomerates)	26,068	9%
Collective services	16,344	6%
Telecoms	6,911	2%
Transport & logistics	15,986	5%
Others	22,594	8%
TOTAL	**294,836**	**100%**

TABLE 43: EXPOSURE AT DEFAULT (EAD) BY GEOGRAPHIC REGION AND MAIN COUNTRIES AND BY EXPOSURE CLASS

	31.12.2018						
(In EUR m)	**Sovereign**	**Institutions**	**Corporates**	**Retail**	**Others**	**Total**	**Breakdown in %**
France	71,463	31,452	119,863	139,537	24,053	386,369	42.0%
United Kingdom	4,754	13,546	20,933	2,805	4,739	46,777	5.1%
Germany	6,714	9,313	13,492	9,266	5,304	44,090	4.8%
Italy	3,233	641	7,763	6,242	4,658	22,537	2.5%
Luxembourg	6,705	1,047	10,897	240	1,197	20,086	2.2%
Spain	1,057	1,416	6,618	519	1,533	11,143	1.2%
Switzerland	15,811	1,764	6,118	875	300	24,870	2.7%
Other Western European countries	7,083	6,147	22,613	1,786	4,550	42,178	4.6%
Czech Republic	12,471	1,231	13,171	13,611	814	41,299	4.5%
Romania	3,615	272	2,048	1,934	3,353	11,222	1.2%
Other Eastern European countries EU	2,603	482	6,493	3,270	3,370	16,218	1.8%
Russia	3,124	266	6,061	2,845	3,149	15,445	1.7%
Other Eastern European countries excluding EU	1,126	548	4,136	1,045	1,230	8,084	0.9%
United States	43,046	23,084	48,724	239	13,852	128,945	14.0%
Other countries of North America	308	3,371	1,855	49	330	5,913	0.6%
Latin America and Caribbean	693	1,271	3,583	79	374	6,001	0.7%
Africa and Middle East	6,736	3,420	16,888	4,437	4,455	35,935	3.9%
Japan	10,008	4,345	2,761	12	444	17,571	1.9%
Asia-Pacific	5,124	11,874	16,751	317	1,110	35,177	3.8%
TOTAL	**205,674**	**115,490**	**330,769**	**189,108**	**78,817**	**919,858**	**100%**

At the end of 2018 Western Europe, including France, accounted for 65% of total Group exposure (85% as regards the retail portfolio alone).

2018 saw a decrease of 9 billion euros in Sovereign exposure. It comes essentially from exposures to central banks. The main changes are on France, Switzeland and the Republic Czech (respectively -9, -3 and +5 billion euros).

The increase in corporate exposures is up 36 billion mainly driven by the United States (+12 billion euros) and France (+ 9 billions euros) wich is linked to activity on Global Banking and Investor Solutions.

	31.12.2017						
(In EUR m)	**Sovereign**	**Institutions**	**Corporates**	**Retail**	**Others**	**Total**	**Breakdown in %**
France	80,274	30,373	110,405	136,076	24,059	381,187	43.7%
United Kingdom	4,923	15,308	18,662	2,700	4,997	46,590	5.3%
Germany	9,813	9,756	11,625	10,460	3,199	44,853	5.1%
Italy	2,761	788	7,215	5,961	3,547	20,272	2.3%
Luxembourg	9,516	942	9,116	100	1,030	20,704	2.4%
Spain	1,073	1,477	5,848	396	1,200	9,994	1.1%
Switzerland	19,551	1,345	5,610	768	157	27,431	3.1%
Other Western European countries	5,759	4,726	20,689	1,611	3,510	36,295	4.2%
Czech Republic	7,225	1,231	11,934	11,604	715	32,709	3.7%
Romania	4,764	280	2,144	1,901	2,540	11,630	1.3%
Other Eastern European countries EU	2,470	462	6,222	3,702	3,125	15,981	1.8%
Russia	2,884	1,097	6,109	2,955	3,362	16,408	1.9%
Other Eastern European countries excluding EU	1,224	810	3,806	1,342	1,225	8,407	1.0%
United States	40,294	20,420	37,201	44	11,401	109,360	12.5%
Other countries of North America	296	2,205	1,796	12	362	4,671	0.5%
Latin America and Caribbean	596	1,199	3,356	98	269	5,517	0.6%
Africa and Middle East	5,434	2,195	17,348	4,076	4,309	33,362	3.8%
Japan	10,624	4,097	977	4	388	16,091	1.8%
Asia-Pacific	4,961	10,279	14,774	397	524	30,935	3.5%
TOTAL	**214,444**	**108,989**	**294,836**	**184,206**	**69,922**	**872,396**	**100%**

TABLE 44: RETAIL EXPOSURE AT DEFAULT (EAD) BY GEOGRAPHIC REGION AND MAIN COUNTRIES

	31.12.2018					
EAD *(In EUR m)*	**Residential mortgages**	**Revolving credits**	**Others credits to individuals**	**Others – small entities or self employed**	**Total**	**Breakdown in %**
France	87,216	5,055	30,476	16,790	139,537	73.8%
Germany	24	304	4,523	4,415	9,266	4.9%
Italy	29	81	4,268	1,864	6,242	3.3%
Other Western European countries	1,766	360	2,463	1,636	6,225	3.3%
Czech Republic	10,655	385	1,461	1,110	13,611	7.2%
Romania	1	443	1,310	181	1,934	1.0%
Other Eastern European countries excluding EU	8	90	2,358	813	3,270	1.7%
Russia	54	157	2,622	12	2,845	1.5%
Other Eastern European countries excluding EU	37	33	700	275	1,045	0.6%
North America	19	157	9	103	287	0.2%
Latin America and Carribbean	15	18	44	3	79	0.0%
Africa and Middle East	265	269	3,369	534	4,437	2.3%
Asia-Pacific	91	86	62	92	330	0.2%
TOTAL	**100,179**	**7,438**	**53,664**	**27,827**	**189,108**	**100.0%**

	31.12.2017					
EAD *(In EUR m)*	**Residential mortgages**	**Revolving credits**	**Others credits to individuals**	**Others – small entities or self employed**	**Total**	**Breakdown in %**
France	85,484	6,162	28,811	15,618	136,076	74%
Germany	57	248	5,456	4,699	10,460	6%
Italy	47	58	3,941	1,915	5,961	3%
Other Western European countries	1,633	41	1,918	1,983	5,574	3%
Czech Republic	9,110	393	1,044	1,057	11,604	6%
Romania	39	413	1,270	179	1,901	1%
Other Eastern European countries EU	398	77	2,481	746	3,702	2%
Russia	159	167	2,617	13	2,955	2%
Other Eastern European countries excluding EU	328	26	812	176	1,342	1%
North America	36	6	6	9	56	0%
Latin America and Carribbean	31	10	51	5	98	0%
Africa and Middle East	308	37	3,286	445	4,076	2%
Asia-Pacific	207	16	92	87	401	0%
TOTAL	**97,836**	**7,653**	**51,785**	**26,932**	**184,206**	**100%**

TABLE 45: CREDIT RISK EXPOSURE BY EXTERNAL RATING AND EXPOSURE CLASS UNDER THE STANDARD APPROACH FOR NON-RETAIL CUSTOMERS

The amounts are presented without default, securitization and contributions to the default funds of the central counterparties.

	31.12.2018		
(In EUR m)			
Exposure class	**External rating**	**Exposure**	**EAD**
Sovereign			
	AAA to AA-	1,803	1,803
	A+ to A-	1	0
	BBB+ to B-	1,295	1,285
	< B-	180	180
	Without external rating	6,725	6,744
	Sub-total	**10,004**	**10,013**
Institutions			
	AAA to AA-	8,537	7,237
	A+ to A-	612	640
	BBB+ to B-	1,165	999
	< B-	0	0
	Without external rating	39,775	46,524
	Sub-total	**50,089**	**55,400**
Corporates			
	AAA to AA-	0	0
	A+ to A-	0	0
	BBB+ to B-	105	105
	< B-	29	29
	Without external rating	68,168	50,268
	Sub-total	**68,302**	**50,402**
Retail			
	Without external rating	41,722	29,964
Other			
	Without external rating	45,646	44,830
TOTAL		**215,764**	**190,609**

(In EUR m)

	31.12.2017		
Exposure class	**External rating**	**Exposure**	**EAD**
Sovereign			
	AAA to AA-	1,426	1,426
	A+ to A-	3	23
	BBB+ to B-	1,531	1,527
	< B-	140	140
	Whitout external rating	6,902	7,835
	Sub-total	**10,003**	**10,953**
Institutions			
	AAA to AA-	15,135	9,418
	A+ to A-	976	533
	BBB+ to B-	1,150	1,004
	< B-	151	151
	Without external rating	38,262	43,929
	Sub-total	**55,675**	**55,035**
Corporates			
	AAA to AA-	0	0
	A+ to A-	0	0
	BBB+ to B-	18	18
	< B-	203	203
	Without external rating	63,814	49,394
	Sub-total	**64,035**	**49,615**
Retail			
	Without external rating	41,261	30,412
Other			
	Without external rating	40,550	40,197
TOTAL		**211,524**	**186,213**

6.7 CREDIT RISK DETAIL

Amounts indicated in this section correspond only to credit risk (without counterparty risk). It takes into account risk exposure for contributions to the default fund of a central counterparties (1.1 billion euros at 31.12.2018)

BREAKDOWN OF CREDIT RISK – OVERVIEW

TABLE 46: CREDIT RISK EXPOSURE, EXPOSURE AT DEFAULT (EAD) AND RISK-WEIGHTED ASSETS (RWA) BY APPROACH AND EXPOSURE CLASS

	31.12.2018								
(In EUR m)	IRB approach			Standard approach			Total		
Exposure class	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**
Sovereign	166,335	178,129	5,821	10,003	10,012	8,425	176,338	188,141	14,246
Institutions	45,783	40,116	4,175	18,950	24,261	4,014	64,733	64,377	8,189
Corporates	326,953	232,571	103,998	66,019	48,119	45,067	392,972	280,690	149,065
Retail	159,434	158,756	33,369	41,435	29,963	20,633	200,869	188,719	54,003
Others	27,418	27,401	17,214	55,956	50,973	34,275	83,373	78,374	51,490
TOTAL	**725,923**	**636,974**	**164,576**	**192,363**	**163,327**	**112,415**	**918,286**	**800,301**	**276,991**

	31.12.2017								
(In EUR m)	IRB approach			Standard approach			Total		
Exposure class	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**
Sovereign	176,858	186,854	5,290	9,925	10,874	8,284	186,783	197,729	13,574
Institutions	38,811	34,665	4,076	25,082	24,443	4,356	63,893	59,107	8,431
Corporates	297,340	204,023	94,999	59,768	45,348	42,294	357,108	249,370	137,293
Retail	154,982	153,679	31,472	40,980	30,411	21,524	195,962	184,090	52,996
Others	23,906	23,785	19,108	49,990	44,922	30,790	73,895	68,707	49,898
TOTAL	**691,896**	**603,006**	**154,945**	**185,745**	**155,998**	**107,248**	**877,641**	**759,003**	**262,193**

BREAKDOWN OF CREDIT RISK – DETAIL

TABLE 47: TOTAL AND AVERAGE NET AMOUNT OF EXPOSURES (CRB-B)

	31.12.2018		31.12.2017	
(In EUR m)	**Net value ofexposures at the end of the period**	**Average net exposure over the period**	**Net value of exposures at the end of the period**	**Average net exposure over the period**
Central governments or central banks	166,267	164,088	176,796	171,759
Institutions	45,761	45,823	38,788	47,248
Corporates	323,571	308,470	293,543	304,251
of which: Specialised Lending	*61,146*	53,573	*42,058*	*41,384*
of which: SME	*40,746*	*40,084*	*39,269*	*39,077*
Retail	155,770	154,240	151,360	148,886
of which: Secured by real estate property	*100,056*	*99,109*	*97,617*	*95,865*
of which: SME	*6,110*	*6,124*	*4,456*	*4,565*
of which: Non-SME	*93,946*	*92,986*	*93,160*	*91,301*
of which: Qualifying Revolving	*5,149*	*5,275*	*5,492*	*5,569*
of which: Other Retail	*50,565*	*49,855*	*48,251*	*47,452*
of which: SME	*18,150*	*18,115*	*17,344*	*17,083*
of which: Non-SME	*32,415*	*31,740*	*30,907*	*30,370*
Equity	4,202	4,609	4,834	4,754
TOTAL IRB APPROACH	**695,571**	**677,229**	**665,321**	**676,898**
Central governments or central banks	9,998	9,609	9,925	9,891
Regional governments or localauthorities	979	915	915	964
Public sector entities	567	477	491	451
Multilateral Development Banks	304	114	32	116
International Organisations	0	0	-	-
Institutions	17,091	19,458	23,644	26,650
Corporates	65,642	62,499	59,766	62,696
of which: SME	*19,628*	*18,914*	*18,840*	*18,290*
Retail	41,119	41,056	40,978	40,603
of which: SME	*9,199*	*9,482*	*9,369*	*9,507*
Secured by mortgages on immovable property	16,160	14,455	13,229	13,718
of which: SME	*698*	*597*	*489*	*458*
Exposures in default	3,113	3,178	2,911	3,007
Items associated with particularly high risk	0	0	0	0
Covered bonds	2	2	2	27
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0
Collective investments undertakings (CIU)	172	138	48	86
Equity exposures	1,578	1,455	1,338	1,608
Other exposures	27,150	26,029	24,534	23,845
TOTAL SA APPROACH	**183,873**	**179,385**	**177,813**	**183,661**
TOTAL	**879,444**	**856,615**	**843,134**	**860,560**

In accordance with EBA guidelines for revised Pillar 3 (EBA/GL/2016/11) amounts are presented without securitisation, contributions to the default funds of central counterparties, and other non-credit obligation assets under the internal approach.

TABLE 48 : STANDARDISED APPROACH – CREDIT RISK EXPOSURE AND CREDIT RISK MITIGATION EFFECTS (CRM) (CR4)

The credit conversion factor (CCF) is the ratio between the current undrawn part of a credit line which could be drawn and would therefore be exposed in the event of default and the undrawn part of this credit line. The significance of the credit line depends on the authorised limit, unless the unauthorised limit is greater.

The concept of “credit risk mitigation” (CRM) is the technique used by an institution to reduce the credit risk related to its exposures.

Amounts indicated in this table are without securitization and default fund of a CCP.

	31.12.2018					
(In EUR M)	**Exposures before CCF and CRM**		**Exposures post-CCF and CRM**		**RWA and RWA density**	
Asset classes	**On-balance sheet amount**	**Off-balance sheet amount**	**On-balance sheet amount**	**Off-balance sheet amount**	**RWA**	**RWA density**
Central governments or central banks	9,860	138	9,952	60	8,425	84%
Regional government or local authorities	846	133	860	32	305	34%
Public sector entities	388	179	382	89	122	26%
Multilateral development banks	284	20	322	0	0	0%
International organisations	0	0	0	0	0	
Institutions	16,461	629	21,974	600	3,587	16%
Corporates	50,619	15,022	42,796	5,323	45,067	94%
Retail	35,705	5,414	28,611	1,352	20,622	69%
Secured by mortgages on immovable property	15,924	236	15,403	89	6,967	45%
Exposures in defaul	2,870	242	2,800	110	3,634	125%
Higher-risk categories	0	0	0	0	0	
Covered bonds	2	0	2	0	0	10%
Institutions and corporates with a short term credit assessment	0	0	0	0	0	
Collective investment undertakings	131	41	131	41	131	76%
Equity	1,578	0	1,578	0	2,765	175%
Other items	27,150	0	27,150	0	19,501	72%
TOTAL	**161,817**	**22,056**	**151,961**	**7,698**	**111,127**	**70%**

	31.12.2017					
(In EUR m)	Exposures before CCF and CRM		Exposures post-CCF and CRM		RWA and RWA density	
Asset classes	**On-balance sheet amount**	**Off-balance sheet amount**	**On-balance sheet amount**	**Off-balance sheet amount**	**RWA**	**RWA density**
Central governments or central banks	9,906	19	10,866	9	8,284	76%
Regional government or local authorities	856	59	894	28	377	41%
Public sector entities	481	10	481	4	178	37%
Multilateral development banks	32	-	36	0	11	32%
International organisations	-	-	-	-	-	
Institutions	17,225	6,419	22,302	697	3,789	16%
Corporates	46,166	13,599	40,245	5,103	42,294	93%
Retail	35,744	5,235	29,023	1,389	21,524	71%
Secured by mortgages on immovable property	13,021	209	12,983	90	5,618	43%
Exposures in default	2,657	254	2,577	134	3,258	120%
Higher-risk categories	-	-	-	-	-	
Covered bonds	2	-	2	-	0	20%
Institutions and corporates with a short term credit assessment	-	-	-	-	-	
Collective investment undertakings	48	0	48	0	48	100%
Equity	1,338	-	1,338	-	2,695	201%
Other items	24,534	-	24,534	-	17,807	73%
TOTAL	**152,010**	**25,803**	**145,328**	**7,453**	**105,885**	**69%**

TABLE 49: IRBA CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE (CR6)

The table below pesents the non-defaulted exposures to credit risk using the internal approach for RWA calculation.

	31.12.2018											
(In EUR m)	PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Average LGD	Average maturity	RWA	RWA density	EL	Value adjustments and Provisions
Central governments and central banks	0.00 to <0.15	144,523	2,045	72%	169,094	0.01%	3.28%	1.49	1,981	1%	3	0
	0.15 to <0.25											0
	0.25 to <0.50	2,033	25	75%	3,898	0.26%	17.93%	2.61	857	22%	2	0
	0.50 to <0.75	12,487	24	58%	2,352	0.50%	35.37%	2.46	1,338	57%	4	0
	0.75 to <2.50	1,202	770	75%	1,977	1.86%	25.95%	2.00	935	47%	9	0
	2.50 to <10.00	1,539	778	75%	479	6.12%	30.07%	1.88	512	107%	8	0
	10.00 to <100.00	284	392	42%	214	11.89%	18.89%	1.92	195	91%	5	0
	Sub-total	**162,068**	**4,034**	**70%**	**178,014**	**0.07%**	**4.37%**	**1.54**	**5,819**	**3%**	**31**	**(10)**
Institutions	0.00 to <0.15	22,107	7,848	58%	35,794	0.04%	11.31%	2.39	1,833	5%	4	0
	0.15 to <0.25											0
	0.25 to <0.50	823	641	61%	1,511	0.26%	19.59%	1.73	371	25%	1	0
	0.50 to <0.75	7,910	210	24%	760	0.50%	28.09%	1.28	340	45%	1	0
	0.75 to <2.50	3,393	760	54%	1,087	1.44%	18.91%	1.61	580	53%	3	0
	2.50 to <10.00	1,054	360	46%	718	4.00%	25.25%	1.31	599	83%	7	0
	10.00 to <100.00	272	328	46%	213	15.76%	15.21%	0.99	433	204%	14	0
	Sub-total	**35,559**	**10,146**	**56%**	**40,083**	**0.25%**	**12.46%**	**2.30**	**4,157**	**10%**	**30**	**(12)**
Corporate – SME	0.00 to <0.15	1,028	628	64%	3,385	0.06%	25.18%	1.59	1,009	30%	1	0
	0.15 to <0.25	2,680	306	100%	2,985	0.19%	11.21%	1.00	198	7%	1	0
	0.25 to <0.50	1,048	658	48%	1,420	0.26%	35.27%	2.33	464	33%	1	0
	0.50 to <0.75	5,583	835	53%	3,099	0.51%	34.22%	2.62	1,402	45%	5	0
	0.75 to <2.50	9,993	2,022	51%	11,231	1.52%	30.17%	2.94	6,990	62%	55	0
	2.50 to <10.00	8,074	1,311	58%	9,077	4.49%	29.87%	2.48	7,310	81%	119	0
	10.00 to <100.00	2,550	210	55%	2,704	16.72%	25.38%	2.27	2,754	102%	114	0
	Sub-total	**30,956**	**5,969**	**56%**	**33,900**	**3.12%**	**28.12%**	**2.51**	**20,128**	**59%**	**295**	**(221)**
Corporate – Specialised lending	0.00 to <0.15	4,638	2,978	38%	9,285	0.07%	19.61%	2.86	1,047	11%	1	0
	0.15 to <0.25											0
	0.25 to <0.50	2,933	1,509	46%	3,310	0.26%	14.60%	2.81	600	18%	1	0
	0.50 to <0.75	7,842	2,712	43%	8,016	0.50%	14.66%	3.16	2,120	26%	6	0
	0.75 to <2.50	14,706	7,539	38%	14,137	1.51%	15.97%	3.25	6,062	43%	34	0
	2.50 to <10.00	8,629	3,957	35%	7,292	4.10%	16.47%	2.72	3,914	54%	46	0
	10.00 to <100.00	479	180	41%	261	14.01%	16.60%	2.36	217	83%	6	0
	Sub-total	**39,226**	**18,874**	**39%**	**42,300**	**1.43%**	**16.25%**	**3.06**	**13,960**	**33%**	**94**	**(47)**
Corporate – Other	0.00 to <0.15	25,227	67,742	50%	65,179	0.07%	31.97%	2.43	11,510	18%	14	0
	0.15 to <0.25											0
	0.25 to <0.50	8,662	19,393	47%	17,923	0.26%	32.20%	2.61	7,019	39%	19	0
	0.50 to <0.75	21,005	13,504	44%	14,751	0.50%	30.37%	2.31	7,378	50%	24	0
	0.75 to <2.50	20,872	15,216	48%	26,968	1.56%	25.55%	2.28	16,860	63%	110	0
	2.50 to <10.00	12,312	9,371	41%	16,736	4.21%	27.13%	2.22	14,706	88%	190	0
	10.00 to <100.00	2,643	1,226	46%	2,335	15.33%	31.34%	1.90	3,583	153%	110	0
	Sub-total	**90,721**	**126,452**	**48%**	**143,892**	**1.15%**	**29.99%**	**2.42**	**61,056**	**42%**	**468**	**(422)**
Retail – Secured by real estate SME	0.00 to <0.15	22	3	100%	90	0.04%	13.41%		6	6%	0	
	0.15 to <0.25	0	0		0	0.16%	10.00%		0	3%	0	0
	0.25 to <0.50	741	5	100%	746	0.27%	16.19%		49	7%	0	0
	0.50 to <0.75	1,459	18	100%	1,476	0.54%	11.45%		113	8%	1	0
	0.75 to <2.50	2,447	26	100%	2,472	1.13%	13.99%		367	15%	4	0
	2.50 to <10.00	785	8	100%	793	2.99%	14.68%		230	29%	4	0
	10.00 to <100.00	396	6	100%	401	16.23%	10.45%		182	45%	7	0
	Sub-total	**5,849**	**66**	**100%**	**5,978**	**2.12%**	**13.48%**		**946**	**16%**	**16**	**(8)**

(In EUR m)	31.12.2018											
	PD scale	Original on-balance sheet gross exposure	Off-balance sheet expo-sures pre CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Average LGD	Average maturity	RWA	RWA density	EL	Value adjust-ments and Provi-sions
Retail – Secured by real estate non-SME	0.00 to <0.15	22,173	797	100%	24,040	0.06%	15.22%		1,803	7%	2	0
	0.15 to <0.25	19,638	540	86%	20,084	0.21%	15.43%		1,358	7%	6	0
	0.25 to <0.50	6,863	226	72%	6,909	0.41%	17.56%		881	13%	5	0
	0.50 to <0.75	11,256	425	79%	11,334	0.59%	11.81%		1,238	11%	8	0
	0.75 to <2.50	21,124	654	89%	21,573	1.48%	10.91%		4,033	19%	29	0
	2.50 to <10.00	7,399	103	92%	7,469	5.15%	11.46%		2,768	37%	40	0
	10.00 to <100.00	1,395	15	99%	1,405	18.58%	8.98%		859	61%	26	0
	Sub-total	**89,849**	**2,761**	**89%**	**92,814**	**1.20%**	**13.63%**		**12,940**	**14%**	**116**	**(120)**
Retail – Qualifying revolving	0.00 to <0.15	57	1,071	36%	561	0.09%	42.95%		14	3%	0	0
	0.15 to <0.25	0	277	38%	105	0.23%	35.07%		5	4%	0	0
	0.25 to <0.50	89	258	33%	356	0.42%	48.53%		36	10%	1	0
	0.50 to <0.75	106	597	36%	319	0.61%	34.99%		31	10%	1	0
	0.75 to <2.50	365	583	35%	883	1.49%	44.01%		209	24%	6	0
	2.50 to <10.00	764	320	34%	1,574	4.84%	45.07%		1,042	66%	34	0
	10.00 to <100.00	493	40	34%	617	22.33%	42.51%		694	112%	56	0
	Sub-total	**1,874**	**3,146**	**35%**	**4,415**	**5.24%**	**43.54%**		**2,031**	**46%**	**97**	**(57)**
Retail – Other SME	0.00 to <0.15	27	1	100%	31	0.03%	7.41%		0	1%	0	0
	0.15 to <0.25	14	1	100%	15	0.24%	30.59%		2	11%	0	0
	0.25 to <0.50	1,288	191	85%	1,487	0.36%	29.26%		211	14%	2	0
	0.50 to <0.75	1,328	35	83%	1,284	0.57%	31.04%		249	19%	2	0
	0.75 to <2.50	8,109	440	88%	8,612	1.46%	23.91%		2,123	25%	31	0
	2.50 to <10.00	4,345	208	91%	4,688	5.05%	26.49%		1,626	35%	64	0
	10.00 to <100.00	1,510	185	99%	1,751	19.46%	33.58%		1,084	62%	113	0
	Sub-total	**16,621**	**1,061**	**90%**	**17,869**	**4.01%**	**26.47%**		**5,296**	**30%**	**212**	**(158)**
Retail – Other non – SME	0.00 to <0.15	1,980	209	100%	2,746	0.07%	15.48%		116	4%	0	0
	0.15 to <0.25	5,337	411	81%	6,020	0.18%	11.06%		248	4%	1	0
	0.25 to <0.50	4,344	957	74%	4,989	0.39%	28.15%		893	18%	5	0
	0.50 to <0.75	2,629	139	100%	2,331	0.62%	35.68%		702	30%	5	0
	0.75 to <2.50	7,329	588	100%	7,968	1.34%	30.37%		2,960	37%	34	0
	2.50 to <10.00	6,066	285	100%	6,440	4.33%	29.77%		2,945	46%	84	0
	10.00 to <100.00	1,447	25	99%	1,477	25.17%	30.45%		1,195	81%	108	0
	Sub-total	**29,132**	**2,613**	**84%**	**31,971**	**2.52%**	**25.38%**		**9,058**	**28%**	**237**	**(226)**
SPECIALIZED LENDING SLOTTING CRITERIA	**Sub-total**	**531**	**1,938**		**1,173**				**731**	**62%**	**5**	**(3)**
OTHER NON CREDIT-OBLIGATION ASSETS	**Sub-total**	**47**			**22**				**22**	**100%**		
SECURITISATION POSITIONS	**Sub-total**	**315**	**22,838**		**23,161**				**2,012**	**9%**		
EQUITY	**Sub-total**	**4,202**			**4,202**				**15,178**	**361%**	**97**	
TOTAL	**SUB-TOTAL**	**506,948**	**199,898**	**44%**	**619,794**	**1.11%**	**16.94%**	**2.12**	**153,334**	**25%**	**1,699**	**(1,283)**

		31.12.2017										
(In EUR m)	**PD scale**	**Original on-balance sheet gross exposure**	**Off-balance sheet expo-sures pre CCF**	**Average CCF**	**EAD post CRM and post-CCF**	**Average PD**	**Average LGD**	**Average maturity**	**RWA**	**RWA density**	**EL**	**Value adjust-ments and Provi-sions**
Central governments and central banks	0.00 to <0.15	156,395	928	72%	176,711	0.01%	3.03%	1.47	1,857	1%	2	
	0.15 to <0.25											
	0.25 to <0.50	1,488	0	20%	3,249	0.26%	16.96%	2.55	669	21%	1	
	0.50 to <0.75	13,200	242	75%	2,166	0.50%	39.36%	2.81	1,526	70%	4	
	0.75 to <2.50	1,174	659	75%	1,641	1.80%	24.73%	1.11	723	44%	7	
	2.50 to <10.00	786	537	75%	2,778	3.42%	4.28%	2.83	313	11%	6	
	10.00 to <100.00	769	285	62%	199	11.59%	21.76%	1.54	203	102%	5	
	Sub-total	**173,812**	**2,650**	**73%**	**186,746**	**0.10%**	**3.92%**	**1.52**	**5,290**	**3%**	**26**	**(1)**
Institutions	0.00 to <0.15	19,653	6,488	59%	29,490	0.04%	9.94%	2.79	1,575	5%	2	
	0.15 to <0.25											
	0.25 to <0.50	669	599	64%	1,206	0.26%	20.35%	2.43	438	36%	1	
	0.50 to <0.75	8,169	370	50%	1,127	0.50%	27.34%	1.92	583	52%	2	
	0.75 to <2.50	1,132	547	53%	953	1.31%	21.72%	1.36	544	57%	3	
	2.50 to <10.00	284	222	45%	1,411	3.44%	19.20%	1.71	437	31%	11	
	10.00 to <100.00	329	244	37%	428	14.51%	21.11%	1.71	472	110%	19	
	Sub-total	**30,236**	**8,470**	**58%**	**34,616**	**0.41%**	**11.52%**	**2.65**	**4,048**	**12%**	**37**	**(1)**
Corporate – SME	0.00 to <0.15	7,093	1,205	73%	8,023	0.04%	90.21%	2.76	2,355	29%	3	
	0.15 to <0.25											
	0.25 to <0.50	1,527	579	49%	1,837	0.31%	58.75%	1.95	940	51%	4	
	0.50 to <0.75	3,391	962	48%	2,862	0.51%	34.29%	2.66	1,287	45%	5	
	0.75 to <2.50	7,772	1,728	50%	8,872	1.59%	31.37%	2.56	5,500	62%	44	
	2.50 to <10.00	7,381	1,467	52%	8,382	4.61%	29.61%	2.44	6,771	81%	113	
	10.00 to <100.00	2,153	272	38%	2,342	17.04%	26.86%	2.22	2,521	108%	106	
	Sub-total	**29,316**	**6,213**	**54%**	**32,319**	**2.94%**	**47.01%**	**2.65**	**19,374**	**60%**	**274**	**0**
Corporate – Specialised lending	0.00 to <0.15	2,516	1,786	35%	4,564	0.07%	22.21%	2.18	578	13%	1	
	0.15 to <0.25											
	0.25 to <0.50	1,982	954	47%	2,153	0.26%	17.20%	3.18	468	22%	1	
	0.50 to <0.75	6,355	2,029	46%	6,368	0.50%	14.23%	2.58	1,513	24%	5	
	0.75 to <2.50	9,501	4,760	35%	9,171	1.50%	18.12%	3.09	4,423	48%	25	
	2.50 to <10.00	4,919	3,066	32%	4,789	4.14%	17.18%	2.49	2,737	57%	33	
	10.00 to <100.00	831	265	47%	776	13.96%	17.61%	2.83	704	91%	19	
	Sub-total	**26,105**	**12,860**	**37%**	**27,820**	**1.74%**	**17.39%**	**2.78**	**10,423**	**37%**	**84**	**0**
Corporate – Other	0.00 to <0.15	21,135	68,724	44%	58,244	0.07%	32.28%	2.57	10,591	18%	13	
	0.15 to <0.25											
	0.25 to <0.50	7,096	18,527	47%	16,292	0.26%	30.14%	2.76	6,247	38%	13	
	0.50 to <0.75	19,326	13,694	42%	14,450	0.50%	30.84%	2.46	7,339	51%	22	
	0.75 to <2.50	19,166	14,168	44%	23,864	1.54%	26.07%	2.30	15,074	63%	96	
	2.50 to <10.00	12,469	9,748	40%	15,944	4.35%	27.52%	2.45	14,432	91%	189	
	10.00 to <100.00	2,293	1,176	41%	2,223	15.80%	27.54%	1.81	3,014	136%	93	
	Sub-total	**81,485**	**126,037**	**44%**	**131,016**	**1.19%**	**29.98%**	**2.56**	**56,697**	**43%**	**426**	**(842)**
Retail – Secured by real estate SME	0.00 to <0.15	470	10	98%	536	0.03%	86.89%		42	8%	0	
	0.15 to <0.25	0			0	0.17%	12.20%		0	4%	0	
	0.25 to <0.50	1,015	13	100%	1,028	0.34%	12.19%		60	6%	0	
	0.50 to <0.75	382	6	100%	388	0.69%	7.41%		23	6%	0	
	0.75 to <2.50	1,326	16	100%	1,342	0.99%	13.46%		181	13%	2	
	2.50 to <10.00	715	15	100%	730	3.90%	11.16%		158	22%	2	
	10.00 to <100.00	325	7	100%	333	15.78%	13.72%		196	59%	7	
	Sub-total	**4,235**	**67**	**100%**	**4,357**	**2.31%**	**21.28%**		**659**	**15%**	**12**	**0**

(In EUR m)	PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Average LGD	Average maturity	RWA	RWA density	EL	Value adjustments and Provisions
	31.12.2017											
Retail – Secured by real estate non-SME	0.00 to <0.15	23,352	877	100%	25,110	0.05%	21.14%		1,025	4%	2	
	0.15 to <0.25	18,373	430	100%	18,743	0.18%	13.61%		1,028	5%	5	
	0.25 to <0.50	7,202	250		7,295	0.39%	17.64%		895	12%	5	
	0.50 to <0.75	11,187	384	100%	11,458	0.57%	10.28%		1,069	9%	7	
	0.75 to <2.50	19,310	561	86%	19,476	1.40%	9.13%		4,501	23%	27	
	2.50 to <10.00	8,147	141	75%	8,265	4.85%	11.30%		3,104	38%	42	
	10.00 to <100.00	1,537	23	78%	1,555	18.58%	8.32%		752	48%	28	
	Sub-total	**89,108**	**2,666**	**89%**	**91,902**	**1.20%**	**14.33%**		**12,374**	**13%**	**116**	**0**
Retail – Qualifying revolving	0.00 to <0.15	58	1,065	39%	587	0.09%	42.70%		15	3%	0	
	0.15 to <0.25		315	36%	114	0.23%	34.05%		5	4%	0	
	0.25 to <0.50	91	275	37%	373	0.41%	48.96%		37	10%	1	
	0.50 to <0.75	107	634	39%	357	0.62%	34.16%		34	10%	1	
	0.75 to <2.50	380	635	40%	940	1.52%	43.85%		225	24%	6	
	2.50 to <10.00	794	363	36%	1,619	4.96%	44.93%		1,103	68%	45	
	10.00 to <100.00	517	44	41%	647	22.64%	42.70%		722	112%	59	
	Sub-total	**1,947**	**3,330**	**39%**	**4,637**	**5.29%**	**43.34%**		**2,142**	**46%**	**112**	**0**
Retail – Other SME	0.00 to <0.15	476	1	100%	477	0.03%	12.19%		5	1%	0	
	0.15 to <0.25	0	0	100%	1	0.19%	27.70%		0	9%	0	
	0.25 to <0.50	967	155	82%	1,110	0.37%	34.42%		188	17%	1	
	0.50 to <0.75	1,248	32	70%	1,206	0.56%	31.24%		235	19%	2	
	0.75 to <2.50	7,130	376	83%	7,477	1.47%	24.09%		1,694	23%	27	
	2.50 to <10.00	4,257	316	93%	4,573	5.23%	27.32%		2,036	45%	78	
	10.00 to <100.00	1,433	159	99%	1,600	19.43%	33.19%		905	57%	105	
	Sub-total	**15,512**	**1,039**	**88%**	**16,445**	**4.08%**	**26.75%**		**5,063**	**31%**	**214**	**0**
Retail – Other non – SME	0.00 to <0.15	5,997	1,100	96%	7,058	0.05%	75.86%		621	9%	2	
	0.15 to <0.25	1,226	169	100%	1,388	0.17%	15.73%		83	6%	0	
	0.25 to <0.50	4,011	464	100%	4,466	0.37%	31.14%		885	20%	5	
	0.50 to <0.75	1,280	32	100%	1,312	0.62%	36.74%		411	31%	3	
	0.75 to <2.50	6,845	575	100%	7,394	1.25%	30.02%		2,643	36%	29	
	2.50 to <10.00	6,499	357	100%	6,853	4.32%	30.32%		3,388	49%	93	
	10.00 to <100.00	1,455	34	90%	1,485	26.16%	30.26%		1,050	71%	112	
	Sub-total	**27,312**	**2,731**	**98%**	**29,956**	**2.69%**	**40.70%**		**9,082**	**30%**	**245**	**(101)**
SPECIALIZED LENDING SLOTTING CRITERIA	**Sub-total**	**458**	**1,810**		**1,073**				**701**	**65%**	**5**	**0**
OTHER NON CREDIT-OBLIGATION ASSETS	**Sub-total**	**41**	**0**		**19**				**19**	**99%**	**0**	**0**
SECURITISATION POSITIONS	**Sub-total**	**536**	**18,496**		**18,933**				**1,578**	**8%**	**0**	**0**
EQUITY	**Sub-total**	**4,833**	**0**		**4,833**				**17,511**	**362%**	**113**	**0**
TOTAL		**484,935**	**186,368**	**46%**	**584,672**	**1.12%**	**18.42%**	**2.12**	**144,961**	**25%**	**1,677**	**(946)**

TABLE 50: IRBF CREDIT RISK EXPOSURES BY EXPOSURE CLASS AND PD RANGE (CR6)

	31.12.2018											
(In EUR m)	**PD scale**	**Original on-balance sheet gross exposure**	**Off-balance sheet exposures pre CCF**	**Average CCF**	**EAD post CRM and post-CCF**	**Average PD**	**Average LGD**	**Average maturity**	**RWA**	**RWA density**	**EL**	**Value adjustments and Provisions**
Central governments and central banks	0.00 to <0.15	28	2	75%	40	0.01%	44.86%	2.50	0	0%	0	
	0.15 to <0.25	0	0		0	0.00%	0.00%	0.00	0	0%	0	
	0.25 to <0.50	0	0		0	0.00%	0.00%	0.00	0	0%	0	
	0.50 to <0.75	0	0	0%	0	0.00%	0.00%	0.00	0	0%	0	
	0.75 to <2.50	0	0		0	0.00%	0.00%	0.00	0	0%	0	
	2.50 to <10.00	0	0		0	0.00%	0.00%	0.00	0	0%	0	
	10.00 to <100.00	0	0		0	0.00%	0.00%	0.00	0	0%	0	
	Sub-total	**28**	**2**	**75%**	**40**	**0.01%**	**44.86%**	**2.50**	**0**	**0%**	**0**	**0**
Institutions	0.00 to <0.15	3	0		3	0.03%	44.37%	2.50	1	16%	0	
	0.15 to <0.25	0	0		0	0.00%	0.00%	0.00	0	0%	0	
	0.25 to <0.50	0	0		0	0.26%	45.00%	2.50	0	69%	0	
	0.50 to <0.75	0	0		0	0.50%	45.00%	2.50	0	74%	0	
	0.75 to <2.50	0	0		0	1.24%	43.97%	2.50	0	22%	0	
	2.50 to <10.00	1	0		1	3.31%	44.47%	2.50	1	142%	0	
	10.00 to <100.00	0	0		0	0.00%	0.00%	0.00	0	0%	0	
	Sub-total	**5**	**0**		**5**	**0.54%**	**44.40%**	**2.50**	**2**	**35%**	**0**	**0**
Corporate – SME	0.00 to <0.15	121	13	68%	131	0.12%	42.65%	2.50	32	25%	0	
	0.15 to <0.25	0	0		0	0.00%	0.00%	0.00	0	0%	0	
	0.25 to <0.50	100	7	75%	104	0.26%	42.69%	2.50	41	39%	0	
	0.50 to <0.75	304	27	75%	321	0.50%	42.64%	2.50	163	51%	1	
	0.75 to <2.50	978	61	75%	1,025	1.58%	42.64%	2.50	807	79%	7	
	2.50 to <10.00	698	34	75%	717	4.41%	42.80%	2.50	780	109%	14	
	10.00 to <100.00	138	1	75%	135	15.09%	42.70%	2.50	213	158%	9	
	Sub-total	**2,339**	**142**	**74%**	**2,434**	**2.88%**	**42.69%**	**2.50**	**2,036**	**84%**	**30**	**(16)**
Corporate – Other	0.00 to <0.15	809	80	75%	880	0.07%	43.99%	2.50	220	25%	0	
	0.15 to <0.25	0	0		0	0.00%	0.00%	0.00	0	0%	0	
	0.25 to <0.50	169	5	75%	173	0.26%	44.00%	2.50	90	52%	0	
	0.50 to <0.75	442	12	75%	453	0.50%	43.40%	2.50	323	71%	1	
	0.75 to <2.50	733	37	75%	752	1.58%	43.16%	2.50	808	107%	5	
	2.50 to <10.00	504	14	75%	514	4.37%	43.11%	2.50	746	145%	10	
	10.00 to <100.00	60	1	75%	59	15.00%	42.91%	2.50	129	218%	4	
	Sub-total	**2,716**	**149**	**75%**	**2,831**	**1.65%**	**43.49%**	**2.50**	**2,316**	**82%**	**20**	**(12)**
ALTERNATIVE TREATMENT: SECURED BY REAL ESTATE	**Sub-total**	**474**	**26**	**100%**	**492**				**234**	**48%**	**0**	**0**
TOTAL		**5,562**	**320**	**69%**	**5,801**	**2.20%**	**43.13%**	**2.50**	**4,588**	**79%**	**50**	**(28)**

(In EUR m)	PD scale	Original on-balance sheet gross exposure	Off-balance sheet exposures pre CCF	Average CCF	EAD post CRM and post-CCF	Average PD	Average LGD	Average maturity	RWA	RWA density	EL	Value adjustments and Provisions
		31.12.2017										
Central governments and central banks	0.00 to <0.15	31	4	75%	40	0.00%	45.00%	2.50	0	0%	0	0
	0.15 to <0.25											0
	0.25 to <0.50											0
	0.50 to <0.75											0
	0.75 to <2.50											0
	2.50 to <10.00											0
	10.00 to <100.00											0
	Sub-total	**31**	**4**	**75%**	**40**	**0.00%**	**45.00%**	**2.50**	**0**	**0%**	**0**	**0**
Institutions	0.00 to <0.15	4	12	50%	10	0.03%	44.26%	2.50	1	13%	0	0
	0.15 to <0.25											0
	0.25 to <0.50	0			0	0.26%	45.00%	2.50	0	70%	0	0
	0.50 to <0.75	0			0	0.50%	45.00%	2.50	0	74%	0	0
	0.75 to <2.50	0			0	1.16%	44.59%	2.50	0	117%	0	0
	2.50 to <10.00	1			1	3.28%	44.22%	2.50	1	139%	0	0
	10.00 to <100.00											0
	Sub-total	**5**	**12**	**50%**	**11**	**0.26%**	**44.27%**	**2.50**	**2**	**23%**	**0**	**0**
Corporate – SME	0.00 to <0.15	103	7	75%	126	0.11%	42.94%	2.50	29	23%	0	0
	0.15 to <0.25											0
	0.25 to <0.50	100	13	75%	110	0.26%	42.60%	2.50	43	39%	0	0
	0.50 to <0.75	283	31	75%	305	0.50%	42.71%	2.50	155	51%	1	0
	0.75 to <2.50	971	81	75%	1,031	1.59%	42.67%	2.50	828	80%	7	0
	2.50 to <10.00	622	45	75%	650	4.14%	42.90%	2.50	702	108%	12	0
	10.00 to <100.00	112	4	75%	110	15.99%	42.72%	2.50	176	160%	8	0
	Sub-total	**2,191**	**180**	**75%**	**2,331**	**2.69%**	**42.75%**	**2.50**	**1,933**	**83%**	**27**	**0**
Corporate – Other	0.00 to <0.15	537	66	75%	594	0.07%	43.44%	2.50	137	23%	0	0
	0.15 to <0.25											0
	0.25 to <0.50	172	21	75%	187	0.26%	43.83%	2.50	97	52%	0	0
	0.50 to <0.75	278	20	75%	291	0.50%	43.00%	2.50	205	71%	1	0
	0.75 to <2.50	838	29	75%	861	1.51%	43.00%	2.50	907	105%	6	0
	2.50 to <10.00	526	18	75%	538	4.14%	43.41%	2.50	773	144%	10	0
	10.00 to <100.00	95	2	75%	94	15.78%	43.27%	2.50	208	222%	6	0
	Sub-total	**2,447**	**155**	**75%**	**2,564**	**2.04%**	**43.26%**	**2.50**	**2,328**	**91%**	**23**	**0**
ALTERNATIVE TREATMENT: SECURED BY REAL ESTATE	**Sub-total**	**463**			**463**				**219**	**47%**		
TOTAL		**5,137**	**351**	**74%**	**5,409**	**2.33%**	**43.03%**	**2.50**	**4,483**	**83%**	**50**	**0**

TABLE 51: STANDARDISED APPROACH (DISCLOSURE OF THE BREAKDOWN OF EXPOSURES POST CONVERSION FACTOR AND POST RISK MITIGATION TECHNIQUES) (CR5)

In accordance with EBA's guidelines for revised Pillar 3 (EBA/GL/2016/11), amounts are presented without securitisation and contributions to the default fund of a central counterparty.

	31.12.2018															
(In EUR m)	Risk Weight															
Exposure Class	**0%**	**2%**	**4%**	**10%**	**20%**	**35%**	**50%**	**70%**	**75%**	**100%**	**150%**	**250%**	**370%**	**1250%**	**Other Risk Weight**	**Total**
Central governments or central banks	5,481	0	0	0	5	0	62	0	0	1,844	0	2,620	0	0	0	10,012
Regional governments or local authorities	171	0	0	0	513	0	13	0	0	196	0	0	0	0	0	892
Public sector entities	0	0	0	0	436	0	0	0	0	35	0	0	0	0	0	472
Multilateral Development Banks	322	0	0	0	0	0	0	0	0	0	0	0	0	0	0	322
International Organisations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Institutions	4,430	4,060	0	0	12,877	3	546	0	0	655	0	0	0	0	3	22,574
Corporates	0	21	0	0	905	0	685	0	543	44,964	428	0	0	0	574	48,119
Retail	0	0	0	0	0	860	0	0	28,686	314	0	0	0	0	103	29,963
Secured by mortgages on immovable property	0	0	0	0	0	9,295	514	0	3,998	274	0	0	0	0	1,412	15,492
Exposures in default	0	0	0	0	0	0	0	0	0	1,062	1,636	0	0	0	212	2,910
Items associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered bonds	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Collective investments undertakings (CIU)	42	0	0	0	0	0	0	0	0	128	2	0	0	0	0	172
Equity exposures	3	0	0	0	0	0	0	0	0	332	11	943	0	0	290	1,578
Other exposures	0	0	0	0	207	0	130	0	0	18,017	0	0	0	0	8,796	27,150
TOTAL	**10,450**	**4,081**	**0**	**2**	**14,943**	**10,157**	**1,950**	**0**	**33,227**	**67,821**	**2,076**	**3,562**	**0**	**0**	**11,389**	**159,659**

(In EUR m)	31.12.2017															
	Risk Weight															
Exposure Class	**0%**	**2%**	**4%**	**10%**	**20%**	**35%**	**50%**	**70%**	**75%**	**100%**	**150%**	**250%**	**370%**	**1250%**	**Other Risk Weight**	**Total**
Central governments or central banks	6,237	0	0	0	26	0	32	0	0	2,113	0	2,460	0	0	8	10,874
Regional governments or local authorities	150	0	0	0	495	0	0	0	0	278	0	0	0	0	0	922
Public sector entities	0	0	0	0	383	0	0	0	0	102	0	0	0	0	0	485
Multilateral Development Banks	25	0	0	0	0	0	0	0	0	11	0	0	0	0	0	36
International Organisations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Institutions	2,761	6,528	0	0	12,064	73	298	0	0	1, 066	0	0	0	0	208	22,999
Corporates	0	15	0	0	519	0	639	0	288	42,152	465	0	0	0	1,270	45,348
Retail	0	0	0	0	13	13	10	0	29,588	766	8	0	0	0	13	30,411
Secured by mortgages on immovable property	0	0	0	0	3	10,301	262	0	2,327	179	0	0	0	0	1	13,073
Exposures in default	0	0	0	0	0	0	0	0	0	1,493	1 167	0	0	0	50	2,710
Items associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered bonds	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Collective investments undertakings (CIU)	0	0	0	0	0	0	0	0	0	48	0	0	0	0	0	48
Equity exposures	32	0	0	0	0	0	0	0	0	355	4	933	0	0	13	1,338
Other exposures	0	0	0	0	133	0	85	0	0	16,240	0	0	0	0	8,076	24, 534
TOTAL	**9,204**	**6,544**	**0**	**0**	**13,638**	**10,386**	**1,326**	**0**	**32,203**	**64,780**	**1 ,645**	**3,393**	**0**	**0**	**9, 641**	**152,781**

TABLE 52: GEOGRAPHICAL BREAKDOWN OF NET EXPOSURES (CRB-C)

The EBA's recommendation to institutions for this form (EBA Guidelines 2016/11) is to report exposures only for material exposure classes, as described in EBA 2014/14 guidelines. Societe Generale opted to present both material and non-material exposure classes. Unused exposure classes are not presented.

In accordance with EBA's guidelines for revised Pillar 3 (EBA/GL/2016/11) amounts are presented without securitisation, contributions to the default fund of a CCP, and other non-credit obligation assets under the internal approach.

	2018									
(In EUR m)	France	United Kingdom	Germany	Italy	Luxem-bourg	Spain	Switzer-land	Other Western European countries	Czech Republic	Romania
Central governments or central banks	57,653	2,499	3,737	1,123	5,877	176	15,640	3,096	3,395	3,584
Institutions	19,981	2,370	1,047	189	350	279	1,005	3,478	1,213	2
Corporates	122,256	18,742	14,001	8,870	7,671	7,224	7,193	21,215	15,022	206
Retail	129,975	1,609	3,148	4,567	191	66	757	606	13,545	1
Equity	3,496	101	10	1	338	0	1	104	30	13
TOTAL IRB APPROACH	**333,361**	**25,321**	**21,943**	**14,750**	**14,427**	**7,745**	**24,596**	**28,499**	**33,206**	**3,806**
Central governments or central banks	3,507	1,276	564	595	34	95	45	335	15	31
Regional governments or local authorities	356	6	59	42	-	43	0	34	1	240
Public sector entities	59	86	33	3	-	16	10	92	14	1
Multilateral Development Banks	-	-	-	-	284	-	-	-	-	-
International Organisations	-	-	-	-	-	-	-	-	-	-
Institutions	2,589	2,639	857	196	30	407	90	860	5	6
Corporates	19,843	1,662	2,125	1,673	358	739	580	4,397	1,572	2,897
Retail	16,144	1,069	6,689	1,289	17	486	93	1,054	680	2,119
Secured by mortgages on immovable property	2,441	397	1,271	840	0	12	29	109	8	2,849
Exposures in default	1,051	46	186	147	0	22	52	43	56	120
Items associated with particularly high risk	-	-	-	-	-	-	-	-	-	-
Covered bonds	-	-	-	-	-	2	-	-	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings (CIU)	21	7	-	45	16	0	2	11	-	2
Equity exposures	925	40	7	15	-	-	7	75	-	6
Other exposures	10,909	1,452	1,980	2,467	764	1,444	193	2,891	730	368
TOTAL SA APPROACH	**57,846**	**8,680**	**13,771**	**7,312**	**1,503**	**3,266**	**1,102**	**9,903**	**3,080**	**8,638**
TOTAL	**391,206**	**34,001**	**35,714**	**22,062**	**15,930**	**11,010**	**25,697**	**38,402**	**36,286**	**12,445**

	2018									
(In EUR m)	**Other Eastern European countries EU**	**Russia**	**Other Eastern European countries excluding EU**	**United States**	**Other countries of North America**	**Latin America and Caribbean**	**Africa and Middle East**	**Japan**	**Asia-Pacific**	**Total**
Central governments or central banks	1,461	2,440	1,163	41,273	279	1,549	8,920	9,254	3,149	166,267
Institutions	129	139	1,390	6,012	1,256	99	2,516	229	4,076	45,761
Corporates	3,190	2,225	3,898	51,363	1,601	5,141	11,836	1,363	20,555	323,571
Retail	34	79	45	21	5	56	918	4	141	155,770
Equity	4	14	8	11	2	11	37	2	19	4,202
TOTAL IRB APPROACH	**4,818**	**4,897**	**6,505**	**98,680**	**3,143**	**6,856**	**24,228**	**10,853**	**27,939**	**695,571**
Central governments or central banks	1,077	35	487	451	1	55	1,310	19	66	9,998
Regional governments or local authorities	60	43	15	0	75	-	5	-	0	979
Public sector entities	4	13	3	38	1	-	19	-	175	567
Multilateral Development Banks	-	20	-	-	-	-	-	-	-	304
International Organisations	-	-	-	-	-	-	-	-	-	-
Institutions	88	245	57	4,175	592	354	379	1,634	1,887	17,091
Corporates	4,718	6,027	2,782	2,432	44	347	13,082	15	346	65,642
Retail	3,381	3,077	1,003	105	2	9	3,782	1	120	41,119
Secured by mortgages on immovable property	2,655	2,491	813	9	6	1	2,205	0	22	16,160
Exposures in default	277	90	77	18	0	5	920	2	1	3,113
Items associated with particularly high risk	-	-	-	-	-	-	-	-	-	-
Covered bonds	-	-	-	-	-	-	-	-	-	2
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings (CIU)	3	-	-	64	1	-	0	-	0	172
Equity exposures	2	-	-	294	-	-	191	1	14	1,578
Other exposures	467	557	336	462	17	334	1,172	105	501	27,150
TOTAL SA APPROACH	**12,733**	**12,598**	**5,573**	**8,048**	**740**	**1,104**	**23,067**	**1,778**	**3,133**	**183,873**
TOTAL	**17,551**	**17,495**	**12,078**	**106,728**	**3,882**	**7,960**	**47,294**	**12,630**	**31,073**	**879,444**

(In EUR m)	2017									
	France	United Kingdom	Germany	Italy	Luxembourg	Spain	Switzer-land	Other Western European countries	Czech Republic	Romania
Central governments or central banks	67,185	3,641	6,314	414	3,888	205	19,317	3,928	3,573	3,916
Institutions	17,509	1,653	482	157	231	391	681	1,861	1,107	1
Corporates	118,083	18,731	16,552	8,013	5,345	5,849	5,611	18,392	14,110	345
Retail	126,759	1,560	3,368	4,237	76	61	647	535	11,377	51
Equity	4,018	84	8	0	366	2	0	22	24	19
TOTAL IRB APPROACH	**333,554**	**25,669**	**26,725**	**12,821**	**9,906**	**6,509**	**26,257**	**24,740**	**30,192**	**4,332**
Central governments or central banks	3,651	1,022	566	814	78	88	24	350	41	19
Regional governments or local authorities	196	13	2	42	-	42	0	34	1	232
Public sector entities	127	108	2	3	-	19	14	97	0	4
Multilateral Development Banks	-	-	-	-	21	-	-	-	-	-
International Organisations	-	-	-	-	-	-	-	-	-	-
Institutions	2,387	3,791	1,533	318	97	460	53	725	3	6
Corporates	17,995	1,117	1,808	1,958	500	792	348	3,826	1,409	3,208
Retail	14,411	1,143	7,789	1,447	24	391	124	1,109	627	2,869
Secured by mortgages on immovable property	2,349	508	1	7	1	3	18	43	10	1,948
Exposures in default	923	28	182	105	3	14	12	42	48	221
Items associated with particularly high risk	-	-	-	-	-	-	-	-	-	-
Covered bonds	-	-	-	-	-	2	-	-	-	-
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings (CIU)	19	0	1	5	11	-	-	0	-	4
Equity exposures	796	165	7	14	-	-	9	76	-	6
Other exposures	10,623	1,719	1,645	2,094	624	1,139	134	2,395	631	355
TOTAL SA APPROACH	**53,476**	**9,615**	**13,536**	**6,808**	**1,360**	**2,948**	**736**	**8,698**	**2,770**	**8,873**
TOTAL	**387,030**	**35,284**	**40,261**	**19,629**	**11,265**	**9,457**	**26,993**	**33,438**	**32,962**	**13,205**

(In EUR m)	2017									
	Other Eastern European countries EU	**Russia**	**Other Eastern European countries excluding EU**	**United States**	**Other countries of North America**	**Latin America and Caribbean**	**Africa and Middle East**	**Japan**	**Asia-Pacific**	**Total**
Central governments or central banks	1,327	1,805	1,309	38,377	240	1,795	6,344	10,023	3,194	176,796
Institutions	129	118	1,570	5,581	1,284	101	1,956	347	3,628	38,788
Corporates	3,578	2,562	3,528	38,751	1,625	4,242	10,813	501	16,911	293,543
Retail	590	229	503	41	10	85	912	3	314	151,360
Equity	21	15	8	196	0	2	18	2	26	4,834
TOTAL IRB APPROACH	**5,644**	**4,729**	**6,918**	**82,946**	**3,159**	**6,226**	**20,043**	**10,877**	**24,073**	**665,321**
Central governments or central banks	1,004	68	595	412	3	24	1,090	24	53	9,925
Regional governments or local authorities	88	64	6	2	78	-	114	-	-	915
Public sector entities	0	94	2	11	-	-	9	-	-	491
Multilateral Development Banks	-	11	-	-	-	-	-	-	-	32
International Organisations	-	-	-	-	-	-	-	-	-	-
Institutions	105	367	87	8,678	307	147	183	1,638	2,758	23,644
Corporates	4,367	5,677	2,056	1,370	21	294	12,802	15	203	59,766
Retail	3,339	3,011	1,066	7	2	5	3,511	0	102	40,978
Secured by mortgages on immovable property	2,503	2,655	803	3	1	1	2,343	0	31	13,229
Exposures in default	254	213	72	16	0	5	766	0	7	2,911
Items associated with particularly high risk	-	-	-	-	-	-	-	-	-	-
Covered bonds	-	-	-	-	-	-	-	-	-	2
Claims on institutions and corporates with a short-term credit assessment	-	-	-	-	-	-	-	-	-	-
Collective investments undertakings (CIU)	5	-	-	4	0	-	1	-	-	48
Equity exposures	7	-	34	14	-	-	193	1	17	1,338
Other exposures	414	547	327	262	8	285	1,012	45	271	24,534
Total SA approach	**12,087**	**12,708**	**5,048**	**10,778**	**420**	**762**	**22,024**	**1,724**	**3,443**	**177,813**
TOTAL	**17,731**	**17,437**	**11,966**	**93,724**	**3,579**	**6,988**	**42,067**	**12,601**	**27,516**	**843,134**

TABLE 53: CONCENTRATION OF EXPOSURES BY INDUSTRY OR COUNTERPARTY TYPE (CRB-D)

	31.12.2018													
(In EUR m)	Finance & Insurance	Real estate	Public adminis-tration	Food & agri-culture	Cons-umer goods	Chemi-cals, rubber, plastics	Retail trade	Whole-sale trade	Cons-truction	Trans-port equip. Manuf.	Education and asso-ciative activities	Hotels and catering	Auto-mobiles	Machinery and equip-ment
Central governments and central banks	3,834	0	159,198	0	0	0	0	0	0	0	117	0	0	0
Institutions	30,184	56	12,559	0	0	0	0	0	11	0	20	4	6	0
Corporates	41,714	31,103	5,364	13,118	5,957	6,935	16,675	24,376	15,959	5,921	463	4,971	9,397	14,455
Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Equity Exposures IRB	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL IRB APPROACH	**75,732**	**31,159**	**177,121**	**13,118**	**5,957**	**6,935**	**16,675**	**24,376**	**15,971**	**5,921**	**599**	**4,974**	**9,403**	**14,455**
Central governments or central banks	1	0	4,616	0	0	0	0	0	31	0	4	0	0	0
Regional governments or local authorities	0	16	647	0	0	0	1	0	1	0	13	1	0	0
Public sector entities	8	50	135	1	0	0	0	0	0	0	63	1	0	0
Multilateral developments banks	304	0	0	0	0	0	0	0	0	0	0	0	0	0
International Organisations	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Institutions	16,224	0	0	0	0	0	0	0	0	0	0	0	50	0
Corporates	7,107	4,465	250	4,143	1,360	1,887	5,459	8,318	3,877	797	1,079	1,093	984	2,932
Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Secured by mortgages on immovable property	1	231	0	46	10	9	22	92	67	0	28	47	7	17
Exposures in default	6	211	6	76	29	21	139	102	122	7	8	81	8	28
Items associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered bonds	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Claims in the form of CIU	172	0	0	0	0	0	0	0	0	0	0	0	0	0
Equity exposures	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other items	1	0	31	2	2	2	8	6	2	0	2	0	0	3
TOTAL SA APPROACH	**23,827**	**4,974**	**5,684**	**4,268**	**1,402**	**1,919**	**5,629**	**8,518**	**4,099**	**804**	**1,196**	**1,222**	**1,048**	**2,980**
TOTAL	**99,559**	**36,133**	**182,804**	**17,386**	**7,358**	**8,854**	**22,304**	**32,894**	**20,070**	**6,725**	**1,795**	**6,196**	**10,452**	**17,434**

(In EUR m)	31.12.2018												
	Wood and paper industry	**Metals, minerals**	**Media**	**Oil and Gas**	**Health, social services**	**Business services (including conglo-merates)**	**Collective services**	**Personal and domestic Services**	**Telecoms**	**Transport & logistics**	**Retail**	**Others**	**Total**
Central governments and central banks	0	0	0	0	1,917	0	0	1	0	13	0	1,187	166,267
Institutions	0	0	2	0	37	315	464	0	37	494	0	1,572	45,761
Corporates	881	10,955	3,671	25,244	1,926	33,661	21,428	194	10,164	18,903	0	137	323,571
Retail	0	0	0	0	0	0	0	0	0	0	155,770	0	155,770
Equity Exposures IRB	0	0	0	0	0	0	0	0	0	0	0	4,202	4,202
TOTAL IRB APPROACH	**881**	**10,955**	**3,673**	**25,244**	**3,881**	**33,977**	**21,891**	**195**	**10,201**	**19,410**	**155,770**	**7,098**	**695,571**
Central governments or central banks	0	0	0	0	30	0	1	0	0	0	0	5,316	9,998
Regional governments or local authorities	0	0	0	0	59	13	13	0	0	81	0	135	979
Public sector entities	0	0	0	0	70	224	9	0	0	5	0	0	567
Multilateral developments banks	0	0	0	0	0	0	0	0	0	0	0	0	304
International Organisations	0	0	0	0	0	0	0	0	0	0	0	0	0
Institutions	0	0	0	0	0	17	0	0	0	0	0	799	17,091
Corporates	639	3,633	640	1,209	1,970	4,795	3,538	198	1,082	3,513	0	675	65,642
Retail	0	0	0	0	0	0	0	0	0	0	41,119	0	41,119
Secured by mortgages immovable property	3	36	3	1	30	45	6	0	0	13	15,446	0	16,160
Exposures in default	11	74	9	1	7	66	42	4	5	53	0	1,998	3,113
Items associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered bonds	0	0	0	0	0	0	0	0	0	0	0	0	2
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0
Claims in the form of CIU	0	0	0	0	0	0	0	0	0	0	0	0	172
Equity exposures	0	0	0	0	0	0	0	0	0	0	0	1,578	1,578
Other items	0	2	2	0	2	25	0	0	0	13	0	27,045	27,150
TOTAL SA APPROACH	**653**	**3,746**	**654**	**1,211**	**2,168**	**5,186**	**3,609**	**202**	**1,087**	**3,678**	**56,565**	**37,545**	**183,873**
TOTAL	**1,534**	**14,701**	**4,326**	**26,455**	**6,049**	**39,163**	**25,500**	**397**	**11,289**	**23,088**	**212,335**	**44,644**	**879,444**

(In EUR m)	Finance & Insurance	Real estate	Public adminis-tration	Food & agriculture	Consumer goods	Chemicals, rubber, plastics	Retail trade	Whole-sale trade	Cons-truction	Transport equip. Manuf.	Education and asso-ciative activities	Hotels and catering	Auto-mobiles	Machinery and equip-ment
	31.12.2017													
Central governments and central banks	4,589	0	169,229	0	0	0	0	0	0	0	150	0	0	0
Institutions	23,220	72	12,096	0	0	0	0	0	15	0	39	11	467	0
Corporates	33,768	24,413	3,025	11,677	5,931	7,841	15,026	21,045	14,873	6,947	415	4,101	7,043	17,823
Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Equity Exposures IRB	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL IRB APPROACH	**61,576**	**24,485**	**184,350**	**11,677**	**5,931**	**7,841**	**15,026**	**21,045**	**14,887**	**6,947**	**604**	**4,112**	**7,510**	**17,823**
Central governments or central banks	1	0	4,383	0	0	0	0	0	0	0	3	0	0	0
Regional governments or local authorities	0	18	585	0	0	0	1	0	0	0	12	1	0	0
Public sector entities	144	54	98	0	0	0	0	0	21	0	57	0	0	0
Multilateral developments banks	32	0	0	0	0	0	0	0	0	0	0	0	0	0
International Organisations	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Institutions	22,702	0	0	0	0	0	0	0	0	0	0	0	51	0
Corporates	6,280	4,237	230	3,761	1,301	1,689	4,214	5,600	3,068	586	1,000	1,209	746	1,948
Retail	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Secured by mortgages on immovable property	1	211	0	14	6	6	10	36	41	0	24	59	2	9
Exposures in default	6	184	5	104	29	13	139	130	129	6	21	103	5	45
Items associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered bonds	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Claims in the form of CIU	26	0	0	0	0	0	0	0	0	0	0	0	0	0
Equity exposures	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other items	0	0	9	2	2	2	2	1	1	0	3	1	0	0
TOTAL SA APPROACH	**29,196**	**4,704**	**5,310**	**3,882**	**1,339**	**1,710**	**4,366**	**5,766**	**3,261**	**592**	**1,121**	**1,373**	**805**	**2,002**
TOTAL	**90,773**	**29,189**	**189,660**	**15,559**	**7,270**	**9,551**	**19,391**	**26,811**	**18,148**	**7,540**	**1,725**	**5,485**	**8,315**	**19,825**

(In EUR m)	31.12.2017 Wood and paper industry	Metals, minerals	Media	Oil and Gas	Health, social services	Business services (including conglo-merates)	Collective services	Personal and domestic Services	Telecoms	Transport & logistics	Retail	Others	Total
Central governments and central banks	0	0	0	0	2,028	0	0	0	0	157	0	642	176,796
Institutions	0	0	4	0	41	394	454	2	39	426	0	1,509	38,788
Corporates	950	10,316	3,445	22,600	1,975	27,062	19,266	223	9,525	17,925	0	6,327	293,543
Retail	0	0	0	0	0	0	0	0	0	0	151,360	0	151,360
Equity Exposures IRB	0	0	0	0	0	0	0	0	0	0	0	4,834	4,834
TOTAL IRB APPROACH	**950**	**10,316**	**3,449**	**22,600**	**4,044**	**27,456**	**19,720**	**225**	**9,564**	**18,508**	**151,360**	**13,312**	**665,321**
Central governments or central banks	0	0	0	0	58	3	1	0	0	22	0	5,452	9,925
Regional governments or local authorities	0	0	1	0	64	15	1	0	0	31	0	187	915
Public sector entities	0	0	0	0	43	59	8	0	0	6	0	0	491
Multilateral developments banks	0	0	0	0	0	0	0	0	0	0	0	0	32
International Organisations	0	0	0	0	0	0	0	0	0	0	0	0	0
Institutions	0	0	0	0	0	18	0	0	0	0	0	873	23,644
Corporates	470	3,221	443	1,133	1,286	3,781	2,932	135	1,241	2,764	0	6,490	59,766
Retail	0	0	0	0	0	0	0	0	0	0	40,978	0	40,978
Secured by mortgages immovable property	3	39	1	0	13	31	5	1	0	26	12,690	0	13,229
Exposures in default	9	88	14	3	9	66	30	5	7	52	0	1,708	2,911
Items associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered bonds	0	0	0	0	0	0	0	0	0	0	0	0	2
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0
Claims in the form of CIU	0	0	0	0	0	0	0	0	0	0	0	22	48
Equity exposures	0	0	0	0	0	0	0	0	0	0	0	1,338	1,338
Other items	1	2	3	2	2	24	4	0	0	25	0	24,447	24,534
TOTAL SA APPROACH	**483**	**3,350**	**461**	**1,139**	**1,476**	**3,997**	**2,981**	**141**	**1,249**	**2,926**	**53,668**	**40,517**	**177,813**
TOTAL	**1,433**	**13,666**	**3,910**	**23,739**	**5,520**	**31,453**	**22,701**	**365**	**10,813**	**21,434**	**205,028**	**53,829**	**843,134**

TABLE 54: AGEING OF PAST-DUE EXPOSURES (CR1-D)

	31.12.2018					
	Gross carrying values					
(In EUR m)	≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year
Loans	4,396	1,106	462	1,239	716	3,121
Debt securities	0	0	0	0	0	0
TOTAL EXPOSURES	**4,396**	**1,106**	**462**	**1,239**	**716**	**3,121**

	31.12.2017					
	Gross carrying values					
(In EUR m)	≤ 30 days	> 30 days ≤ 60 days	> 60 days ≤ 90 days	> 90 days ≤ 180 days	> 180 days ≤ 1 year	> 1 year
Loans	5,443	1,245	750	998	504	4,169
Debt securities	0	0	0	0	0	0
TOTAL EXPOSURES	**5,443**	**1,245**	**750**	**998**	**504**	**4,169**

The amounts presented in the table above include technical unpaid, which primarily impact the category of unpaid under 31 days.

TABLE 55: MATURITY OF EXPOSURES (CRB-E)

The exposures are presented out of retail and non-transactional elements.

As of 31 st December 2018, 43% of the total net exposure to credit risk (excluding retail clientele) has a maturity of less than one year (compared to 44% in 2017) and 39% has a maturity of between one and five years (compared to 37% in 2017).

	31.12.2018				
	Net exposure value				
(In EUR m)	**<= 1 year**	**> 1 year <= 5 years**	**> 5 years**	**No stated maturity**	**Total**
Central governments and central banks	114,612	29,102	18,517	0	162,231
Institutions	15,993	8,578	11,047	0	35,618
Corporates	43,489	84,971	41,029	0	169,489
Equity Exposures IRB	0	0	0	4,202	4,202
TOTAL IRB APPROACH	**174,094**	**122,651**	**70,594**	**4,202**	**371,541**
Central governments or central banks	865	8,522	472	0	9,860
Regional governments or local authorities	118	454	274	0	846
Public sector entities	45	194	148	0	388
Multilateral developments banks	0	263	21	0	284
International Organisations	0	0	0	0	0
Institutions	956	15,417	89	0	16,461
Corporates	17,603	25,399	7,617	0	50,619
Exposures in default	468	2,221	181	0	2,870
Items associated with particularly high risk	0	0	0	0	0
Covered bonds	2	0	0	0	2
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0
Claims in the form of CIU	75	53	3	0	131
Equity exposures	0	0	0	1,578	1,578
TOTAL SA APPROACH	**20,132**	**52,523**	**8,805**	**1,578**	**83,039**
TOTAL	**194,226**	**175,174**	**79,398**	**5,780**	**454,579**

	31.12.2017				
	Net exposure value				
(In EUR m)	<= 1 year	> 1 year <= 5 years	> 5 years	No stated maturity	Total
Central governments and central banks	121,339	30,286	22,496	0	174,122
Institutions	9,659	9,743	10,904	0	30,306
Corporates	38,222	69,853	37,139	0	145,214
Equity Exposures IRB	0	0	0	4,833	4,833
TOTAL IRB APPROACH	**169,220**	**109,883**	**70,538**	**4,833**	**354,475**
Central governments or central banks	1,244	8,294	368	0	9,906
Regional governments or local authorities	99	457	300	0	856
Public sector entities	19	193	270	0	481
Multilateral developments banks	10	0	22	0	32
International Organisations	0	0	0	0	-
Institutions	1,252	15,961	12	0	17,225
Corporates	16,763	22,270	7,133	0	46,166
Exposures in default	636	1,941	80	0	2,657
Items associated with particularly high risk	0	0	0	0	-
Covered bonds	0	2	0	0	2
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	-
Claims in the form of CIU	20	23	5	0	48
Equity exposures	0	0	0	1,338	1,338
TOTAL SA APPROACH	**20,043**	**49,141**	**8,190**	**1,338**	**78,712**
TOTAL	**189,263**	**159,024**	**78,728**	**6,171**	**433,186**

TABLE 56: CREDIT RISK MITIGATION TECHNIQUES – OVERVIEW (CR3)

(In EUR m)	31.12.2018			
	Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by Collateral	Exposures secured by financial guarantees
Total loans	387,962	239,880	115,925	123,954
Total debt securities	63,044	147	0	147
TOTAL EXPOSURES	**451,006**	**240,027**	**115,925**	**124,101**

(In EUR m)	31.12.2017			
	Exposures unsecured – Carrying amount	Exposures secured – Carrying amount	Exposures secured by Collateral	Exposures secured by financial guarantees
Total loans	385,143	228,675	108,943	119,731
Total debt securities	57,727	323	0	323
TOTAL EXPOSURES	**442,869**	**228,998**	**108,943**	**120,054**

TABLE 57: CREDIT RISK MITIGATION TECHNIQUES – OVERVIEW (CR7)

(In MEUR)	31.12.2018	
	Pre-credit derivatives	Actual RWA s
Central governments and central banks	0	0
Institutions	0	0
Corporate - SME	0	0
Corporate - Specialised lending	0	0
Corporate - Other	0	0
Exposures under FIRB	**0**	**0**
Central governments and central banks	3	0
Institutions	20	11
Corporate - SME	0	0
Corporate - Specialised lending	0	0
Corporate - Other	1,703	1,408
Retail - Secured by real estate SME	0	0
Retail - Secured by real estate non-SME	0	0
Retail - Qualifying revolving	0	0
Retail - Other SME	0	0
Retail - Other non - SME	0	0
Equity exposures IRB	0	0
Other non credit-obligation assets	0	0
Exposures under AIRB	**1,726**	**1,419**
TOTAL	**1,726**	**1,419**

TABLE 58: SPECIALISED LENDING AND EQUITIES UNDER THE SIMPLE RISK WEIGHT METHOD – IRB (CR10)

(In EUR m)	31.12.2018						
	Specialised lending						
Regulatory categories	**Remaining maturity**	**On-balance sheet amount**	**Off-balance sheet amount**	**Risk weight**	**Exposure amount**	**RWAs**	**Expected losses**
Category 1	Less than 2.5 years	238	1,480	50%	705	352	1
	Equal to or more than 2.5 years	24	45	70%	40	28	0
Category 2	Less than 2.5 years	217	331	70%	349	244	2
	Equal to or more than 2.5 years	12	7	90%	14	13	0
Category 3	Less than 2.5 years	33	53	115%	50	58	1
	Equal to or more than 2.5 years	1	0	115%	1	1	0
Category 4	Less than 2.5 years	6	21	250%	14	35	1
	Equal to or more than 2.5 years	0	0	250%	0	0	0
Category 5	Less than 2.5 years	19	1	0%	19	0	9
	Equal to or more than 2.5 years	0	2	0%	0	0	0
Total	**Less than 2.5 years**	**513**	**1,886**		**1,137**	**689**	**14**
	Equal to or more than 2.5 years	**37**	**55**		**55**	**42**	**0**
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		197	0	190%	197	375	30
Exchange-traded equity exposures		18	0	290%	18	52	4
Other equity exposures		3,987	0	370%	3,987	14,751	1,180
TOTAL		**4,202**	**0**		**4,202**	**15,178**	**1,214**

(In EUR m)	31.12.2017						
	Specialised lending						
Regulatory categories	**Remaining maturity**	**On-balance sheet amount**	**Off-balance sheet amount**	**Risk weight**	**Exposure amount**	**RWAs**	**Expected losses**
Category 1	Less than 2.5 years	188	1,222	50%	577	288	0
	Equal to or more than 2.5 years	3	79	70%	40	28	0
Category 2	Less than 2.5 years	190	364	70%	328	230	1
	Equal to or more than 2.5 years	11	3	90%	12	10	0
Category 3	Less than 2.5 years	36	130	115%	81	94	2
	Equal to or more than 2.5 years	25	1	115%	25	29	1
Category 4	Less than 2.5 years	5	10	250%	9	21	1
	Equal to or more than 2.5 years	0	0	250%	0	0	0
Category 5	Less than 2.5 years	24	1	0%	25	0	13
	Equal to or more than 2.5 years	0	2	0%	0	0	0
Total	**Less than 2.5 years**	**443**	**1,728**		**1,020**	**633**	**17**
	Equal to or more than 2.5 years	**39**	**85**		**78**	**68**	**1**
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		198	0	190%	198	376	30
Exchange-traded equity exposures		20	0	290%	20	59	5
Other equity exposures		4,615	0	370%	4,615	17,076	1,366
TOTAL		**4,833**	**0**		**4,833**	**17,511**	**1,401**

TABLE 59: RWA FLOW STATEMENTS OF CREDIT RISK EXPOSURES UNDER IRB (CR8)

(In EUR m)	RWA amounts	Capital requirements
RWA as at end of previous reporting period (31.12.2017)	**154,945**	**12,396**
Asset size	10,035	803
Asset quality	(2,790)	(223)
Model updates	1,158	93
Methodology and policy	197	16
Acquisitions and disposals	0	0
Foreign exchange movements	856	69
Other	175	14
RWA as at end of reporting period (31.12.2018)	**164,576**	**13,166**

BREAKDOWN OF CREDIT RISK – IMPAIRED EXPOSURES AND IMPAIRMENTS

TABLE 60: NON-PERFORMING AND FORBORNE EXPOSURES (CR1-E)

	31.12.2018			31.12.2017		
(In EUR m)	Debt securities	Loans and advances	Off-balance sheet exposures	Debt securities	Loans and advances	Off-balance sheet exposures
Gross carrying amount of performing and non-performing exposures	63,212	639,309	326,771	58,111	626,417	437,935
of which performing but past due >30 days and <=90 days	0	1,266	0	0	1,565	0
of which performing forborne	0	897	5	0	1,004	16
of which non-performing	22	17,937	1,094	130	20,729	2,657
of which: defaulted	*22*	*17,937*	*1,094*	130	20,729	2,657
of which: impaired	*22*	*17,937*	*1,094*	*130*	*20,729*	*2,657*
of which: forborne	*0*	*3,895*	*163*	*0*	*4,853*	*308*
Accumulated impairment and provisions and negative fair value adjustments due to credit risk						
Performing exposures	(9)	(1,613)	(638)	43	(1,355)	(109)
of which: forborne	*0*	*(34)*	*0*	*0*	*0*	*0*
On non-performing exposures	(13)	(9,743)	(307)	(105)	(11,244)	(308)
of which: forborne	*0*	*(1,858)*	*(13)*	*0*	*(1,985)*	*(14)*
Collaterals and financial guarantees received						
Performing exposures	0	4,289	317	0	6,007	560
of which: forborne	*0*	*2,173*	*69*	*0*	*2,050*	*242*

TABLE 61: CHANGES IN STOCK OF GENERAL AND SPECIFIC CREDIT RISK ADJUSTMENTS (CR2-A)

	31/12/2018			
(In MEUR)	Stage 1	Stage 2	Stage 3	Total
Opening balance	(1,166)	(1,385)	(11,548)	(14,099)
Increases due to origination and acquisition	(466)	(316)	(380)	(1,162)
Decreases due to derecognition	489	482	582	1,553
Changes due to change in credit risk (net)	102	16	(736)	(619)
Decrease in allowance account due to write-offs	-	-	2,136	2,136
Other adjustments	5	1	58	64
Closing balance	(1,037)	(1,202)	(9,888)	(12,127)
Recoveries of previously written-off amounts recorded directly to the statement of profit or loss	-	-	130	130
Amounts written-off directly to the statement of profit or loss	-	-	(258)	(258)

TABLE 62: PROVISIONED OUTSTANDINGS INDUSTRY BY SECTOR

	31.12.2018				01.01.2018			
(In EUR m)	**Stage 1**	**Stage 2**	**Stage 3**	**Total**	**Stage 1**	**Stage 2**	**Stage 3**	**Total**
Finance & insurance	105,811	668	421	106,900	90,717	733	359	91,809
Real estate	31,468	1,213	846	33,526	25,099	1,329	893	27,321
Public administration	167,683	817	280	168,780	184,254	1,137	423	185,814
Food & agriculture	14,980	776	553	16,309	13,990	744	677	15,411
Consumer goods	6,496	278	389	7,162	6,947	295	496	7,738
Chemicals, rubber and plastics	7,987	215	154	8,356	8,966	198	133	9,297
Retail trade	18,252	1,253	796	20,302	16,750	1,113	871	18,734
Wholesale trade	30,114	1,495	930	32,540	25,393	1,150	1,256	27,800
Construction	17,921	977	964	19,862	16,314	1,151	1,338	18,803
Transport equip. Manuf.	6,338	88	53	6,479	6,941	309	95	7,346
Education and Associations	1,623	45	40	1,708	1,400	56	47	1,502
Hotels & Catering	4,944	631	376	5,951	4,354	640	416	5,410
Automobiles	9,641	103	119	9,863	8,309	80	80	8,469
Machinery and equipment	15,018	661	391	16,071	18,474	603	523	19,600
Forestry, paper	1,114	103	75	1,292	1,117	87	212	1,416
Metals, minerals	13,704	629	491	14,824	12,013	796	622	13,432
Media	3,906	138	85	4,129	3,589	160	116	3,866
Oil and Gas	25,322	743	341	26,406	22,019	1,386	469	23,874
Health, social services	3,628	172	43	3,843	3,715	170	43	3,927
Business services (including conglomerates)	36,328	1,776	855	38,959	28,896	1,321	924	31,141
Collective services	24,427	748	159	25,335	21,014	1,139	147	22,300
Personal and domestic services	321	40	40	401	306	46	28	379
Telecom	10,152	115	382	10,650	9,976	251	410	10,637
Transport & logistics	20,912	1,065	675	22,653	18,919	1,331	793	21,043
Retail	184,552	16,017	9,305	209,875	183,066	16,353	10,723	210,142
Others	3,438	361	288	4,087	15,982	227	301	16,510
TOTAL	**766,083**	**31,127**	**19,053**	**816,263**	**748,520**	**32,806**	**22,394**	**803,720**

TABLE 63: IMPAIRED ON-BALANCE SHEET EXPOSURES BY INDUSTRY SECTOR

	31.12.2018				01.01.2018			
(In EUR m)	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3	Total
Finance & insurance	25	10	190	225	27	12	152	191
Real estate	52	80	364	496	65	112	418	595
Public administration	14	6	68	88	17	4	62	83
Food & agriculture	37	36	253	326	39	39	327	405
Consumer goods	10	26	315	351	11	14	416	441
Chemicals, rubber and plastics	10	12	79	101	11	14	93	118
Retail trade	36	61	397	494	36	47	464	547
Wholesale trade	38	43	650	732	48	50	790	888
Construction	24	54	508	586	27	47	732	806
Transport equip. Manuf.	3	7	26	36	5	4	38	47
Education and Associations	5	4	26	35	5	6	24	35
Hotels & Catering	16	28	197	241	18	39	197	254
Automobiles	8	4	65	77	8	3	56	67
Machinery and equipment	16	20	230	266	18	16	302	336
Forestry, paper	4	5	46	55	4	6	66	76
Metals, minerals	38	20	238	296	40	29	271	340
Media	5	6	49	60	6	14	66	86
Oil and Gas	22	36	78	136	30	38	107	175
Health, social services	11	11	25	47	13	10	25	48
Business services (including conglomerates)	86	64	486	636	91	62	444	597
Collective services	21	18	89	128	34	42	70	146
Personal and domestic services	1	3	31	35	1	2	14	17
Telecom	14	20	27	61	22	21	22	65
Transport & logistics	33	24	410	465	31	30	325	386
Retail	425	573	4,867	5,866	496	659	5,817	6,972
Others	81	54	348	483	63	92	471	626
TOTAL	**1,035**	**1,225**	**10,062**	**12,322**	**1,166**	**1,412**	**11,769**	**14,347**

6.8 COUNTERPARTY RISK DETAIL

Amounts indicated in this section correspond solely to counterparty risk (*i.e.* without credit risk).

BREAKDOWN OF COUNTERPARTY RISK – OVERVIEW

TABLE 64: COUNTERPARTY RISK EXPOSURE BY EXPOSURE CLASS

	31.12.2018								
(In EUR m)	IRB			Standard			Total		
Exposure class	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**
Sovereign	17,455	17,532	662	1	1	1	17,456	17,533	662
Institutions	19,974	19,974	3 826	31,139	31,139	1,113	51,113	51,113	4,940
Corporates	47,873	47,796	12,526	2,283	2,283	2,189	50,156	50,079	14,715
Retail	388	388	61	287	1	1	675	389	62
Others	7	7	0	436	436	448	443	443	448
TOTAL	**85,696**	**85,696**	**17,074**	**34,146**	**33,861**	**3,752**	**119,843**	**119,557**	**20,827**

	31.12.2017								
(In EUR m)	IRB			Standard			Total		
Exposure class	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**	**Exposure**	**EAD**	**RWA**
Sovereign	16,632	16,637	415	78	78	13	16,711	16,715	429
Institutions	19,289	19,289	3,831	30,593	30,593	1,649	49,882	49,882	5,480
Corporates	41,202	41,198	12,481	4,268	4,268	3,987	45,470	45,465	16,468
Retail	114	114	6	280	1	1	395	115	8
Others	12	12	0	1,203	1,203	1,171	1,215	1,215	1,171
TOTAL	**77,250**	**77,250**	**16,734**	**36,422**	**36,143**	**6,822**	**113,672**	**113,393**	**23,556**

The tables give the amounts excluding the CVA (Credit Value Adjustment). CVA amounted to EUR 4.9 billion at 31st December 2018 (vs. EUR 3.8 billion at 31st December 2017).

BREAKDOWN COUNTERPARTY RISK – DETAIL

TABLE 65: IRB CCR EXPOSURES BY PORTFOLIO AND PD SCALE (CCR4)

The form below presents non-defaulted exposures to counterparty risk using the internal approach for RWA calculation. In accordance with the EBA's recommendations, the CVA charges and exposures cleared through a CCP are excluded.

	31.12.2018						
(In EUR m)	**PD scale**	**EAD post CRM**	**Average PD**	**Average LGD**	**Average maturity**	**RWA**	**RWA density**
Central governments and central banks	0.00 to <0.15	16,916	0,02%	12,04%	1,29	285	1,68%
	0.15 to <0.25						
	0.25 to <0.50	174	0,26%	44,70%	1,00	65	37,12%
	0.50 to <0.75	62	0,50%	45,00%	2,45	46	73,25%
	0.75 to <2.50	293	1,10%	21,54%	0,98	115	39,18%
	2.50 to <10.00	86	7,54%	45,00%	1,89	152	176,36%
	10.00 to <100.00						
	Sub-total	**17,532**	**0,07%**	**12,80%**	**1,29**	**662**	**3,77%**
Institutions	0.00 to <0.15	16,708	0,04%	23,38%	1,72	1 600	9,58%
	0.15 to <0.25						
	0.25 to <0.50	1,646	0,26%	31,17%	1,89	630	38,29%
	0.50 to <0.75	426	0,50%	43,99%	1,89	292	68,71%
	0.75 to <2.50	875	1,34%	38,82%	1,47	802	91,65%
	2.50 to <10.00	152	4,31%	40,60%	1,25	199	131,01%
	10.00 to <100.00	167	15,83%	19,43%	1,30	302	181,44%
	Sub-total	**19,974**	**0,29%**	**25,23%**	**1,72**	**3 826**	**19,16%**
Corporate – SME	0.00 to <0.15	34	0,10%	27,98%	3,08	7	19,82%
	0.15 to <0.25	94	0,16%	8,14%	5,00	11	11,60%
	0.25 to <0.50	24	0,26%	31,48%	1,44	6	22,92%
	0.50 to <0.75	39	0,50%	31,51%	2,37	15	38,76%
	0.75 to <2.50	60	1,55%	32,29%	2,07	37	61,04%
	2.50 to <10.00	132	3,71%	36,25%	1,35	109	82,96%
	10.00 to <100.00	10	15,75%	35,11%	1,85	14	141,66%
	Sub-total	**394**	**1,99%**	**27,42%**	**2,60**	**199**	**50,48%**
Corporate – Specialised lending	0.00 to <0.15	100	0,04%		3,56	16	16,03%
	0.15 to <0.25						
	0.25 to <0.50	30	0,26%	10,17%	4,21	5	16,11%
	0.50 to <0.75	146	0,50%	12,54%	1,00	23	15,43%
	0.75 to <2.50	504	1,63%	12,21%	2,67	167	33,09%
	2.50 to <10.00	403	3,82%	10,37%	1,12	105	26,00%
	10.00 to <100.00						
	Sub-total	**1,183**	**2,07%**	**11,51%**	**2,05**	**315**	**26,63%**
Corporate – Other	0.00 to <0.15	31,388	0,05%	32,93%	1,60	4 414	14,06%
	0.15 to <0.25						
	0.25 to <0.50	3 935	0,26%	31,34%	2,13	1 197	30,42%
	0.50 to <0.75	4 765	0,50%	21,57%	1,89	1 438	30,17%
	0.75 to <2.50	3 493	1,40%	27,28%	2,18	2 122	60,74%
	2.50 to <10.00	2 322	4,31%	31,34%	1,70	2 278	98,10%
	10.00 to <100.00	182	14,60%	37,51%	1,80	323	177,90%
	Sub-total	**46,085**	**0,49%**	**30,91%**	**1,72**	**11 771**	**25,54%**
Retail – Other non – SME							0,74%
	0.00 to <0.15	7	0,03%	7,08%	4,97	0	
	0.15 to <0.25	161	0,16%	7,65%	5,00	5	2,82%
	0.25 to <0.50	100	0,34%	46,00%	1,07	28	27,90%
	0.50 to <0.75						
	0.75 to <2.50	119	1,23%	19,55%	1,00	27	22,92%
	2.50 to <10.00						
	10.00 to <100.00	2	24,71%	24,00%	5,00	1	61,40%
	Sub-total	**388**	**0,63%**	**21,19%**	**2,77**	**61**	**15,60%**
SECURITISATION POSITIONS	**Sub-total**	**7**				**0**	**2,00%**
TOTAL		**85,562**	**0,39%**	**25,18%**	**1,65**	**16 833**	**19,67%**

(In EUR m)	PD scale	EAD post CRM	Average PD	Average LGD	Average maturity	RWA	RWA density
		31.12.2017					
Central governments and central banks	0.00 to <0.15	16,351	0.01%	6.27%	1.37	243	1%
	0.15 to <0.25						
	0.25 to <0.50	24	0.26%	30.79%	1.20	6	27%
	0.50 to <0.75	8	0.50%	45.00%	1.32	5	59%
	0.75 to <2.50	224	1.10%	26.73%	1.58	125	56%
	2.50 to <10.00	30	3.25%	40.91%	1.00	36	120%
	10.00 to <100.00						
	Sub-total	**16,637**	**0.03%**	**6.66%**	**1.37**	**415**	**2%**
Institutions	0.00 to <0.15	16,015	0.05%	20.75%	1.85	1,671	10%
	0.15 to <0.25						
	0.25 to <0.50	962	0.26%	31.37%	2.04	472	49%
	0.50 to <0.75	935	0.50%	33.65%	1.53	555	59%
	0.75 to <2.50	986	1.31%	18.00%	1.81	866	88%
	2.50 to <10.00	102	5.07%	37.59%	1.37	126	123%
	10.00 to <100.00	18	17.84%	32.00%	3.60	43	242%
	Sub-total	**19,019**	**0.19%**	**21.99%**	**1.84**	**3,733**	**20%**
Corporate – SME	0.00 to <0.15	99	0.07%	61.73%	2.08	23	23%
	0.15 to <0.25						
	0.25 to <0.50	28	0.28%	38.28%	2.28	13	45%
	0.50 to <0.75	43	0.50%	33.44%	1.93	18	41%
	0.75 to <2.50	89	1.65%	33.01%	1.92	56	63%
	2.50 to <10.00	130	3.88%	30.24%	1.67	97	75%
	10.00 to <100.00	15	18.02%	34.77%	2.21	21	145%
	Sub-total	**404**	**2.36%**	**39.66%**	**1.91**	**228**	**56%**
Corporate – Specialised lending	0.00 to <0.15	18	0.03%		3.54	3	16%
	0.15 to <0.25						
	0.25 to <0.50						
	0.50 to <0.75	170	0.50%	16.25%	1.00	34	20%
	0.75 to <2.50	371	1.55%	11.51%	1.39	103	28%
	2.50 to <10.00	300	3.91%	14.52%	1.00	122	41%
	10.00 to <100.00						
	Sub-total	**860**	**2.13%**	**13.54%**	**1.22**	**263**	**31%**
Corporate – Other	0.00 to <0.15	27,274	0.05%	33.16%	1.77	4,246	16%
	0.15 to <0.25						
	0.25 to <0.50	3,040	0.26%	30.28%	2.16	976	32%
	0.50 to <0.75	3,571	0.50%	29.64%	2.01	1,451	41%
	0.75 to <2.50	3,238	1.51%	28.35%	2.53	2,125	66%
	2.50 to <10.00	2,311	4.33%	31.69%	1.91	2,365	102%
	10.00 to <100.00	262	14.22%	27.45%	2.62	356	136%
	Sub-total	**39,697**	**0.57%**	**31.98%**	**1.89**	**11,520**	**29%**
Retail – Other non – SME	0.00 to <0.15	113	0.03%	48.69%	2.95	6	5%
	0.15 to <0.25						
	0.25 to <0.50	0	0.46%	100.00%	5.00	0	73%
	0.50 to <0.75						
	0.75 to <2.50						
	2.50 to <10.00						
	10.00 to <100.00	1	24.71%	24.00%	5.00	0	61%
	Sub-total	**114**	**0.17%**	**48.71%**	**2.97**	**6**	**6%**
SECURITISATION POSITIONS	**Sub-total**	**12**				**0**	**0%**
TOTAL		**76,743**	**0.38%**	**23.50%**	**1.76**	**16,165**	**21%**

TABLE 66 CCR3: STANDARDISED APPROACH – CCR EXPOSURES BY REGULATORY PORTFOLIO AND RISK

In accordance with the EBA's guidelines for revised pillar 3 (EBA/GL/2016/11), amounts are presented without securitisation.

	31.12.2018															
(In EUR m)	Risk weight															
Exposure Classes	**0%**	**2%**	**4%**	**10%**	**20%**	**35%**	**50%**	**70%**	**75%**	**100%**	**150%**	**250%**	**370%**	**1 250%**	**Others RW**	**Total**
Central governments or central banks	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Regional governments or local authorities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public sector entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multilateral Development Banks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
International Organisations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Institutions	2,868	26,135	0	0	1,705	0	308	0	0	92	0	0	0	0	31	31,139
Corporates	0	0	0	0	28	0	1	0	0	2,163	0	0	0	0	91	2,283
Retail	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Secured by mortgages on immovable property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures in default	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Items associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered bonds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Collective investments undertakings (CIU)	0	0	0	0	0	0	0	0	0	436	0	0	0	0	0	436
Equity exposures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other exposures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**2,868**	**26,135**	**0**	**0**	**1,733**	**0**	**309**	**0**	**0**	**2,693**	**0**	**0**	**0**	**0**	**122**	**33,861**

	31.12.2017															
(In EUR m)	Risk weight															
Exposure Classes	**0%**	**2%**	**4%**	**10%**	**20%**	**35%**	**50%**	**70%**	**75%**	**100%**	**150%**	**250%**	**370%**	**1 250%**	**Autres RW**	**Total**
Central governments or central banks	53	0	0	0	0	0	0	0	0	11	0	0	0	0	14	78
Regional governments or local authorities	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Public sector entities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multilateral Development Banks	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
International Organisations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Institutions	3,867	22,375	0	0	3,213	0	428	0	0	332	0	0	0	0	374	30,588
Corporates	0	64	0	0	251	0	21	0	2	3,900	12	0	0	0	18	4,268
Retail	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Secured by mortgages on immovable property	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures in default	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Items associated with particularly high risk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Covered bonds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Claims on institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Collective investments undertakings (CIU)	0	0	0	0	0	0	65	0	0	1,136	2	0	0	0	0	1,203
Equity exposures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other exposures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**3,922**	**22,438**	**0**	**0**	**3,466**	**0**	**514**	**0**	**2**	**5,380**	**14**	**0**	**0**	**0**	**406**	**36,143**

TABLE 67: ANALYSIS OF COUNTERPARTY CREDIT RISK (CCR) EXPOSURE BY APPROACH (CCR1)

The Internal Model Method (IMM), subject to supervisor authority, allows the use of an internal model to calculate the Effective Expected Positive Exposure (EEPE) multiplied by a regulatory factor called "alpha" as defined in Article 284-4 of Regulation (EU) 575/2013. For Société Générale, it is 1.5. The goal of the internal model is to determine exposure profiles.

	31.12.2018						
(In EUR m)	**Notional**	**Replacement cost / current market value**	**Potential future credit exposure**	**EEPE**	**Multiplier**	**EAD post CRM**	**RWAs**
Mark to market		22,109	26,684			26,499	8,778
Original exposure							
Standardised approach							
IMM (for derivatives and SFTs)				42,003	1.5	63,005	12,449
Of which securities financing transactions				16,797	1.5	25,196	1,885
Of which derivatives and long settlement transactions				25,206	1.5	37,809	10,564
Of which from contractual cross - product netting							
Financial collateral simple method (for SFTs)							
Financial collateral comprehensive method (for SFTs)						5,848	1,466
VaR for SFTs							
TOTAL							**22,694**

TABLE 68: COUNTERPARTY RISK EXPOSURE AT DEFAULT (EAD) BY GEOGRAPHIC REGION AND MAIN COUNTRIES

(In EUR m)	31.12.2018	31.12.2017
Counterparty Risk	**EAD**	**EAD**
France	20,443	18,605
United Kingdom	14,699	15,624
Germany	9,324	9,502
Luxembourg	4,367	9,484
Other Western European countries	11,320	12,831
Czech Republic	9,563	3,772
Other Eastern European countries EU	851	777
Eastern Europe excluding EU	1,751	2,554
Africa and Middle East	1,478	1,354
United States	27,571	24,546
Other countries of North America	2,258	1,329
Latin America and Caribbean	1,535	1,596
Japan	4,349	2,854
Asia-Pacific	10,049	8,566
TOTAL	**119,557**	**113,393**

TABLE 69: CCR8 EXPOSURES AND RWA TO CENTRAL COUNTERPARTIES (CCP)

	31.12.2018		31.12.2017	
(In EUR m)	EAD (post-CRM)	RWA	EAD (post-CRM)	RWA
Exposures to QCCP's	40,233	1,702	38,255	1,759
Exposures for trades at QCCPs (excluding initial margin and default fund contributions); of which	20,325	413	18,267	368
■ OTC derivatives	2,510	50	1,927	42
■ Exchange-traded derivatives	16,833	344	15,451	309
■ Securities financing transactions	982	20	889	18
■ Netting sets where cross-product netting has been approved			-	-
Segregated initial margin	7,007	0	5,659	-
Non-segregated initial margin	9,273	185	11,150	228
Pre-funded default fund contributions	3,628	1,103	3,179	1,163
Alternative calculation of own funds requirements for exposures		13	-	53
Exposured to non-QCCPs	-	-	-	-
Exposures for trades at non-QCCPs (excluding initial margin and default fund contributions); of which	-	-	-	-
■ OTC derivatives	-	-	-	-
■ Exchange-traded derivatives	-	-	-	-
■ Securities financing transactions	-	-	-	-
■ Netting sets where cross-product netting has been approved	-	-	-	-
Segregated initial margin	-	-	-	-
Non-segregated initial margin	-	-	-	-
Pre-funded default fund contributions	-	-	-	-
Unfunded default fund contributions	-	-	-	-

TABLE 70: CREDIT DERIVATIVES EXPOSURES (CCR6)

	31.12.2018		
	Credit derivative hedges		Other credit derivatives
(In EUR m)	Protection bought	Protection sold	
Notionals			
Single-name credit default swaps	83,754	89,688	2,243
Index credit default swaps	39,402	53,149	472
Total return swaps	514	-	-
Credit options	2,752	3,708	-
Other credit derivatives	10,862	4,507	-
TOTAL NOTIONALS	**137,283**	**151,052**	**2,715**
FAIR VALUES			
Positive fair value (asset)	*1,538*	*3,043*	*60*
Negative fair value (liability)	*(2,641)*	*(1,712)*	*(91)*

TABLE 71: CREDIT DERIVATIVES EXPOSURES - PROTECTIONS BOUGHT

This table presents the notional value of credit derivative hedges.

(En M EUR)	31.12.2018	31.12.2017
Sovereign	1,218	1,198
Institutions	119,317	128,379
Corporates	16,748	19,255
Retail	0	0
Others	0	0
TOTAL	**137,283**	**148,832**

TABLE 72: IMPACT OF NETTING AND COLLATERAL HELD ON EXPOSURE VALUES (CCR5-A)

	31.12.2018				
(In EUR m)	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposire
Derivatives	256,096	186,648	77,610	18,398	55,662
SFTs	505,495	109,553	524,827	399,964	42,031
Cross-product netting	8,130	60,267	81,940	18,957	2,585
TOTAL	**769,722**	**356,468**	**684,377**	**437,319**	**100,279**

The concept of net credit exposure presented in this table differs from that of EAD, given that other parameters not included here may be involved in the calculation of regulatory exposure (regulatory haircuts,add-on,...).

TABLE 73: BREAKDOWN ON COLLATERAL OF COUNTERPARTY RISK (CCR5-B)

	31.12.2018			
	Collateral used in derivative transactions		Collateral used in SFTs	
(En M EUR)	Fair value of collateral received	Fair value of posted collateral	Fair value of collateral received	Fair value of posted collateral
Cash	21,625	20,732	46,957	36,781
Banks/Broker-dealers	202	401	8,465	1,146
Central Counterparties	38	14,158		2,122
Government-sponsored entities/ Government Agencies				
Hedge funds			3	3
Insurance and Financial Guaranty Firms	1	4	923	2,141
Mutual funds	279		192	768
Nonfinancial corporations	208	395	25,029	47,362
Pension Plans		-	-	35
Sovereign national governments	6,085	2,248	235,789	255,050
SPVs, SPCs, and SPEs			0	0
Supranationals			1,841	1,110

TABLE 74: RWA FLOW STATEMENTS OF COUNTERPARTY RISK EXPOSURES UNDER IRB (CCR7)

IMM is the internal model method applied to calculate exposure to the counterparty risk. The banking models used are subject to approval by the regulator.

Application of these internal models has an impact on the method used to calculate the EAD of market transactions and on the Basel Maturity calculation method.

(In EUR m)	RWA amounts – IRB IMM	RWA amounts – IRB hors IMM	RWA amounts – Total IRB	Capital requirements – IRB IMM	Capital requirements – IRB hors IMM	Capital requirements – Total IRB
RWA as at end of previous reporting period (31.12.2017)	**11,707**	**5,028**	**16,734**	**937**	**402**	**1,339**
Asset size	786	(305)	480	63	(24)	38
Credit quality of counterparties	(241)	(669)	(909)	(19)	(53)	(73)
Model updates	0	0	0	0	0	0
Methodology and policy	0	0	0	0	0	0
Acquisitions and disposals	0	0	0	0	0	0
Foreign exchange movements	125	46	171	10	4	14
Other	73	525	598	6	42	48
RWA as at end of reporting period (31.12.2018)	**12,449**	**4,625**	**17,074**	**996**	**370**	**1,366**

The table above presents the data without the CVA (Credit Value Adjustment) which is EUR 4.1 billion in advanced method.

TABLE 75: CREDIT VALUATION ADJUSTMENT (CVA) (CCR2)

	31.12.2018		31.12.2017	
(In EUR m)	**Exposure value**	**RWA**	**Exposure value**	**RWA**
Total portfolios subject to the Advanced Method	35,461	4,074	29,793	2,861
(i) VaR component (including the 3×multiplier)		602		203
(ii) Stressed VaR component (including the 3×multiplier)		3,471		2,658
All portfolios subject to the Standardised Method	8,759	830	8,610	898
Based on Original Exposure Method	0	0		
TOTAL SUBJECT TO THE CVA CAPITAL CHARGE	**44,220**	**4,904**	**38,403**	**3,760**

TABLE 76 BREAKDOWN OF DERIVATIVE INSTRUMENT COMMITMENTS (NOTIONAL) - PRUDENTIAL SCOPE

(En M EUR)	31.12.2018
Interest rate instruments	**11,514,239**
Firm instruments	9,485,970
o/w Swaps	*7,877,925*
o/w FRAs	*1,608,045*
Options	2,028,269
Foreign exchange instruments	**3,824,145**
Instruments fermes	2,662,598
Options	1,161,547
Equity and index instruments	**1,087,875**
Instruments fermes	154,988
Options	932,887
Commodity instruments	**190,704**
Instruments fermes	139,557
Options	51,147
Credit derivatives	**293,464**
Other forward financial instruments	38,422
TOTAL	**16,948,849**

7

SECURITISATION

IN BRIEF

This section provides information on Societe Generale's securitisation positions, which have already been incorporated into the relevant sections (credit risks and market risks).

They are subject to specific capital requirements according to European regulations (CRR/CRD4).

Regulatory capital requirements for securitisations held or acquired in the banking book at end-2018

181 M EUR

(Amount at end-2017: 163 M EUR)

Regulatory capital requirements for securitisations held or acquired in the trading book at end-2018

16 M EUR

(Amount at end-2017: 19 M EUR)

7.1 SECURITISATIONS AND REGULATORY FRAMEWORK

This chapter presents information on Societe Generale's securitisation activities, acquired or carried out for proprietary purposes or for its customers. It describes the risks associated with these activities and the management of said risks. Finally, it contains quantitative information to describe these activities during 2018, as well as the capital requirements for the Group's regulatory banking book and trading book within the scope defined by prudential regulations.

As defined in prudential regulations, the term securitisation refers to a transaction or scheme, whereby the credit risk associated with an exposure or pool of exposures is divided into tranches, having the following characteristics:

- the transaction achieves significant risk transfer, in case of origination;
- payments in the transaction or scheme are contingent on the performance of the exposure or pool of exposures;
- subordination of some tranches determines the distribution of losses during the ongoing life of the transaction or risk transfer scheme.

Securitisation positions are subject to the regulatory accounting treatment defined in Part 3, Title II, Chapter 5 of Regulation (EU) 575/2013 on prudential requirements for credit institutions and investment firms (CRR). Such positions held in the regulatory banking book or trading book are given weightings ranging from 7% to 1,250% depending on their credit quality and subordination rank.

This securitisation regulatory framework is due to evolve. Indeed, the Basel Committee published the final version of the new securitisation framework in July 2016. The new rules amend those adopted at the end of 2014.

European regulations to transpose the Basel proposals were adopted in December 2017. They define the criteria for the identification of "simple, transparent and standardised" (STS) securitisations to which specific and lower capital charges will apply. The European regulations also specify the authorisation procedure for third-party organisations that will be involved in ensuring compliance with requirements relating to STS securitisations. The rules for retention of risk by the transferor have also been maintained at 5%, following active discussions during the tripartite (involving the Parliament, the Council and the Commission) dialogue at European level. In addition, the creation of a data repository for securitisation transactions will increase transparency in the market.

The new rules will apply as of 1 January 2019. Guidelines or Regulatory Technical Standards issued by the technical authorities, ESMA and the EBA, clarify some aspects of the new European regulations. Regarding securitisations initiated before 1 January 2019, the banks continue to apply until 31 December 2019 the rules in effect on December 31, 2018.

7.2 ACCOUNTING METHODS

The securitisation transactions that Societe Generale invests in (i.e. the Group invests directly in certain securitisation positions, is a liquidity provider or a counterparty of derivative exposures) are recognised in accordance with Group accounting principles, as set forth in the notes to the consolidated financial statements.

In the financial statements, the classification of securitisation positions depends on their contractual characteristics and the way the entity manages those financial instruments.

When analyzing the contractual cash flow of financial assets are instruments issued by a securitisation vehicle. the entity must analyse the contractual terms, as well as the credit risk of each tranche and the exposure to credit risk in the underlying pool of financial instruments. To that end, the entity must apply a “look- through approach” to identify the underlying instruments that are creating the cash flows.

Contractual flows that represent solely payments of principal and interest on the principal amount outstanding are consistent with a basic lending arrangement (SPPI flows: Solely Payments of Principal and Interest).

In the financial statements, the basic securitisation positions (SPPI) are classified in 2 categories, depending on the business model used to managed them:

- when they are managed under a “Collect and Sell” business model, the positions are classified as “Financial assets at fair value through other comprehensive income”.

  Accrued or earned income on these positions is recorded in profit or loss based on the effective interest rate, under Interest and similar income.

  At the reporting date, these instruments are measured at fair value, and changes in fair value, excluding income, are recorded under Unrealised or deferred gains and losses. Furthermore, as these financial assets are subject to impairment for credit risk, changes in expected credit losses are recorded in profit or losses under Cost of risk with a corresponding entry to Unrealised or deferred gains and losses.
- when they are managed under a “Hold to Collect” business model, the positions are measured at amortised cost

  Subsequent to initial recognition, these positions are measured at amortised cost using the effective interest method, and their accrued or earned income is recorded in the income statement under Interest and similar income. Furthermore, as these financial assets are subject to impairment for credit risk, changes in expected credit losses are recorded in profit or loss under Cost of risk with a corresponding impairment of amortised cost under balance sheet assets.

The securitisation positions that are not basic (non–SPPI) will be measured at fair value through profit or loss, regardless of the business model for managing them.

At the balance sheet date, these assets are recorded in the balance sheet under Financial assets at fair value through profit or loss and changes in the fair value of these instruments (excluding interest income) are recorded in the income statement under Net gains or losses on financial instruments at fair value through profit or loss.

Interest income and expense are recorded in the income statement under Interest and similar income and Interest and similar expense.

Securitisation positions classified among the financial assets at amortised cost or among the financial assets at fair value through other comprehensive income, are systematically subject to impairment or a loss allowance for expected credit losses. These impairments and loss allowances are booked on initial recognition of the assets, without waiting for objective evidence of impairment to occur.

To determine the amount of impairment to be recorded at each reporting date, these assets are classified into one of three categories based on the increase in credit risk observed since initial recognition. Stage 1 exposures are impaired for the amount of credit losses that the Group expects to incur within 12 months; Stage 2 and 3 exposures are impaired for the amount of credit losses that the Group expects to incur over the life of the exposures.

For financial assets measured at fair value through profit or loss, their fair value includes already the expected credit loss, as assessed by the market participant, on the residual lifetime of the instrument.

Reclassification of securitisation positions is only required in the exceptional event that the Group changes the business model used to manage these assets.

Synthetic securitisations in the form of Credit Default Swaps follow accounting recognition rules specific to trading derivatives.

The securitisation transactions are derecognised when the contractual rights to the cash flows on the asset expire or when the Group has transferred the contractual rights to receive the cash flows and substantially all of the risks and rewards linked to the ownership of the asset. Where the Group has transferred the cash flows of a financial asset but has neither transferred nor retained substantially all the risks and rewards of its ownership and has effectively not retained control of the financial asset, the Group derecognises it and, where necessary, recognises a separate asset or liability to cover any rights and obligations created or retained as a result of transferring the asset. If the Group has retained control of the asset, it continues to recognise it in the balance sheet to the extent of its continuing involvement in that asset.

When a financial asset is derecognised in its entirety, a gain or loss on disposal is recorded in the income statement for an amount equal to the difference between the carrying value of the asset and the payment received for it, adjusted where necessary for any unrealised profit or loss previously recognised directly in equity.

7.3 STRUCTURED ENTITIES

A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity. When assessing the existence of a control over a structured entity, all facts and circumstances shall be considered among which:

- the purpose and design of the entity;
- the structuring of the entity (especially, the power to direct the relevant activities of the entity);
- risks to which the entity is exposed by way of its design and the Group's exposure to some or all of these risks;
- potential returns and benefits for the Group.

Unconsolidated structured entities are those that are not exclusively controlled by the Group.

In consolidating structured entities that are controlled by the Group, the shares of said entities not held by the Group are recognised under "Debt" in the balance sheet.

When customer loans are securitised and partially sold to external investors, the entities carrying the loans are consolidated if the Group retains control and remains exposed to the majority of the risks and benefits associated with these loans.

7.4 MONITORING OF SECURITISATION RISKS

Securitisation risks are monitored according to the rules established by the Group, depending on whether the assets are recorded in the regulatory banking book (via credit risk and counterparty risk) or in the trading book (via market risk and counterparty risk).

STRUCTURAL RISKS AND LIQUIDITY RISK

Structural interest rate and foreign exchange risk associated with securitisation activities are monitored in the same way as for other Group assets. Oversight of structural interest rate risks is described in section 10 of this document (p.186).

Liquidity risk linked to securitisation activities is subject to more specific monitoring, both at the level of the responsible business lines and centrally in the Finance Division, by measuring the impact of these activities on the Group's liquidity ratios, stress tests and liquidity gaps. The organisation and oversight of liquidity risk is described in section 11 of this document (p.192).

OPERATIONAL RISKS

Monitoring of securitisation operational risks is incorporated as part of operational risk management at Group level. Reports targeting zero tolerance for operational risk in the Group's originator and sponsor activities are established and checked on a monthly basis. Oversight of operational risk is described in section 9 of this document (p.178)

7.5 SOCIETE GENERALE'S SECURITISATION ACTIVITIES

Securitisation activities allow the Group to raise liquidity or manage risk exposures, for proprietary purposes or on behalf of customers. Within the framework of these activities, the Group can act as originator, sponsor/arranger or investor:

- as an originator, the Group directly or indirectly participates in the initial agreement on assets which subsequently serve as underlying in securitisation transactions, primarily for refinancing purposes;
- as a sponsor, the Group establishes and manages a securitisation programme used to refinance customers' assets, mainly *via* the Antalis and Barton conduits and *via* certain other special purpose vehicles;
- as an investor, the Group invests directly in certain securitisation positions, is a liquidity provider or a counterparty of derivative exposures.

This information must be considered within the context of the specific structure of each transaction and vehicle, which cannot be described in this report. Taken separately, the level of payments past due or in default does not provide sufficient information on the types of exposures securitised by the Group, mainly because the default criteria may vary from one transaction to another. Furthermore, these data reflect the situation of the underlying assets.

In securitisation transactions, past-due exposures are generally managed *via* structural mechanisms that protect the most senior positions.

Impaired exposures belong mainly to CDOs of US subprime residential mortgages, dating to 2014.

As part of securitisation activities, the Group, does not provide any implicit support in accordance with Article 128 of the CRR.

Since the protection purchased is financed, there is no counterparty risk on the vendor of the insurance. The Group does not intend to purchase unfunded protection at this stage.

As part of securitisation activities, the Group, does not provideany implicit support in accordance with Article 128 of the CRR.

Since the protection purchased is financed, there is nocounterparty risk on the vendor of the insurance. The Groupdoes not intend to purchase unfunded protection at this stage.

SOCIETE GENERALE AS ORIGINATOR

As part of its refinancing activities, the Group undertakes securitisations of some of its portfolios of receivables originated with individuals or corporate customers. The securities created in these transactions can be either sold to external investors, thus providing funding to the Group, or retained by the Group to be used as collateral in repurchase transactions, notably with the European Central Bank.

In 2018, two new securitisation transactions were carried out:

- EUR 1.0 billion securitisation of auto loans, publicly placed for EUR 0.9 billion of funding
- EUR 0.7 billion securitisation of auto lease receivables and related residual values, privately placed for EUR 0.5 billion of funding.

Given that there is no significant risk transfer arising from the Group's securitisation transactions for its refinancing activities, these transactions have no impact on the Group's regulatory capital and are therefore not included in the tables in this section.

The vehicles holding the transferred receivables are consolidated by the Group and the Group remains exposed to the majority of the risks and rewards related to the receivables. Furthermore, the receivables cannot be used as collateral or sold outright as part of another transaction.

The total outstanding of the receivables securitised without significant risk transfer amounted to EUR 14.3 billion as at 31st December 2018, including EUR 7.6 billion of French home loans, EUR 1.3 billion of German auto loans, EUR 3.5 billion of French consumer loans and EUR 1.9 billion of auto lease receivables and related residual values.

Furthermore, the Group also has two synthetics securitisation programs in which the risk transfer is made by using credit derivatives and where the portfolio is conserved in the balance sheet of the Group.

The securitised stock of these transactions is EUR 0.7 bn as of December 31st 2018, mainly composed of loans to corporates.

Société Générale did not securitise revolving exposures subject to early amortisation treatment in which the level of credit risk to which the originator is exposed may increase following the operation of the early amortisation provision.

SOCIETE GENERALE AS SPONSOR

The Société Générale Group carries out transactions on behalf of its customers or investors. As of 31 December 2018, there were two consolidated multi-seller vehicles in operation (Barton and Antalis), structured by the Group on behalf of clients. This ABCP (Asset-Backed Commercial Paper) activity funds the working capital requirements of some of the Group's customers by backing short-term financing with traditional assets such as trade receivables or consumer loans. Total assets held by these vehicles and financed through the issuance of commercial paper amounted to EUR 14,617million at 31 December 2018 (EUR 11,995million as of 31 December 2017).

As part of the implementation of the new IFRS 10 norm on 1st January 2014, Société Générale has consolidated these two vehicles, Barton and Antalis, from this date onwards.

The default risk on the assets held by these vehicles is borne by the transferors of the underlying receivables or by external investors. Société Générale bears part of the risk through the liquidity lines in the amount of EUR 21,809million as of 31 December 2018 (EUR 18,257million as of 31 December 2017).

ABCP activity remained solid in 2018, with newly securitized outstanding predominantly comprising trade receivables, leasing or consumer loans.

SOCIETE GENERALE AS INVESTOR

In 2018, Societe Generale completed the full deleverage of its remaining legacy assets portfolio. Accordingly, there is no longer any exposure and the portfolio is now closed.

Societe Generale also acts as a market maker for securitised assets, resulting in securitisation positions in the Group's trading book. As of 31 December 2011, CRD3 requires the same prudential treatment regardless of prudential classification.

The following tables show the securitisation exposures retained or purchased by the Group by type of underlying asset, by region, by type of tranche, separately for the banking book and trading book. These tables only present the exposures with an impact on Group's regulatory capital.

TABLE 77: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES BY EXPOSURE CLASS

	31.12.2018							
	Banking Book				Trading Book			
(In EUR m)	Traditional transactions		Synthethic transactions		Traditional transactions		Synthethic transactions	
Underlying assets	**Originator**	**Sponsor**	**Originator**	**Sponsor**	**Originator**	**Sponsor**	**Originator**	**Sponsor**
Residential mortgages	0	271	0	0	0	0	0	0
Commercial mortgages	0	7	0	0	0	0	0	0
Credit card receivables	0	2,083	0	0	0	0	0	0
Leasing	0	2,417	0	0	0	0	0	0
Loans to corporates and SMEs	0	1,665	665	0	0	0	0	0
Consumer loans	0	8,096	0	0	0	0	0	0
Trade receivables	0	6,791	0	0	0	0	0	0
Other assets	0	1,295	0	0	0	0	0	0
Covered bonds	0	0	0	0	0	0	0	0
Other liabilites	0	0	0	0	0	0	0	0
TOTAL	**0**	**22,625**	**665**	**0**	**0**	**0**	**0**	**0**

	31.12.2017							
	Banking Book				Trading Book			
(In EUR m)	Traditional transactions		Synthethic transactions		Traditional transactions		Synthethic transactions	
Underlying assets	**Originator**	**Sponsor**	**Originator**	**Sponsor**	**Originator**	**Sponsor**	**Originator**	**Sponsor**
Residential mortgages	0	298	0	0	0	0	0	0
Commercial mortgages	0	0	0	0	0	0	0	0
Credit card receivables	0	1,774	0	0	0	0	0	0
Leasing	0	1,936	0	0	0	0	0	0
Loans to corporates and SMEs	0	623	70	0	0	0	0	0
Consumer loans	0	6,912	0	0	0	0	0	0
Trade receivables	0	5,953	0	0	0	0	0	0
Other assets	0	1,060	0	0	0	0	0	0
Covered bonds	0	0	0	0	0	0	0	0
Other liabilites	0	0	0	0	0	0	0	0
TOTAL	**0**	**18,556**	**70**	**0**	**0**	**0**	**0**	**0**

TABLE 78: AMOUNTS PAST DUE OR IMPAIRED WITHIN THE EXPOSURES SECURITISED BY EXPOSURE TYPE

	31.12.2018				31.12.2017			
(In EUR m)	Past due		Impaired		Past due		Impaired	
Underlying assets	Originator	Sponsor	Originator	Sponsor	Originator	Sponsor	Originator	Sponsor
Residential mortgages	0	0	0	0	0	0	0	0
Commercial mortgages	0	0	0	0	0	0	0	0
Credit card receivables	0	16	0	20	0	13	0	16
Leasing	0	20	0	12	0	10	0	3
Loans to corporates and SMEs	0	4	0	0	0	3	0	2
Consumer loans	0	97	0	13	0	91	0	35
Trade receivables	0	1,165	0	271	0	827	0	235
Other assets	0	3	0	2	0	3	0	2
Covered bonds	0	0	0	0	0	0	0	0
Other liabilites	0	0	0	0	0	0	0	0
TOTAL	**0**	**1,305**	**0**	**318**	**0**	**947**	**0**	**293**

In 2018, securitisased exposures have not been the subject of a loss recognised by Société Générale.

TABLE 79: ASSETS AWAITING SECURITISATION

(In EUR m)	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Underlying assets	**Banking book**		**Trading book**	
Residential mortgages	0	0	0	0
Commercial mortgages	0	0	0	0
Credit card receivables	0	0	0	0
Leasing	0	0	0	0
Loans to corporates and SMEs	0	0	0	0
Consumer loans	0	0	0	0
Trade receivables	0	0	0	0
Other assets	0	0	0	0
Covered bonds	0	0	0	0
Other liabilites	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**

TABLE 80: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES RETAINED OR PURCHASED IN THE BANKING BOOK

(In EUR m)	31.12.2017			31.12.2017		
Underlying assets	**On-balance sheet**	**Off-balance sheet**	**Total**	**On-balance sheet**	**Off-balance sheet**	**Total**
Residential mortgages	0	271	271	95	298	393
Commercial mortgages	0	7	7	69	0	69
Credit card receivables	0	2,083	2,083	0	1,774	1,774
Leasing	0	2,419	2,419	0	1,937	1,937
Loans to corporates and SMEs	862	1,468	2,330	85	609	694
Consumer loans	47	8,054	8,101	46	6,877	6,923
Trade receivables	0	6,791	6,791	0	5,953	5,953
Other assets	0	1,295	1,295	286	1,060	1,346
Covered bonds	0	0	0	0	0	0
Other liabilites	0	0	0	0	0	0
TOTAL	**909**	**22,388**	**23,297**	**581**	**18,508**	**19,089**

At of 31st December 2018, securisation exposures in the banking book amounted to EUR 23,297 million, of which EUR 909 million recorded on the balance sheet, the rest consisting predominantly of liquidity lines linked to the Group's sponsor conduit activity.

The main underlying assets are securitisations, corporate loans, consumer loans and trade receivables. In 2018, banking book exposures increased by EUR 4.2 billion, up 22% year-on-year. The volume of assets of conduits managed by the Group significantly increased significantly in consumer loans and trade receivables.

In 2018, Societe Generale completed the full deleverage of its remaining legacy assets portfolio. Accordingly, there is no longer any exposure and the portfolio is now closed.

TABLE 81: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES RETAINED OR PURCHASED BY TYPE OF UNDERLYING IN THE TRADING BOOK

(In EUR m)	31.12.2018		31.12.2017	
Underlying assets	**Net long positions**	**Net short positions**	**Net long positions**	**Net short positions**
Residential mortgages	46	0	100	1
Commercial mortgages	25	80	33	69
Credit card receivables	12	0	14	0
Leasing	4	0	11	0
Loans to corporates and SMEs	63	0	172	2
Consumer loans	0	0	5	0
Trade receivables	5	0	9	0
Other assets	0	0	1	0
Covered bonds	75	0	126	7
Other liabilites	0	0	0	0
TOTAL	**230**	**80**	**471**	**79**

TABLE 82 : AGGREGATE AMOUNTS OF SECURITISED EXPOSURES RETAINED OR PURCHASED BY REGION IN THE BANKING BOOK AND THE TRADING BOOK

(In EUR m)	31.12.2018			31.12.2017		
		Trading book			Trading book	
Underlying assets	**Banking book**	**Long positions**	**Short positions**	**Banking book**	**Long positions**	**Short positions**
America	11,882	159	80	9,919	259	78
Asia	417	0	0	41	40	0
Europe	10,941	9	0	9,060	50	1
Others	58	62	0	70	122	0
TOTAL	**23,297**	**230**	**80**	**19,089**	**471**	**79**

Growth of the Banking book is mainly concentrated in Europe (+ 21%), North American (+20%) and Asia.

TABLE 83: QUALITY OF SECURITISATION POSITIONS RETAINED OR PURCHASED BANKING BOOK

(In EUR m)	31.12.2018					
	Nominal			Exposure At Default (EAD)		
Underlying assets	**Highest-ranking tranche**	**Mezzanine tranche**	**Initial loss tranche**	**Highest-ranking tranche**	**Mezzanine tranche**	**Initial loss tranche**
Residential mortgages	248	23	0	497	46	0
Commercial mortgages	7	0	0	7	0	0
Credit card receivables	2,050	33	0	2,050	33	0
Leasing	2,399	20	0	2,399	20	0
Loans to corporates and SMEs	2,256	0	74	1,994	0	74
Consumer loans	8,031	70	0	8,031	63	0
Trade receivables	6,791	0	0	6,791	0	0
Other assets	1,295	0	0	1,295	0	0
Covered bonds	0	0	0	0	0	0
Other liabilites	0	0	0	0	0	0
TOTAL	**23,077**	**146**	**74**	**23,062**	**162**	**74**

(In EUR m)	31.12.2017					
	Nominal			Exposure At Default (EAD)		
Underlying assets	**Highest-ranking tranche**	**Mezzanine tranche**	**Initial loss tranche**	**Highest-ranking tranche**	**Mezzanine tranche**	**Initial loss tranche**
Residential mortgages	359	34	0	312	31	0
Commercial mortgages	9	60	0	9	15	0
Credit card receivables	1,741	33	0	1,741	33	0
Leasing	1,834	103	0	1,834	103	0
Loans to corporates and SMEs	638	47	9	638	46	9
Consumer loans	6,837	86	0	6,837	78	0
Trade receivables	5,953	0	0	5,953	0	0
Other assets	1,345	2	0	1,345	0	0
Covered bonds	0	0	0	0	0	0
Other liabilites	0	0	0	0	0	0
TOTAL	**18,716**	**364**	**9**	**18,669**	**305**	**9**

In the banking book, senior tranches made up 99% of securitisation positions retained or purchased as of 31st December 2018, mainly composed of consumer loans and trade receivables.

TABLE 84: QUALITY OF SECURITISATION POSITIONS RETAINED OR PURCHASED TRADING BOOK

(In EUR m)	31.12.2018					
	Net long positions			Net short positions		
Underlying assets	**Highest-ranking tranche**	**Mezzanine tranche**	**Initial loss tranche**	**Highest-ranking tranche**	**Tranche mezzanine**	**Initial loss tranche**
Residential mortgages	30	16	0	0	0	0
Commercial mortgages	9	16	0	6	74	0
Credit card receivables	7	6	0	0	0	0
Leasing	4	0	0	0	0	0
Loans to corporates and SMEs	30	32	0	0	0	0
Consumer loans	0	0	0	0	0	0
Trade receivables	5	0	0	0	0	0
Other assets	0	0	0	0	0	0
Covered bonds	53	22	0	0	0	0
Other liabilites	0	0	0	0	0	0
TOTAL	**138**	**92**	**0**	**6**	**74**	**0**

(In EUR m)	31.12.2017					
	Net long positions			Net short positions		
Underlying assets	**Highest-ranking tranche**	**Mezzanine tranche**	**Initial loss tranche**	**Highest-ranking tranche**	**Tranche mezzanine**	**Initial loss tranche**
Residential mortgages	42	58	0	1	0	0
Commercial mortgages	6	28	0	7	62	0
Credit card receivables	9	5	0	0	0	0
Leasing	2	8	0	0	0	0
Loans to corporates and SMEs	126	46	0	0	2	0
Consumer loans	5	0	0	0	0	0
Trade receivables	9	0	0	0	0	0
Other assets	1	0	0	0	0	0
Covered bonds	53	73	0	0	7	0
Other liabilites	0	0	0	0	0	0
TOTAL	**253**	**218**	**0**	**8**	**71**	**0**

Positions in the securitisation trading book are exclusively high ranking and mezzanine tranches. This applies to long and short positions.

7.6 PRUDENTIAL TREATMENT OF SECURITISATION POSITIONS

APPROACH FOR CALCULATING RISK-WEIGHTED EXPOSURES

Whenever traditional or synthetic securitisations, in whose sponsorship, origination, structuring or management Societe Generale is involved, achieve a substantial and documented risk transfer compliant with the regulatory framework, the underlying assets are excluded from the bank's calculation of risk-weighted exposures for traditional credit risk.

For the securitisation positions that Societe Generale decides to hold either on- or off-balance sheet, capital requirements are determined based on the bank's exposure, irrespective of its underlying strategy or role. For the trading book, long and short positions are offset within the limits specified by the regulation. Risk-weighted assets resulting from securitisation positions are calculated by applying the appropriate risk ratios to the amount of the exposures.

Institutions authorised to use internal ratings for underlying assets must use the internal ratings based method (IRB). The bulk of the Group's positions in securitised receivables, both in the banking book and the trading book, are valued using this IRB approach, for which there are three calculation methods:

- the external ratings based approach (RBA) must be applied to all rated exposures or those for which a rating can be inferred. Under this approach, risk weightings are calculated to also reflect the seniority and granularity of the positions;
- the regulatory Supervisory Formula Approach (SFA) is a methodology for non-rated exposures, where the risk weight is based on five inputs associated with the nature and structure of the transaction. To use this approach, the capital charge must be calculated using the IRB approach for the portfolio of assets underlying the securitisation exposure;
- finally, the liquidity lines arising from the off-balance sheet exposures of Asset Backed Commercial Paper (ABCP) programmes are determined using the Internal Assessment Approach (IAA). For liquidity facilities issued by the Bank to the securitisation vehicles it sponsors, Societe Generale received approval in 2009 to use its internal ratings-based approach, in accordance with the CRR. Accordingly, Societe Generale has developed an Internal Assessment Approach (IAA), whereby an internal rating is assigned to the Group's securitisation exposures, with each rating automatically resulting in a capital weighting based on an equivalence table defined by the regulation. Like the Group's other internal models, the IAA meets the regulatory standards for the validation of internal models, as defined by the regulation. An annual review of the model is performed to ensure that the configuration is sufficiently conservative. Finally, the model is used to measure impacts in stress scenarios and as a transaction structuring tool.

EXTERNAL CREDIT ASSESSMENT INSTITUTIONS USED BY SOCIETE GENERALE

Assets securitised by Societe Generale are usually rated by one or more ECAI (External Credit Rating Agency) rating agencies, the list of which is established by the French prudential supervisory authority ACPR (Autorité de Contrôle Prudentiel et de Résolution). The agencies used are DBRS, FitchRatings, Moody's Investors Service and Standard & Poor's. All four rating agencies have been registered with and supervised by the European Securities and Market Authority (ESMA) since 31st October 2011. The capital requirements for securitisation positions valued using the standard method are calculated based on the lowest external rating of the securitisation exposure. An equivalence table (Table 22) between external ratings and Societe Generale's internal rating scale is provided hereunder.

The following table presents Societe Generale's internal rating scale and the corresponding scales of the main External Credit Assessment Institutions, as well as the corresponding mean estimated probability of default.

TABLE 85: NAME OF CREDIT AGENCIES USED IN SECURITISATION BY TYPE OF EXPOSURE

Underlying assets	MOODY'S	FITCH	S&P	DBRS
Residential mortgages	✓	✓	✓	
Commercial mortgages	✓	✓	✓	
Credit card receivables	✓		✓	
Leasing	✓	✓	✓	
Loans to corporates and SMEs	✓		✓	✓
Consumer loans			✓	
Trade receivables	✓			
Other assets	✓			
Covered bonds	✓	✓	✓	
Other liabilites				

REGULATORY CAPITAL REQUIREMENTS

Following tables show the bank's securitisation exposures and corresponding regulatory capital requirements for the banking book at 31st December 2018 and 31st December 2017.

TABLE 86: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES RETAINED OR PURCHASED IN THE BANKING BOOK BY APPROACH AND BY RISK WEIGHT BAND

	Exposure at Default (EAD)				Capital requirements			
(In EUR m)	Securitisation		Re-Securitisation		Securitisation		Re-Securitisation	
Risk Weight band	**31.12.2018**	**31.12.2017**	**31.12.2018**	**31.12.2017**	**31.12.2018**	**31.12.2017**	**31.12.2018**	**31.12.2017**
6 to 10%	673	412	0	0	5	3	0	0
12 to 18%	277	310	0	0	3	3	0	0
20 to 35%	7	71	0	0	0	1	0	0
40 to 75%	0	0	0	34	0	0	0	1
100%	0	10	0	0	0	1	0	0
150 to 250%	0	0	0	0	0	0	0	0
> 250 and < 425%	0	0	0	0	0	0	0	0
>425% and < 850%	0	0	0	0	0	0	0	0
RBA METHOD	**957**	**803**	**0**	**34**	**8**	**8**	**0**	**1**
IAA method	21,885	18,018	0	0	147	117	0	0
Supervisory Formula Approach	337	69	0	0	6	0	0	0
1250%/Capital deductions	5	20	0	0	5	20	0	0
TOTAL IRB APPROACH	**23,184**	**18,911**	**0**	**34**	**166**	**145**	**0**	**1**
100% weighting	0	0	0	0	0	0	0	0
RBA approach	0	0	0	0	0	0	0	0
Transparency method	40	38	0	0	15	16	0	0
TOTAL STANDARDISED APPROACH	**40**	**38**	**0**	**0**	**15**	**16**	**0**	**0**
TOTAL BANKING BOOK	**23,224**	**18,949**	**0**	**34**	**181**	**162**	**0**	**1**

At 31st December 2018, 99% of banking book securitization exposures was valued under IRB approach.

Under this method, 4% of exposures were weighted using the RBA method, 1% using the supervisory formula approach and 94% using the IAA method.

Under the standardized approach, the securitization positions are treated by a look-through approach.

TABLE 87: AGGREGATE AMOUNTS OF SECURITISED EXPOSURES RETAINED OR PURCHASED IN THE TRADING BOOK BY RISK WEIGHT BAND

(In EUR m)	31.12.2018			31.12.2017		
Risk Weight band	**Net long positions**	**Net short positions**	**Capital requirements**	**Net long positions**	**Net short positions**	**Capital requirements**
6% - 10%	87	74	1.0	225	62	1,7
12% - 18%	26	0	0.3	89	0	1,0
20% - 35%	78	0	1.3	112	0	2,0
40% - 75%	11	0	0.7	22	0	1,3
100%	18	6	2.0	13	7	1,7
>100% <= 250%	0	0	0.0	0	0	0,0
>250% - < = 425%	1	0	0.3	9	0	3,2
>425% <= 850%	0	0	0.0	0	7	4,2
1 250% / Deducted from Own funds	0	0	0.0	0	0	0,0
EAD SUBJECT TO RISK WEIGHT	**221**	**80**	**5.7**	**470**	**76**	**15,1**
Supervisory formula method	0	0	0.0	0	0	0,0
Transparency method	0	0	0.0	0	0	0,0
IRB method	0	0	0.0	0	0	0,0
TOTAL, NET OF CAPITAL DEDUCTIONS	**221**	**80**	**5.7**	**470**	**76**	**15,1**
1250%/Positions deducted from capital	10	0	9.9	1	3	4,0
TOTAL	**230**	**80**	**15.5**	**471**	**79**	**19,1**

TABLE 88: SECURITISATION EXPOSURES DEDUCTED FROM CAPITAL BY EXPOSURE CATEGORY

(In EUR m)	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Underlying assets	**Banking Book**		**Trading Book**	
Residential mortgages	0	3	9.2	2
Commercial mortgages	0	5	0.0	0
Credit card receivables	0	0	0.0	0
Leasing	0	1	0.0	0
Loans to corporates and SMEs	0	0	0.0	2
Consumer loans	5	12	0.0	0
Trade receivables	0	0	0.0	0
Other assets	0	0	0.0	1
Covered bonds	0	0	0.7	0
Other liabilites	0	0	0.0	0
TOTAL	**5**	**20**	**9.9**	**4**

TABLE 89: REGULATORY CAPITAL REQUIREMENTS FOR SECURITISATIONS HELD OR ACQUIRED IN THE TRADING BOOK

	31.12.2018				31.12.2017			
(In EUR m)	Net long positions	Net short positions	Total risk-weighted positions	Capital requirements	Net long positions	Net short positions	Total risk-weighted positions	Capital requirements
Securitisation	230	80	71	5.7	470	76	189	15.1
Re-securitisation	0	0	0	0.0	0	0	0	0.0
Positions deducted from capital	0	0	0	9.9	1	3	0	4.0
TOTAL	**230**	**80**	**71**	**15.5**	**471**	**79**	**189**	**19.1**

TABLE 90: RE-SECURITISATION POSITIONS RETAINED OR PURCHASED (EAD)

	31.12.2018				31.12.2017			
	Banking Book		Trading Book		Banking Book		Trading Book	
(In EUR m)	Before hedging/ insurances	After hedging/ insurances	Before hedging/ insurances	After hedging/ insurances	Before hedging/ insurances	After hedging/ insurances	Before hedging/ insurances	After hedging/ insurances
Re-securitisation	0	0	0	0	34	34	0	0

There are no financial guarantors on these exposures.

8

MARKET RISKS

IN BRIEF

Market risks are the risks of loss of value on financial instruments arising from changes in market parameters, the volatility of these parameters, and the correlations between them. These parameters include, but are not limited to, exchange rates, interest rates, the price of securities (equities or bonds), commodities, derivatives and other assets.

This section contains key information on the Group's market risk profile. It details both the internal indicators used to measure market risks and the corresponding regulatory information (RWA, VaR).

Market risk RWA

23,7 bn EUR

(Amount at end-2017: 14,8 bn EUR)

Annual average VaR (1 day, 99%) - 2018

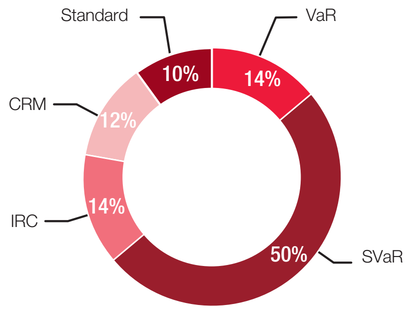
18 M EUR

(Annual average VaR 2017: 25 M EUR)

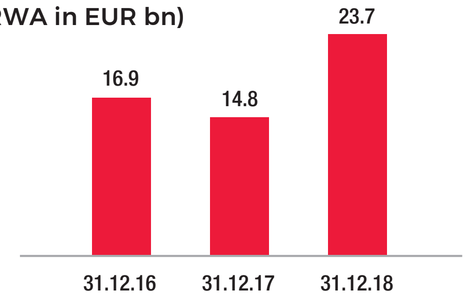
Share of RWA calculated by the internal model

90 %

Distribution of market risks (RWA) by risk
Market risk RWA at end-2018: EUR 23,7 bn
(EUR 14,8 bn at end-2017)



Market risks
(RWA in EUR bn)



Market risks are the risks of loss of value on financial instruments arising from changes in market parameters, the volatility of these parameters, and the correlations between them. These parameters include, but are not limited to, exchange rates, interest rates, the price of securities (equities or bonds), commodities, derivatives and other assets.

8.1 METHODS FOR MEASURING MARKET RISK AND DEFINING LIMITS

The Group's market risk assessment is based on several types of indicators, which are monitored through limits:

- the 99% Value-at-Riks (VaR): in accordance with the regulatory internal model, this global indicator is used for the day-to-day monitoring of the market risks incurred by the Group within the scope of its trading activities;
- stress test measurements, based on decennial shock-type indicators, which make it possible to restrict the Group's exposure to systemic risk and exceptional market shocks. The measurements can be global, multi-risk factor (based on historic or hypothetical scenarios), by activity or risk factor in order to take into account extreme risks on a specific market, or event-driven, to temporarily monitor a particular situation;
- sensitivity and nominal indicators used to manage the size of positions: sensitivities are used to monitor the risk incurred locally on a given type of position (*e.g.* sensitivity of an option to changes in the underlying asset), while nominal indicators are used for significant positions in terms of risk;
- additional metrics such as concentration risk or holding period, maximum maturity, etc.

The following indicators are also calculated: stressed VaR (SVaR) on a daily basis, and IRC (Incremental Risk Charge) and CRM (Comprehensive Risk Measure) on a weekly basis. The capital charges arising from these internal models complement the VaR by taking into account the rating migration risks and the default risks, and by limiting the procyclical nature of capital requirements.

8.2 ALLOCATION OF MARKET RISK APPETITE WITHIN THE GROUP

Risk appetite is defined as the level of risk that the Group is prepared to assume to achieve its strategic goals.

The business development strategy of the Group for market activities is primarily focused on meeting client needs[1], with a full range of products and solutions. The risk resulting from these market activities is strictly managed through a set of limits for several indicators (stress tests, VaR, sensitivity and nominal indicators, etc.).

The Market Risk Department is responsible for the assessment and validation of the limit requests submitted by the different business lines. These limits ensure that the Group complies with the market risk appetite approved by the Board of Directors, further to a proposal from General Management[2].

The choice and calibration of these limits thus transpose the Group's market risk appetite:

- they are allocated at various levels of the Group's structure and/or by risk factor, thereby ensuring the operational transposition of the Group's market risk appetite through its organisation;
- their calibration is determined using a detailed analysis of the risks related to the portfolio managed. This analysis may include various elements such as market conditions, specifically liquidity, position manoeuvrability, income generated in view of risks taken, etc.;
- regular reviews make it possible to manage risks according to the prevailing market conditions;
- specific limits, or even bans, may be put in place to manage risks for which the Group has little or no risk appetite.

The limits set for each activity are monitored daily by the Market Risk Department.

(1) Market transactions not related to client activities are confined in a dedicated subsidiary, Descartes Trading, subject to a specific risk appetite, which is limited.
(2) See "Risk Appetite" section for the detailed description of the governance and implementation of the risk appetite, as well as the role the Risk Division plays in defining it.

In addition to the governance structure in place between the various departments of the Risk function, Finance Division and business lines, the monitoring of limits usage, due to the products/solutions provided to clients and the market-making activities, also contributes to ensuring that market risks to which the Group is exposed are properly managed and understood. The continuous monitoring of the market risk profile is the object of regular discussions between the risk and business teams, further to which various risk hedging or mitigation initiatives may be taken by the Front Office in order to remain within the limits defined.

8.3 99% VALUE-AT-RISK (VAR)

The Internal VaR Model was introduced at the end of 1996 and has been approved by the French regulator within the scope of the regulatory capital requirements.

The Value-at-Risk (VaR) assesses the potential losses on positions over a defined time horizon and for a given confidence interval (99% for Societe Generale). The method used is the "historical simulation" method, which implicitly takes into account the correlation between the various markets and is based on the following principles:

- storage in a database of the risk factors that are representative of Societe Generale's positions (*i.e.* interest rates, share prices, exchange rates, commodity prices, volatility, credit spreads, etc.);
- definition of 260 scenarios corresponding to one-day variations in these market parameters over a rolling one-year period; these scenarios are updated daily with the inclusion of a new scenario and the removal of the oldest scenario. There are three coexisting methods for modelling scenarios (relative shocks, absolute shocks and hybrid shocks); the choice between these methods for a given risk factor is determined by its nature and its historical trend;
- the application of these 260 scenarios to the market parameters of the day;
- revaluation of daily positions, on the basis of the 260 sets of adjusted market parameters: in most cases this calculation involves a full re-pricing. Nonetheless, for certain risk factors, a sensitivity-based approach may be used.

Within the framework described above, the one-day 99% VaR, calculated according to the 260 scenarios, corresponds to the mean of the second and third largest losses computed.

The day-to-day follow-up of market risks is performed *via* the one-day VaR, which is computed on a daily basis. For regulatory capital requirements, however, we have to take into account a ten-day horizon, thus we also compute a ten-day VaR, which is obtained by multiplying the one-day VaR by the square root of ten. This methodology complies with Basel 2 requirements and has been reviewed and validated by the regulator.

The VaR assessment is based on a model and a certain number of conventional assumptions, the main limitations of which are as follows:

- by definition, the use of a 99% confidence interval does not take into account losses arising beyond this point; VaR is therefore an indicator of the risk of loss under normal market conditions and does not take into account exceptionally significant fluctuations;
- VaR is computed using closing prices, meaning that intra-day fluctuations are not taken into account;
- the use of a historical model is based on the assumption that past events are representative of future events and may not capture all potential events.

The Market Risk Department mitigates the limitations of the VaR model by performing stress tests and other additional measurements.

At present, the market risks for almost all of Corporate and Investment Banking's activities (including those related to the most complex products) are monitored using the VaR method, as are the main market activities of Retail Banking and Private Banking. The few activities not covered by the VaR method, either for technical reasons or because the stakes are too low, are monitored using stress tests, and capital charges are calculated using the standard method or through alternative in-house methods.

The relevance of the model is checked through continuous backtesting in order to verify whether the number of days for which the negative result exceeds the VaR complies with the 99% confidence interval.

In compliance with regulations, backtesting compares the VaR to the (i) actual and (ii) hypothetical change in the portfolio's value.

- In the first case (backtesting against "actual P&L"), the daily P&L[1] includes the change in book value, the impact of new transactions and of transactions modified during the day (including their sales margins), refinancing costs, the various related commissions (brokerage fees, custody fees, etc.), as well as provisions and parameter adjustments made for market risk.
- In the second case (backtesting against "hypothetical P&L"), the daily P&L[2] includes only the change in book value related to changes in market parameters, and excludes all other factors.

(1) "Actual P&L" by agreement hereinafter.
(2) "Hypothetical P&L" by agreement hereinafter.

In 2018, daily losses were observed on 17 occasions[1], and eight backtesting breaches occurred (seven against hypothetical P&L, one against actual P&L):

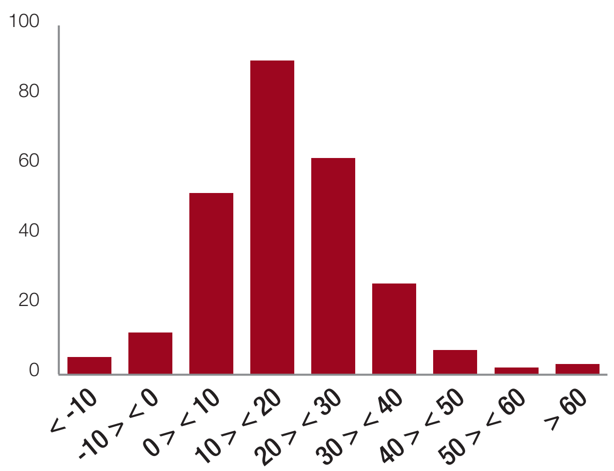
- on 5th February, against hypothetical P&L, stemming from movements on the US indices, notably a significant rise in Volatility Index, and a drop on SP500;
- on 12th February, against hypothetical P&L, due to losses on equity perimeter following a decrease in implicit volatility on major indices;
- on 28th February, against actual P&L, following adjustments related to the monthly accounts closure;
- on 12th March, against hypothetical P&L, stemming from the combination of various events, notably some losses on autocall products, and some moves on the USD/GBP basis and on the repurchase agreements activities;
- on 19th June, against hypothetical P&L, due to losses on equity perimeter as well as market making and financing activities on rates perimeter;
- on 17th August, against hypothetical P&L, following various losses on equity, rates and hybrids activities;
- on 29th November, against hypothetical P&L, resulting from significant shocks on short term currency swaps and some losses on equity derivatives and hybrid products;
- on 27th December against hypothetical P&L, following various losses on European rate swaps, equity derivatives, hybrids and precious metals.

TABLE 91: REGULATORY TEN-DAY 99% VAR AND ONE-DAY 99% VAR (IN EUR M)

	31.12.2018		31.12.2017	
(In EUR m)	VaR (10 days, 99%)*	VaR (1 day, 99%)*	VaR (10 days, 99%)*	VaR (1 day, 99%)*
Period start	54	17	113	36
Maximum value	86	27	150	48
Average value	56	18	79	25
Minimum value	33	10	40	13
Period end	59	19	67	21

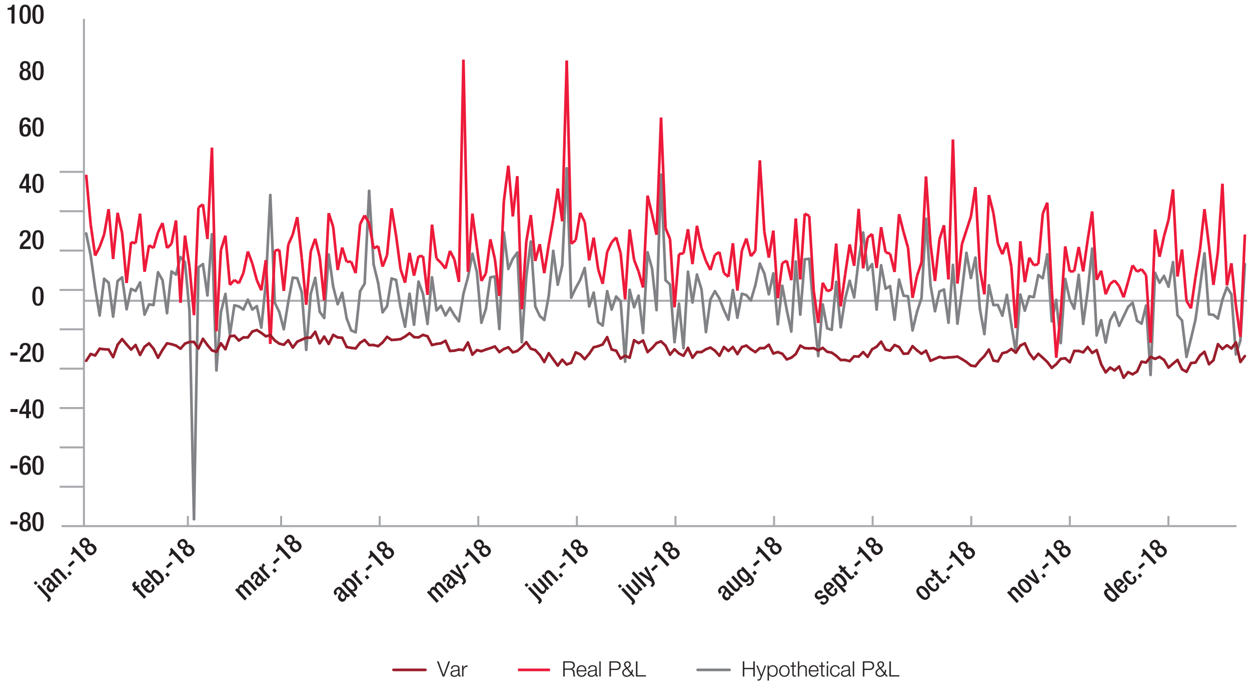
* *Over the scope for which capital requirements are assessed by internal model.*

BREAKDOWN OF THE DAILY P&L[2] OF MARKET ACTIVITIES (2018, IN EUR M)

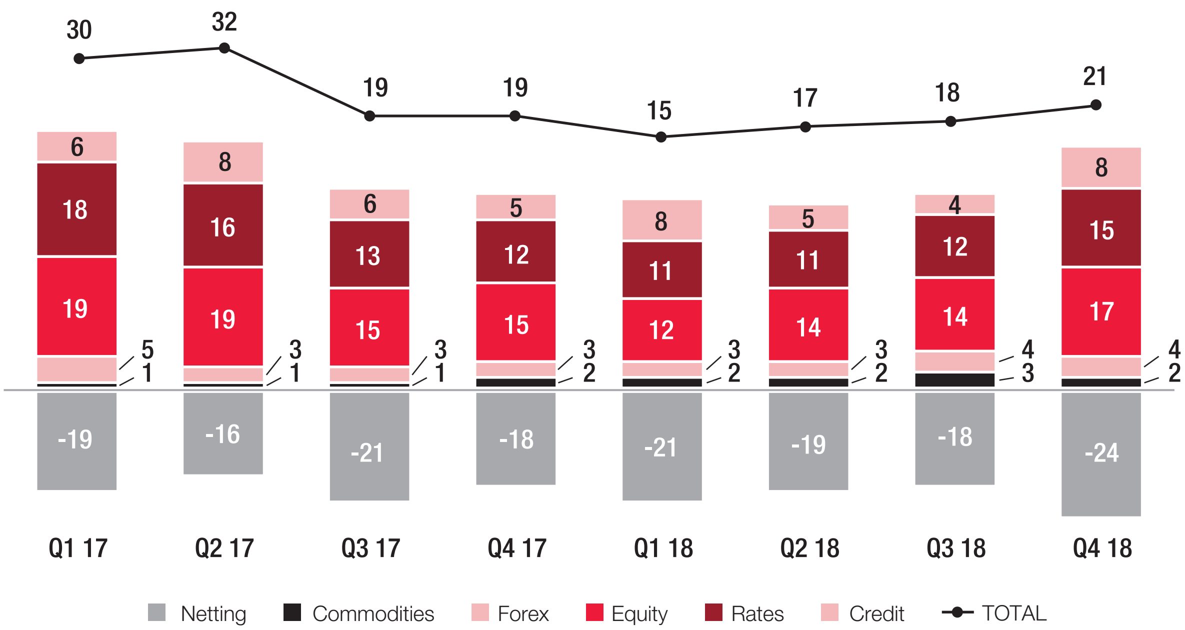


(1) Based on actual P&L.
(2) Actual P&L

TRADING VAR (ONE-DAY, 99%), DAILY ACTUAL P&L[(1)] AND DAILY HYPOTHETICAL P&L[(2)] OF THE TRADING PORTFOLIO (2018, IN EUR M)



BREAKDOWN BY RISK FACTOR OF TRADING VAR (ONE-DAY, 99%) – CHANGES IN QUARTERLY AVERAGE OVER THE 2017-2018 PERIOD (IN EUR M)



2018 saw a return of market volatility and a correction on risky assets (fall in risky assets, rise in volatility, rally on safe haven securities), against a backdrop of trade tensions between the United States and China. In Europe, assets also suffered from a slower economic recovery than in the United States. In these market conditions, VaR was stable and remained low, though it increased slightly (from EUR 15 million in Q1 2018 to EUR 21 million in Q4 2018) due to the natural renewal of risk scenarios in the VaR calculation, since the new scenarios are slightly higher than the ones they replaced.

(1) Daily profit or loss used for the VaR backtesting against actual P&L, as defined in the “99% Value-at-Risk (VaR)” on page 163.
(2) Daily profit or loss used for the VaR backtesting against hypothetical P&L, as defined in the “99% Value-at-Risk (VaR)” on page 163.

Stressed VaR (SVaR)

At end-2011, Societe Generale was authorised by the French Prudential and Resolution Supervisory Authority (*Autorité de Contrôle Prudentiel et de Résolution* – ACPR) to supplement its internal models with the CRD3 requirements, in particular Stressed VaR, for the same scope as VaR.

The calculation method used for the 99% one-day SVaR is the same as under the VaR approach. It consists in carrying out a historical simulation with one-day shocks and a 99% confidence interval. Contrary to VaR, which uses 260 scenarios for one-day fluctuations over a rolling one-year period, SVaR uses a fixed one-year historical window corresponding to a period of significant financial tension.

The method for determining the fixed historical stress window, which has been approved by the regulator[1], is based on a review of the historic shocks on the risk factors representative of the Societe Generale portfolio (related to equity, fixed income, foreign exchange, credit and commodity risks): historical shocks are aggregated to determine the period of highest stress for the entire portfolio. Each risk factor is assigned a weighting to account for the weight of each risk factor within its asset class and the weight of the asset class in the Group's VaR. The historical window used is reviewed annually. In 2018, this window was "September 2008-September 2009".

The ten-day SVaR used for the computation of the regulatory capital is obtained, as for VaR, by multiplying the one-day SVaR by the square root of ten.

The average SVaR increased from 27 MEUR in 2017 to 40 MEUR in 2018, mainly due to a higher risk on fixed income perimeter and a strong variability on equity products, combined with a risk alignment of these two perimeters in terms of scenario (lower netting).

TABLE 92: REGULATORY TEN-DAY 99% SVAR AND ONE-DAY 99% SVAR (IN EUR M)

	31.12.2018		31.12.2017	
(In EUR m)	Stressed VaR (10 days, 99%)*	Stressed VaR (1 day, 99%)*	Stressed VaR (10 days, 99%)*	Stressed VaR (1 day, 99%)*
Period start	65	21	119	38
Maximum value	395	125	198	62
Average value	128	40	85	27
Minimum value	50	16	50	16
Period end	156	49	67	21

* *Over the scope for which capital requirements are assessed by internal model.*

8.4 STRESS TEST ASSESSMENT

Methodology

Alongside the internal VaR model, Societe Generale monitors its exposure using stress test simulations to take into account exceptional market disruptions.

A stress test estimates the loss resulting from an extreme change in market parameters over a period corresponding to the time required to unwind or hedge the positions affected.

Two major metrics are defined and used:

- the Global Stress Test on market activities, which covers all the trading risks that could arise simultaneously in the event of a severe but plausible systemic crisis. This stress test is modelled on five scenarios
- the Market Stress Test, which uses the same scenarios as the Global Stress Test and additional scenarios corresponding to different market conditions, focusing solely on market risk.

The various scenarios for those stress tests are reviewed by the Risk Division on a regular basis, in conjunction with the Group's teams of economists and specialists. These reviews are presented during dedicated committee meetings held every six months, attended by the Head of the Market Risk Department, economists and representatives of Societe Generale's trading activities. These committee meetings cover the following topics: changes in scenarios (introduction, removal, shock review), appropriate coverage of the risk factors by the scenarios, review of the approximations made in terms of calculation, correct documentation of the whole process. The delegation level needed to validate the changes in stress test scenarios depends on the impact of the change in question.

This stress test risk assessment is applied throughout all the Bank's market activities. Stress test limits are established for Societe Generale's activity as a whole (and then for the Group's various business lines for the Market Stress Test).

Together with the VaR model, this stress test risk assessment methodology is one of the main pillars of the risk management framework.

(1) A complementary method has been submitted to the regulator for approval in Q2 2018 : the purpose is to ensure the relevance of the period obtained following the method based on the weighting of historical shocks by computing an approached VaR on the same selection of risk factors representative of Societe Generale portfolio.

THE GLOBAL STRESS TEST ON MARKET ACTIVITIES

The Global Stress Test on market activities has been the main risk indicator used on this scope since 2018. It covers all the trading risks that would occur simultaneously in case of a severe, but plausible, market crisis. The impact is measured over a short period of time with an expected occurrence of once per decade. The Global Stress Test uses five market scenarios and has three parts, each of which are considered in each of the five scenarios in order to ensure consistency within the same scenario:

- market risk;
- dislocation and carry risk on exotic activities related to concentration effects and crowded trades;
- market/counterparty cross-risk arising in structured products and collateralised financing transactions as well as in transactions with weak counterparties (hedge funds and proprietary trading groups);

The Global Stress Test corresponds to the least favourable results arising from the five scenarios and their respective components.

The market risk component

It corresponds to:

- the results of the Market Stress Test, restricted to scenarios that could cause dislocation effects on market positions and default by weak counterparties. These scenarios all simulate a sharp fall in the equity markets and a widening in credit spreads which could trigger dislocation effects. At present, these scenarios include four hypothetical scenarios (terrorist attack, general crisis (financial crisis scenario), eurozone crisis, general decline in risky assets) and one historical scenario focused on early October 2008;
- and the impact of the stress test scenario on CVA (Credit Value Adjustment) and FVA (Funding Value Adjustment) reserves, as their variations affect trading results.

The dislocation and carry risk component

Additional market risks to those assessed in the Market Stress Test can occur in market situation in which one or more participants – generally structured products sellers – have concentrated or crowded trades. Dynamic risk hedging strategies can cause larger market dislocations than those calibrated in the Market Stress Test, and these dislocations can extend beyond the shock timeline used due to an imbalance between supply and demand.

Equity, credit, fixed income, currency and commodity trading activities are regularly reviewed to identify these areas of risk and to define a scenario that takes into account the specific features of each activity and position. Each scenario associated with an identified area of risk is added to the market risk component if – and only if – it is compatible with the market scenario in question.

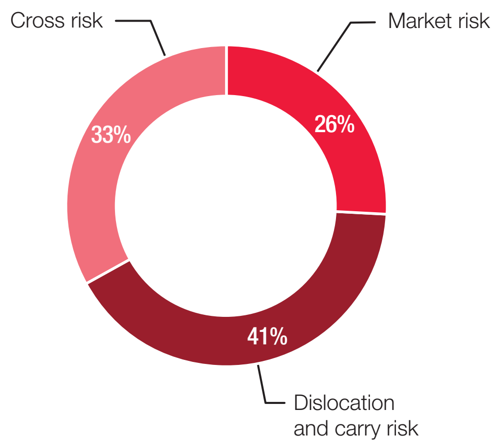
Market/counterparty cross-risk component on weak counterparties

Some counterparties may be significantly affected by a major crisis on the financial markets and their probability of default may increase. The third component of the Global Stress Test therefore aims to take into account this increased risk on certain types of weak counterparties (hedge funds and proprietary trading groups).

Three measurements are used:

- **the collateralized financing stress test:** this stress test focuses on collateralized financing activities and more specifically on weak counterparties. It applies a dislocation shock to several asset classes with the assumption of extremely tight liquidity conditions. Collateral and counterparty default rates are stressed concomitantly, taking into account any consanguinity with the collateral posted;
- **the hedge fund financing stress test:** this indicator measures the expected loss generated by products incurring gap risk (leveraged certificates, credit facilities, etc.) with hedge funds as underlying assets in extreme scenarios (expected occurrence of once per decade);
- **the adverse stress test on hedge funds and proprietary trading groups (PTG):** this stress test applies two stress scenarios to all market transactions qualifying for replacement risk with this type of counterparty. A stressed probability of default – based on the counterparty's ratings – is taken into account.

AVERAGE CONTRIBUTION OF THE COMPONENTS TO 2018 GLOBAL STRESS TEST ON MARKET ACTIVITIES



THE MARKET STRESS TEST

This metrics focuses on market risk and estimates the loss resulting from shocks on the set of risk factors. This stress test is based on 18 scenarios (3 historical and 15 hypothetical). Main principles are as follows:

- the stress test corresponds to the worst result derived from the set of historical and hypothetical scenarios;
- the shocks applied are calibrated on time horizons specific to each risk factor (the time horizon can range from five days for the most liquid risk factors, to three months for the least liquid);
- risks are calculated every day for each of the Bank's market activities (all products together), using each of the historical and hypothetical scenarios.

Historical scenarios

This method consists of an analysis of the major economic crises that have affected the financial markets : changes in the prices of financial assets (equities, interest rates, exchange rates, credit spreads, etc.) during each of these crises have been analysed in order to define scenarios for potential variations in these main risk factors which, when applied to the Bank's trading positions, could generate significant losses. Accordingly, Societe Generale uses three significant historical scenarios related to the period from October to December 2008. This scenario selection is subject to regular review.

Hypothetical scenarios

The hypothetical scenarios are defined with the Group's economists and are designed to identify possible sequences of events that could lead to a major crisis in the financial markets (e.g. a major terrorist attack, political instability in the main oil-producing countries, etc.). The Group's aim is to select extreme but plausible events which would have major repercussions on all international markets.

Accordingly, Societe Generale has adopted the 15 hypothetical scenarios described below:

- **generalised scenario (financial crisis scenario)**: considerable mistrust of financial institutions after the Lehman Brothers' bankruptcy, collapse of equity markets, sharp decline in implied dividends, significant widening of credit spreads, pivoting of yield curves (rise in short-term interest rates and decline in long-term interest rates), substantial flight to quality;
- **GIIPS crisis**: mistrust in risky sovereign issuers and increased interest in higher-rated sovereign issuers such as Germany, followed by the spreading of fears to other markets (equities, etc.);
- **Middle East crisis**: instability in the Middle East leading to a significant shock in oil prices and other energy sources, a stock market crash, and a steepening of the yield curve;
- **terrorist attack**: major terrorist attack on the United States leading to a stock market crash, decline in interest rates, widening of credit spreads and sharp decline in the US dollar;
- **bond crisis**: crisis in the global bond markets inducing the decoupling of bond and equity yields, strong rise in US interest rates (and a more modest rise for other interest rates), moderate decline on the equity markets, flight to quality with strong widening of credit spreads, rise in the US dollar;
- **US dollar crisis**: collapse of the US dollar against major international currencies due to a sharp deterioration in the US trade balance and budget deficit, rise in interest rates and narrowing of US credit spreads;
- **Eurozone crisis**: decline in euro exchange rates, sharp rise in Eurozone interest rates, sharp fall in euro equities and rise in US equities, significant widening of euro credit spreads;
- **Yen carry trade unwinding**: change in monetary policy in Japan leading to yen carry trade strategies being abandoned: significant widening of credit spreads, decline in yen interest rates, rise in US and Eurozone long-term interest rates and flight to quality;
- **assets drop**: unexpected halt in Central Bank quantitative easing policies leading to a widespread drop in risky assets (equity, credit, emerging) combined with a significant increase in worldwide interest rates;
- **2 other Eurozone crisis scenarios**: exit of Greece from the Eurozone, triggering a widespread drop in risky assets (equity, credit, emerging), more particularly in Europe, and a tightening of the US and Japanese sovereign spreads, mitigated with ECB support (activation of the OMT programme resulting in a decrease in Eurozone interest rates) or without ECB support (dislocation of the basis rates reflecting a freeze in the interbank market);
- **Russian crisis**: significant depreciation of the Russian currency, default of the Russian government, crisis in the bond markets and drop in equities, more particularly in emerging markets (as seen with the Russian crisis in September 1998);
- **sudden economic rebound**: sharp rise in equity markets and in US and Eurozone interest rates (as seen with the anticipation of the beginning of the Iraq War in March 2003);
- **bursting of an equity bubble**: significant drop in the equity markets following the bursting of an equity bubble in a specific business sector (as seen with the Worldcom bankruptcy in July 2002).
- **normalisation in the risk premium:** normalisation of the financial markets (in particular via a sharp drop in volatility on the main risk factors) after a period of stress.

(1) Excluding legacy assets, which are subject to specific risk monitoring.

8.5 VALUATION OF FINANCIAL INSTRUMENTS

In terms of valuation, market products are marked to market, when such market prices exist; otherwise, they are valued using parameter-based models.

On the one hand, each valuation model is independently validated by the Market Risk Department.

On the other hand, the parameters used in the valuation models – whether or not they come from observable data – are subject to controls by the Market Risk Department and the Finance Division (Independent Pricing Verification). If necessary, the valuations are supplemented by reserves or adjustments (for example, bid-ask spreads or liquidity) using calculation methods approved by the Market Risk Department.

Accounting valuation governance is enforced through two valuation committees, both attended by representatives of the Global Markets Division, the Market Risk department and the Finance Division:

- the Global Valuation Committee is convened whenever necessary, at least every quarter, to discuss and approve financial instrument valuation methodologies (model refinements, reserve methodologies, parameter marking methods, etc.). This committee, chaired by the Finance Division and organised by its valuation expert team (Valuation Group) has worldwide accountability with respect to the approval of the valuation policies concerning financial instruments on market activities;
- on a quarterly basis, the Global Valuation Review Committee reviews changes in reserves, valuation adjustment figures, and related accounting impacts. This analytical review is performed by the Valuation Group.

Lastly, a corpus of Valuation Policies describes the valuation framework and its governance, specifying the breakdown of responsibilities between the stakeholders.

Furthermore, Additional Valuation Adjustments (AVAs) are computed on fair value assets, in compliance with the Regulatory Technical Standards (RTS) published by the European Banking Authority (EBA), which lay out the requirements related to Prudent Valuation, in addition to the principles already specified in the CRD3 (Capital Requirements Directive). These regulatory technical standards define the various uncertainties which have to be taken into account in the Prudent Valuation and set a target level of confidence to reach (the bank must be 90% confident that the transaction could be liquidated at a better price than the Prudent Valuation).

Within this framework, in order to take into account the various factors which could generate additional exit costs compared to the expected valuation (model risk, concentration risk, liquidation cost, uncertainty on market prices, etc.), Prudent Valuation Adjustments (PVAs) are computed for each exposure. The Additional Valuation Adjustments (AVAs) are defined as the difference between the Prudent Valuation obtained and the accounting fair value of the positions, in order to comply with the target level of confidence to reach. These amounts of AVA are deducted from the Common Equity Tier 1 capital.

In terms of governance, the topics related to Prudent Valuation are dealt with during methodological committees and validation committees, organised quarterly, and both attended by representatives of the Global Markets Division, the Market Risk department and the Finance Division.

8.6 MARKET RISK CAPITAL REQUIREMENTS

Allocation of exposures in the trading book

The on- and off-balance sheet items must be allocated to one of the two portfolios defined by prudential regulations: the banking book or the trading book.

The banking book is defined by elimination: all on- and off-balance sheet items not included in the trading book are included by default in the banking book.

The trading book consists of all positions in financial instruments and commodities held by an institution either for trading purposes or in order to hedge other positions in the trading book. The trading interest is documented as part of the traders' mandates.

The prudential classification of instruments and positions is governed as follows:

- the Finance Division's prudential regulation experts are responsible for translating the regulations into procedures, together with the Risk Division for procedures related to holding period and liquidity. They also analyse specific cases and exceptions. They disseminate these procedures to the business lines;
- the business lines comply with these procedures. In particular, they document the trading interest of the positions taken by traders;
- the Finance and Risk Departments are in charge of the control framework.

The following controls are implemented in order to ensure that activities are managed in accordance with their prudential classification:

- “new product” process: any new product or activity is subject to an approval process that covers its prudential classification and regulatory capital treatment for transactions subject to validation;
- holding period: the Market Risk Department has designed a control framework for the holding period for certain instruments;
- liquidity: on a case-by-case basis or on demand, the Market Risk Department performs liquidity controls based on certain criteria (negotiability/transferability, bid/ask size, market volumes, etc.);
- strict process for any change in prudential classification, involving the business line and the Finance and Risk Divisions;
- Internal Audit: through its various periodic assignments, Internal Audit verifies or questions the consistency of the prudential classification with policies/procedures as well as the suitability of the prudential treatment in light of existing regulations.

Regulatory measures

At end-2011, Societe Generale received approval from the French Prudential Supervisory and Resolution Authority (Autorité de contrôle prudentiel et de résolution – ACPR) to expand its internal market risk modelling system, in particular to include stressed VaR (VaR over a one-year historical window corresponding to a period of significant financial tensions), IRC (Incremental Risk Charge) and CRM (Comprehensive Risk Measure), for the same scope as for VaR.

VaR and SVaR were detailed in the previous section. IRC and CRM estimate the capital charge on debt instruments that is related to rating migration and issuer default risks. These capital charges are incremental, meaning they are added to the charges calculated based on VaR and SVaR.

In terms of scope, in compliance with regulatory requirements:

- IRC is applied to debt instruments, other than securitisations and the credit correlation portfolio. In particular, this includes bonds, CDS and related derivatives;
- CRM exclusively covers the correlation portfolio, *i.e.* CDO tranches and first-to-default products, as well as their hedging using CDS and indices.

Societe Generale estimates these capital charges using internal models[1]. These models determine the loss that would be incurred following especially adverse scenarios in terms of rating changes or issuer defaults for the year that follows the calculation date, without ageing the positions. In the case of CRM, the charge determined using the internal model cannot be less than 8% of the charge determined by applying the standard method for securitisation positions.

These models are used to simulate, over a one-year horizon[2], a wide range of scenarios involving change in the factors taken into account, and to assign them an impact in terms of income. Rating change and default rate simulations are calibrated on the basis of past observations of rating migrations and default rates, taking into account:

- the frequency of rating migrations and defaults observed over a full economic cycle;
- the correlations observed among issuers in the same economic sector, and among those in different sectors.

For CRM, the spread of market parameters used is also simulated over a one-year period: change in credit spreads, recovery rates, and correlation of bases for index tranches and first-to-defaults.

When simulating a change in an issuer’s rating, the decline or improvement in its financial health is modelled by the increase or decrease in its credit spread. In the event of an issuer’s default, the impact on income is modelled based on a precise revaluation of the product.

IRC and CRM are calculated with a confidence interval of 99.9%: they represent the highest risk of loss obtained after eliminating the 0.1% most unfavourable scenarios simulated.

The internal IRC and CRM are subject to similar governance to that of other internal models meeting the Pillar 1 regulatory requirements. More specifically:

- the methodology and its implementation have been approved within the Group by the Risk Department in charge of internal models validation, and externally by the French Prudential Supervisory and Resolution Authority (Autorité de contrôle prudentiel et de résolution – ACPR);
- a weekly analysis is performed on these metrics;
- these metrics are compared with standard stress tests defined by the regulator;
- the models’ suitability and calibration are reviewed at least once a year.

Moreover, regular operational checks are performed on the completeness of the scope’s coverage as well as the quality of the data describing the positions.

(1) The same internal model is used for all portfolios for which an IRC calculation is required. The same is true for the portfolios on which a CRM calculation is performed.

(2) The use of a constant one-year liquidity horizon for all portfolios on which IRC and CRM are calculated means that the shocks applied to the positions in order to determine these two metrics are instantaneous one-year shocks. This hypothesis appears to be the most prudent choice in terms of models and capital, rather than shorter liquidity horizons.

TABLE 93: IRC (99.9%) AND CRM (99.9%) (IN EUR M)

(In EUR m)	31.12.2018	31.12.2017
Incremental Risk Charge (99.9%)		
Period start	263	183
Maximum value	316	321
Average value	211	256
Minimum value	116	175
Period end	266	282
Comprehensive Risk capital charge (99.9%)		
Period start	213	213
Maximum value	310	226
Average value	237	177
Minimum value	165	164
Period end	221	225

8.7 MARKET RISK CAPITAL REQUIREMENTS AND RISK-WEIGHTED ASSETS

TABLE 94: MARKET RISK CAPITAL REQUIREMENTS AND RWA BY RISK FACTOR (IN EUR M)

	Risk-weighted assets			Capital requirement		
	31.12.2018	31.12.2017	*Change*	31.12.2018	31.12.2017	*Change*
VaR	3,365	2,606	*759*	269	208	*61*
Stressed VaR	11,771	4,466	*7,305*	942	357	*585*
Incremental Risk Change (IRC)	3,322	3,527	*(205)*	266	282	*(16)*
Correlation portfolio (CRM)	2,799	2,817	*(18)*	224	225	*(1)*
Total market risks assessed by internal model	**21,257**	**13,416**	***7,841***	**1,701**	**1,073**	***628***
Specific risk related to securitisation positions in the trading portfolio	71	189	*118*	6	15	*(9)*
Risk assessed for currency positions	1,790	640	*1,150*	143	51	*92*
Risks assessed for interest rates (excl. securitisation)	413	368	*45*	33	29	*4*
Risk assessed for ownership positions	136	108	*28*	11	9	*2*
Risk assessed for commodities	34	79	*(45)*	3	6	*(3)*
Total market risks assessed by standard approach	**2,444**	**1,384**	***1,060***	**196**	**111**	***85***
TOTAL	**23,701**	**14,800**	***8,901***	**1,897**	**1,184**	***713***

TABLE 95: CAPITAL REQUIREMENTS AND RWA BY TYPE OF MARKET RISK (IN EUR M)

	Risk-weighted assets		Capital requirement	
	31.12.2018	31.12.2017	31.12.2018	31.12.2017
Risk assessed for currency positions	2,820	981	226	78
Risk assessed for credit (excl. deductions)	8,373	7,681	670	614
Risk assessed for commodities	272	225	22	18
Risk assessed for ownership positions	5,454	3,099	436	248
Risk assessed for interest rates	**6,782**	**2,814**	**543**	**225**
TOTAL	**23,701**	**14,800**	**1,897**	**1,184**

90% of Societe Generale's capital requirements related to market risk are determined using an internal model approach. The standard approach is mainly used for the positions taken by the head office and presenting a foreign exchange risk, which are not part of the trading book, as well as for the Group's subsidiaries that do not have access to the core IT tools developed internally, and for subsidiaries for which the Group is awaiting approval from the regulator to use the internal models. The main entities concerned are Societe Generale International Limited, SG Americas Securities Holdings, and some International Retail Banking and Financial Services entities such as Rosbank, SGMA, BRD, etc. The increase in capital requirements related to market risk is mainly due to:

- a rise in SVaR mainly due to a higher risk on fixed income perimeter and a strong variability on equity products, combined with a risk alignment of these two perimeters in terms of scenario (lower netting);
- an increase in risks assessed by standard approach for FX transactions.

8.8 MARKET RISK RWA AND CAPITAL REQUIREMENTS – ADDITIONAL QUANTITATIVE INFORMATIONS

TABLE 96: MARKET RISK UNDER STANDARDISED APPROACH (MR1)

(In EUR m)	31.12.2018 Risk weighted assets	31.12.2017 Risk weighted assets	31.12.2018 Capital requirement	31.12.2017 Capital requirement
Products	**2,373**	**1,195**	**190**	**96**
Interest rate risk (general and specific)	413	368	33	29
Equity risk (general and specific)	136	108	11	9
Foreign exchange risk	1,790	640	143	51
Commodity risk	34	79	3	6
Options	**71**	**189**	**6**	**15**
Simplified approach	0	0	0	0
Delta-plus method	0	0	0	0
Scenario approach	0	0	0	0
Securitisation (specific risk)	71	189	6	15
TOTAL	**2,444**	**1,384**	**196**	**111**

Outright products refer to positions in products that are not optional.

TABLE 97: MARKET RISK UNDER INTERNAL MODELS APPROACH (MR2-A)

	(In EUR m)	31.12.2018 Risk weighted assets	31.12.2017 Risk weighted assets	31.12.2018 Capital requirement	31.12.2017 Capital requirement
1	**VaR (higher of values a and b)**	**3,365**	**2,606**	**269**	**208**
(a)	Previous day's VaR (Article 365(1) (VaRt-1))	732	843	59	67
(b)	Average of the daily VaR (Article 365(1)) on each of the preceding sixty business days (VaRavg) x multiplication factor ((mc) in accordance with Article 366)	3,365	0	269	208
2	**SVaR (higher of values a and b)**	**11,771**	**4,466**	**942**	**357**
(a)	Latest SVaR (Article 365(2) (sVaRt-1))	3,693	2,330	295	186
(b)	Average of the SVaR (Article 365(2) during the preceding sixty business days (sVaRavg) x multiplication factor (ms) (Article 366)	11,771	4,466	942	357
3	**Incremental risk charge -IRC (higher of values a and b)**	**3,322**	**3,527**	**266**	**282**
(a)	Most recent IRC value (incremental default and migration risks section 3 calculated in accordance with Section 3 articles 370/371)	3,322	3,029	266	282
(b)	Average of the IRC number over the preceding 12 weeks	2,230	3,527	178	242
4	**Comprehensive Risk Measure – CRM (higher of values a, b and c)**	**2,799**	**2,817**	**224**	**225**
(a)	Most recent risk number for the correlation trading portfolio (article 377)	1,852	2,817	148	225
(b)	Average of the risk number for the correlation trading portfolio over the preceding 12-weeks	2,799	2,221	224	178
(c)	8 % of the own funds requirement in SA on most recent risk number for the correlation trading portfolio (Article 338(4))	2,761	2,110	221	169
5	**TOTAL**	**21,257**	**13,416**	**1,701**	**1,073**

TABLE 98: INTERNAL MODEL VALUES FOR TRADING PORTFOLIOS (MR3)

(In EUR m)	31.12.2018	31.12.2017
VaR (10 days, 99%)[1]		
Period start	54	113
Maximum value	86	150
Average value	56	79
Minimum value	33	40
Period end	59	67
Stressed VaR (10 days, 99%)[1]		
Period start	65	119
Maximum value	395	198
Average value	128	85
Minimum value	50	50
Period end	156	67
Incremental Risk Charge (99.9%)		
Period start	263	183
Maximum value	316	321
Average value	211	256
Minimum value	116	175
Period end	266	282
Comprehensive Risk capital charge (99.9%)		
Period start	213	213
Maximum value	310	226
Average value	237	177
Minimum value	165	164
Period end	221	225
Floor (standardised measurement method)	221	169

(1) On the perimeter for which the capital requirements are assessed by internal model.

TABLE 99: ANNUAL RWA FLOW STATEMENTS OF MARKET RISK EXPOSURES UNDER AN IMA (INTERNAL MODEL APPROACH) (MR2-B)

(In EUR m)	VaR	SVaR	IRC	CRM	Other	Total RWA	Total capital requirements
RWA at end of previous reporting period (31.12.2017)	**2,606**	**4,466**	**3,527**	**2,817**	**0**	**13,416**	**1,073**
Regulatory adjustment	1,762	2,136	498	0	0	4,396	352
RWA at end of day previous quarter	843	2,330	3,029	2,817	0	9,020	722
Movement in risk levels	434	7,291	(205)	(18)	0	7,503	600
Model updates/changes	324	13	0	0	0	337	27
Methodology and policy	0	0	0	0	0	0	0
Acquisitions and disposals	0	0	0	0	0	0	0
Foreign exchange movements	0	1	0	0	0	1	0
Other	0	0	0	0	0	0	0
RWA at end of day quarter	732	3,693	3,322	1,852	0	9,599	768
Regulatory adjustment	2,633	8,078	0	947	0	11,658	933
RWA at end of reporting period (31.12.2018)	**3,365**	**11,771**	**3,322**	**2,799**	**0**	**21,257**	**1,701**

Effects are defined as:

- movement in risk levels: changes due to position changes;
- model changes: significant updates to the model to reflect recent experience (*e.g.* recalibration), as well as significant changes in model scope;
- methodology and policy: methodology changes to the calculations driven by regulatory policy changes;
- acquisitions and disposals: modifications due to acquisition or disposal of business/product lines or entities;
- foreign exchange: changes arising from foreign currency translation movements;
- other: this category must be used to capture changes that cannot be attributed to any other category.

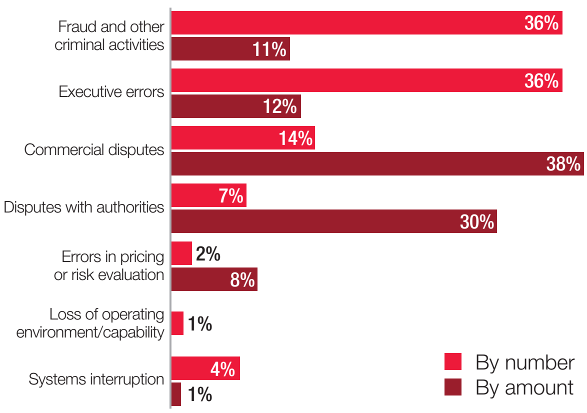
TABLE 100 : QUATERLY RWA FLOW STATEMENTS OF MARKET RISK EXPOSURES UNDER AN IMA (INTERNAL MODEL APPROACH) (MR2-B)

(En M EUR)	VaR	SVaR	IRC	CRM	Autre	Total RWA	Exigences en fonds propres
RWA at end of previous reporting period (30.09.2018)	**2,797**	**6,570**	**2,103**	**3,117**	**0**	**14,587**	**1,167**
Regulatory adjustment	2,014	3,561	653	0	0	6,228	498
RWA at end of day previous quarter	783	3,008	1,451	3,117	0	8,359	669
Movement in risk levels	243	5,188	1,219	(318)	0	6,332	507
Model updates/changes	324	13	0	0	0	337	27
Methodology and policy	0	0	0	0	0	0	0
Acquisitions and disposals	0	0	0	0	0	0	0
Foreign exchange movements	0	1	0	0	0	1	0
Other	0	0	0	0	0	0	0
RWA at end of day quarter	732	3,693	3,322	1,852	0	9,599	768
Regulatory adjustment	2,633	8,078	0	947	0	11,658	933
RWA at end of reporting period (31.12.2018)	**3,365**	**11,771**	**3,322**	**2,799**	**0**	**21,257**	**1,701**

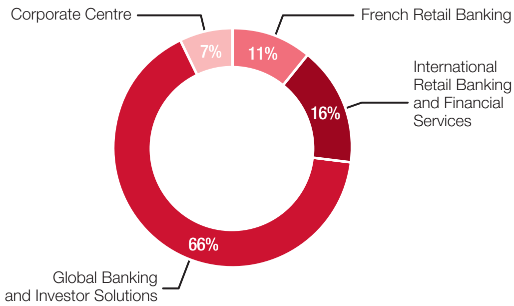
9

OPERATIONAL RISKS

Distribution of operational risks losses by amount and by number



Distribution of operational risk RWA by Pillar



IN BRIEF

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

Operational risks RWA at end 2018

49,6 bn EUR

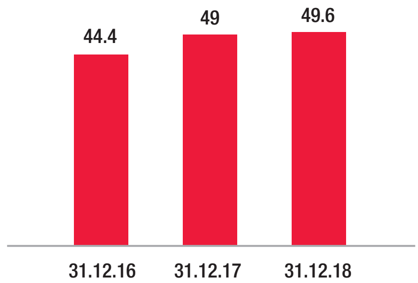
(Amount at end-2017: 49,0 bn EUR)

Share of RWA calculated by the internal model at end 2018

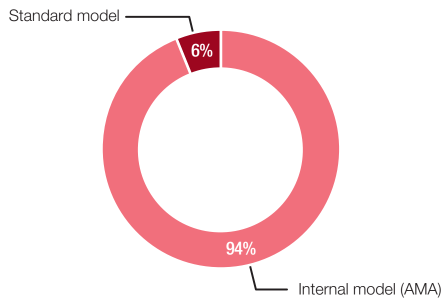
94%

(94% in 2017)

Operational risks (RWA in EUR bn)



Distribution of operational risks (RWA) by method at END-2018

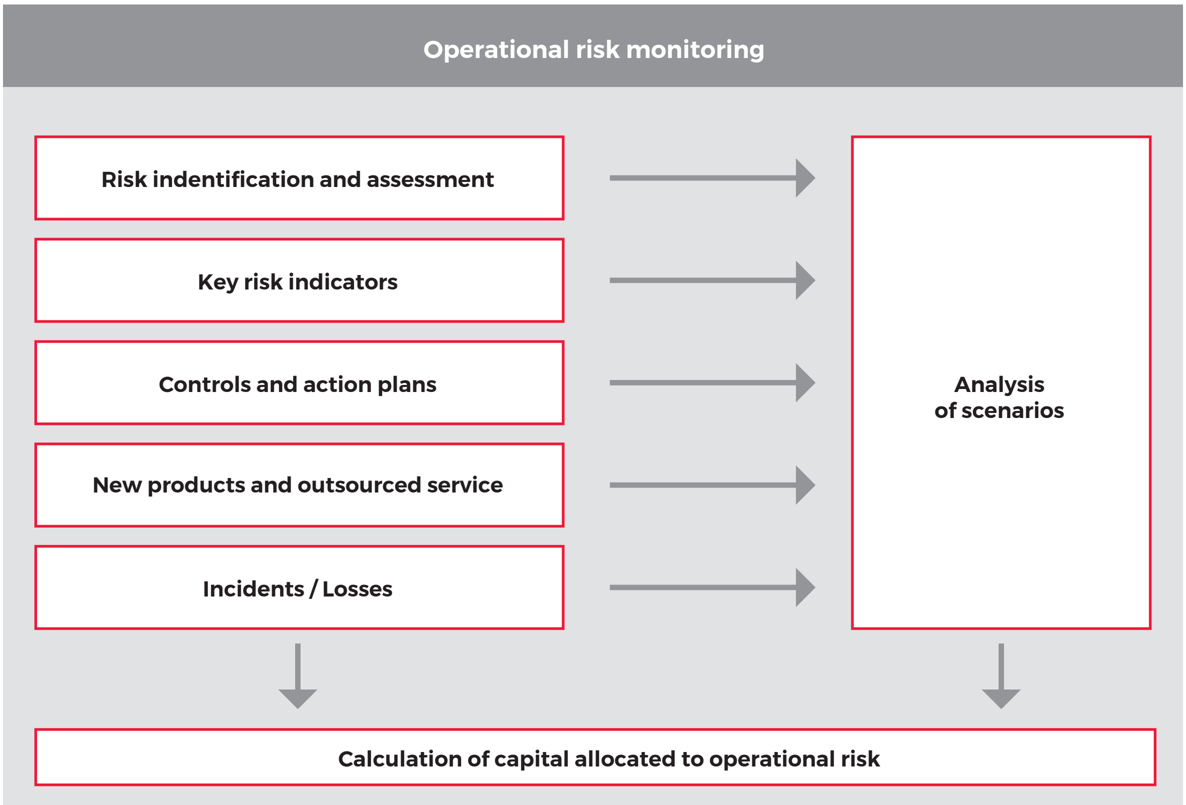


Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

9.1 OPERATIONAL RISK MEASUREMENT

Since 2004, Societe Generale has used the Advanced Measurement Approach (AMA), as proposed by the Capital Requirements Directive, to measure operational risk. This approach, implemented across the main Group entities, notably makes it possible to:

- identify the businesses that have the greatest risk exposures;
- identify the types of risk that have the greatest impact on the Group's risk profile and overall capital requirements;
- enhance the Group's awareness, vigilance and management of operational risks.



9.2 OPERATIONAL RISK MONITORING PROCESS

The Group's main systems for controlling operational risks are:

- collection of internal losses and analysis of external losses;
- self-assessment of risks and controls;
- framing of new products;
- management of outsourced services;
- oversight of risk indicators;
- development of scenario analyses.

Societe Generale's classification of operational risks in eight event categories and 49 mutually exclusive sub-categories is the cornerstone of its risk modelling, ensuring consistency throughout the system and enabling cross-business analyses throughout the Group.

The eight event categories are as follows:

- commercial disputes;
- disputes with authorities;
- pricing or risk valuation errors;
- execution errors;
- fraud and other criminal activities;
- rogue trading;
- loss of operating resources;
- IT system interruptions.

Internal loss data collection

Internal loss (but also gains and near loss) data has been compiled throughout the Group since 2003, enabling operational staff to:

- define and implement the appropriate corrective actions;
- achieve a deeper understanding of their risk areas;
- enhance awareness and vigilance with respect to operational risks in the Group.

The minimum threshold above which a loss (or gain or near loss) is recorded is EUR 10,000 throughout the Group, except for global market activities, where this threshold is EUR 20,000 due to the scope of such activities and the volumes involved.

Below these thresholds, losses representing weak-signal risks are collected by the Group's various Business Divisions and reported as an aggregated sum if they concern the same risk event and the total exceeds the reporting threshold.

Risk and Control Self-Assessment

The purpose of Risk and Control Self-Assessment (RCSA) is to assess the Group's exposure to operational risks in order to improve their monitoring. Based on the results of other operational risk management frameworks (internal losses, KRIs, etc.), risk areas are identified by the functions based on their respective fields of expertise, and interviews are conducted with Group experts.

The objectives are as follows:

- identifying and assessing the major operational risks to which each business is exposed (the intrinsic risks, *i.e.* those inherent in the nature of a business, while disregarding prevention and control systems). Where necessary, risk mapping established by the functions (*e.g.* Compliance, Information Systems Security, etc.) contributes to this assessment of intrinsic risks;
- assessing the quality of major risk prevention and mitigation measures;
- assessing the risk exposure of each business that remains once the risk prevention and mitigation measures are taken into account (the "residual risk"), while disregarding insurance coverage;
- facilitating and/or supporting the implementation of key risk indicators;
- adapting the risk insurance strategy, if necessary. As part of this exercise, the risks within a given scope are described using a double scale of severity and frequency.

Key risk indicators

Key risk indicators (KRIs) supplement the overall operational risk management system by providing a dynamic view (warning system) of changes in business risk profiles.

Their follow-up provides managers of entities with a regular measure of improvements or deteriorations in the risk and the environment of prevention and control.

A cross analysis of Group-level KRIs and losses is presented to the Group's Executive Committee on a quarterly basis via a specific dashboard.

Analysis of scenarios

The analysis of scenarios serve two purposes: informing the Group of potential significant areas of risk and contributing to the calculation of the capital required to cover operational risks.

These analyzes make it possible to build an expert opinion on a distribution of losses for each risk category and thus to measure the exposure to potential losses in scenarios of very severe severity, which can be included in the calculation of the prudential capital requirements.

In practice, various scenarios are reviewed by experts who gauge the severity and frequency of the potential impacts for the Group by factoring in internal and external loss data as well as the internal framework (controls and prevention systems) and the external environment (regulatory, business, etc.).

Governance is established in order, in particular, to:

- allow the approval of the annual scenarios update programme by the Risk Committee (CORISQ);

- allow the approval of the scenarios by the senior management of the Business and Corporate Divisions, through the internal control coordination committees of the departments involved or through *ad hoc* meetings;
- conduct an overall review of the Group's risk hierarchy and of the suitability of the scenarios through CORISQ.

Analysis of external losses

External losses correspond to the data on operational losses suffered by the banking and financial sector, provided by databases managed by external providers, as well as the data shared by the banking industry as part of consortiums.

These data are used to enhance the identification and assessment of the Group's exposure to operational risks by benchmarking internal loss records against industry-wide data.

New Product Committees

Each division must submit all new products (commercial products only) to a New Product Committee. Jointly coordinated by the Risk Division and the relevant businesses, this committee aims to ensure that, before any product launch, all types of induced risks (credit risk, market risk, liquidity and refinancing risks, country risks, operational risks, legal risks, accounting tax , financial, information systems as well as the risks of compliance, reputation, protection of personal data and CSR risk, etc.) have been identified, assessed and mitigated residual risks are accepted. This committee ensures the product launch and its execution under the conditions and security required.

This committee is underpinned by a very broad definition of "new product", which ranges from the creation of a new product or service to the adaptation of an existing product to a new environment or new customer type.

Throughout the whole Group, 510 New Product Committee meetings were held in 2018.

Outsourcing of services

The business lines decide on the outsourcing of services within the framework of standards set by the Group. Outsourcing proposals are validated by the Sponsor business further to a risk analysis performed in line with the project governance structure. The Sponsor authorises the Project Manager to conduct the risk analysis. The latter draws on the opinions of experts from different functions according to the Group field of expertise required, to ensure that the evaluations are consistent.

The analysis framework is standardised so as to guarantee coherency in the decisions taken at Group level in this area. It systematically incorporates operational risks (including fraud, execution risk…), legal, tax, non-compliance, reputational, provider, human resources, social and environmental responsibility, business continuity, reversibility/dependence, data quality, information security and data protection risks.

Legal experts qualify essential outsourcing of service as defined by the decree of 3 November 2014.

Critical services at Group level are subject to strengthened management *via* a contract management process that culminates in the signature of a regular contract covering the entire lifetime of these services. These services are identified on the basis of criteria such as the notion of "core business activity", as well as the financial impact and reputational risk assessed at Group level. These critical services are validated within a dedicated committee, chaired by the Operational Risk Division, which ensures consistency at Group level.

Crisis management and business continuity

The crisis management and business continuity systems aim to mitigate as far as possible the impacts of potential incidents on customers, staff, activities and infrastructure, thus protecting the Group's reputation, the image of its brands, and its financial resilience. These systems also satisfy regulatory requirements.

The approach used to implement and optimise the business continuity systems of each Group entity is based on a methodology that meets international standards.

2018-2020 information systems security (ISS) blueprint

With investments amounting to EUR 650 million by 2020, the ISS blueprint aims to place cybersecurity at the centre of the trusted digital relationship between Societe Generale and its clients.

The assessment of cyber risks and measures to strengthen our ISS systems are managed using a dashboard shared quarterly with the Group's management. Structured around a set of KRI covering the 8 standard categories of ISS risks recommended by the regulatory authorities and standards bodies (ACPR, EBA, NIST, etc.), this dashboard is a means of verifying compliance with the Group's risk appetite and the effectiveness of action plans.

In terms of awareness-raising, an online module on information security is mandatory for all internal staff and for all service providers using or accessing our information system. The module is available in 14 languages and covers the main aspects of cybersecurity (information leak, data security, phishing, social engineering, business e-mail compromise scams, etc.). At end-2018, 93% of Societe Generale Group employees having access to this online module had completed the training.

In addition, specific awareness-raising initiatives, for employees but also clients, are implemented throughout the year (conferences, demonstrations, workshops, etc.) For example, fake phishing e-mails are sent to all employees, at least twice a year, so that they can learn to detect a suspicious e-mail and to ensure they have the proper reflex reactions. Since the first campaigns in 2015, the number of clicks on links or the opening of attachments has halved and the reporting of suspicious messages to the security teams has virtually tripled.

9.3 OPERATIONAL RISK MODELLING

The method used by the Group for operational risk modelling is based on the Loss Distribution Approach (LDA).

Under this approach, operational risks are modelled using segments, each segment representing a type of risk and a Group core business. The frequency and severity of operational risks, based on past internal losses, external losses, the internal and external environment, and scenario analyses, are estimated and the distribution of annual losses is calculated for each segment. This approach is supplemented by cross-business scenario analyses that measure cross-business risks for core businesses, such as, for example, cybercriminality and flooding of the river Seine.

Aside from the individual risks associated with each segment or cross-business scenario analysis, the model takes into account the diversification between the various types of risk and the core businesses, as well as the effect of insurance policies taken out by the Group.

The Group's regulatory capital requirements for operational risks within the scope covered by the Advanced Measurement Approach (AMA) internal model are then defined as the 99.9% quantile of the Group's annual loss distribution.

Societe Generale's total capital requirements for operational risks were EUR 4 billion at the end of 2018, representing EUR 49.7 billion in risk-weighted assets. This assessment also includes the capital requirement on the portion treated under the standardised approach.

Insurance cover in risk modelling

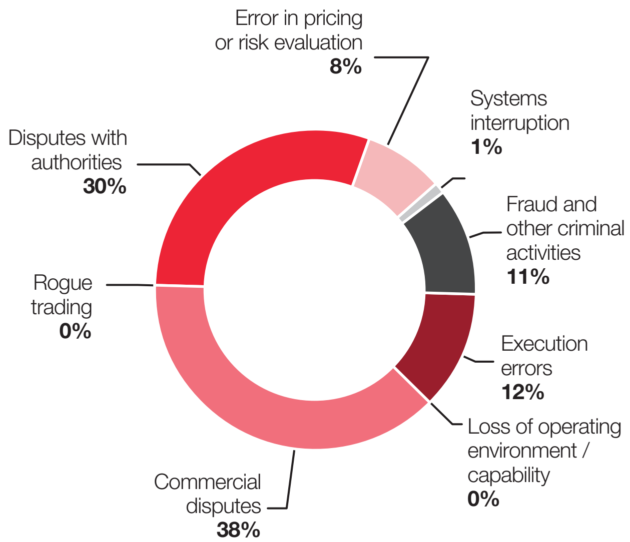
In accordance with regulations, Societe Generale incorporates risk cover provided by insurance policies when calculating regulatory capital requirements for operational risks, within the limit of 20% of said requirements. These insurance policies cover part of the Group's major risks, *i.e.* civil liability, fraud, fire and theft, as well as systems interruptions and operating losses due to a loss of operating resources.

Risk reduction through insurance policies results in a 6.2% decrease in total capital requirements for operational risks.

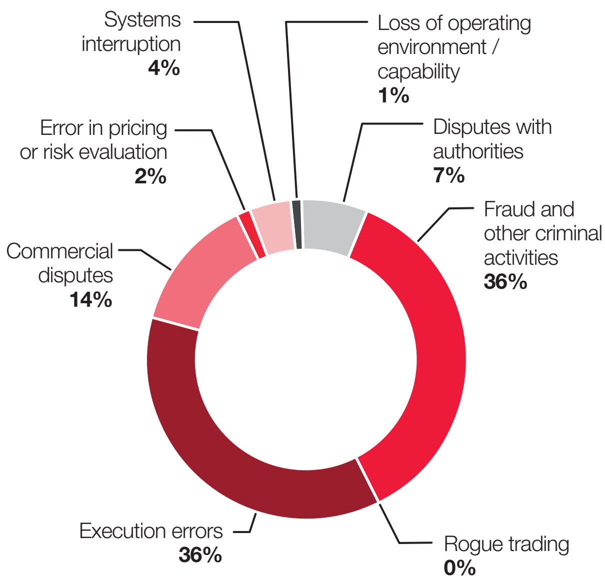
Quantitative data

The following charts break down operating losses by risk category for the 2014-2018 period.

OPERATIONAL RISK LOSSES: BREAKDOWN BY SOCIETE GENERALE RISK EVENT TYPE – AMOUNTS



OPERATIONAL RISK LOSSES: BREAKDOWN BY SOCIETE GENERALE RISK EVENT TYPE – NUMBER OF EVENTS



Over the past five years, Societe Generale's operational risks were concentrated on average on four types, accounting for 91% of the Group's total operating losses:

- commercial disputes represented 38% of total Group operating losses. The weight of this category is largely explained by the transactional agreement with the Lybian Investment Authority (LIA) in 2017. The amount of losses this category is down from last year;
- disputes with authorities, the second largest category, represented 30% of the Group's operating losses over the period. Losses incurred through this type of litigation represented relatively high unit amounts, meaning that this category represented only 7% of the total number of losses. The amount of losses in this category is up by compared to last year, due to agreements reached in 2018 with US and French authorities on LIBOR investigations, LIA and OFAC;
- execution errors represented 12% of total operating losses, thereby constituting the third leading cause of loss for the Group. The amount of losses on this category is stableover the period;
- fraud and other criminal activities represented 11% of the amount of operating losses over the period. They are mainly composed of fraud on the means of manual payment, of files of financing in recovery with production of false external documents as part of the guarantee and of supplier fraud on funded equipment.

The other categories of Group operational risk (error in pricing or risk evaluation, system interruptions, loss of operating environment / capability and rogue trading) were still relatively insignificant, representing barely 9% of the Group's losses on average over the 2014 to 2018 period.

9.4 OPERATIONAL RISK INSURANCE

Policies of the insurance subscription

GENERAL POLICY

Since 1993, Societe Generale has implemented a global policy of hedging Group operational risks through insurance.

This consists in searching the market for the most extensive cover available for the risks incurred and enabling all entities to benefit from such cover wherever possible. Policies are taken out with leading insurers. Where required by local legislation, local policies are taken out, which are then reinsured by insurers that are part of the global programme.

In addition, special insurance policies may be taken out by entities that perform specific activities.

A Group internal reinsurance company intervenes in several policies in order to pool high-frequency, low-level risks between entities. This approach contributes to the improvement of the Group's knowledge and management of its risks.

Description of main coverage

GENERAL RISKS

Buildings and their contents, including IT equipment, are insured at their replacement value. The guarantee covering acts of terrorism abroad has been renewed.

Liability other than professional liability (*i.e.* relating to operations, Chief Executive Officers and Directors, vehicles, etc.) is covered by insurance policies on a worldwide basis. The amounts insured vary from country to country, according to operating requirements.

RISKS ARISING FROM OPERATIONS

Insurance is only one of the measures used to offset the consequences of the risks inherent in the Group's activity. It complements the Group's risk management policy.

Theft/fraud

These risks are included in the "Banker's Blanket Bond" policy that insures all the Group's financial activities around the world.

Internal fraud (committed by an employee or by a third party acting with the aid of an employee) and external fraud (committed by a third party acting alone), with the intent to obtain illicit personal gain or to harm the Group, are covered.

Professional liability

The consequences of any legal action in professional activities of staff or managers in the Group's professional activitie are insured under a global policy.

Operating losses

The consequences of any accidental interruption to activity are insured under a global policy. This policy supplements the business continuity plans. The amounts insured are designed to cover losses incurred between the time of the event and the implementation of a back-up solution.

Cyber attacks

In an environment – not specific to the banking sector – where new forms of crime are rapidly developing, mainly involving data theft or the compromise or destruction of computer systems, a cyber risk insurance policy has been taken out.

9.5 CAPITAL REQUIREMENTS

Societe Generale's capital requirements related to operational risk are calculated mainly under the internal model (94% in 2018 and 2017).

The amount of weighted assets on the AMA scope is up slightly (+EUR 836m, i.e. 1.8%) reflecting the shift in the group's operating risk profile.

The following table presents the Group's risk-weighted assets and the corresponding capital requirements at 31st December 2018.

TABLE 101: RISK-WEIGHTED ASSETS AND CAPITAL REQUIREMENTS FOR OPERATIONAL RISK (IN EUR M)

	31.12.2018				31.12.2017			
(In EUR m)	**RWA under Standardised approach**	**RWA under Advanced Measurement Approach (AMA)**	**Total RWA**	**Capital requirements**	**RWA under Standardised approach**	**RWA under Advanced Measurement Approach (AMA)**	**Total RWA**	**Capital requirements**
Global Banking and Investor Solutions	289	32,804	33,093	2,647	289	31,702	31,991	2,559
Corporate Centre	275	3,138	3,413	273	463	3,172	3,635	291
International Retail Banking and Financial Services	2,284	5,376	7,659	613	2,226	5,501	7,727	618
French Retail Banking	23	5,432	5,455	436	42	5,600	5,642	452
TOTAL	**2,872**	**46,749**	**49,621**	**3,970**	**3,020**	**45,975**	**48,995**	**3,920**

10

STRUCTURAL INTEREST RATE AND EXCHANGE RATE RISKS

IN BRIEF

Structural interest and exchange rate risk correspond to the risk of losses of interest margin or value of the fixed rate structural position arising from variations in interest or exchange rates. Structural interest and exchange rate risk arises from commercial activities and from transactions entered into by the Corporate Centre.

This section describes the monitoring of structural risks and provides information on structural interest rate and exchange rate risks (operations impacting shareholders' equity, investments and bond issues).

Overall sensitivity to the Group's structural interest rate risk at end-2018
(in % of regulatory capital)

< 0,9%

(0.6% at end-2017)

Group net interest margin sensitivity over one year, in the event of parallel shift in the yield curves of +200bp in 2018
(in % of the net banking income)

3%

(2% in 2017)

Maximum sensitivity of the Group Common Equity Tier 1 ratio to a 10% change by currency (in basis points)

+/- 2 pb

Structural exposure to interest rate and exchange rate risks results from commercial transactions, their associated hedging transactions and corporate center transactions.

The interest rate and exchange rate risks linked to trading activities are excluded from the structural risk measurement scope as they belong to the category of market risks. Structural and market exposures constitute the Group's total interest rate and exchange rate exposure.

The general principle is to reduce structural interest rate and exchange rate risks to the greatest possible extent within the consolidated entities. As far as possible, commercial transactions and corporate center operations within entities are hedged against interest rate and exchange rate risks, either through micro-hedging (individual hedging of each commercial transaction) or macro-hedging techniques under IAS 39 "carve-out" (hedging of portfolios of similar commercial transactions within a treasury department). At a consolidated level, some foreign exchange positions are kept in order to minimise the sensitivity of the Group Common Equity Tier 1 ratio to exchange rate fluctuations.

10.1 ORGANISATION OF THE MANAGEMENT OF STRUCTURAL INTEREST RATE AND EXCHANGE RATE RISKS

The principles and standards for managing these risks are defined at the Group level. The entities are first and foremost responsible for managing these risks. The ALM (Asset and Liability Management) Department within the Group's Finance Division supplements the control framework.

The Group Finance Committee, a General Management body

The Group Finance Committee:

- validates and oversees the structural risk monitoring, management and supervision system;
- reviews changes in the Group's structural risks through consolidated reporting;
- examines and validates the measures proposed by the Group Finance Division.

The ALM Department within the Group Finance Division

The ALM (Asset and Liability Management) Department is responsible for:

- defining the structural risk policies for the Group and formalising risk appetite to structural risks;
- defining the steering indicators and overall stress test scenarios of the different types of structural risks and setting the main limits for the business divisions and the entities and Business Units (BU) and Service Units (SU);
- analysing the Group's structural risk exposure and defining hedging strategies;
- monitoring the regulatory environment concerning structural risk;▪defining the ALM principles for the Group;
- defining the normative environment of the structural risk metrics, modelling and framing methods;
- defining the models used by the Group's entities with regard to structural risks;
- identifying, consolidating and reporting on Group structural risks;
- monitoring compliance with structural risk limits.

The ALM Risk Control Department within the Risk Division

The second-level supervision of the ALM models used within the Group and of associated frameworks is provided by a dedicated service within the Risk Department. Accordingly, this department

- validates the methodological principles, feeding parameters and backtests of ALM models.
- It requests and analyses proposals from Group Finance Division regarding the risk indicators definition, stress test scenarios and structural risk frameworks.
- It also ensures at the second level that the entities' frameworks, BU/SUs' frameworks and Group frameworks are respected and conducts a regular reviewing in coordination with the first-level control teams.

Finally, the Risk Department organises and chairs the Group model validation Committee and the Group ALM norms validation Committee.

The entities and BU/SUs are responsible for ALM risk management

Each entity, each BU/SU, carries out first-level controls on structural risks and is responsible for regularly assessing risks incurred, producing the risk report, and developing and implementing hedging options. Each entity, each BU/SU is required to comply with the Group's standards and to adhere to the limits assigned to it.

For this reason, entities and BU/SUs apply the standards defined at the Group level, develop their models. Each entity has its own structural risk manager, who reports to the entity's Finance Division and is responsible for conducting first-level controls and for reporting the entity's structural risk exposure to the Group Finance Division via a shared IT system. Retail Banking entities both in France and abroad have an ad hoc ALM (Asset Liability Management) Committee responsible for applying the validated models, managing exposures to interest rate and exchange rate risks, and implementing the hedging programs in compliance with the principles set out by the Group and the limits validated by the Finance Committee and BU/SUs ALM committees.

10.2 STRUCTURAL INTEREST RATE RISK

Structural interest rate risk is measured within the banking portfolio, specifically, commercial transactions, the associated hedging transactions and corporate center transactions for each of the Group's entities.

Structural interest rate risk arises mainly from the residual gaps (surplus or deficit) in each entity's fixed-rate forecasted positions.

Objective of the Group

When steering structural interest rate risk, the main objective is to ensure that the risk is managed by reducing each Group entity's exposure to structural interest rate risk as much as possible.

For this purpose, each entity, each BU/SU as well as the Group as a whole are subject to sensitivity limits which are validated by the Finance Committee. Sensitivity is defined as the variation in the net present value of future residual fixed-rate positions (surplus or deficit), stemming from assets and liabilities in a static vision, for a 1% parallel increase in the yield curve (i.e. this sensitivity does not relate to the sensitivity of the annual net interest margin). The limit set at Group level is EUR 1 billion.

Measurement and monitoring of structural interest rate risks

Societe Generale uses several indicators to measure the Group's overall interest rate risk. The two most important indicators are:

- the net present value sensitivity. It is used to set limits for the entities and BU/SUs and is calculated as the sensitivity of the net present value of the balance sheet to variations in interest rates. This measurement is calculated for all currencies to which the Group is exposed;
- the net interest margin sensitivity to variations in interest rates in various stress scenarios takes into account the sensitivity which is generated by future commercial productions over a three-year rolling horizon. It is calculated on a dynamic basis.

In order to quantify its exposure to structural interest rate risks, the Group analyses all fixed-rate assets and liabilities in the future. These positions result from transactions remunerated or charged at fixed rates and from their maturities.

Assets and liabilities are analysed independently, without any a priori matching. The maturities of outstanding assets and liabilities are determined based on the contractual terms of transactions, amortization conventions and models based on customers' historic behaviour patterns (particularly for sight deposits, regulated savings accounts, early loan repayments) and shareholders' equity.

Once the Group has identified its fixed-rate positions (surplus or deficit), it calculates the sensitivity (as defined above) to interest rate variations. This sensitivity is defined as the variation of the net present value of the fixed-rate positions for a 1% instantaneous parallel increase in the yield curve.

In addition, the Group measures the sensitivity of its fixed-rate position in scenarios where the interest rate curve is distorted with and without a 0% floor. In 2018, the Group maintained the overall sensitivity of net present value at a level below 0,9 % of the Group's prudential own funds Tier 1 and below the EUR 1 billion limit.

The analysis of structural interest rate risk at the business line level reveals the following points:

- within the French Retail Banking, the outstanding amounts of customer deposits are generally considered to be at fixed rate. Macro-hedging is set up mainly using interest rate swaps, in order to limit French Retail Banking's net present value and net interest margin sensitivities to interest rate risk, in the frame of the assumptions used, within its limits. Macro-hedging instruments are allocated to separate portfolios according to whether they are used to hedge assets or liabilities in the accounting books. The hedging instrument portfolios allocated to liability elements are net fixed-rate receiver / variable-rate payer whereas the hedging instrument portfolios allocated to asset elements are net fixed-rate payer / variable-rate receiver. The non-over hedging tests and hedged items non-disapearing tests make the link between the balance sheet available assets or liabilities outstandings and the amount of assets and liabilities outstandings designated as hedged. The effectiveness of the hedge is then determined using the dollar off-set method. The sources of ineffectiveness result from the last fixing of the variable leg of the hedging swaps, the bi-curve valorization of the collateralized hedging instruments, possible mismatches in the cash flows payment dates and counterparty risk on hedging instruments valorization. On December 31st 2018, the sensitivity of French Retail Banking's net present value, based on its essentially euro-denominated assets and liabilities, was EUR 126 million;
- transactions with large corporates are generally micro-hedged and therefore present no residual interest rate risk;
- transactions with customers of the Specialised Financial Services subsidiaries are generally macro-hedged and therefore generate only a very low interest rate risk;
- commercial transactions at the Group's subsidiaries and branches located in countries with weak development of the financial markets can generate structural interest rate risk. These entities may face difficulties in optimally hedging interest rate risk, but these positions, managed within limits, remain marginal at the Group level;
- corporate center transactions are subject to hedging.

Sensitivity to interest rate variations of the Group's represented EUR 452 million as of 31st December 2018 (for a 1% parallel and instantaneous rise in the yield curve).

TABLE 102: MEASUREMENT OF THE ENTITIES' SENSITIVITY TO A 1% INTEREST RATE SHIFT, INDICATED BY MATURITY

(In EUR m)	< 1 year	1-5 years	> 5 years	Total
Amount of sensitivity (31.12. 2018)	**(55)**	**(76)**	**583**	**452**
Amount of sensitivity (31.12.2017)	4	(265)	(13)	(275)

The Group analyses the sensitivity of the interest margin to variations in market interest rates using stress tests on the Group's net interest margin under a constant balance sheet hypothesis.

The measurement of the sensitivity of the three-year interest margin in different configurations of the yield curve with a 0% floor is used by the Group to quantify the interest rate risk on a scope of significant entities.

The dynamic vision of the balance sheet varies according to the amortisation of outstanding transactions and transaction renewals based on outstanding amounts observed on the reporting date (projections under a constant balance sheet hypothesis). Since 2018, flattening and steepening scenarios depend on the concerned currency. For example, on EUR currency, the flattening assumptions used for the simulation allows a 200bp increase in short-term rates and an -58bp decrease of long-term rates. The steepening scenario used allows a -162bp decrease in short-term rates and an 88bp increase in long term rates (without floor effect).

The Societe Generale Group's interest margin sensitivity over the full year 2019 is low. In the event of a parallel shift in the yield curves of +200bp, the sensitivity is positive and represents 3% of the net banking income.

The net interest margin sensitivity mainly stems from the impact on:

- customer deposits: generally little or no interest is paid on deposits, and pricing is only partly impacted by fluctuations in interest rates, as the margin on deposits is mainly derived from reinvestment rates;
- new loan production.

The margin sensitivity on outstanding customer transactions results from the renewal of the matured portions of deposit replacements and the residual sensitivity of the balance sheet to interest rate variations.

The French and International Retail Banking activities are favourably exposed to a rise in interest rates, as deposits can then be reinvested at higher rates, while margins on outstanding loans remain stable. This increase in margin is, however, partially offset by an increase in funding costs. Conversely, retail banking activities are unfavourably exposed to a fall in interest rates as deposits are then reinvested at lower rates and the margin on outstanding loans falls due to prepayments. This decrease in the margin is partially offset by the increase in production margins on new loans (the decline in customer loan rates is not as rapid as the decline in market rates) and by a decrease in the cost of refinancing.

Calculations are based on aggregated estimates at 31st December of a scope of Group consolidated entities representing 8/10th of the Group's Net Interest Margin.

At 31st December 2018, the Group's net interest margin sensitivity for 2019 was as follows:

TABLE 103: SENSITIVITY OF THE GROUP'S INTEREST MARGIN

(In EUR m)	31.12.2018	31.12.2017
Parallel increase in interest rates of 200 bp	845	490
Parallel decrease in interest rates of 200 bp	(230)	(167)
Parallel increase in interest rates of 100 bp	452	234
Parallel decrease in interest rates of 100 bp	(128)	(112)
Flattening	584	210
Steepening	20	143

10.3 AUDITED STRUCTURAL EXCHANGE RATE RISK

Structural exchange rate risk is mainly due to:

- Exposures related to net investments abroad, i.e. subsidiaries and branches;
- Exposures related to other banking book transactions;

Objective of the Group

The Group's policy consists on the one hand in hedging its structural position non relating to net investment in foreign entities and on the other hand in calibrating the hedging of its net investments in foreign entities to reduce, as much as possible, the sensitivity of its Common Equity Tier 1 ratio against fluctuations in exchange rates. For this purpose, the Group carries out foreign exchange transactions in order to maintain exposure by currency within the limits approved by the Finance Committee.

Measurement and monitoring of structural foreign exchange rate risks

The Group analyses its exposure to structural foreign exchange rate risks arising from all assets and liabilities of the Banking Book denominated in foreign currencies.

The Group monitors the structural exchange rate positions in the different currencies to mitigate the sensitivity of the Common Equity Tier 1 ratio against foreign exchange rate fluctuations.

Table 39 presents the impact on the Group Common Equity Tier 1 ratio of a 10% currency depreciation or appreciation as at December 31st, 2018.

TABLE 104: SENSITIVITY OF THE GROUP'S COMMON EQUITY TIER 1 RATIO TO A 10% CHANGE IN THE CURRENCY (IN BASIS POINTS)

	Impact on the Common Equity Tier 1 ratio of a 10% currency depreciation		Impact on the Common Equity Tier 1 ratio of a 10% currency appreciation	
Currency	**31.12.2018**	**31.12.2017**	**31.12.2018**	**31.12.2017**
USD	(1)	1	1	(1)
GBP	0	0	0	0
JPY	0	0	0	0
KRW	0	0	0	0
RON	0	0	0	0
RUB	0	0	0	0
CHF	0	(1)	0	1
CZK	0	(1)	0	1
Other	(2)	(2)	2	2

11

LIQUIDITY RISK

IN BRIEF

Liquidity risk is defined as the risk of not being able to meet cash flow or collateral requirements when they fall due and at a reasonable price.

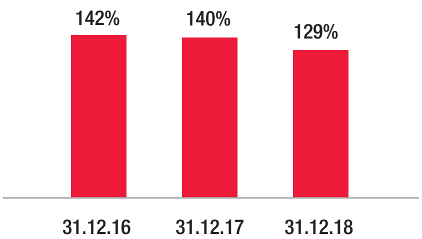
This section details the monitoring of liquidity and the management of this risk.

Liquidity reserve at end-2018

172 bn EUR

(Amount at end- 2017: 174 bn EUR)

Ratio LCR (1)



(1) Disclosed ratios are fully loaded, calculated according to CRR/CRD4 rules published on 26th June 2013, including the Danish compromise for Insurance.

Liquidity risk is defined as the risk of not being able to meet cash flow or collateral requirements when they fall due and at a reasonable price.

11.1 GOVERNANCE AND ORGANISATION

The principles and standards applicable to the management of liquidity risks are defined by the Group's governing bodies, whose duties in the area of liquidity are listed below:

- the Board of Directors:
  - establishes the level of liquidity risk tolerance as part of the Group's Risk Appetite exercise, including the time period during which the Group can operate under conditions of stress ("survival horizon"),
  - meets regularly (at least quarterly) to examine the Group's liquidity risk situation;
- the Executive Committee:
  - sets budget targets in terms of liquidity based on proposals from the Group Finance Division,
  - allocates liquidity to the businesses and Group Treasury based on proposals from the Group Finance Division;
- the Finance Committee is the body responsible for monitoring structural risks and managing scarce resources. As such, it:
  - meets every six weeks, under the chairmanship of the Chief Executive Officer or a Deputy Chief Executive Officer, with the representatives of the Finance and Development Division's Risk Department and of the businesses,
  - oversees and validates the limits set for structural liquidity risk,
  - regularly monitors compliance with the budget and liquidity trajectory,
  - takes decisions, if necessary, on the implementation of corrective measures,
  - takes decisions, if necessary, on methodology issues regarding liquidity risk management,
  - examines regulatory changes and their impact.

The businesses are responsible for managing liquidity risk within their scope and are directly supervised by the Group Finance Division. They must ensure compliance with the regulatory requirements applicable to the entities falling within their scope of supervision.

The Group Finance Division manages and monitors liquidity risk through three separate departments, in compliance with the principle of separation between risk steering, execution and control functions:

- the Strategic and Financial Steering Department, responsible for:
  - establishing the Group's financial trajectory, in line with its strategic targets, regulatory requirements and market expectations,
  - proposing and monitoring the businesses' budget trajectory,
  - monitoring the regulatory environment and developing liquidity steering standards for the businesses;
- the Balance Sheet and Global Treasury Management Department, responsible for:
  - implementing the Group's short-term and long-term funding plan (including the management of intraday liquidity risk),
  - supervising and coordinating the Group's Treasury functions,
  - monitoring the market and contributing its operational expertise to the establishment of Group liquidity steering objectives and the liquidity allocation for businesses,
  - managing the collateral used in refinancing operations (central banks, covered bonds, securitisation, secured funding), and monitoring the liquidity reserve,
  - managing the Group's central funding department (management of liquidity and equity within the Group), including the internal liquidity charts;
  - developing and implementing the emergency plan in the event of Group liquidity shortage;
- the ALM Department, which reports to the Chief Financial Officer, is in charge of, in particular:
  - supervising and controlling structural risks (interest rates, exchange rates and liquidity) to which the Group is exposed,
  - controlling the structural risk models and their compliance with the Group's rules and methodologies, and monitoring compliance with risk limits and management practices within the Group's divisions, business lines and entities.

Second-level supervision of the ALM models used within the Group and of the associated risk framework is conducted by a dedicated team within the Market Risk Department. Accordingly, this team provides an opinion on the methodological principles, parameters and backtests of liquidity models. It analyses proposals from the Finance Division regarding the risk indicators, stress test scenarios and liquidity and funding risk frameworks. It also conducts second-level controls of compliance with the risk limits defined under such a framework.

11.2 THE GROUP'S APPROACH TO LIQUIDITY RISK MANAGEMENT

The Group's primary objective is to ensure the funding of its activities in the most cost-effective way by managing liquidity risk and adhering to regulatory constraints. The liquidity steering system provides a balance sheet framework based on an assets and liabilities target structure that is consistent with the risk appetite defined by the Board of Directors:

- the assets structure should allow the businesses to develop their activities in a way that is liquidity-efficient and compatible with the target liabilities structure. This development must comply with the liquidity gaps defined at Group level (under static and stress scenarios) as well as regulatory requirements;
- the liabilities structure is based on the ability of the businesses to collect financial resources from customers and the ability of the Group to sustainably raise financial resources on the markets, in accordance with its risk appetite.

This steering system is based on measurement and supervision of the businesses' liquidity gaps under reference and stress scenarios, their Group funding needs, the funds raised by the Group on the market, the eligible assets and the businesses' contribution to regulatory ratios. Accordingly, the principles of liquidity management are as follows:

1. The businesses must maintain low to nil static liquidity gaps within the operating limits of their activities, by using the Group's Central Treasury, which can, if needed, run an (anti) transformation position and manage it within the framework of the established risk limits.
2. Internal liquidity stress tests, established on the basis of a scenario combining a market and a specific stress, are steered and controlled at Group level. They are used to ensure compliance with the survival horizon established by the Board of Directors and to calibrate liquidity reserves. They are accompanied by a Contingency Funding Plan that sets out measures to be taken in the event of a liquidity crisis.
3. The businesses' funding needs (short-term and long-term) are determined on the basis of the development objectives for the franchises and in line with the Group's fund-raising targets and capabilities.
4. A plan for long-term funding, which complements the resources raised by the businesses, is designed to cover upcoming repayments and finance the growth of the businesses. It takes into account the Group's investment capabilities and aims to optimise the cost of fund-raising while complying with limits in terms of market concentration. Diversification in terms of issuers and investor pools is also sought and managed.
5. The Group's short-term resources are adapted to the financing of the businesses' short-term needs over periods appropriate to their management and in line with market concentration limits. As outlined above, they are adjusted in light of the liquidity reserve on the assets side, based on the established stress survival horizon as well as the Group's LCR target (Liquidity Coverage Ratio, see Regulatory Ratios section).
6. The Group's liquidity steering takes into account compliance with the target regulatory ratios (LCR, NSFR, leverage), the BU' contributions to these ratios being subject to supervision.

Lastly, liquidity is governed in terms of cost *via* the Group's internal transfer pricing scheme. Funding allocated to the businesses is charged to the latter on the basis of scales that must reflect the liquidity cost for the Group. This system is designed to optimise the use of external financing sources by businesses and is used to monitor the equilibrium of balance sheet funding. The level of centralization regarding management of intra-group liquidity is high. The corporate central treasury is responsible for raising funding externally and providing liquidity to businesses on short term and long term maturities. There are only marginal flows between subsidiaries. In parallel, local excess cash is upstreamed to the central treasury, unless it triggers a breach of local constraints. Excess liquidity that cannot be transferred to the Group is subject to Group investment guidelines.

Societe Generale has undertaken a specific review of its liquidity risks and believes that it is able to meet its upcoming maturities.

11.3 REFINANCING STRATEGY

The Group's financing strategy is based on the following principles:

- the Group's stable funding resources (including shareholders' equity, the stable part of customer deposits and medium/long-term market resources) finance the long-term needs of the businesses (including tangible and intangible assets, customer loans and the securities portfolio excluding trading activities). Besides, stable resources are used to maintain a portfolio of high quality liquid assets to cover outflows in situations of stress;
- short-term market resources finance the Group's short-term assets, which are predominantly carried by Global Banking and Investor Solutions' Global Markets pillar.

MARKET FINANCING

The Group's market resources (including short term and long term resources) totalled EUR 228 billion at 31st December 2018. Of this total, EUR 87 billion have a remaining maturity of less than one year, of which EUR 29 billion correspond to debt securities issued with an initial medium/long-term maturity (more than one year) and EUR 58 billion to short-term market resources.

Group short-term market resources consist on one hand of unsecured notes issued under the Group's short-term programmes, mainly by the Group central treasury, through Certificates of Deposit, promissory notes and commercial paper, and on the other hand of deposits. These resources are raised from banks and financial customers. while adhering to diversification thresholds on funding sources by counterparty and by currency. Asset-Backed Commercial Paper vehicles contribute to the Group short-term market resources since 1st January 2014, following their inclusion in the consolidation scope with the application of IFRS 10.

The amount of Group short-term market resources totalled EUR 58 billion at 31st December 2018, against EUR 60 billion at 31st December 2017, and remained stable overall in 2018, according to the Group's strategy to limit the share of these resources in the funding structure of the balance sheet.

Medium/long-term market resources (including the portion of securities originally issued with a maturity of more than one year and maturing within the year) totalled EUR 170 billion at 31st December 2018, against EUR 159 billion at 31st December 2017. These consist of long-term interbank liabilities (long-term credit lines granted by central banks, banks and international financial institutions, etc.), and medium/long term debt securities, the breakdown of which reflects the Group's policy on the diversification of funding sources. The Group has access to large and complementary investor pools via:

- senior vanilla issues in the form of public issues or private placements;
- senior non-preferred debt;
- covered bonds issued by SG SFH and SG SCF vehicles as well as by the Caisse du Refinancement et de l'Habitat;
- senior structured issues distributed to institutional investors and, to a large extent, to individual customers (via retail and private banking networks belonging to the Group or its partners);
- Additional Tier 1 and Tier 2 subordinated debt issued by Société Générale SA booked to equity.

Furthermore, access to diversified investor pools is ensured by a wide array of Group issuers: Societe Generale SA, SGIS, Crédit du Nord and the main IBFS subsidiaries issuing mainly secured (securitisations, covered bonds) and unsecured notes. IBFS issues, along with its deposit inflows and bilateral borrowings, are aimed specifically at increasing the funding autonomy of these subsidiaries.

11.4 DISCLOSURE ON ASSET ENCUMBRANCE

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

Analysis of the balance sheet structure

Total Group encumbrance amounts to 34% in 2018, measured according to EBA definition. Securities encumbrance is 75%, while loan encumbrance is 14%.

The majority of the Group encumbered assets (around 82%) is in the form of securities as the result of the relative size of capital market activities, mainly through repos, reverse repos and collateral swaps.

Securities encumbrance is concentrated in SGPM and its branches, where Group market activities are located.

The main sources of encumbrance are repo operations and debt securities issued. Encumbrance on assets in USD stems mainly from debt securities and equities.

The level of encumbered loans varies among Group entities mainly due to their respective business models, funding strategies and the type of underlying loans, as well as to the law governing them. A few points are noteworthy:

- at SGPM level, the loan encumbrance rate amounts to around one third of the total, stemming mainly from housing loans. Historically, the encumbered loans are in priority affected as collateral for long-term refinancing mechanisms which are broadly used by banks, for covered bonds, (SG SFH, SG SCF and CRH), securitizations or specific mechanisms. More recently, ECB TLTRO led SGPM to increase its volume of encumbered loans.
- at subsidiary level, the loan encumbrance rate is limited to less than 10%[1] overall, with discrepancies between entities due to different funding strategies. The highest levels of secured funding correspond to entities which have implemented external funding programmes through securitisations such as BDK and ALD, covered bonds like Delta Credit (Russian mortgage subsidiary), or other forms of secured funding. Besides, some subsidiaries (Crédit du Nord) have participated directly in TLTRO operations, which in turn impacted their loan encumbrance rate.

As far as the loan encumbrance is concerned, there is a pooling scheme in which Crédit du Nord, Boursorama and to a lesser extent BFCOI (Réunion) bring a share of their housing loans portfolio to the Group. This level of intra-group encumbrance represents around 5% of the total amount of the Group's encumbered loan collateral.

Regarding major long-term secured funding mechanisms, over-collateralisation on covered bonds vehicles was 140% on SG SCF and 114% on SG SFH as of 31 December 2018.

As far as SG SFH is concerned, underlying assets are mortgage loans guaranteed by Crédit Logement. Regarding SG SCF, assets consist of exposures on counterparties from the public sector.

Among the "Other assets" category (excluding loans), some assets cannot be encumbered in the normal course of business by nature. These assets include goodwill, fixed assets, deferred tax, adjustment accounts, sundry debtors and other assets.

The unencumbered "Other assets"(excluding loans) include all derivatives and options products (interest rate swaps, cross currency swaps, currency options, warrants, futures, forward contracts…) for around EUR 200bn.

(1) According to a methodology consisting of first encumbering the least liquid eligible assets (encumbered loans/total loans)

TABLE 105 : ENCUMBERED AND UNENCUMBERED ASSETS (AE-ASS)

	31.12.2018 [1]							
	Carrying amount of encumbered assets		Fair value of encumbered assets		Carrying amount of unencumbered assets		Fair value of unencumbered assets	
(In EUR m)		of which: EHQLA & HQLA		of which: EHQLA & HQLA		of which: EHQLA & HQLA		of which: EHQLA & HQLA
Assets of the reporting institution	**170,100**	**55,647**			**999,656**	**134,427**		
Equity instruments	33,732	23,910			30,979	8,854		
Debt securities	39,501	31,523	39,501	31,523	56,904	42,343	56,904	42,343
of which: covered bonds	*63*	*27*	*63*	*27*	*556*	*404*	*556*	*404*
of which: asset-backed securities	*976*	*36*	*976*	*36*	*1,976*	*144*	*1,976*	*144*
of which: issued by general governments	*30,832*	*30,074*	*30,832*	*30,074*	*37,169*	*37,695*	*37,169*	*37,695*
of which: issued by financial corporations	*6,534*	*359*	*6,534*	*359*	*10,401*	*4,218*	*10,401*	*4,218*
of which: issued by non-financial corporations	*2,135*	*1,090*	*2,135*	*1,090*	*5,264*	*430*	*5,264*	*430*
Other asset	96,867	213			911,773	83,229		
of which: Loans on demand	*4,850*	*0*			*87,205*	*79,523*		
of which: Loans and advances other than loans on demand	*90,425*	*213*			*575,744*	*1,132*		
of which: Other	*1,592*	*0*			*248,824*	*2,574*		

[1] Table's figures are calculated as Q3 and Q4 2018 average.

TABLE 106 : COLLATERAL RECEIVED (AE-COL)

	31.12.2018 [1]			
			Unencumbered	
(In EUR m)	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: EHQLA & HQLA[1]		of which: EHQLA & HQLA[1]
Collateral received by the reporting institution	**372,090**	**331,935**	**74,846**	**56,309**
Loans on demand	0	0	0	0
Equity instruments	61,738	44,609	10,631	6,837
Debt securities	310,352	287,326	64,215	49,472
of which: covered bonds	*2,225*	*1,289*	*7,105*	*6,164*
of which: asset-backed securities	*6,922*	*2,088*	*7,198*	*200*
of which: issued by general governments	*283,347*	*279,610*	*44,270*	*41,747*
of which: issued by financial corporations	*17,982*	*2,813*	*17,448*	*6,990*
of which: issued by non-financial corporations	*8,999*	*4,904*	*2,497*	*735*
Loans and advances other than loans on demand	0	0	0	0
Other collateral received	0	0	0	0
Own debt securities issued other than own covered bonds or asset-backed securities	2	0	53	0
Own covered bonds and asset-backed securities issued and not yet pledged			21,375	0
TOTAL ASSETS, COLLATERAL RECEIVED AND OWN DEBT SECURITIES ISSUED	**542,192**	**386,848**		

[1] Table's figures are calculated as Q3 and Q4 2018 average.

TABLE 107 : SOURCES OF ENCUMBRANCE (AE-SOU)

	31.12.2018 [1]	
(In EUR m)	Matching liabilities, contingent liabilities or securities lent	Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered
Carrying amount of selected financial liabilities	**351,449**	**373,297**

[1] Table's figures are calculated as Q3 and Q4 2018 average.

11.5 LIQUIDITY RESERVE

The Group's liquidity reserve encompasses cash at central banks and assets that can be used to cover liquidity outflows under a stress scenario. The reserve assets are available, *i.e.* not used in guarantee or as collateral on any transaction. They are included in the reserve after applying a haircut to reflect their expected valuation under stress. The Group's liquidity reserve contains assets that can be freely transferred within the Group or used to cover subsidiaries' liquidity outflows in the event of a crisis: non-transferable excess cash (according to the regulatory ratio definition) in subsidiaries is therefore not included in the Group liquidity reserve.

The liquidity reserve includes:

- central bank deposits, excluding mandatory reserves;
- High-Quality Liquid Assets (HQLAs), which are securities that are quickly transferable on the market *via* sale or repurchase transactions; these include government bonds, corporate bonds and equities listed on major indices (after haircuts). These HQLAs meet the eligibility criteria for the LCR, according to the most recent standards known and published by regulators. The haircuts applied to HQLA securities are in line with those indicated in the most recent known texts on determining the numerator of the LCR;
- non-HQLA Group assets that are central bank-eligible, including receivables as well as covered bonds and securitisations of Group receivables held by the Group.

The composition of the liquidity reserve is reviewed regularly by a special committee comprising the Finance Division, the Risk Division and the Management of the Global Banking and Investor Solutions pillar, and is adjusted by authorisation of the Finance Committee.

TABLE 108: LIQUIDITY RESERVE

(In EUR bn)	31.12.2018	31.12.2017
Central bank deposits (excluding mandatory reserves)	82	94
HQLA securities available and transferable on the market (after haircut)	73	64
Other available central bank-eligible assets (after haircut)	17	16
TOTAL	**172**	**174**

11.6 REGULATORY RATIOS

The Basel Committee recommends the international implementation of two standard ratios with harmonised parameters, to regulate bank liquidity risk profiles:

- the Liquidity Coverage Ratio (LCR) aims to ensure that banks hold sufficient liquid assets or cash to survive a significant stress scenario combining a market crisis and a specific crisis and lasting for one month;
- the Net Stable Funding Ratio (NSFR) is a transformation ratio and compares funding needs with stable resources over a one-year period.

The Basel Committee stabilised its final version of the texts pertaining to the LCR in 2013 and those pertaining to the NSFR in 2014.

The transposition of Basel 3 into European Union law under CRD4 and CRR1 was published on 27th June 2013. The French transposition was published in the French Official Journal (*Journal officiel*) on 5th November 2014.

The LCR definition was finalised, on the basis of technical standards issued by the EBA, through a Delegated Act of the European Commission on 10th October 2014. The LCR entered into force at European level on 1st October 2015. The corresponding minimum requirement was set at 70% for 2016, increasing gradually until it reached 100% as from 1st January 2018.

For the NSFR, the European Commission presented a proposal in November 2016 for transposition of the Basel Regulations, which will currently discussed at a trialogue meeting (European Parliament, Commission, Council). The European entry into force of the NSFR will depend on the duration of the legislative process and is not expected to take place before 2021. Societe Generale is actively continuing its work on transposing the European prudential legislation (or the Basel's text when the European transposition is not yet finalised) and translating it into management standards within the Group.

The Group manages its liquidity risk through the LCR and liquidity gaps, under stress and under normal conditions of activity, accumulated (all currencies combined) and by currencies. And this, by making sure at anytime that the liquidity is transferable among the main currencies.

The LCR regulatory requirement must be respected in EURO,but it is also reported in the major currency in USD. The LCR in USD of the Group is slightly lower than 100%.

Since implementation of the European regulatory LCR requirement in October 2015, Societe Generale's LCR has at all times stood at a level exceeding 100% : 129% at end-2018 (vs. 140% at end-2017).

TABLE 109: LIQUIDITY COVERAGE RATIO - LCR DISCLOSURE TEMPLATE (EU-LIQ1)

The liquidity coverage ratio is calculated as the simple averages of month-end observations over the twelve months preceding the end of each quarter.

Prudential Group ***(In EUR bn)***	**Total unweighted value (in average)**				**Total weighted value (in average)**			
Quarter ending on	**31.03.2018**	**30.06.2018**	**30.09.2018**	**31.12.2018**	**31.03.2018**	**30.06.2018**	**30.09.2018**	**31.12.2018**
High-quality liquid assets								
Total high-quality liquid assets (HQLA)					147.4	147.0	148.2	148.0
Cash-outflows								
Retail deposits and deposits from small business customers, of which:	183.3	185.6	188.3	191.0	14.0	14.2	14.4	14.7
Stable deposits	*114.1*	*115.7*	*117.3*	*119.1*	*05,7*	*05.8*	*05.9*	*06.0*
Less stable deposits	*69.2*	*69.8*	*71.0*	*71.9*	*08.3*	*08.4*	*08.6*	*08.7*
Unsecured wholesale funding	207.0	209.8	213.8	218.5	97.9	99.2	101.8	105.0
Operational deposits (all counterparties) and deposits in networks of cooperative banks	*59.7*	*61.1*	*62.3*	*63.8*	*14.4*	*14.8*	*15.1*	*15.4*
Non-operational deposits (all counterparties)	*137.8*	*139.9*	*143.0*	*145.9*	*74.0*	*75.6*	*78.3*	*80.7*
Unsecured debt	09.5	08.8	08.5	08.8	09.5	08.8	08.5	08.8
Secured wholesale funding	00.0	00.0	00.0		76.7	7.,9	82.2	85.0
Additional requirements	161.1	162.3	165.1	167.6	61.6	61.4	62.6	63.8
Outflows related to derivative exposures and other collateral requirements	*42.9*	*42.1*	*42.4*	*42.5*	*39.5*	*38.8*	*39.4*	*40.0*
Material outflows due to deterioration of own credit quality	*5.0*	*5.0*	*5.2*	*5.2*	*5.0*	*5.0*	*5,2*	*5,2*
Credit and liquidity facilities	*113.1*	*115.2*	*117.5*	*119.8*	*17.1*	*17.6*	*18.0*	*18.5*
Other contractual funding obligations	72.3	82.0	81.7	83.1	72.3	82.0	81.7	83.1
Other contingent funding obligations	46.9	46.0	44.4	44.8	00.6	00.5	00.6	00.5
TOTAL CASH OUTFLOWS					**323.2**	**337.2**	**343.4**	**352.0**
Cash-inflows								
Secured lending (eg reverse repos)	261.3	268.3	273.4	281.4	82.5	85.9	89.0	93.9
Inflows from fully performing exposures	37.0	38.9	39.4	39.9	28.6	30.7	31.6	32.1
Other cash inflows	93.7	104.1	106.6	110.3	91.8	102.5	105.1	108.6
(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)					00.0	00.0	00.0	00.0
(Excess inflows from a related specialised credit institution)					00.0	00.0	00.0	00.0
TOTAL CASH INFLOWS	**391.9**	**411.2**	**419.5**	**431.6**	**202.8**	**219.1**	**225.7**	**234.6**
Inflows Subject to 75% Cap	**318.2**	**333.8**	**338.9**	**348.3**	**202.8**	**219.1**	**225.6**	**234.5**
LIQUIDITY BUFFER					**147.4**	**147.0**	**148.2**	**148.0**
TOTAL NET CASH OUTFLOWS					**120.4**	**118.1**	**117.7**	**117.4**
RATIO DE COUVERTURE DES BESOINS DE LIQUIDITÉ (%)					**123%**	**125%**	**126%**	**126%**

11.7 BALANCE SHEET SCHEDULE

The main lines comprising the Group's financial liabilities are presented in Note 3.13 to the consolidated financial statements, under the following template:

TABLE 110: BALANCE SHEET SCHEDULE

FINANCIAL LIABILITIES

	31.12.2018					
(In EUR m)	**Note to the consolidated financial statements**	**0-3 m**	**3 m-1 yr**	**1-5 yrs**	**> 5 yrs**	**Total**
Due to central banks		5,721	0	0	0	5,721
Financial liabilities at fair value through profit or loss, excluding derivatives	Note 3.1	201,740	14,444	8,909	11,044	236,137
Due to banks	Note 3.6	26,897	26,560	20,135	21,114	94,706
Customer deposits	Note 3.6	337,374	36,027	22,013	21,404	416,818
Securitised debt payables	Note 3.6	26,034	25,017	37,348	27,941	116,339
Subordinated debt	Note 3.9	355	2	52	12,905	13,314

Note: The scheduling assumptions for these liabilities are presented in Note 3.13 to the consolidated financial statements. Particularly, the data are shown without provisional interest and excluding derivatives. Consequently, the impact of the debt revaluation linked to own credit risk and interest accrued at 31st December 2018 are not scheduled.

	01.01.2018					
(In EUR m)	**Note to the consolidated financial statements**	**0-3 m**	**3 m-1 yr**	**1-5 yrs**	**> 5 yrs**	**Total**
Due to central banks		5,601	2	1	0	5,604
Financial liabilities at fair value through profit or loss, excluding derivatives	Note 3.1	179,433	12,572	17,971	16,205	226,181
Due to banksknow	Note 3.6	52,753	11,747	22 ,601	1,520	88,621
Customer deposits	Note 3.6	360,884	21,710	18,161	9 878	410,633
Securitised debt payables	Note 3.6	38,168	14,061	37,782	13,224	103,235
Subordinated debt	Note 3.9	648	1 022	602	11,375	13,647

Note: The scheduling assumptions for these liabilities are presented in Note 3.13 to the consolidated financial statements. Particularly, the data are shown without provisional interest and excluding derivatives. Consequently, the impact of the debt revaluation linked to own credit risk and interest accrued at 1st January 2018 are not scheduled.

Symmetrically, the main lines comprising the corresponding financial assets are presented below.

FINANCIAL ASSETS

	31.12.2018					
(In EUR m)	Note to the consolidated financial statements	0-3 m	3 m-1 yr	1-5 yrs	> 5 yrs	Total
Cash, due from central banks		93,309	733	1,597	946	96,585
Financial assets at fair value through profit or loss, excluding derivatives	Note 3.4	240,543	2,024	0		242,567
Financial assets at fair value through other comprehensive income	Note 3.4	48,738	998	0	290	50,026
Securities at amortised cost		6,189	1,708	3,392	737	12,026
Due from banks at amortised cost	Note 3.5	48,248	2,618	4,614	5,108	60,588
Customer loans at amortised cost	Note 3.5	98,379	63,874	178,414	74,983	415,650
Lease financing and similar agreements	Note 3.5	2,605	6,355	17,760	4,859	31,579

	01.01.2018					
(In EUR m)	Note to the consolidated financial statements	0-3 m	3 m-1 yr	1-5 yrs	> 5 yrs	Total
Cash, due from central banks		111,194	773	1 646	791	114,404
Financial assets at fair value through profit or loss, excluding derivatives	Note 3.4	234,339	482	0	0	234,821
Financial assets at fair value through other comprehensive income	Note 3.4	48,045	2,130	0	293	50,468
Securities at amortised cost		9,130	292	640	1,530	11,592
Due from banks at amortised cost	Note 3.5	43,144	3,482	6,018	1,012	53,656
Customer loans at amortised cost	Note 3.5	91,816	59,613	166,513	69,981	387,923
Lease financing and similar agreements	Note 3.5	3 ,33	5,824	16,057	4,454	29,468

It should be noted that due to the nature of its activities, Société Générale holds derivative products and securities whose residual contractual maturities are not representative of its activities or risks.

By convention, the following residual maturities were used for the classification of financial assets:

1. **Assets measured at fair value through profit or loss, excluding derivatives (customer-related trading assets):**

   Positions measured using prices quoted on active markets (L1 accounting classification): maturity of less than 3 months.

   Positions measured using observable data other than quoted prices (L2 accounting classification): maturity of less than 3 months.

   Positions measured mainly using unobservable market data (L3): maturity of 3 months to 1 year.

2. **Financial assets at fair value through other comprehensive income:**

   Available-for-sale assets measured using prices quoted on active markets: maturity of less than 3 months.

   Bonds measured using observable data other than quoted prices (L2): maturity of 3 months to 1 year.

   Finally, other SECURITIES (shares held long-term in particular): maturity of more than five years.

As regards the other lines comprising the balance sheet, other assets and liabilities and their associated conventions can be broken down as follows:

OTHER LIABILITIES

	31.12.2018						
(In EUR m)	**Note to the consolidated financial statements**	**Not scheduled**	**0-3 m**	**3 m-1 yr**	**1-5 yrs**	**> 5 yrs**	**Total**
Tax liabilities	Note 6.3	0	0	771	0	386	1,157
Revaluation difference on portfolios hedged against interest rate risk		5,257	0	0	0	0	5,257
Other liabilities	Note 4.4	0	76,629	0	0	0	76,629
Non-current liabilities held for sale	Note 2.5	0		10,454	0	0	10,454
Insurance contracts related liabilities	Note 4.3	0	12,317	8,891	35,102	73,233	129,543
Provisions	Note 8.3	4,605	0	0	0	0	4,605
Shareholders' equity		65,809	0	0	0	0	65,809

	01.01.2018						
(In EUR m)	**Note to the consolidated financial statements**	**Not scheduled**	**0-3 m**	**3 m-1 yr**	**1-5 yrs**	**> 5 yrs**	**Total**
Tax liabilities	Note 6.3	0	0	1,072	0	536	1,608
Revaluation difference on portfolios hedged against interest rate risk		6,020	0	0	0	0	6,020
Other liabilities	Note 4.4	0	69,139	0	0	0	69,139
Non-current liabilities held for sale	Note 2.5	0	0	0	0		0
Insurance contracts related liabilities	Note 4.3	0	14,966	8,718	33,839	74,194	131,717
Provisions	Note 8.3	6,345	0	0	0	0	6,345
Shareholders' equity		62,951	0	0	0	0	62,951

OTHER ASSETS

(In EUR m)	Note to the consolidated financial statements	Not scheduled	0-3 m	3 m-1 yr	1-5 yrs	> 5 yrs	Total
	31.12.2018						
Revaluation differences on portfolios hedged against interest rate risk		338	0	0	0	0	338
Other assets	Note 4.4	0	67,446	0	0	0	67,446
Tax assets	Note 6	5,819	0	0	0	0	5,819
Investments accounted for using the equity method		0	0	0	0	249	249
Tangible and intangible fixed assets	Note 8.4	0	0	0	0	26,751	26,751
Goodwill	Note 2.2	0	0	0	0	4 652	4,652
Non-current assets held for sale	Note 2.5	0	1	13,496	2	3	13,502
Investments of insurance companies		0	29,743	6,569	31,189	79,267	146,768

(In EUR m)	Note to the consolidated financial statements	Not scheduled	0-3 m	3 m-1 yr	1-5 yrs	> 5 yrs	Total
	01.01.2018						
Revaluation differences on portfolios hedged against interest rate risk		663	0	0	0	0	663
Other assets	Note 4.4	0	60,449	0	0	0	60,449
Tax assets	Note 6	6,292	0	0	0	0	6,292
Investments accounted for using the equity method		0	0	0	0	659	659
Tangible and intangible fixed assets	Note 8.4	0	0	0	0	24,200	24,200
Goodwill	Note 2.2	0	0	0	0	4,988	4,988
Non-current assets held for sale	Note 2.5	0	1	12	0	0	13
Investments of insurance companies		0	34,511	5,787	29,285	78,028	147,611

1. Revaluation differences on portfolios hedged against interest rate risk are not scheduled, as they comprise transactions backed by the portfolios in question. Similarly, the schedule of tax assets whose schedule would result in the early disclosure of income flows is not made public.
2. Other assets and Other liabilities (guarantee deposits and settlement accounts, miscellaneous receivables) are considered as current assets and liabilities.
3. The notional maturities of commitments in derivative instruments are presented in Note 3.13 to the consolidated financial statements.
4. Investments in subsidiaries and affiliates accounted for by the equity method and Tangible and intangible fixed assets have a maturity of more than 5 years.
5. Provisions and shareholders' equity are not scheduled.

12

COMPLIANCE AND REPUTATIONAL RISK, LITIGATION

IN BRIEF

Compliance means acting in accordance with the obligations applicable to the Group's activities, ranging from laws and regulations to professional, ethical and internal standards and principles. By ensuring that these provisions are observed, the Group works to protect its employees, customers and all stakeholders.

Compliance with rules is the responsibility of all Group employees, who must demonstrate compliance and integrity in their daily tasks.

The Group relies on a recently restructured, clear organisation to ensure the compliance system is both respected and consistent.

Acting in compliance means clearly understanding and observing the external and internal rules that govern our activities. These rules aim to ensure a transparent and balanced relationship between the bank and all of its stakeholders. Compliance is the foundation stone for trust between the Bank, its customers, supervisors and staff.

Compliance with rules is the responsibility of all Group employees, who must demonstrate compliance and integrity on a daily basis. The rules must be clearly expressed, and staff must be informed and/or trained. The eight main non-compliance risks fall into two broad categories:

- financial security which includes knowledge of the client, rules relating to international sanctions and embargoes, anti-money laundering and counter-terrorism financing rules;
- regulatory risks which concern client protection, market integrity, anti-bribery & corruption, ethics & conduct, tax transparency and data protection.

FINANCIAL SECURITY			REGULATORY RISKS				
KYC	**AML**	**Sanctions & Embargos**	**Customer protection**	**Market integrity**	**Tax transparency**	**Anti-bribery and corruption**	**Data**
Know your customer	Anti-money laundering		MiFID II/ MIFIR PRIIPs, etc.	EMIR / DFA, Volker, FBL, MAD / MAR, benchmarks, etc.	FATCA, CRS, QI, etc.	ABC, Sapin II, etc.	GDPR, Archiving, etc.

12.1 COMPLIANCE

Financial security

KNOW YOUR CUSTOMER (KYC)

In 2018, the Group launched a vast programme to revamp its KYC functions in order to boost operational efficiency (via the simplification of standards, greater pooling of resources, optimisation of tools and processes) and to improve customer experience. This four-year programme, under the responsibility of the Head of Group Compliance, is closely and regularly monitored at Bank level.

ANTI-MONEY LAUNDERING AND COUNTER-TERRORISM FINANCING (AML/CTF)

The Group has implemented new measures linked to the 4th Directive on anti-money laundering and terrorist financing as well as European Regulation 2015/847 on the quality of payment information. Several internal initiatives were also launched to continuously reinforce its setup. In particular, these initiatives cover alert detection tools used in the Bank's different businesses, with use of new technologies and the optimisation of scenarios used.

SANCTIONS AND EMBARGOES

In 2018, the international context was impacted once again by reinforcement of US sanctions on Russia and Iran, with greater complexity in terms of implementation that may generate substantial operational risks for financial establishments. In this context, Societe Generale Group has confirmed its position to abstain from any trading activity with Iran and to maintain transactions with Russia within a strict framework.

Moreover, the Group has pressed on with its efforts to strengthen its Embargoes/Sanctions setup, notably in preparation of the settlement with the American authorities (that finally took place on 19th November, see p 462). Lastly, payment platform centralisation projects have made satisfactory progress while the professionalisation of the Compliance function has been further developed with the deployment of "certified" training.

Regulatory risks

CLIENT PROTECTION

Client protection is a major challenge for the Societe Generale Group which is committed to respecting and protecting the interests of its customers.

The European regulation on customer protection (MIF2), that came into force on 2nd January 2018, and the Insurance Directive (DDA), which came into force on 1st October 2018, have reinforced the existing setup which Societe Generale has revised and completed.

In this context, important measures have been taken on the Group in terms of:

- reinforcement of internal rules regarding customer claims, conflicts of interest, product governance, protection of client assets, remuneration and expertise of staff;
- specific training and increased staff awareness; the importance the Group places on this issue is largely relayed in the Group's Code of Conduct.
- necessary adaptation of existing tools to new regulatory demands.

Claims and mediation

The processing of a claim is also a commercial act that impacts customer satisfaction.

In this respect, business divisions have made substantial progress in the last three years. Entities possess an *ad hoc* governance, an organisation, human and applicative means, formalised procedures, quantitative and qualitative follow-up indicators. The progress made also stems from the substantial measures ensuring staff awareness and training.

A Group "Customer claim processing" guideline was published in January 2017. This guideline includes recommendations from the French Prudential Supervisory and Resolution Authority (*Autorité de contrôle prudentiel et de résolution* – ACPR) and MiFID II regulatory requirements, as part of the strengthening of customer protection measures in Europe.

Conflicts of interest

The Group has a normative framework on the prevention and management of conflicts of interest, which specifies the principles and mechanisms implemented. The Group's guideline was updated in 2017 to include the regulatory changes under way (see the MiFID II European Regulations on customer protection).

It covers the two categories of potential conflicts of interest: firstly, those that could occur between the Group and its customers, or between the Group's customers, and secondly, those that could occur between the Group and its employees (in particular in relation to activities involving an employee's personal interest and/or professional obligations). It sets out the obligations for identifying potential conflicts of interest, which should be entered into a tool for mapping or registering conflicts of interest.

Product governance

As it is obliged to identify the target market as of product design and verify the correspondence of criteria with customer profiles SG Group performs systematic reviews of products upstream of commercialisation and dealings between producers and distributors to follow-up products during their life cycle.

Fragile Clients

Societe Generale has implemented practices and usages to comply with regulatory obligations vis-à-vis vulnerable clients, and notably clients benefiting from the financially vulnerable 'Specific Customer Offer'.

To contribute to the national effort to boost the purchasing power of French citizens in the most difficult financial straits, the Group has completed this setup *via* the implementation of complementary measures:

- the freezing of bank fees for 2019;
- a ceiling at EUR 25 per month in bank "event" fees for vulnerable clients;
- follow-up and support suited to the situation of all customers facing difficulties in the wake of recent events.

MARKET INTEGRITY

MARKET ABUSE

Following the entry into force of the market abuse guideline (MAR ruling of July 2016), the Compliance Division has continued to improve and ensure the compliance of its setup. There has been a specific focus on the modernisation of automated detection and analysis tools, plus the training of Compliance staff in charge of these controls.

The Group has gathered its operational rules within a "Market Abuse" instruction and an instruction regarding the "Management of listed issuer privileged information". In particular, these instructions mention the measures put in place to prevent or detect market abuse practices threatening the integrity of financial markets, *i.e.*

- the transactions of 'insiders' (transmission and utilisation of privileged information);
- market manipulation (price manipulation, spreading of false information).

TAX TRANSPARENCY

Societe Generale implements control measures to ensure its operations comply with local laws and regulations, and with its Tax Code of Conduct. These controls are performed by the Tax Division and the Compliance Division. Accordingly, all new products require approval with respect to these texts; this also applies to complex operations either within the Group or with customers.

Societe Generale complies with tax transparency standards. It applies the Common Reporting Standard (CRS) to all its entities. This standard enables tax authorities to be systematically informed of income received abroad by their tax residents, including if the accounts are held in heritage structures. In 2018, these declarations concerned 37 countries where Societe Generale operates.

Moreover, Societe Generale complies with the requirements of the United States FATCA (Foreign Account Tax Compliance Act), which aims to fight tax evasion schemes involving foreign accounts or entities held by American taxpayers. Non-American financial intermediaries are thus responsible for identifying American taxpayers in their customer base in order to declare the income received by said taxpayers, directly or indirectly, to the American tax administration, thereby enabling an automatic reconciliation with their individual tax returns. The tax transparency objectives have been achieved by generating a tax report filed at national level and sharing tax information between partner countries on the basis of existing bilateral tax treaties and inter-governmental agreements (IGAs).

ANTI-BRIBERY AND CORRUPTION MEASURES

Societe Generale is fully engaged in fighting against corruption and has made clear commitments as part of the Wolfsberg group and the UN Global Compact.

The Group applies strict principles that are included in the Code of Conduct and the "Anti-Corruption and Influence Peddling Code".

In 2018, Societe Generale Group's Anti-Corruption Code updated the existing normative framework by including all the French (Sapin II) and international legal and regulatory requirements.

Societe Generale's anti-corruption programme is built around the following principles:

- Code of conduct;
- Annual risk mapping;
- Appropriate training at all levels (senior management, exposed persons, entire staff);
- Control system;
- Accounting procedures;
- Evaluation of third parties;
- Disciplinary system;
- Right to whistle-blow.

Moreover, a new instruction regarding gifts, business meals and external events has been published.

Societe Generale is also reviewing its whistleblowing framework. An instruction on the framework was published at the beginning of 2019 and a secured internet platform allowing all staff (internal, external and occasional) to exercise their whistleblowing right is being deployed. This setup protects whistle-blowers, notably by guaranteeing the protection of personal data and strict confidentiality.

In addition, a full training programme is being deployed group-wide to increase the vigilance of all staff.

DATA PROTECTION

As a trusted partner of its customers, Societe Generale is particularly sensitive to personal data protection and has drafted and implemented rules to comply with local and European Regulations.

The entry into force, in May 2018, of the new European Regulations on personal data protection (GDPR), which increases the Company's obligations and the level of sanctions in case of non-respect of these obligations, has offered an opportunity for the Group and its subsidiaries to further reinforce their setup.

Internal instructions and associated procedures, in line with local and European Regulations, define the rules to apply and the measures to take to guarantee the protection and security of customer and staff data. Information measures for persons and the processing of their demands are in place so that they can exercise their rights, notably *via* specific digital platforms. A personal data security policy is defined which fits in with the Group's overall security strategy and, in particular, in terms of cybersecurity. Moreover, as part of the GDPR deployment, there has been a specific effort to increase staff awareness *via* related compulsory training (94% follow-up rate at end-2018).

Lastly, Societe Generale Group has appointed a Data Protection Officer (DPO). Reporting to the Head of Group Compliance, and the main contact for Personal Data Protection Authority (the CNIL in France), his mission is to ensure sound Group compliance in terms of personal data protection. He has a network of local DPOs and Correspondents spread throughout Group entities and in charge of accompanying them on security issues and personal data usage. As part of his mission, the DPO regularly reviews indicators, notably the number and nature of the right exercise requests, internal follow-up rate for training plus the local DPO certification programme launched at the end of 2018.

Management of reputational risk

The management of reputational risk is governed by Societe Generale Group CEO. Control procedures are intended to prevent, identify, assess and control this risk.

It is coordinated by the Compliance Division, which:

- supports Group employees, and more particularly the Compliance Control Officers of the businesses, in their strategy for preventing, identifying, assessing and controlling reputational risk;
- offers and updates training programmes to raise awareness of reputational risk;
- defines, analyses and communicates the results of reputational risk management tools (specific dashboard) on a quarterly basis to members of the Risk Committee (CR).

The Compliance function transformation programme

The Compliance function transformation programme is aimed at reinforcing the control of non-compliance risks *via* the increased vigilance and awareness of all stakeholders, including businesses, support staff and other units, to increase the operational efficiency of the associated processes and to answer demands of supervisory and regulation watchdog bodies.

This programme includes updating the governance and allocating greater resources to the Compliance function, whether in terms of recruitment, training, or modernisation of dedicated information systems. It also encompasses updating the normative framework and risk assessments, together with strengthening controls.

Implementation of this programme is continuing in 2019 and will include a specific part on remediation linked to the agreements signed in 2018 with the US and French authorities.

COMPLIANCE REMEDIATION PLAN IN THE WAKE OF THE AGREEMENTS WITH THE FRENCH AND AMERICAN AUTHORITIES

In June 2018, Societe Generale reached agreements with the US Department of Justice ("DOJ") and the US Commodity Futures Trading Commission ("CFTC") resolving their investigations relating to the IBOR submissions, and with the DOJ and the French Parquet National Financier ('PNF') resolving their investigations relating to certain transactions involving Libyan counterparties.

In November 2018, Societe Generale entered into agreements with the U.S. authorities resolving their investigations relating to certain U.S. dollar transactions involving countries, persons or entities that are the subject of U.S. economic sanctions.

As part of such agreements, the Bank has committed to enhance its compliance program in order to prevent and detect any violation of anti-corruption, bribery and market manipulation laws, and U.S. economic sanctions regulations and New York state laws. The Bank also committed to enhance corporate oversight of its sanctions compliance program. The Bank will not be prosecuted if it abides by the terms of the agreements, to which Société Générale is fully committed.

The Bank has also agreed with the Fed to retain an independent consultant that will evaluate the Bank's progress on the implementation of enhancements to its sanctions compliance program.

The Bank has implemented a program to achieve such undertakings and strengthen its compliance program in the relevant areas. This program has been placed under the direct supervision of the Group Head of Compliance. In addition, the Steering Committee of the program is chaired by a member of the General Management of the Bank, and a report providing an update on the progress of the program is presented to the Board of Directors on a monthly basis.

UNITED STATES COMPLIANCE REMEDIATION PLAN

On 19 November 2018, Société Générale and Société Générale New York branch ("SGNY") reached an agreement (enforcement action) with the NY state Department of Financial Services, in relation with anti-money laundering compliance program of SGNY. This agreement requires submitting an enhanced anti-money laundering compliance program and a governance plan regarding anti-money laundering.

This agreement with the Cease and Desist Order signed on 14 December 2017 with the FED replaces the Written Agreement entered into in 2009 between Société Générale Group and SGNY branch one the one hand, and the Federal Reserve and NY state Department of Financial Services on the other hand.

As a reminder, on 14 December 2017, Société Generale and Société Generale New York branch ("SGNY"), entered into a Cease & Desist Order with the Board of Governors of the Federal Reserve that addresses SGNY's Bank Secrecy Act ("BSA") and Anti Money Laundering ("AML") compliance program (the "Financial Crime Compliance Program"), including aspects of its Know Your Customer program.

12.2 LITIGATION

The information pertaining to risks ans litigation is included in Note 9 to the consolidated financial statements, page 460

13

OTHER RISKS

IN BRIEF

This section describes equity risks and other risks not described in previous chapters

13.1 EQUITY RISK

Investment strategies and purpose

The Societe Generale Group's exposure to its non-trading equity portfolio relates to several of the Bank's activities and strategies. It includes equities and equity instruments, mutual fund units invested in equities, and holdings in the Group's subsidiaries and affiliates which are not deducted from shareholders' equity for the purpose of calculating solvency ratios. Generally speaking, due to their unfavourable treatment under regulatory capital, the Group's future policy is to limit these investments.

- First, the Group has a portfolio of industrial holdings which mainly reflect its historical or strategic relations with these companies.
- It also has some minority holdings in certain banks for strategic purposes, with a view to developing its cooperation with these establishments.
- In addition, the equities that are not part of the trading book include Group shares in small subsidiaries which are not included in its consolidation scope and which operate in France and abroad. This includes various investments and holdings that are ancillary to the Group's main banking activities, particularly in French Retail Banking, Corporate and Investment Banking, and Securities Services (private equity activities in France, closely linked with banking networks, stock market bodies, brokerages, etc.).
- Lastly, Societe Generale and some of its subsidiaries may hold equity investments related to their asset management activities (particularly seed capital for mutual funds promoted by Societe Generale), in France and abroad.

Monitoring of banking book equity investments and holdings

The portfolio of industrial holdings was significantly reduced in recent years, further to the disposal of non-strategic lines. It now includes only a limited number of investments. It is monitored on a monthly basis by the Group's Finance Division and, where necessary, value adjustments are recognised quarterly in accordance with the Group's provisioning policy.

The holdings that are ancillary to the Group's banking activity are monitored on a quarterly basis by the Group's Finance Division and, where necessary, value adjustments are recognised quarterly in accordance with the Group's provisioning policy. Private equity activities in France are subject to dedicated governance and monitoring, within the budgets periodically reviewed by the Group's General Management. Investment or disposal decisions take the financial aspects and the contribution to the Group's activities into consideration (supporting customers in their development, cross-selling with flow activities, Corporate and Investment Banking, Private Banking, etc.).

Valuation of banking book equities

From an accounting perspective, Societe Generale's exposure to equity investments that are not part of its trading book is classified within financial assets measured at fair value through net income or, using the option, at fair value through other comprehensive income (Cf. Consolidated financial statement – Note 3 Financial Instruments).

The Societe Generale Group's exposure to equity investments that are not part of the trading book is equal to their book value representative of a fair value based on a measure at mark to market or at mark to model.

The following table presents these exposures at end-December 2018 and 2017, for both the accounting scope and the regulatory scope. Regulatory data cannot be reconciled with data from consolidated financial statements, specifically because the regulatory scope excludes equity investments held on behalf of clients by the Group's insurance subsidiaries.

TABLE 111: SHARES AND EQUITIES IN BANKING BOOK

(In EUR m)	31.12.2018	01.01.2018
Banking book - shares and other equity securities at fair value through profit or loss	1,996	1,560
Banking book - shares and other equity securities at fair value through other comprehensive income	13,976	13,826
Banking book - shares and other equity securities on banking book - Prudential scope (Exposure at default)	5,780	6,163
o.w shares and other equity securities at fair value through profit or loss	*5,493*	*5,874*
o.w. shares and other equity securities at fair value through other comprehensive income	*287*	*289*

Unrealized gains and losses related to changes in fair value, since the end of the previous year are recognised within:

- net income statement "Net gains and losses on financial transactions" for equity investment classified into Financial assets at fair value through profit or loss; and
- other comprehensive income "Unrealised or deferred gains and losses that will not be reclassified subsequently into income" for equity investment classified into Financial assets at fair value through other comprehensive.

For investments in listed shares, the fair value is estimated based on the stock price at closing date. For investment in unlisted shares, fair value can be estimated based on one or more of the following methods:

- quantitative method such as Discounted Cash Flows (DCF), Discounted Dividend Model (DDM) ;
- pro rata share of the entity's net assets;
- recent transactions identified on the entity's share (stake acquired by third party, valuation assessed by experts);
- recent transactions identified on entities from the same sector (earnings or NAV multiples, etc.).

TABLE 112: NET GAINS AND LOSSES ON BANKING BOOK EQUITIES AND HOLDINGS

(In EUR m)	31.12.2018	01.01.2018
Gains and losses on the sale of shares and equity	651	0
Net gains/losses on banking book	80	80

Regulatory capital requirements

To calculate the risk-weighted assets under Basel 3, the Group applies the simple risk weighting method for the majority of its non-trading equity portfolio. Shares in private equity companies are assigned a risk-weighting coefficient of 190%, shares in listed companies a coefficient of 290%, and shares in unlisted companies, including the holdings in our insurance subsidiaries, a coefficient of 370%. Note that private equity shares acquired before January 2008 can be weighted at 150%. Furthermore, if they are not deducted from equity capital, material investments in the capital of finance companies are assigned a weighting coefficient of 250%.

At 31st December 2018, the Group's risk-weighted assets related to its non-trading equity portfolio, and its capital requirements, were as follows:

TABLE 113: CAPITAL REQUIREMENTS RELATED TO BANKING BOOK EQUITIES AND HOLDINGS(1)

(In EUR m)			31.12.2018			31.12.2017		
Equities & holdings	**Approach**	**Weighting**	**Exposure at default**	**Risk weighted assets**	**Capital requirements**	**Exposure at default**	**Risk weighted assets**	**Capital requirements**
Private equity	Standard	150%	11	16	1	4	7	1
Private equity	Simple approach	190%	197	375	30	198	376	30
Financial securities	Simple approach	250%	943	2,357	189	933	2,331	186
Listed shares	Simple approach	290%	18	52	4	20	59	5
Unlisted shares and insurance	Simple approach	370%	3,987	14,751	1,180	4,615	17,076	1,366
TOTAL			**5,155**	**17,551**	**1,404**	**5,770**	**19,849**	**1,588**

(1) Excluding cash investments.

13.2 STRATEGIC RISKS

Strategic risks are defined as the risks inherent in the choice of a given business strategy or resulting from the Group's inability to execute its strategy. They are monitored by the Board of Directors, which approves the Group's strategic direction and reviews them at least once every year. Moreover, the Board of Directors approves strategic investments and any transaction (particularly disposals and acquisitions) that could significantly affect the Group's results, the structure of its balance sheet or its risk profile.

Strategic steering is carried out under the authority of the General Management, by the General Management Committee (which meets weekly without exception), by the Group Strategy Committee (which meets every two months) and by the Strategic Steering Committees of the Business Units and Service Units (which meet at least once a year for each of the 27 Units). The make-up of these various bodies is set out in the Corporate Governance chapter of this Registration Document, chapter 3 (pages 65 and following). The Internal Rules of the Board of Directors (provided in Chapter 7 of this Registration Document, page 547) lay down the procedures for convening meetings.

13.3 ACTIVITY RISK

Activity risk is the risk of loss if expenses incurred are higher than revenues generated. It is managed by the Finance Division through monthly revenue committee meetings.

During these meetings, which are chaired by a member of General Management, the Group's businesses present their results and comment on the state of business. They also present an analysis of their consumption of their budget and scarce resources (especially capital and liquidity).

13.4 RISKS RELATING TO INSURANCE ACTIVITIES

The Group conducts Insurance activities (Life Insurance and Savings, Retirement Savings, Property & Casualty Insurance, etc.) in a "bancassurance" model, using the synergies with the retail banking networks in France and abroad to distribute products.

These activities expose the Group to two major types of risks:

- subscription risk related to pricing and claim rates deterioration
- risks related to financial markets (interest rate, credit and equity) and asset-liability management.

The monitoring structure pertaining to these risks and the related issues are described in Note 4.3 to the consolidated financial statements and in Chapter 6 of this Registration Document (p. 390).

13.5 ENVIRONMENTAL AND SOCIAL RISKS

The Group's approach in terms of environmental and social issues is set out in Chapter 5 of this Registration Document (pages 247 and following).

13.6 CONDUCT RISK

The Group is also exposed to conduct risk through all of its core businesses. The Group defines conduct risk as resulting from actions (or inactions) or behaviours of the Bank or its employees, inconsistent with the Group's Code of Conduct, which may lead to adverse consequences for its stakeholders, or place the Bank's sustainability or reputation at risk.

Stakeholders include in particular our clients, employees, investors, shareholders, suppliers, the environment, markets and countries in which we operate.

The implementation of the monitoring structure pertaining to these risks is one of the priorities of the Culture and Conduct programme in 2019 (see pages 251 and following).

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APPENDIX

14.1 PILLAR 3 CROSS REFERENCE TABLE

CRD1/CRR Article	Theme	Risk and Pillar 3 Report reference (except reference to the Registration Document)	Page in Pillar 3 Report
90 (CRD4)	Return on assets	5 Capital management and adequacy	45
435 (CRR)	1. Risk management objectives and policies	3 Risk management and organisation	19-32
436 (a)(b) (CRR)	2. Scope of application	5 Capital management and adequacy	45;49
		SG website - Capital instruments	
		SG website - Information about the consolidation scope	
		SG website - Differences in the scopes of consolidation (LI3)	
436 (c)(d)(e) (CRR)	2. Consolidation perimeter	5 Capital management and adequacy	48;50;149
437 (CRR)	3. Own funds	5 Capital management and adequacy	51
438 (CRR)	4. Capital requirements	5 Capital management and adequacy	55
439 (CRR)	5. Exposure to counterparty credit risk	6 Credit risks	72-76
		Impact of netting and collateral held on exposure values	142
		Exposures on credit derivatives	141-142
440 (CRR)	6. Capital buffers	5 Capital management and adequacy	66
441 (CRR)	7. Indicators of global systemic importance	SG website - Information and publication section	
442 (CRR)	8. Credit risk adjustments	6 Credit risks	72
		Analysis of gross outstandings and provisions for credit risk	94-134
443 (CRR)	9. Unencumbered assets	9 Liquidity risk	195
444 (CRR)	10. Use of ECAIs	6 Credit risk 7 Securitisation	77;105 156
445 (CRR)	11. Exposure to market risk	8 Market risks	162
446 (CRR)	12. Operational risk	9 Operational risks	178
447 (CRR)	13. Exposures in equities not included in the trading book	13 Equity risk	213
448 (CRR)	14. Exposure to interest rate risk on positions not included in the trading book	10 Structural interest rate and exchange rate risks	187
449 (CRR)	15. Exposure to securitisation positions	7 Securitisation	145 and follow.
450 (CRR)	16. Remuneration policy	First update of the Registration Document (planned)	
451 (CRR)	17. Leverage	5 Capital management and adequacy	57;63;65
452 (CRR)	18. Use of the IRB Approach to credit risk	6 Credit risks PD and LGD geographic breakdown	77 100
453 (CRR)	19. Use of credit risk mitigation techniques	6 Credit risks	77;129
454 (CRR)	20. Use of the Advanced Measurement Approaches to operational risk	9 Operational risks	178
455 (CRR)	21. Use of Internal Market Risk Models	8 Market risks	162

14.2 PILLAR 3 CROSS REFERENCE TABLE WITH THE RECOMMANDATIONS MADE BY *THE ENHANCED DISCLOSURE TASK FORCE* – EDTF

No.	Recommendation	Details	Page in Pillar 3 Report	Page in the Registration Document
1	Present all related risk information together in any particular report	- Chapter 1 (description of the Group, strategy, presentation of the businesses)		6 and follow.
		- Chapter 2 (Management Report, balance sheet structure, recent developments and outlook)		25 and follow.
		- Report of risks, capital adequacy, Pillar 3)	8 and fol.	
2	Definition of the principal terms and metrics used	Availability of a glossary of the principal terms used	228	
		Definitions as necessary in the chapters concerned		
		- credit risks	72	
		- market risks	161	
		- operational risks	178	
3	Definition and classification of risks and risk outlook	Key figures	4-5	
		Types of risks	8	
		Risk factors	9	
		Recent developments and outlook	14 and fol.	
		Description of impairments in IFRS 9	73	373 and follow
4	Definition of regulatory changes and new key ratios	Fully-loaded Basel 3 capital ratio	53	
		Phase-in stages	53	
		Additional GSIB buffer	53	
		Leverage ratio	57	
		LCR	197	
		NSFR	198	
5	Risk governance	Governance		66
		Governance and risk management organisation	19-40	
		Risk management principles (summary diagram)	37	
		Credit risks	72	
		Market risks	162	
		Operational risks	178	
6	Risk culture	Organisation and governance of the risk management system	24	
7	Key figures for the businesses, risk appetite, risk management	Key Group figures		15
		Description of the businesses		16
		Risk appetite	21	
		Risk key figures	4-5	
		Governance of risk management	25	
8	Stress test system	General description	21	
		Credit stress tests	73	
		Market risk stress tests	166	
9	Capital requirements	Capital requirements by type of risks	53	
		Additional GSIB buffers	53	
10	Information on the composition of regulatory capital Reconciliation of accounting and regulatory data	Composition of regulatory capital	52	
		Details of regulatory capital	58	
		Reconciliation of the accounting balance sheet and the regulatory balance sheet	46; 67	
		Reconciliation of accounting capital and regulatory capital	53	
11	Changes in regulatory capital	Capital reconciliation chart		55
		Regulatory capital flow statement	53	
		Qualitative comment	56	
12	Regulatory capital targets	Information on ratio targets and constraints (CET 1)	46;50	
		Regulatory information		
13	Distribution of risk-weighted assets by business	Additional information in the analyses by risk type (credit, market, operational, etc.)	55	

No.	Recommendation	Details	Page in Pillar 3 Report	Page in the Registration Document
14	Table of RWA by calculation method	Group risk-weighted assets - Credit risks - Market risks - Operational risks	55 92 171 183	
15	Table of credit risks by Basel portfolio	Details provided in the Credit Risk section of Chapter 4	72 and fol.	
16	Analysis of movements in RWA and capital requirements	Credit risk table (summary) Market risk table (summary) Market risk table (VAR by risk type and changes in capital requirements)	92 175 171	
17	Backtesting	Credit risks Market risks	82; 84 163	
18	Liquidity reserve	Qualitative and quantitative comment Liquidity reserve (amount and composition)	198 198	
19	Encumbered assets	Encumbered assets Market financing (schedule of securitised issues)	196 196	
20	Balance sheet by contractual maturities	Liabilities and off-balance sheet: Note 3.13 to the consolidated financial statements Balance sheet	200	387
21	Refinancing strategy	Group's debt position, debt policy Refinancing strategy		
22	Reconciliation of risk-weighted assets and accounting items for exposures sensitive to market risks	Information not communicated		
23	Structural risk factors (sensitivity of structural positions to market factors)	Structural interest rate and exchange rate risks section Note 5.3 to the consolidated financial statements (employee benefits) VAR analysis	185 171	 406
24	Market risk modelling principles	Organisation and governance Methods for measuring market risk and defining limits Governance	162 162 169	
25	Market risk measurement methods	Methods for measuring market risk and defining limits VAR and control of VAR Stress tests, scenarios and results	162 163-164 165	
26	Loan portfolio structure	Key figures Portfolio structure Quantitative data	71 87 and fol. 87 and fol.	
27	Impairment policy Loan provisions and impairment	Note 1 to the consolidated financial statements Credit policy Quantitative data	 94-96 94-96	373
28	Movements in provisions and impairment	Consolidated financial statements, Note 3.8 Doubtful loans coverage ratio	 96	373
29	Counterparty risks on market transactions	By exposure category and geographic region Note 3.2 "Financial derivatives" to the consolidated financial statements Derivative instruments commitment (notionnal) Exposures on central counterparties (CCP)	135 and f. 144 141	 347 and fol.
30	Information relating to collateral and measures to reduce counterparty risk	Hedging of credit risk: guarantees and collateral, credit derivatives, risk mitigation measures, credit insurance	75	
31	Other risks	Description: types of risks Management (summary) Operational risks Structural interest rate and exchange rate risks Compliance, reputational and legal risks Equity risk Strategic risks Business risks Risks related to insurance activities Environmental and social risk	8 25 177 185 205 212 214 214 214 214	
32	Analysis of losses related to operational risk, including litigation and compliance	Quantitative Risks and litigation	181 209	

14.3 INDEX OF THE TABLES IN THE RISK REPORT

14.4 CROSS REFERENCE TABLE APPLICABLE TO THE MAIN EXTERNAL CREDIT ASSESSMENT INSTITUTIONS - EXTRACT

STANDARD APPROACH: CROSS REFERENCE TABLE BETWEEN ECAI RATINGS AND CRR CREDIT QUALITY SCALES

Credit quality scale	1	2	3	4	5	6
Banque de France						
Global long-term issuer credit ratings scale	3++	3+, 3	4+	4, 5+	5, 6	7, 8, 9, P
DBRS Ratings Limited						
Long-term obligations rating scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Commercial paper and short-term debt rating scale	R-1 H, R-1 M	R-1 L	R-2, R-3	R-4, R-5, D		
Ability of settlement of claims rating scale	IC-1	IC-2	IC-3	IC-4	IC-5	D
Fitch Ratings						
Long-term issuer credit ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, RD, D
Corporate finance obligations- Long-term ratings scale	AAA AA	A	BBB	BB	B	CCC, CC, C
Long-term international IFS ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C
Short-term rating scale	F1+	F1	F2, F3	B, C, RD, D		
Short-term IFS ratings scale	F1+	F1	F2, F3	B, C		
Moody's Investors Service						
Global long-term ratings scale	Aaa, Aa	A	Baa	Ba	B	Caa, Ca, C
Obligations rating scale	Aaa-bf, Aa-bf	A-bf	Baa-bf	Ba-bf	B-bf	Caa-bf, Ca- bf, C-bf
Global short-term rating scale	P-1	P-2	P-3	NP		
Standard & Poor's Ratings Services						
Long-term issuer credit ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, R, SD/D
Long-term issues ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, C, D
Insurer financial strength ratings scale	AAA, AA	A	BBB	BB	B	CCC, CC, SD/D, R
Fund Credit quality ratings scale	AAAf, AAf	Af	BBBf	BBf	Bf	CCCf
Mid_market evaluation ratings scale		MM1	MM2	MM3, MM4	MM5, MM6	MM7, MM8, MMD
Short-term issuer credit ratings scale	A-1+	A-1	A-2, A-3	B, C, R, SD/D		
Short-term issue credit ratings scale	A-1+	A-1	A-2, A-3	B, C, D		

SECURITISATION: CROSS REFERENCE TABLE BETWEEN THE RATINGS AND CREDIT QUALITY SCALES OF THE CRR IN STANDARD APPROACH.

Credit quality scale	1	2	3	4	All others
DBRS Ratings Limited					
Long-term obligations rating scale	AAA (sf) to AA (low) (sf)	A (high) (sf) to A (low) (sf)	BBB (high) (sf) to BBB (low) (sf)	BB (high) (sf) to BB (low) (sf)	Lower than BB (low) (sf)
Commercial paper and short-term debt rating scale	R-1 (high) (sf) to R-1 (low) (sf)	R-2 (high) (sf) to R-2 (low) (sf)	R-3 (sf)		Lower than R-3 (sf)
Fitch Ratings					
Long-term issuer credit ratings scale	AAAsf to AA-sf	A+sf to A-sf	BBB+sf to BBB-sf	BB+sf to BB- sf	Lower than BB-sf
Short-term rating scale	F1+sf, F1sf	F2sf	F3sf		Lower than F3sf
Moody's Investors Service					
Global long-term rating scale	Aaa(sf) to Aa3(sf)	A1(sf) to A3(sf)	Baa1(sf) to Baa3(sf)	Ba1(sf) to Ba3(sf)	Lower than BA3(sf)
Global short-term rating scale	P-1(sf)	P-2(sf)	P-3(sf)		NP(sf)
Standard & Poor's Ratings Services					
Long-term issuer credit ratings scale	AAA (sf) to AA- (sf)	A+ (sf) to A- (sf)	BBB+ (sf) to BBB- (sf)	BB+ (sf)toBB- (sf)	Lower than BB- (sf)
Short-term issuer credit ratings scale	A-1+ (sf), A-1 (sf)	A-2 (sf)	A-3 (sf)		Lower than A-3 (sf)

SECURITISATION: CROSS REFERENCE TABLE BETWEEN THE RATINGS AND CREDIT QUALITY SCALE OF THE CRR IN INTERNAL RATINGS APPROACH

Credit quality scale	1	2	3	4	5	6	7	8	9	10	11	All others
DBRS Ratings Limited												
Long-term obligations rating scale	AAA (sf)	AA (high) (sf) to AA (low) (sf)	A (high) (sf)	A (sf)	A (low) (sf)	BBB (high) (sf)	BBB (sf)	BBB (low) (sf)	BB (high) (sf)	BB (sf)	BB (low) (sf)	Lower than BB (low) (sf)
Commercial paper and short-term debt rating scale	R-1 (high) (sf) to R-1 (low) (sf)	R-2 (high) (sf) to R-2 (low) (sf)	R-3 (sf)									Lower than R-3 (sf)
Fitch Ratings												
Long-term issuer credit ratings scale	AAAsf	AA+sf to AA-sf	A+sf	Asf	A-sf	BBB+sf	BBBsf	BBB-sf	BB+sf	BBsf	BB-sf	Lower than BB-sf
Short-term rating scale	F1+sf, F1sf	F2sf	F3sf									Lower than Bsf
Moody's Investors Service												
Global long-term rating scale	Aaa(sf)	Aa1(sf) to Aa3(sf)	A1 (sf)	A2 (sf)	A3 (sf)	Baa1 (sf)	Baa2 (sf)	Baa3 (sf)	Ba1 (sf)	Ba2 (sf)	Ba3 (sf)	Lower than Ba3 (sf)
Global short-term rating scale	P-1(sf)	P-2(sf)	P-3(sf)									NP (sf)
Standard & Poor's Ratings Services												
Long-term issuer credit ratings scale	AAA (sf)	AA+ (sf) to AA- (sf)	A+ (sf)	A (sf)	A- (sf)	BBB+ (sf)	BBB (sf)	BBB- (sf)	BB+ (sf)	BB (sf)	BB- (sf)	Lower than BB- (sf)
Short-term issuer credit ratings scale	A-1+ (sf), A-1 (sf)	A-2 (sf)	A-3 (sf)									Lower than A-3 (sf)

14.5 MAPPING FOR EXPOSURE CLASSES

In the presentation of the credit risk data, the table below shows the link between the synthetic presentations of certain tables with the exposure classes detailed in the tables requested by EBA in the context of the revision of Pillar 3, starting on page 99.

Method	Corep exposure category	Pillar 3 exposure class
IRBA	Central governments and central banks	Sovereign
IRBA	Institutions	Institutions
IRBA	Corporate - SME	Corporates
IRBA	Corporate - Specialised lending	Corporates
IRBA	Corporate - Other	Corporates
IRBA	Retail - Secured by real estate SME	Retail
IRBA	Retail - Secured by real estate non-SME	Retail
IRBA	Retail - Qualifying revolving	Retail
IRBA	Retail - Other SME	Retail
IRBA	Retail - Other non - SME	Retail
IRBA	Other non credit-obligation assets	Others
IRBA	Default funds contributions	Others
IRBF	Central governments and central banks	Sovereign
IRBF	Institutions	Institutions
IRBF	Corporate - SME	Corporates
IRBF	Corporate - Specialised lending	Corporates
IRBF	Corporate - Other	Corporates
IRB	Institutions	Others
IRB	Securitisation	Others
Standard	Central governments or central banks	Sovereign
Standard	Regional governments or local authorities	Corporates
Standard	Public sector entities	Corporates
Standard	Multilateral developments banks	Corporates
Standard	International organisations	Sovereign
Standard	Institutions	Institutions
Standard	Corporates	Corporates
Standard	Retail	Retail
Standard	Secured by mortgages on immovable property	Others
Standard	Exposures in default	Others
Standard	Items associated with particularly high risk	Others
Standard	Covered bonds	Others
Standard	Claims on institutions and corporate with a short-term credit assessment	Others
Standard	Claims in the form of CIU	Others
Standard	Equity Exposures	Others
Standard	Other items	Others
Standard	Default funds contributions	Others
Standard	Securitisation	Others

14.6 GLOSSARY

ACRONYM TABLE

AcroNYM	Definition	Glossary
ABS	Asset-Backed Securities	See: Securitisation
CCF	Credit Conversion Factor	CCF
CDS	Credit Default Swap	See: Securitisation
CDO	Collaterallised Debt Obligation	See: Securitisation
CLO	Collateralised Loan Obligation	See: Securitisation
CMBS	Commercial Mortgage Backed Securities	See: Securitisation
CRD	Capital Requirement Directive	CRR/CRD4
CRM (*Risque de crédit*)	Credit Risk Mitigation	Credit Risk Mitigation (CRM)
CRM (*Risque de marché*)	Comprehensive Risk Measure	Comprehensive Risk Measurement
CRR	Capital Requirement Regulation	CRR/CRD4
CVaR	Credit Value-at-Risk	Credit Value-at-Risk (CVaR)
EAD	Exposure at Default	Exposure at Default (EAD)
EL	Expected Loss	Expected Loss (EL)
IMM	Internal Model Method	IMM
IRBA	Internal ratings-based approach - Advanced	IRBA
IRBF	Internal ratings-based approach - Foundation	IRBF
IRC	Incremental Risk Charge	IRC
GSIB	Global Systemically Important Banks (see SIFI)	SIFI
LCR	Liquidity Coverage Ratio	Liquidity Coverage Ratio (LCR)
LGD	Loss Given Default	Loss Given Default (LGD)
NSFR	Net Stable Funding Ratio	Net Stable Funding Ratio (NSFR)
PD	Probability of Default	Probability of Default (PD)
RMBS	Residential Mortgage Backed Securities	See: Securitisation
RW	Risk Weighted	RWA - Risk Weighted Assets
RWA	Risk Weighted Assets	RWA - Risk Weighted Assets
SVaR	Stressed Value-at-Risk	Stressed Value-at-Risk (SVaR)
VaR	Value-at-Risk	Value-at-Risk (VaR)

Asset Backed Securities (ABS): see securitisation.

Basel 1 (Accords): prudential framework established in 1988 by the Basel Committee to ensure solvency and stability in the international banking system by setting an international minimum and standardised limit on banks' capital bases. It notably establishes a minimum capital ratio—a proportion of the total risks taken on by banks—which must be greater than 8%. (Source: Bank of France Glossary - Documents et Débats - No. 4 - May 2012.)

Basel 2 (Accords): prudential framework used to better assess and limit banks' risks. It is focused on banks' credit, market and operational risks. (Source: Bank of France Glossary - Documents et Débats - No. 4 – May 2012.)

Basel 3 (Accords): further changes to prudential standards which included lessons from the 2007-2008 financial crisis. They supplement the Basel 2 accords by improving the quality and quantity of banks' required capital. They also implement minimum requirements in terms of liquidity risk management (quantitative ratios), define measures to limit the financial system's procyclicality (capital buffers that vary according to the economic cycle) and even strengthen requirements related to systemically significant banks. (Source: Bank of France Glossary - Documents et Débats - No. 4 - May 2012.) The Basel 3 accords are defined in Europe in Directive 2013/36/EU ("CRD4") and Regulation 575/2013 ("CRR") that have been in force since 1st January 2014.

Bond: a bond is a fraction of a loan, issued in the form of a security, which is tradable and—in a given issue—grants rights to the issuer according to the issue's nominal value (the issuer being a company, public sector entity or government).

Cash Generating Unit (CGU): the smallest identifiable set of assets which generates incoming cash flow which is generally independent from incoming cash flow generated by other assets or sets of assets in accordance with the IAS 36 accounting standard. "In accordance with IFRS standards, a company must determine the largest number of cash generation units (CGU) which make it up; these CGU should be generally independent in terms of operations and the Company must allocate assets to each of these CGU. Impairment testing must be conducted at the CGU level periodically (if there are reasons to believe that their value has dropped) or annually (if they include goodwill)." (Source: Les Echos.fr, citing Vernimmen.)

Collateral: transferable asset or guarantee used as a pledge for the repayment of a loan in the event that the borrower cannot meet its payment obligations. (Source: Bank of France Glossary - Documents et Débats - No. 4 - May 2012.)

Collateralised Debt Obligation (CDO): see securitisation.

Collateralised Loan Obligation (CLO): see securitisation.

Commercial Mortgage Backed Securities: see securitisation.

Common Equity Tier 1 capital: includes principally share capital, associated share premiums and reserves, less prudential deductions.

Common Equity Tier 1 ratio: ratio between Common Equity Tier 1 capital and risk-weighted assets, according to CRD4/CRR rules. Common Equity Tier 1 capital has a more restrictive definition than in the earlier CRD3 Directive (Basel 2).

Core Tier 1 ratio: ratio between Core Tier 1 capital and risk-weighted assets, according to Basel 2 rules and their changes known as Basel 2.5.

Cost/income ratio: ratio indicating the share of net banking income (NBI) used to cover the Company's operating costs. It is determined by dividing management fees by the NBI.

Comprehensive Risk Measurement (CRM): capital charge in addition to Incremental Risk Charge (IRC) for the credit activities correlation portfolio which accounts for specific price risks (spread, correlation, collection, etc.) The CRM is a 99.9% risk factor, meaning the highest risk obtained after eliminating the 0.1% most unfavourable incidents.

Cost of commercial risk in basis points: the cost of risk in basis points is calculated comparing the net cost of commercial risk to loan outstandings at the start of the period. Net commercial risk load equals the cost of risk calculated for credit commitments (balance sheet and off-balance sheet), *i.e.*, allocations – recaptures (whether used or not used) + Losses on non-collectable receivables – collections on amortised loans and receivables. Allocations and recaptures of dispute provisions are excluded from this calculation.

Credit Conversion Factor (CCF): the ratio of the currently undrawn amount of a commitment that could be drawn and that would therefore be outstanding at default to the currently undrawn amount of the commitment, the extent of the commitment being determined by the advised limit, unless the unadvised limit is higher;

Credit risk mitigation (CRM): a technique used by an institution to reduce the credit risk associated with an exposure or exposures which that institution continues to hold;

Credit and counterparty risk: risk of losses arising from the inability of the Group's customers, issuers or other counterparties to meet their financial commitments. Credit risk also includes the counterparty risk linked to market transactions, as well as that stemming from securitisation activities.

Credit Default Swaps (CDS): insurance mechanism against credit risk in the form of a bilateral financial contract, in which the protection buyer periodically pays the seller in return for a guarantee to compensate the buyer for losses on reference assets (government, bank or corporate bond) if a credit event occurs (bankruptcy, payment default, moratorium, restructuring). (Source: Bank of France Glossary - Documents et Débats - No. 4 - May 2012.)

Credit Value-at-Risk (CVaR): the largest loss that would be incurred after eliminating the top 1% of the most adverse occurrences, used to set the risk limits for individual counterparties.

CRD3: European Directive on capital requirements, incorporating the provisions known as Basel 2 and 2.5, notably in respect of market risk: improvement in the incorporation of the risk of default or rating migration for assets in the trading book (tranched and untranched assets), and reduction in the procyclicality of Value-at-Risk (see definition).

CRD4/CRR (Capital Requirement Regulation): the Directive 2013/36/EU ("CRD4") and the Regulation (EU) No. 575/2013 ("CRR") constitute the corpus of the texts transposing Basel 3 in Europe. They therefore define the European regulations relating to the solvency ratio, large exposures, leverage and liquidity ratios, and are supplemented by the European Banking Authority's ("EBA") technical standards.

Derivative: a financial asset or financial contract, the value of which changes based on the value of an underlying asset, which may be financial (equities, bonds, currencies, etc.) or non-financial (commodities, agricultural commodities, etc.). Depending on the circumstances, this change may be accompanied by a leverage effect. Derivatives can take the form of securities (warrants, certificates, structured EMTNs, etc.) or in the form of contracts (forwards, options, swaps, etc.).

Doubtful loan coverage rate: ratio between portfolio provision and depreciation and doubtful outstandings (customer loans and receivables, loans and receivables with credit institutions, finance leases and basic leases).

Expected Credit Loss (ECL): Expected loss of credit materialized by accounting of a provision based on asset valuation.

Expected Loss (EL): losses that may occur given the quality of a transaction's structuring and all measures taken to reduce risk, such as collateral.

Exposure at default (EAD): Group exposure to default by a counterparty. The EAD includes both balance sheet and off-balance sheet exposures. Off-balance sheet exposures are converted to their balance sheet equivalent using internal or regulatory conversion

Fair value: the amount for which an asset could be exchanged or a liability settled, between informed and consenting parties under normal market conditions.

Gross rate of doubtful outstandings: ratio between doubtful outstandings and gross book loan outstandings (customer loans and receivables, loans and receivables with credit institutions, finance leases and basic leases).

Haircut: percentage by which the market value of securities is reduced to reflect their value in the context of stress (counterparty or market stress risk). The extent of the reduction reflects the perceived risk.

Impairment: recording of probable loss on an asset. (Source: Bank of France Glossary - Documents et Débats - No. 4 - May 2012.)

Incremental Risk Charge (IRC): an incremental charge for default and migration risks for non-securitised products. It charges capital requirement in respect of the risk of changes in rating and default of transmitters to horizon one year for the portfolio of trading (bonds and CDS) debt instruments. IRC is a Value-at-Risk to 99.9% that is the biggest risk obtained after removal of 0.1% of the most adverse occurrences.

Insurance risk: beyond asset/liability risk management (interest-rate, valuation, counterparty and currency risk), these include underwriting risk, mortality risk and structural risk of life and non-life insurance activities, including pandemics, accidents and catastrophic events (such as earthquakes, hurricanes, industrial disasters, or acts of terrorism or war).

Internal Model Method (IMM): Internal method used to determine exposure to counterparty risk. The banking models used are subject to validation by the regulator. The application of these internal models has an impact on the method of calculating the EAD of market transactions but also on the method of calculating the Baloise Maturity.

Internal Capital Adequacy Assessment Process (ICAAP): process outlined in Pillar 2 of the Basel Accord, by which the Group verifies its capital adequacy with regard to all risks incurred.

Internal Rating Based-Advanded (IRBA): banks are allowed to use their own estimated risk parameters for the purpose of calculatingregulatory capital.

Internal Rating Based-Foundation (IRBF): banks are allowed to use their own estimated risk parameters for the purpose of calculating regulatory capital.

Leverage ratio: the leverage ratio intends to be a simple ratio that aims to limit the size of banks' balance sheets. The leverage ratio compares the Tier 1 prudential capital with the accounting balance sheet/off-balance sheet, after restatements of certain items. A new definition of the leverage ratio has been implemented in accordance with the application of the CRR Regulation.

Liquidity: for a bank, the capacity to cover its short-term maturities. For an asset, this term indicates the potential to purchase or sell it quickly on the market, with a limited discount. (Source: Bank of France Glossary - Documents et Débats - No. 4 - May 2012.)

Liquidity Coverage Ratio (LCR): this ratio is intended to promote short-term resilience of a bank's liquidity risk profile. The LCR requires banks to hold risk-free assets that may be easily liquidated on markets in order to meet required payments for outflows net of inflows during a thirty-day crisis period without central bank support (Source: December 2010 Basel document.)

Loss Given Default (LGD): ratio between the loss incurred from exposure to default by a counterparty and the amount of the exposure at the time of default.

Market risk: risk of impairment of financial instruments arising from changing market parameters, as well as their volatility and the correlations between them. In particular, these parameters are foreign exchange rates, interest rates, as well as the prices of securities (equities and bonds), commodities, derivatives and all other assets, such as real estate assets.

Market stress tests: to assess market risks, alongside the internal VaR and SVaR model, the Group monitors its exposure using market stress test simulations to take into account exceptional market occurrences, based on 26 historical scenarii and eight hypothetical scenarios.

Mezzanine: form of financing between equity and debt. In terms of ranking, mezzanine debt is subordinate to senior debt, but it is still above equity.

Monoline insurer: insurance company participating in a credit enhancement transaction and which guarantees bond issues (for example, a securitisation transaction), in order to improve the issue's credit rating.

Net earnings per share: net earnings of the Company (adjusted for hybrid securities recorded under equity instruments) divided by the weighted average number of shares outstanding.

Net exposure: Initial net exposure of specific and general provisions in internal method and net specific provisions in the standard method.

Net Stable Funding Ratio (NSFR): this ratio aims to promote resilience over a longer time horizon by creating additional incentives for banks to fund their activities with more stable sources of funding. This structural ratio has a time horizon of one year and has been developed to provide a sustainable maturity structure of assets and liabilities. (Source: December 2010 Basel document.)

Operational risks (including accounting and environmental risks): risk of losses or sanctions, notably due to failures in procedures and internal systems, human error or external events, etc.

Own shares: shares held by the Company, especially as part of the Share Buyback programme. Own shares are excluded from voting rights and are not included in the calculation of earnings per share, with the exception of shares held as part of a liquidity contract.

Personal commitment: represented by a deposit, autonomous guarantee or letter of intent. Whoever makes themselves guarantor for an obligation binds themselves to the creditor to honour that obligation, if the debtor does not honour it themselves. An independent guarantee is an undertaking by which the guarantor binds themself, in consideration of a debt subscribed by a third party, to pay a sum either on first demand or subject to terms agreed upon. A letter of intent is an undertaking to do or not to do, the purpose of which is the support provided to a debtor in honouring their obligation

Physical collateral: guarantees consisting of assets including tangible and intangible property and securities, including commodities, precious metals, cash, financial instruments and insurance contracts.

Prime Brokerage: all specific services designed for hedge funds to allow them to better conduct their business. In addition to standard intermediation transactions on financial markets (purchase and sale on behalf of clients), prime brokers offer securities borrowing and lending services and financial services specifically tailored for hedge funds.

Probability of Default (PD): likelihood that a counterparty of the bank will default within one year.

Rating: assessment by a ratings agency (Moody's, Fitch Ratings, Standard & Poor's, etc.) of an issuer's financial solvency risk (company, government or other public institution) or of a given transaction (bond loan, securitisation, covered bond). The rating has a direct impact on the cost of raising capital. (Source: Bank of France Glossary - *Documents et Débats* - No. 4 - May 2012.)

Resecuritisation: securitisation of an already securitised exposure where the risk associated with underlyings is divided into tranches and, therefore, at least one of the underlying exposures is a securitised exposure.

Residential mortgage backed securities (RMBS): see securitisation.

Return On Equity (ROE): ratio between the net income restated for interest on hybrid securities recorded under equity instruments and restated book equity (especially hybrid securities), which enables return on capital to be measured.

Risk appetite: level of risk by type and by business line, which the Group is prepared to take on with regard to its strategic objectives. Risk appetite is derived using both quantitative and qualitative criteria. Exercising risk appetite is one of the strategic steering tools available to the Group's decision-making bodies.

Risk weight: percentage of weighting of exposures which are applied to a particular exposure in order to determine the related risk-weighted asset.

RWA – Risk-Weighted Assets: risk-weighted outstanding balances or risk-weighted assets; exposure multiplied by its risk weighting.

Securitisation: transaction that transfers a credit risk (loan outstandings) to an organisation that issues, for this purpose, tradable securities to which investors subscribe. This transaction may involve a transfer of outstandings (physical securitisation) or a transfer of risk only (credit derivatives). Securitisation transactions may, if applicable, enable securities subordination (tranches).

The following products are considered securitisations:

- **ABS**: Asset Backed Securities;
- **CDO**: Collatelalised Debt Obligation, a debt security backed by an asset portfolio (bank loans (residential) or corporate bonds). Interest and principal payment may be subordinated (tranche creation);
- **CLO**: Collateralised Loan Obligation, a CDO backed by an asset portfolio of bank loans;
- **CMBS**: Commercial Mortgage Backed Securities, a debt security backed by an asset portfolio of corporate real estate loans leading to a mortgage;
- **Share**: equity stake issued by a company in the form of shares, representing a share of ownership and granting its holder (shareholder) the right to a proportional share in any distribution of profits or net assets as well as a right to vote in a General Meeting of Shareholders.
- **RMBS**: Residential Mortgage Backed Securities, a debt security backed by an asset portfolio of residential mortgage loans.

SIFI (Systemically Important Financial Institution): the Financial Stability Board (FSB) coordinates all of the measures to reduce moral hazard and risks to the global financial system posed by systematically important institutions Globally Systemically Important Financial Institutions (G-SIFI). These banks meet criteria defined in the Basel Committee rules included in the document titled “Global systemically important banks: Assessment methodology and the additional loss absorbency requirement” and published as a list in November 2011.This list is updated by the FSB each November (29 banks to date).

Stressed Value-at-Risk (SVaR): identical to the VaR approach, the calculation method consists of a “historical simulation” with “one-day” shocks and a 99% confidence interval. Unlike the VaR, which uses 260 scenarios of daily variation year-on-year, the stressed VaR uses a fixed one-year window that corresponds to a historical period of significant financial tensions.

Structural interest rate and currency risk: risk of loss or of write-downs in the Group’s assets arising from variations in interest or exchange rates. Structural interest rate and exchange rate risks are incurred in commercial activities and proprietary transactions.

Structured issue or structured product: a financial instrument combining a bond product and an instrument (an option for example) providing exposure to all types of asset (equities, currencies, interest rates, commodities). Instruments can include a total or partial guarantee in respect of the invested capital. The term “structured product” or “structured issue” also refers to securities resulting from securitisation transactions, where holders are subject to a ranking hierarchy.

Tier 1 capital: comprises Common Equity Tier 1 capital and Additional Tier 1 capital. The latter corresponds to perpetual debt instruments, with no incentive to redeem, less prudential deductions.

Tier 1 ratio: ratio between Tier 1 capital and risk-weighted assets. Tier 2 capital: supplementary capital consisting mainly of subordinated notes less prudential deductions.

Tier 2 capital: supplementary capital consisting mainly of subordinated notes less prudential deductions.

Total capital ratio: ratio between total (Tier 1 and Tier 2) capital and risk-weighted assets.

Treasury shares: shares held by a company in its own equity through one or several intermediary companies in which it holds a controlling share either directly or indirectly. Treasury shares are excluded from voting rights and are not included in the calculation of earnings per share.

Value-at-Risk (VaR): composite indicator used to monitor the Group’s daily market risk exposure, notably for its trading activities (99% VaR in accordance with the internal regulatory model). It corresponds to the greatest risk calculated after eliminating the top 1% of most unfavourable occurrences observed over a one-year period. Within the framework described above, it corresponds to the average of the second and third largest losses computed.

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